

M A R C H 2 0 1 8

**REPORT TO THE CONGRESS**

---

# Medicare Payment Policy



The Medicare Payment Advisory Commission (MedPAC) is an independent congressional agency established by the Balanced Budget Act of 1997 (P.L. 105–33) to advise the U.S. Congress on issues affecting the Medicare program. In addition to advising the Congress on payments to health plans participating in the Medicare Advantage program and providers in Medicare’s traditional fee-for-service program, MedPAC is also tasked with analyzing access to care, quality of care, and other issues affecting Medicare.

The Commission’s 17 members bring diverse expertise in the financing and delivery of health care services. Commissioners are appointed to three-year terms (subject to renewal) by the Comptroller General and serve part time. Appointments are staggered; the terms of five or six Commissioners expire each year. The Commission is supported by an executive director and a staff of analysts, who typically have backgrounds in economics, health policy, and public health.

MedPAC meets publicly to discuss policy issues and formulate its recommendations to the Congress. In the course of these meetings, Commissioners consider the results of staff research, presentations by policy experts, and comments from interested parties. (Meeting transcripts are available at [www.medpac.gov](http://www.medpac.gov).) Commission members and staff also seek input on Medicare issues through frequent meetings with individuals interested in the program, including staff from congressional committees and the Centers for Medicare & Medicaid Services (CMS), health care researchers, health care providers, and beneficiary advocates.

Two reports—issued in March and June each year—are the primary outlets for Commission recommendations. In addition to annual reports and occasional reports on subjects requested by the Congress, MedPAC advises the Congress through other avenues, including comments on reports and proposed regulations issued by the Secretary of the Department of Health and Human Services, testimony, and briefings for congressional staff.

**REPORT TO THE CONGRESS**

---

Medicare  
Payment Policy



425 I Street, NW • Suite 701 • Washington, DC 20001  
(202) 220-3700 • Fax: (202) 220-3759 • [www.medpac.gov](http://www.medpac.gov)





425 I Street, NW • Suite 701  
Washington, DC 20001  
202-220-3700 • Fax: 202-220-3759  
[www.medpac.gov](http://www.medpac.gov)

Francis J. Crosson, M.D., Chairman  
Jon Christianson, Ph.D., Vice Chairman  
James E. Mathews, Ph.D., Executive Director

March 15, 2018

The Honorable Michael R. Pence  
President of the Senate  
U.S. Capitol  
Washington, DC 20510

The Honorable Paul D. Ryan  
Speaker of the House  
U.S. House of Representatives  
U.S. Capitol  
Room H-232  
Washington, DC 20515

Dear Mr. President and Mr. Speaker:

I am pleased to submit the Medicare Payment Advisory Commission's March 2018 *Report to the Congress: Medicare Payment Policy*. This report fulfills the Commission's legislative mandate to evaluate Medicare payment issues and make recommendations to the Congress.

The report contains 16 chapters:

- a chapter that provides a broader context for the report by documenting Medicare and total health care spending and their impacts on federal spending;
- a chapter that describes the Commission's analytical framework for assessing payment adequacy;
- nine chapters that describe the Commission's recommendations on fee-for-service (FFS) payment rate updates and related issues;
- a chapter on increasing the equity of Medicare's payments within post-acute care settings;
- a chapter that updates the trends in enrollment, plan offerings, and payments in Medicare Advantage (MA) plans;
- a chapter that updates the trends in enrollment and plan offerings for plans that provide prescription drug coverage;
- a chapter that recommends moving beyond the Merit-based Incentive Payment System (MIPS); and
- a chapter responding to a Congressional mandate on telehealth in Medicare.

In this report, we continue to make recommendations aimed at finding ways to provide high-quality care for Medicare beneficiaries while giving providers incentives to constrain their cost growth and thus help control program spending.

In light of our payment adequacy analyses, we recommend no payment update in 2019 for four FFS payment systems (long-term care hospital, hospice, ambulatory surgical center, and skilled nursing facility) and reductions of 5 percent of the base payment for the home health and inpatient rehabilitation facility (IRF) payment systems. For four of these sectors, we include additional elements beyond the payment update to improve payment accuracy:

- requiring ambulatory surgical centers to report cost data;
- freezing skilled nursing facility payment rates for two years while the payment system is redesigned, then having the Secretary make any additional adjustments as needed;
- rebasing the home health payment system and eliminating therapy visits as a factor in payment; and
- reiterating our 2016 recommendations to expand the IRF outlier pool and review IRF patterns of case mix and coding.

More broadly, changes need to be made in the post-acute care payment systems (i.e., the skilled nursing facility, home health agency, IRF, and long-term care hospital payment systems), and the cost of inaction is mounting. Ideally, the post-acute care sectors would be brought together under a unified payment system that would base payments on patient characteristics. Such a system could both lower costs and ensure access for patients who may be financially less desirable under current payment systems. As an initial step, this year we recommend blending the relative weights in each of the setting-specific payment systems with those of the unified post-acute care system that we first described, pursuant to a Congressional mandate, in June of 2016.

In the other sectors (acute care hospital, physician and other health professionals, and outpatient dialysis), we recommend the updates in current law, recommend that the Merit-based Incentive Payment System (MIPS) for clinicians be eliminated, and outline a path forward for a new program to replace MIPS. In addition, we recommend changing how plan quality is assessed when MA contracts are consolidated and expanding the Part D coverage-gap discount to biosimilar drugs.

I hope you find this report useful as the Congress continues to grapple with the difficult task of controlling the growth of Medicare spending while preserving beneficiaries' access to efficiently delivered, high-quality care and providing equitable payments for providers.

A handwritten signature in dark ink, reading "Francis J. Crosson M.D." in a cursive, flowing script.

Francis J. Crosson, M.D.

Enclosure

## Acknowledgments

---

This report was prepared with the assistance of many people. Their support was key as the Commission considered policy issues and worked toward consensus on its recommendations.

Despite a heavy workload, staff members of the Centers for Medicare & Medicaid Services and the Department of Health and Human Services were particularly helpful during preparation of the report. We thank Elisabeth Daniel, Kadie Derby, Kate Goodrich, Steve Heffler, Ryan Howe, Michele Hudson, Jana Lindquist, Larry Liu, Hillary Loeffler, Kevin Lyons, Cindy Massuda, Blake Pelzer, Elizabeth Richter, Abigail Ryan, Susanne Seagrave, Tiffany Swygert, Randy Thronset, David Vance, and Laurence Wilson.

The Commission also received valuable insights and assistance from others in government, industry, and the research community who generously offered their time and knowledge. They include Rochelle Archuleta, Cristina Boccuti, Gary Capistrant, Michael Cheek, Anna

Cook, James Cosgrove, Juliette Cubanski, William Dombi, Theresa Forster, Austin Frakt, Jane Galvin, Bruce Gans, David Gifford, Lori Housman, Lane Koenig, Tom Kornfield, Danielle Lloyd, Mara McDermott, Sharon McIlrath, Michael McWilliams, Ateev Mehrotra, Tracey Moorhead, Lyle Nelson, Kara Newbury, Sharon Pearce, Aisha Pittman, Kathleen Smith, Steve Speil, Aaron Tripp, Cori Uccello, Rebecca Yip, and Carolyn Zollar.

Once again, the programmers at Social and Scientific Systems provided highly capable assistance to Commission staff. In particular, we appreciate the hard work of Michael Brown, Po-Lun Chou, Daksha Damera, Darya Leyzarovich, Sravani Mallela, Sane Maphungphong, Shelley Mullins, Lorena Ortiz, Cindy Saiontz-Martinez, Mary Beth Spittel, and Susan Tian.

Finally, the Commission wishes to thank Hannah Fein, Mary Gawlik, and Melissa Lux for their help in editing and producing this report. ■





# Table of contents

---

<b>Acknowledgments</b> .....	<b>v</b>
<b>Executive summary</b> .....	<b>xiii</b>

## Chapters

<b>1 Context for Medicare payment policy</b> .....	<b>3</b>
Introduction .....	<b>7</b>
National health care spending .....	<b>7</b>
Medicare spending .....	<b>12</b>
Medicare's financing challenge .....	<b>18</b>
Health care spending consumes growing shares of state and family budgets .....	<b>22</b>
Recent trends in life expectancy, morbidity, and mortality .....	<b>27</b>
The relationship between Medicare spending and quality .....	<b>32</b>
Baby boomers will make up the next generation of Medicare beneficiaries .....	<b>34</b>
Inefficient spending suggests Medicare could spend less without compromising care, but not without challenges .....	<b>39</b>
Conclusion .....	<b>43</b>
<b>2 Assessing payment adequacy and updating payments in fee-for-service Medicare</b> .....	<b>53</b>
Background .....	<b>55</b>
Are Medicare payments adequate in 2018? .....	<b>55</b>
What cost changes are expected in 2019? .....	<b>59</b>
How should Medicare payments change in 2019? .....	<b>59</b>
Payment adequacy in context .....	<b>61</b>
<b>3 Hospital inpatient and outpatient services</b> .....	<b>65</b>
Background .....	<b>67</b>
Are Medicare payments adequate in 2018? .....	<b>69</b>
How should Medicare payment rates change in 2019? .....	<b>87</b>
<b>4 Physician and other health professional services</b> .....	<b>95</b>
Background .....	<b>97</b>
Are Medicare fee schedule payments adequate in 2018? .....	<b>98</b>
How should Medicare payments change in 2019? .....	<b>119</b>
<b>5 Ambulatory surgical center services</b> .....	<b>127</b>
Background .....	<b>129</b>
Are Medicare payments adequate in 2018? .....	<b>130</b>
How should Medicare payments change in 2019? .....	<b>143</b>
<b>6 Outpatient dialysis services</b> .....	<b>153</b>
Background .....	<b>155</b>
Are Medicare payments adequate in 2018? .....	<b>159</b>
How should Medicare payments change in 2019? .....	<b>177</b>
<b>7 Post-acute care: Increasing the equity of Medicare's payments within each setting</b> .....	<b>187</b>
Shortcomings of current PAC PPSs and challenges in improving Medicare's payments for PAC .....	<b>191</b>
The Commission's work on a unified payment system for PAC .....	<b>192</b>
An approach to redistribute Medicare's payments for different conditions treated within each PAC setting .....	<b>193</b>

<b>8</b>	<b>Skilled nursing facility services</b>	<b>205</b>
	Background	209
	Are Medicare payments adequate in 2018?	211
	How should Medicare payments change in 2019?	227
	Medicaid trends	231
<b>9</b>	<b>Home health care services</b>	<b>241</b>
	Background	245
	Are Medicare payments adequate in 2018?	250
	How should Medicare payments change in 2019?	260
<b>10</b>	<b>Inpatient rehabilitation facility services</b>	<b>267</b>
	Background	271
	Are Medicare payments adequate in 2018?	275
	How should Medicare payments change in 2019?	288
<b>11</b>	<b>Long-term care hospital services</b>	<b>297</b>
	Background	301
	Are Medicare payments adequate in 2018?	301
	How should Medicare payments change in 2019?	314
<b>12</b>	<b>Hospice services</b>	<b>323</b>
	Background	325
	Are Medicare payments adequate in 2018?	328
	How should Medicare payments change in 2019?	346
<b>13</b>	<b>The Medicare Advantage program: Status report</b>	<b>353</b>
	Background	357
	Trends in enrollment, plan availability, and payments	357
	Medicare Advantage risk adjustment and coding intensity	369
	Quality in the Medicare Advantage program and the effect of contract consolidations	377
<b>14</b>	<b>The Medicare prescription drug program (Part D): Status report</b>	<b>397</b>
	Background	401
	Enrollment, plan choices in 2017, and benefit offerings for 2018	403
	Plan sponsors and their tools for managing benefits and spending	411
	Drug pricing	414
	Program costs	418
	Biosimilars in Medicare Part D	425
	Beneficiaries' access to prescription drugs	431
	Quality in Part D	433
<b>15</b>	<b>Moving beyond the Merit-based Incentive Payment System</b>	<b>445</b>
	Background	449
	MIPS will not be successful	449
	MIPS should be eliminated	455
	A new direction for rewarding clinician quality: A voluntary value program	456
	Conclusion and recommendation	459
	Appendix: Design elements for a voluntary value program: An illustrative model	460

<b>16</b>	<b>Mandated report: Telehealth services and the Medicare program</b>	<b>471</b>
	Introduction	475
	Background	476
	Medicare payment for telehealth services	479
	Commercial insurance plan coverage of telehealth services varied in 2017	488
	Comparison of commercial plan coverage and Medicare coverage	492
	Commercial insurers do not provide a complete or consistent model for further incorporating telehealth services into the Medicare program	493
	Implications for future policymaking	500
 <b>Appendix</b>		
<b>A</b>	<b>Commissioners' voting on recommendations</b>	<b>509</b>
 <b>Acronyms</b>		
		<b>517</b>
 <b>More about MedPAC</b>		
	<b>Commission members</b>	<b>523</b>
	<b>Commissioners' biographies</b>	<b>525</b>
	<b>Commission staff</b>	<b>529</b>



---

## **Executive summary**

---



## Executive summary

---

By law, the Medicare Payment Advisory Commission reports to the Congress each March on the Medicare fee-for-service (FFS) payment systems, the Medicare Advantage (MA) program, and the Medicare prescription drug program (Medicare Part D). In this year's report, we:

- consider the context of the Medicare program in terms of the effects of its spending on the federal budget and its share of national gross domestic product (GDP).
- evaluate payment adequacy and make recommendations concerning Medicare FFS payment policy in 2018 for acute care hospital, physician and other health professional, ambulatory surgical center, outpatient dialysis facility, skilled nursing facility, home health care, inpatient rehabilitation facility, long-term care hospital, and hospice services.
- consider post-acute care as a whole and recommend blending the relative weights of our recommended unified post-acute payment system with those of each post-acute setting to help providers in those settings adjust to the new unified system.
- review the status of the MA plans (Medicare Part C) that beneficiaries can join in lieu of traditional FFS Medicare and recommend a change to how plan quality is assessed when MA contracts are consolidated.
- review the status of the Medicare program that provides prescription drug coverage (Medicare Part D) and recommend a change in applying the coverage gap discount to biosimilar drugs.
- recommend that the Merit-based Incentive Payment System (MIPS) for clinician quality be eliminated and outline a path forward for a new voluntary value program to replace it.
- report on telehealth in Medicare as mandated by the Congress.

The goal of Medicare payment policy is to get good value for the program's expenditures, which means maintaining beneficiaries' access to high-quality services while encouraging efficient use of resources. Anything less does not serve the interests of the taxpayers and beneficiaries who finance Medicare through their taxes and premiums.

We recognize that managing updates and relative payment rates alone will not solve what have been fundamental problems with Medicare FFS payment systems to date—that providers are paid more when they deliver more services without regard to the value of those additional services and are not routinely rewarded for care coordination. To address these problems directly, two approaches must be pursued. First, payment reforms such as incentives to reduce excessive hospital readmission rates need to be implemented more broadly and coordinated across settings, and efforts such as a unified payment system for post-acute care must be pursued expeditiously. Second, delivery system reforms that have the potential to encourage high-quality care, better care transitions, and more efficient provision of care need to be enhanced and closely monitored, and successful models need to be adopted on a broad scale. Our recommendation to eliminate MIPS addresses both of these goals by moving the definition of clinician quality beyond the uncoordinated individual clinician focus of MIPS to a more population-based concept of quality that encourages clinicians to band together and be evaluated as a group.

In the interim, it is imperative that the current FFS payment systems be managed carefully. Medicare is likely to continue using its current payment systems for some years into the future. This fact alone makes unit prices—their overall level, the relative prices of different services in a sector, and the relative prices of the same service across sectors—an important topic. In addition, constraining unit prices could create pressure on providers to control their own costs and to be more receptive to new payment methods and delivery system reforms.

For each recommendation, we present its rationale, its implications for beneficiaries and providers, and how spending for each recommendation would compare with expected spending under current law. The spending implications are presented as ranges over one-year and five-year periods; unlike official budget estimates for legislation, they do not take into account the complete package of policy recommendations or the interactions among them. They also do not take into account any changes in current law made subsequent to our analysis, such as those in the Bipartisan Budget Act of 2018. Although we recognize budgetary consequences, our recommendations are not driven by any single budget target but instead reflect our assessment of the payment

rate needed to provide adequate access to appropriate care balanced with preserving the fiscal sustainability of the Medicare program.

In Appendix A, we list all recommendations and the Commissioners' votes. The Commission voted on those recommendations at its January 2018 meeting. Subsequently, as this report was being finalized, the Congress passed the Bipartisan Budget Act of 2018, which contained numerous changes to the Medicare program. We have identified those provisions in the Bipartisan Budget Act of 2018 most pertinent to the recommendations in this report, but these are not an exhaustive representation of all the provisions in the legislation.

### **Context for Medicare payment policy**

Part of the Commission's mandate is to consider the effect of its recommendations on the federal budget and to view Medicare in the context of the broader health care system. We do so in Chapter 1. In 2016, total national health care spending was \$3.3 trillion, or 17.9 percent of GDP. Private health insurance spending was \$1.1 trillion, or 6.0 percent of GDP. Medicare spending was \$672.1 billion, or 3.6 percent of GDP.

The rate of change of health care spending has fluctuated recently. For decades—from 1975 to 2009—total health care spending and Medicare spending grew robustly, annually averaging 9.0 percent and 10.6 percent, respectively. Then, from 2009 to 2013, growth in total health care spending and Medicare spending slowed to average annual rates of 3.6 percent and 4.3 percent, respectively. More recently, spending increased from 2013 to 2015 and then slowed somewhat from 2015 to 2016.

The aging of the baby-boom generation will have a profound impact both on the Medicare program and the taxpayers who support it. Over the next 15 years, as Medicare enrollment surges, the number of taxpaying workers per beneficiary is projected to decline. By 2028 (when most boomers will have aged into Medicare), the Medicare Trustees project there will be just 2.4 workers for each Medicare beneficiary, down from 4.6 around the time of the program's inception and 3.0 in 2018. Those demographics create a financing challenge not only for the Medicare program but also for the entire federal budget. By 2039, under federal tax and spending policies specified in current law, Medicare spending combined with spending on other major health care programs, Social Security, and net interest on the national debt will exceed total projected federal revenues and will thus either

increase federal deficits and debt further or crowd out spending on all other national priorities.

The growth in health care spending also affects state budgets and the budgets of individuals and families. States pay for a significant portion of Medicaid spending (funded jointly by states and the federal government for health care services provided to state residents with low incomes). Increases in private insurance premiums have outpaced the growth of individual and family incomes over the past decade, and out-of-pocket costs for Medicare beneficiaries have grown faster than Social Security benefits.

Some health care spending is inefficient. For Medicare, if such spending could be identified and eliminated, the efficiencies achieved could result in improved beneficiary health, greater fiscal sustainability for the program, and reduced federal budget pressures. Certain structural features of the Medicare program pose challenges for targeting inefficient spending; however, the Commission is pursuing efforts to curtail low-value care, move care to more efficient settings, and move beyond FFS to payment policies designed to improve care coordination.

### **Assessing payment adequacy and updating payments in fee-for-service Medicare**

As required by law, the Commission annually makes payment update recommendations for providers paid under FFS Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a payment system is changed relative to the prior year. As described in Chapter 2, to determine an update, we first assess the adequacy of Medicare payments for providers in the current year (2018) by considering beneficiaries' access to care, the quality of care, providers' access to capital, and Medicare payments and providers' costs. Next, we assess how those providers' costs are likely to change in the year the update will take effect (the policy year, 2019). As part of the process, we examine payments in relation to the efficient delivery of services consistent with our statutory mandate. Finally, we make a judgment about what, if any, update is needed.

This year, we consider recommendations in nine FFS sectors: acute care hospitals, physicians and other health professionals, ambulatory surgical centers, outpatient dialysis facilities, skilled nursing facilities, home health care agencies, inpatient rehabilitation facilities, long-term care hospitals, and hospices. Each year, the Commission looks at all available indicators of payment adequacy and reevaluates any assumptions from prior years



using the most recent data available to make sure its recommendations accurately reflect current conditions. We may also consider recommending changes that redistribute payments within a payment system to correct any biases that may make patients with certain conditions financially undesirable, make particular procedures unusually profitable, or otherwise result in inequity among providers. Finally, we also may make recommendations to improve program integrity.

Our recommendations, if enacted, could significantly change the revenues providers receive from Medicare. Rates set to cover the costs of relatively efficient providers help create fiscal pressure on all providers to control their costs. Medicare rates also have broader implications for health care spending. For example, Medicare rates are commonly used to set hospital rates charged to uninsured patients eligible for financial assistance, used by Medicare Advantage plans to set hospital prices, and used by the Department of Veterans Affairs (VA) to pay non-VA providers.

The Commission also examines payment rates for services that can be provided in multiple settings. Medicare often pays different amounts for similar services across settings. Basing the payment on the rate in the most efficient setting would save money for Medicare, reduce cost sharing for beneficiaries, and reduce the financial incentive to provide services in the higher paid setting. However, putting into practice the principle of paying the same rate for the same service across settings can be complex because it requires that the definition of the services and the characteristics of the beneficiaries across settings be sufficiently similar. In March 2012, we recommended equalizing rates for evaluation and management office visits provided in hospital outpatient departments and physicians' offices. In 2014, we extended that recommendation to additional services. In the Bipartisan Budget Act of 2015, the Congress made payment to outpatient departments for certain services equal to the physician fee schedule rates for those same services provided at any new outpatient off-campus location beginning in 2018. In 2016, to make payments across all of the post-acute care (PAC) payment settings comparable, the Commission recommended elements of a single prospective payment system (PPS) for all PAC to replace the four independent PPSs in use today (skilled nursing facility, inpatient rehabilitation facility, long-term care hospital, and home health). In Chapter 7, we recommend blending setting-specific and unified PAC PPS relative weights to help transition to a unified system. The Commission will continue to analyze opportunities for applying this principle to other services and settings.

## Hospital inpatient and outpatient services

In 2016, the Medicare FFS program paid 4,700 hospitals \$183 billion for about 10 million Medicare inpatient admissions and 200 million outpatient services, and for \$6 billion of their non-Medicare uncompensated care costs. These sums represent a 2.3 percent increase in hospital spending per FFS beneficiary from 2015 to 2016. On net, inpatient payments increased by about \$4 billion, outpatient payments increased by about \$3 billion, and uncompensated care payments decreased by about \$1 billion. Inpatient payments increased primarily because of an increase in inpatient surgeries. Outpatient payments rose because of rapid growth in Part B drug spending and an increase in physician services billed as hospital outpatient services (which in part reflects hospitals' acquisition of physician practices).

As discussed in Chapter 3, most payment adequacy indicators for hospitals (including access to care, quality of care, and access to capital) are positive. Aggregate Medicare margins continue to be negative, although hospitals with excess capacity still have an incentive to see Medicare beneficiaries because Medicare payment rates remain about 8 percent higher than the variable costs associated with Medicare patients.

***Beneficiaries' access to care***—The average hospital occupancy rate was 62 percent in 2016, suggesting hospitals have excess inpatient capacity in most markets. Inpatient admissions per beneficiary decreased by 2.8 percent in 2016, and outpatient services per beneficiary increased by 1.1 percent. The 2.8 percent decline per beneficiary in admissions reflects a 5 percent decline in medical admissions per capita and a 4.3 percent increase in surgical admissions per capita. This is the first time in 20 years that inpatient surgical admissions per capita have increased.

***Quality of care***—Hospital mortality and readmission rates have improved in recent years. Patient satisfaction also has improved somewhat: The share of patients who rated their hospital a 9 or a 10 on a 10-point scale increased from 69 percent in 2011 to 73 percent in 2016.

***Providers' access to capital***—Access to bond markets is very strong, with hospital bond offerings increasing from \$25 billion in 2015 to \$37 billion in 2016. Much of the increase represented refinancing of older debt. While some hospitals struggle with low occupancy and limited access to capital, most hospitals have good access to capital because of strong all-payer profit margins.

**Medicare payments and providers' costs**—In 2016, hospitals' aggregate Medicare margin was –9.6 percent. The decline in margins from 2015 was primarily due to a freeze in outpatient rates in 2016 and a decline in uncompensated care payments as the share of insured people increased from 2015 to 2016. While average Medicare payments were lower than average costs, Medicare payments were higher than the variable costs of treating Medicare patients in 2016—resulting in a marginal profit of about 8 percent. Therefore, hospitals with excess capacity still have a financial incentive to serve more Medicare patients.

In light of these findings on payment adequacy, the Commission recommends that, for 2019, the Congress should update the 2018 Medicare base payment rates (inpatient and outpatient) for acute care hospitals by the amount determined under current law.

## **Physician and other health professional services**

Physicians and other health professionals deliver a wide range of services, including office visits, surgical procedures, and diagnostic and therapeutic services in a variety of settings. In 2016, Medicare paid \$69.9 billion for physician and other health professional services. About 952,000 clinicians billed Medicare—nearly 589,000 physicians and almost 363,000 nurse practitioners, physician assistants, therapists, chiropractors, and other practitioners. Medicare pays for the services of physicians and other health professionals using a fee schedule. In Chapter 4, we discuss the available indicators of payment adequacy for physicians and other health professionals.

**Beneficiaries' access to care**—Overall, beneficiary access to physician and other health professional services is comparable with prior years. Most beneficiaries continue to report that they are able to find a new doctor without a problem. A small number of beneficiaries report more difficulty, with a higher share reporting problems obtaining a new primary care doctor than reporting problems obtaining a specialist. The number of physicians per beneficiary declined slightly, the number of advanced practice registered nurses and physician assistants per beneficiary rose, and the share of providers enrolled in Medicare's participating provider program remained high. In 2016, across all services, volume per beneficiary grew by 1.6 percent.

**Quality of care**—CMS assesses the quality of Medicare-billing physicians and other health professionals based on clinician-reported individual quality measures. Starting in 2019, clinicians' payments will be adjusted through the mechanism mandated in MIPS, which builds on the current quality assessment programs. The Commission does not agree with this approach and recommends eliminating MIPS and taking another direction for rewarding quality (see Chapter 15 for further discussion). In Chapter 4, we report two population-based measures—avoidable hospitalizations for ambulatory care-sensitive conditions and rates of low-value care in Medicare. On these measures, clinicians' performance is mixed.

**Medicare payments and providers' costs**—CMS currently projects that the increase in 2019 in the Medicare Economic Index will be 1.8 percent. In 2016, Medicare payment rates for physician and other health professional services were 75 percent of commercial rates for preferred provider organizations, compared with 78 percent in 2015. Average compensation in 2016 was much lower for primary care physicians than for physicians in specialty groups such as radiology and nonsurgical procedural specialties, continuing to raise concerns about the relative prices Medicare pays for clinician services.

The evidence suggests that payments for physicians and other health professionals are adequate. Therefore, the Commission recommends that the 2019 payment rates for physician and other health professional services be updated by the amount specified in current law.

## **Ambulatory surgical center services**

Ambulatory surgical centers (ASCs) provide outpatient procedures to patients who do not require an overnight stay after the procedure. In 2016, 3.4 million FFS Medicare beneficiaries were treated in the 5,532 ASCs certified to provide services to Medicare beneficiaries. Medicare program and beneficiary spending on ASC services was about \$4.3 billion.

As discussed in Chapter 5, our results indicate that beneficiaries' access to ASC services is adequate. The available indicators of payment adequacy for ASC services are positive.

**Beneficiaries' access to care**—Beneficiaries' access to ASC services has generally been adequate. From 2011 to 2015, the number of ASCs grew at an average annual rate of 1.3 percent. In 2016, the number of ASCs increased 1.4 percent. Most new ASCs in 2016 (92 percent) were for-

profit facilities. From 2011 through 2015, the volume of services per beneficiary grew by an average annual rate of 0.7 percent. In 2016, volume decreased by 0.5 percent.

**Quality of care**—The first three years of ASC-reported quality data show improvements in performance but also identify opportunities for improvement in both ASCs' quality of care and the ASC Quality Reporting (ASCQR) Program. Among the 10 quality measures for which data were available in 2015, the 4 adverse event measures reflect consistently low levels of adverse events, and the share of ASCs reporting no adverse events has increased each year since 2013. CMS made improvements to the ASCQR Program for 2018, but the Commission remains concerned about the share of ASCs for which quality data are missing and the lack of claims-based outcomes measures that apply to all ASCs. For example, CMS could add a measure targeting the frequency of ASC patients receiving subsequent hospital care.

**Providers' access to capital**—Because the number of ASCs has continued to increase, access to capital appears to be adequate.

**Medicare payments and providers' costs**—Medicare payments per FFS beneficiary increased by an average of 3.6 percent per year from 2011 through 2015 and by 3.5 percent in 2016. ASCs do not submit data on the cost of services they provide to Medicare beneficiaries. Therefore, we cannot calculate a Medicare margin as we do for other provider types to help assess payment adequacy.

Based on these indicators, the Commission concludes that ASCs can continue to provide Medicare beneficiaries with access to ASC services with no update to the payment rates for 2019. In addition, the Commission recommends that the Secretary of Health and Human Services collect cost data from ASCs without further delay.

## Outpatient dialysis services

Outpatient dialysis services are used to treat the majority of individuals with end-stage renal disease (ESRD). In 2016, more than 390,000 beneficiaries with ESRD on dialysis were covered under FFS Medicare and received dialysis from more than 6,700 dialysis facilities. Since 2011, Medicare has paid for outpatient dialysis services using a prospective payment system (PPS) that is based on a bundle of services. In 2016, Medicare expenditures for outpatient dialysis services were \$11.4 billion, a 2 percent increase over 2015 expenditures.

Our payment adequacy indicators for outpatient dialysis services, discussed in Chapter 6, are generally positive.

**Beneficiaries' access to care**—Measures of the capacity and supply of providers, beneficiaries' ability to obtain care, and changes in the volume of services suggest payments are adequate. Dialysis facilities appear to have the capacity to meet demand. Between 2015 and 2016, growth in the number of dialysis treatment stations was faster than growth in the number of FFS dialysis beneficiaries. Between 2015 and 2016, the number of FFS dialysis beneficiaries grew by 1 percent, while the total number of treatments grew by 3 percent.

**Quality of care**—From 2011 to 2016, unadjusted mortality, hospitalization, and 30-day readmission rates declined, though emergency department use increased. With regard to anemia management, negative cardiovascular outcomes associated with high use of erythropoiesis-stimulating agents declined, and blood transfusion use, which initially increased under the PPS, has trended down since 2013. Between 2011 and 2016, beneficiaries' use of home dialysis, which is associated with improved patient satisfaction and quality of life, increased from 9 percent to 11 percent of dialysis beneficiaries. Since 2014, a shortage of dialysis solutions needed for the predominant home method, peritoneal dialysis, has slowed this modality's growth.

**Providers' access to capital**—Access to capital for dialysis providers continues to be adequate. The number of facilities, particularly for-profit facilities, continues to increase. Since 2011, the two largest dialysis organizations have grown through acquisitions of and mergers involving midsized dialysis organizations and other providers, including physician services organizations.

**Medicare payments and providers' costs**—Our analysis of Medicare payments and costs is based on 2015 and 2016 claims and cost report data submitted to CMS by freestanding dialysis facilities. During this period, cost per treatment decreased by 0.7 percent, while Medicare payment per treatment decreased by about 0.6 percent. We estimate that the aggregate Medicare margin was 0.5 percent in 2016, and the rate of marginal profit—that is, the rate at which Medicare payments exceed providers' marginal costs—was 17.2 percent. The 2018 Medicare margin is projected at 0.4 percent.

The Commission recommends that for 2019, the Congress should update the 2018 dialysis PPS base rate by the amount determined under current law.



## **Post-acute care: Increasing the equity of Medicare's payments within each setting**

PAC providers offer important recuperation and rehabilitation services to Medicare beneficiaries after an acute care hospital stay. PAC providers include skilled nursing facilities (SNFs), home health agencies (HHAs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs). In 2016, FFS program spending on PAC services totaled \$60 billion.

Each year, in addition to evaluating the adequacy of Medicare FFS payments, the Commission considers whether revisions to the payment systems are needed to better align program payments with the costs of treating patients with different care needs. For years, the Commission has raised concerns that the PAC PPSs encourage providers to favor treating some types of patients over others (thereby impairing access for some beneficiaries), furnish therapy services unrelated to a patient's condition, engage in certain questionable coding practices, extend the length of stay so that a full payment (rather than short-stay outlier payment) is made, or engage in some combination of these strategies. The Commission has urged CMS to revise the payment systems to correct these shortcomings.

In addition, the Commission has recommended lowering the level of payments for HHAs and IRFs to more closely align them with the cost of care. But concern about the wide variation in financial performance across providers has constrained these recommendations. The Commission's update recommendations this year again signal that Medicare's aggregate payments are too high relative to the costs to treat Medicare beneficiaries receiving PAC.

As explained in Chapter 7, PAC presents particular challenges in establishing accurate and equitable payments because it is not always clear whether the beneficiary requires PAC and, if so, which setting is best suited to the patient's care needs or how much care would yield the best outcome. The lack of uniform assessment tools makes it difficult to compare beneficiaries, cost of services, and outcomes of care across settings on a risk-adjusted basis.

In 2016, in response to a congressional mandate, the Commission recommended design features of a unified payment system to be used in the four PAC settings.

The Commission found that a unified PAC PPS could use readily available data to pay for a stay based on a patient's characteristics, not the site of service or the amount of therapy furnished. The design would correct current distortions in the SNF and HHA PPSs that encourage providers to furnish services of questionable value and advantage providers that avoid medically complex patients. In June 2017, the Commission recommended that the new payment system begin to be implemented in 2021 so that inequities in the current payment systems could start to be corrected as soon as possible.

Before implementing a unified PAC PPS, the Commission recommends that the Congress direct the Secretary to begin blending the relative weights of the setting-specific payment systems and the unified PAC PPS in 2019. Because the resulting payments would be more closely aligned with the cost of care across all conditions, the equity of the program's payments would increase. Under this blend, each PAC setting's total payments would be kept at the recommended level while payments would be redistributed within each setting based on a provider's mix of patients, costs, and therapy practices. Blending unified PAC PPS and setting-specific relative weights before the implementation of a unified payment system would give providers more time to adjust their practices and costs to the incentives of the new system. With closer alignment of payments and costs and the redistribution of payments across providers, policymakers then could consider establishing a level of payment that more accurately reflects the costs of care. When the PAC PPS is fully implemented, the relative weights of that design would be used exclusively in establishing payments for providers in the four PAC settings.

The recommendation to blend the relative weights in no way detracts from the Commission's concurrent recommendations to revise the SNF and HHA payment systems. Because the PAC PPS is on a longer implementation timetable, Medicare must continue to improve its setting-specific payment systems. To address the persistently high level of payments in the PAC settings, the Commission has setting-specific recommendations to lower payments in the case of HHAs and IRFs and to provide no updates to the payments for SNFs and LTCHs. The blending recommendation to redistribute payments within a setting would not interfere with the consideration of the setting's payment level either in the aggregate or for individual PAC settings.

## Skilled nursing facility services

SNFs provide short-term skilled nursing and rehabilitation services to beneficiaries after a stay in an acute care hospital. In 2016, about 15,000 SNFs furnished 2.3 million Medicare-covered stays to 1.6 million FFS beneficiaries. Medicare FFS spending on SNF services was \$29.1 billion in 2016, about 1 percent less than in 2015.

The key measures, discussed in Chapter 8, indicate Medicare payments to SNFs are adequate. We also find that 970 relatively efficient SNFs provided relatively high-quality care at relatively low costs, suggesting that opportunities remain for other SNFs to achieve greater efficiencies.

**Beneficiaries' access to care**—Access to SNF services remains adequate. The number of SNFs participating in the Medicare program has been stable. The vast majority (89 percent) of beneficiaries live in a county with three or more SNFs or swing bed facilities (rural hospitals with beds that can serve as either SNF beds or acute care beds), and less than 1 percent live in a county without one. Between 2015 and 2016, the median occupancy declined slightly but remained high (85 percent). Medicare-covered admissions per FFS beneficiary decreased between 2015 and 2016, consistent with decreases in inpatient hospital admissions (a three-day inpatient stay is required for Medicare coverage of SNF services). Lengths of stay also declined. Both trends contributed to fewer covered days in 2016 compared with 2015.

**Quality of care**—Between 2015 and 2016, SNFs had mixed performance on quality measures. The community discharge rate increased (improved), while the rates of hospital readmissions (during SNF stay and within 30 days after discharge) increased slightly (got worse). However, since 2011, both readmission rates have improved overall. Measures of changes in patients' functional status have remained essentially constant.

**Providers' access to capital**—Because most SNFs are part of nursing homes, we examine nursing homes' access to capital. Access to capital was adequate in 2017 and is expected to remain so in 2018. Medicare is regarded as a preferred payer of SNF services.

**Medicare payments and providers' costs**—In 2016, the average Medicare margin for freestanding SNFs (96 percent of SNFs) was 11.4 percent—the 17th year in a row that the average was above 10 percent. Margins

varied greatly across facilities, reflecting differences in costs and shortcomings in the SNF PPS that favor treating rehabilitation patients over medically complex patients. The marginal profit, a measure of the relative attractiveness of treating Medicare beneficiaries, was at least 19.6 percent.

On the basis of these factors, the Commission recommends no update to SNF payment rates for two years (2019 and 2020) and that the Secretary implement a revised SNF PPS in 2019. Then, in 2021, the Secretary would evaluate the need to make further adjustments to payments to bring them in alignment with costs. This recommendation is made in the context of the Commission's recommendation to establish SNF payments using a blend of the unified PAC PPS and current SNF PPS relative weights beginning in fiscal year 2019. A blend of the relative weights would redistribute payments within the SNF setting by increasing payments for medically complex patients and lowering payments for patients who receive rehabilitation therapy unrelated to their care needs.

## Medicaid trends

As required by the Patient Protection and Affordable Care Act of 2010, we report on Medicaid use, spending, and non-Medicare (private-payer and Medicaid) margins. Medicaid finances mostly long-term care services provided in nursing homes, but also covers copayments for low-income Medicare beneficiaries (known as dual-eligible beneficiaries) who stay more than 20 days in a SNF. The number of Medicaid-certified facilities has declined slightly since 2015 but remains close to 15,000. CMS reports total FFS spending on nursing home services declined 3.2 percent between 2015 and 2016 and estimates a smaller decline between 2016 and 2017. In 2016, the average total margin—reflecting all payers and all lines of business—was 0.7 percent. The average non-Medicare margin (which includes all payers and all lines of business except Medicare FFS SNF services) was –2.3 percent.

## Home health care services

Home health agencies (HHAs) provide services to beneficiaries who are homebound and need skilled nursing or therapy services. In 2016, about 3.4 million Medicare beneficiaries received care, and the program spent about \$18.1 billion on home health care services. In that year, over 12,200 agencies participated in Medicare.

The indicators of payment adequacy for home health care, discussed in Chapter 9, are generally positive.

**Beneficiaries' access to care**—Access to home health care is generally adequate: Over 99 percent of beneficiaries lived in a ZIP code where a Medicare home health agency operated in 2016, and 86 percent lived in a ZIP code with five or more agencies. In 2016, the number of agencies fell slightly by 1.2 percent after increasing by over 60 percent between 2004 to 2015. In 2016, the total number of users increased slightly, the average number of episodes per home health user declined by 0.9 percent, and the volume of 60-day episodes decreased by 0.7 percent. From 2002 to 2015, home health utilization increased substantially, with the number of episodes rising by over 60 percent and the episodes per home health user climbing from 1.6 to 1.9 episodes. Episodes not preceded by a hospitalization accounted for most of the growth in this period, increasing from about half to two-thirds of total episodes since 2001.

**Quality of care**—In 2016, performance improved on some quality measures. The share of beneficiaries reporting improvement in walking and transferring increased significantly, though this finding may be due to changes in coding practices; the share of beneficiaries hospitalized or using emergency care during their home health stay was unchanged.

**Providers' access to capital**—Access to capital is a less important indicator of Medicare payment adequacy for home health care because this sector is less capital intensive than other health care sectors. The major publicly traded for-profit home health companies had sufficient access to capital markets for their credit needs. Several capacity acquisitions and expansion of capacity by publicly traded home health care firms indicate adequate access to capital.

**Medicare payments and providers' costs**—In 2016, Medicare spending for home health care increased about 0.1 percent. However, between 2002 and 2016, spending increased by over 80 percent. For more than a decade, payments under the home health PPS have consistently and substantially exceeded costs. In 2016, Medicare margins for freestanding agencies (which accounted for 90 percent of episodes in 2016) averaged 15.5 percent. Also in 2016, freestanding HHAs' marginal profit was 17.4 percent. The projected margin for 2018 is 14.4 percent. Two factors have contributed to payments exceeding costs: Agencies have reduced episode costs by lowering the number of visits provided, and cost growth has been lower than the annual payment updates for home health care.

On the basis of the positive indicators for payment adequacy and freestanding HHAs' high margins, the Commission recommends a 5 percent reduction in the home health PPS base payment rate for 2019 and a two-year rebasing beginning in 2020. These two actions should help to better align payments with actual costs, ensuring better value for beneficiaries and the taxpayer without impeding access.

Our update recommendation is made in the context of the Commission's recommendation (discussed in Chapter 7) to establish HHA payments using a blend of the unified PAC PPS and current HHA PPS relative weights beginning in calendar year 2019. A blend of the relative weights would redistribute payments within the HHA setting by increasing payments for medically complex patients and lowering payments for patients who receive therapy services unrelated to their care needs.

We continue to recommend, as we have for the last six years, that Medicare eliminate the use of the number of therapy visits as a payment factor in the home health PPS. Doing so would base home health payment solely on patient characteristics and would result in a more patient-focused approach to payment. (Subsequent to the Commission's vote on the recommendation, the Bipartisan Budget Act of 2018 eliminated the number of therapy visits as a payment factor in the home health PPS, beginning in 2020.)

## **Inpatient rehabilitation facility services**

IRFs provide intensive rehabilitation services to patients after illness, injury, or surgery. Rehabilitation programs are supervised by rehabilitation physicians and include services such as physical and occupation therapy, rehabilitation nursing, speech-language pathology, and prosthetic and orthotic services. In 2016, Medicare spent \$7.7 billion on FFS IRF care provided in about 1,200 IRFs nationwide. About 350,000 beneficiaries had almost 391,000 IRF stays. On average, Medicare accounts for about 60 percent of IRF discharges.

Our indicators of Medicare payment adequacy for IRFs, discussed in Chapter 10, are positive.

**Beneficiaries' access to care**—Capacity remains adequate to meet demand. After declining for several years, the total number of IRFs increased in 2014 and continued to grow through 2016. Over time, the number of hospital-based and nonprofit IRFs has declined, while the number of freestanding and for-profit IRFs has increased. In 2016,



the average IRF occupancy rate remained at 65 percent. The number of FFS cases grew 2.4 percent between 2015 and 2016.

**Quality of care**—The Commission tracks three broad categories of IRF quality indicators: risk-adjusted facility-level change in functional and cognitive status during the IRF stay, rates of discharge to the community and to skilled nursing facilities, and rates of readmission to an acute care hospital. Most measures were steady or improved between 2011 and 2016.

**Providers' access to capital**—The parent institutions of hospital-based IRFs continue to have good access to capital. The major freestanding IRF chain, which accounted for almost half of all freestanding IRFs in 2016 and about a quarter of all Medicare IRF discharges, also has good access to capital. This assessment is based on the chain's continued expansion.

**Medicare payments and providers' costs**—After a period of steady growth between 2009 and 2015, the aggregate IRF margin declined in 2016 but remained high at 13.0 percent. The Medicare margin in freestanding IRFs was 25.5 percent. Hospital-based IRF margins were lower, but one-quarter of hospital-based IRFs had Medicare margins greater than 11 percent, indicating that many hospitals can manage their IRF units profitably. Lower margins in hospital-based IRFs were driven largely by higher unit costs. Given the difference in financial performance across IRFs, we examined IRFs' marginal profits to assess whether they have a financial incentive to expand the number of Medicare beneficiaries they serve. We found that Medicare payments exceed marginal costs by a substantial amount—19.3 percent for hospital-based IRFs and 40.9 percent for freestanding IRFs—suggesting that IRFs with available beds have an incentive to admit Medicare patients. We project an aggregate Medicare margin of 11.9 percent for IRFs in 2018.

Considering these factors, the Commission recommends that the IRF payment rate for fiscal year 2019 be reduced by 5 percent. The reduction in the payment rate is made in the context of the Commission's recommendation in Chapter 7 that the Congress direct the Secretary to adjust IRF payments using a blend of the current IRF PPS relative weights and the unified post-acute care PPS weights beginning in 2019. A blend of the relative weights would redistribute payments within the IRF setting by increasing payments for medically complex patients and lowering payments for patients with less complex

conditions. In addition, the Commission reiterates its March 2016 recommendations that the high-cost outlier pool be expanded to further redistribute payments in the IRF payment system and that the Secretary conduct focused medical record review of IRFs that have unusual patterns of case mix and coding, and reassess the inter-rater reliability of the IRF assessment tool to improve the accuracy of payments and protect program integrity.

## Long-term care hospital services

LTCHs provide care to beneficiaries who need hospital-level care for relatively extended periods. To qualify as an LTCH for Medicare payment, a facility must meet Medicare's conditions of participation for acute care hospitals, and certain Medicare patients must have an average length of stay greater than 25 days. In 2016, Medicare spent \$5.1 billion on care provided in LTCHs nationwide. About 111,000 FFS beneficiaries had roughly 126,000 LTCH stays in 407 LTCHs. On average, Medicare FFS beneficiaries account for about two-thirds of LTCHs' discharges. Chapter 11 presents our findings on payment adequacy for LTCHs.

**Beneficiaries' access to care**—We consider the capacity and supply of LTCH providers and changes over time in the volume of services they furnish. The number of LTCHs decreased in recent years because of two moratoriums on new facilities and changes to Medicare's LTCH payment policy. The number of LTCHs and LTCH beds decreased annually by an average of 1.1 percent and 2.3 percent, respectively, from 2012 through 2016. We expect these trends to continue because of the implementation of the patient-specific criteria that began in fiscal year 2016. However, the average LTCH occupancy rate was 66 percent in 2016, suggesting that LTCHs have excess capacity in the markets they serve. From 2015 to 2016, the number of LTCH cases decreased by 4.2 percent, continuing a four-year trend that began in 2013. The number of LTCH cases per beneficiary declined during this period (2015 to 2016) by 5.1 percent, similarly continuing a trend of decreasing per capita LTCH use that began in 2012.

**Quality of care**—Consistent with prior years, we found stable non-risk-adjusted rates of readmission, death in the LTCH, and death within 30 days of discharge across the top 25 LTCH diagnoses.

**Providers' access to capital**—The new criteria to receive the higher LTCH payment rate specified in the Pathway for SGR Reform Act of 2013, coupled with payment

reductions to annual updates required by statute, have limited opportunities for growth and reduced the industry's need for capital in the near term.

**Medicare payments and providers' costs**—The aggregate Medicare margin for qualifying cases was 6.8 percent in 2015 and 6.3 percent in 2016. Financial performance in 2016 varied across LTCHs, reflecting differences in cost control and responses to payment incentives. Marginal profit, an indicator of whether LTCHs with excess capacity have an incentive to admit more Medicare patients, was about 20 percent in 2016. We project that LTCHs' aggregate Medicare margin for discharges that meet the patient-specific criteria and that qualify for the full LTCH payment rate will be 4.7 percent in 2018.

On the basis of these indicators and in the context of recent changes in payment policy, the Commission concludes that LTCHs can continue to provide Medicare beneficiaries with access to safe and effective care and accommodate changes in their costs with no update to LTCH payment rates in fiscal year 2019. This update recommendation applies to the Medicare LTCH PPS base payment rate. That is, it applies to payments for discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 and to the portion of the blended payment that reflects the LTCH payment rate for discharges that do not meet the specified criteria.

The recommendation about the level of payments to LTCHs is made in the context of the Commission's recommendation (discussed in Chapter 7) to establish LTCH payments using a blend of the current LTCH PPS relative weights and the unified post-acute care PPS weights beginning in fiscal year 2019. A blend of the relative weights would redistribute payments within the LTCH setting by increasing payments for medically complex patients and lowering payments for patients with less complex conditions.

## Hospice services

The Medicare hospice benefit covers palliative care and support services for beneficiaries who are terminally ill with a life expectancy of six months or less if the illness runs its normal course. Beneficiaries may elect the Medicare hospice benefit; in so doing, they agree to forgo Medicare coverage for conventional treatment of their terminal illness and related conditions. In 2016, more than 1.4 million Medicare beneficiaries (including nearly 50 percent of decedents) received hospice services from more

than 4,380 providers, and Medicare hospice expenditures totaled about \$16.8 billion. In Chapter 12, we find the indicators of payment adequacy for hospices are positive.

**Beneficiaries' access to care**—Hospice use among Medicare beneficiaries has grown substantially in recent years, suggesting greater awareness of and access to hospice services. The number of hospice providers increased by about 4.4 percent in 2016 because of growth in the number of for-profit hospices, continuing a more than decade-long trend of substantial market entry by for-profit providers. In 2016, the proportion of beneficiaries using hospice services at the end of life continued to grow, and length of stay among decedents increased slightly. In 2016, 49.7 percent of Medicare beneficiary decedents used hospice, up from 48.6 percent in 2015. In 2016, hospice use increased across all demographic and beneficiary groups examined. However, rates of hospice use remained lower for minority beneficiaries than for White beneficiaries. Between 2015 and 2016, average length of stay among decedents increased from about 87 days to 88 days and median length of stay increased from 17 to 18 days.

**Quality of care**—Hospices' performance on seven quality measures related to processes of care at hospice admission is generally high and increased between 2015 and 2016. In 2016, most hospices scored high (93 percent or higher) on six of the seven measures, while performance on the pain assessment measure was lower and more varied.

**Providers' access to capital**—Hospices are not as capital intensive as some other provider types because they do not require extensive physical infrastructure. Continued growth in the number of for-profit providers (a more than 7 percent increase in 2016) suggests capital is available to for-profit providers. Less is known about access to capital for nonprofit freestanding providers. Hospital-based and home health-based hospices have access to capital through their parent organizations.

**Medicare payments and providers' costs**—The aggregate 2015 Medicare margin, which is an indicator of the adequacy of Medicare payments relative to providers' costs, was 10.0 percent, up from 8.2 percent in 2014. The projected 2018 aggregate Medicare margin is 8.7 percent.

On the basis of strong financial performance and other strong positive indicators of payment adequacy, the Commission recommends no update for the 2019 Medicare hospice payment rates.



## The Medicare Advantage program: Status report

Each year, the Commission provides a status report on the MA program. In 2017, the MA program included almost 3,300 plan choices, enrolled about 19 million beneficiaries (32 percent of all Medicare beneficiaries), and paid MA plans about \$210 billion (not including Part D drug plan payments). In Chapter 13, we examine MA enrollment trends, plan availability for the coming year, and payments for MA plan enrollees relative to spending for FFS Medicare beneficiaries. We also provide updates on risk adjustment, risk coding practices, and current quality indicators in MA. As a result of the analyses, we recommend changes for determining eligibility for bonuses under the quality bonus program.

The MA program gives Medicare beneficiaries the option of receiving benefits from private plans rather than from the traditional FFS Medicare program. The Commission strongly supports the inclusion of private plans in the Medicare program; beneficiaries should be able to choose between the traditional FFS Medicare program and alternative delivery systems that private plans can provide. Because Medicare pays private plans a per person predetermined rate rather than a per service rate, plans have greater incentives than FFS providers to innovate and use care-management techniques.

The Commission has emphasized the importance of imposing fiscal pressure on all providers of care to improve efficiency and reduce Medicare program costs and beneficiary premiums. For MA, the Commission has recommended that payments be brought down from prior levels, which were generally higher than FFS, and be set so that the payment system is neutral and does not favor either MA or the traditional FFS program. Legislation has reduced the inequity in Medicare spending between MA and FFS. As a result, over the past few years, plan bids and payments have come down in relation to FFS spending while MA enrollment continues to grow. The pressure of lower benchmarks has led to improved efficiencies and more competitive bids that enable MA plans to continue to increase enrollment by offering benefits that beneficiaries find attractive.

**Enrollment**—Between 2016 and 2017, enrollment in MA plans grew by about 8 percent (1.4 million enrollees) to 18.9 million enrollees. About 32 percent of all Medicare beneficiaries were enrolled in MA plans in 2017.

Among plan types, HMOs continued to enroll the most beneficiaries (12.2 million).

**Plan availability**—Access to MA plans remains high in 2018, with most Medicare beneficiaries having access to many plans. Nearly all Medicare beneficiaries (96 percent) have an HMO or local preferred provider organization plan operating in their county of residence. Overall, 99 percent of Medicare beneficiaries have access to an MA plan. Compared with 2007, MA enrollment in 2017 is more heavily concentrated in large MA organizations. The top 10 MA organizations (ranked by enrollment) had 72 percent of total enrollment in 2017, compared with 61 percent in 2007.

**Risk adjustment and coding intensity**—Medicare payments to MA plans are enrollee specific, based on a plan's payment rate and an enrollee's risk score. Risk scores account for differences in expected medical expenditures and are based in part on diagnoses that providers code. Medicare pays most claims in traditional FFS Medicare using procedure codes, which offer little incentive for providers to record more diagnosis codes than necessary to justify ordering a procedure. In contrast, MA plans have a financial incentive to ensure that their providers record all possible diagnoses because higher enrollee risk scores result in higher payments to the plan.

Our analysis for 2016 finds that higher diagnosis coding intensity resulted in MA risk scores that were 8 percent higher than scores for similar traditional FFS Medicare beneficiaries. By law, CMS makes a minimum across-the-board adjustment to MA risk scores to make them more consistent with FFS coding. In 2016, the adjustment reduced MA risk scores by 5.41 percent, compared with our estimate of 8 percent. The adjustment for 2018 will be 5.91 percent. The Commission previously recommended that CMS change the way diagnoses are collected for use in risk adjustment and estimate a new coding adjustment that improves equity across plans and eliminates the impact of differences in MA and FFS coding intensity.

**Plan payments**—Using the 2018 plan bid data, before adjusting fully for coding intensity, we estimate that 2018 MA benchmarks, bids, and payments (including quality bonuses) average 107 percent, 90 percent, and 101 percent of FFS spending, respectively. All these values increase by about 2 percentage points if coding intensity beyond the legislatively mandated downward adjustment is reflected fully; for example, payments for MA plans will average 103 percent of FFS spending. On average, quality

bonuses in 2018 add 4 percent to the average plan's base benchmark and add 3 percent to plan payments.

**Quality measures**—Plans in MA contracts receive bonus payments if their contract has an overall rating of 4 stars or higher on CMS's 5-star rating system. Plans in a lower rated contract can obtain a bonus payment if their contract is absorbed (consolidated) with a contract that is rated 4 stars or higher. At the end of 2017, 1.4 million enrollees were in a nonbonus contract that was absorbed by another contract with a rating of 4 stars or higher and, thus, will be in bonus status for the 2018 payment year. Since 2013, over 4 million enrollees—over 20 percent of MA enrollees—have been moved by organizations among contracts to secure bonus payments. Thus, while over 70 percent of MA enrollees are classified as being in plans at 4 stars or higher, taking into account the enrollees who are in bonus-status plans because of consolidations, the actual share could be as low as 50 percent. In addition to the unwarranted bonus payments, the wave of contract consolidations has resulted in inaccurate reporting of Medicare Plan Finder star ratings that beneficiaries use to choose among plans in their area.

The Commission recommends that contract consolidations should not be allowed to affect star ratings and bonus payments when two contracts serving different geographic areas are consolidated. The determination of star ratings for each geographic area of the original contracts and the reporting of quality indicators that are the basis of the star ratings should continue as though the consolidation had not occurred. (Subsequent to the Commission's vote on the recommendation, the Bipartisan Budget Act of 2018 directed the Secretary to address contract consolidations by averaging the star results of contracts that are being combined.) In conjunction with the recommendation addressing consolidations, the Commission restates its recommendation that the geographic unit for quality reporting should be the local health care market area.

## **The Medicare prescription drug program (Part D): Status report**

In 2016, Medicare spending and enrollee premiums for Part D benefits totaled \$91.6 billion. Enrollee premiums made up \$12.7 billion of that total (enrollees also paid cost sharing). In 2017, 42.5 million individuals (72.5 percent of all Medicare beneficiaries) were enrolled in Part D plans. Of those enrolled, 59 percent were in stand-alone prescription drug plans (PDPs) and 41 percent were in Medicare Advantage–Prescription Drug (MA–PD) plans.

In Chapter 14, the Commission provides a status report on the Medicare prescription drug benefit that describes beneficiaries' access to prescription drugs: enrollment levels, plan benefit designs, and the quality of Part D services. The report also analyzes changes in plan bids, premiums, and program costs. In addition, the chapter includes a recommendation related to biosimilars.

For the past two years, the Commission has noted its concern that a growing share of program spending has been for high-cost enrollees—beneficiaries who reach the catastrophic phase of Part D's benefit. The Commission's June 2016 recommendations addressed these concerns. This year's status report provides further evidence that this trend has continued, and we point to factors that contribute to greater catastrophic spending.

**Medicare beneficiaries' drug coverage in 2017 and benefit offerings for 2018**—Among the 42.5 million beneficiaries enrolled in Part D drug plans in 2017, 12.2 million received the low-income subsidy (LIS). Three percent of all Medicare beneficiaries (1.6 million individuals) received drug coverage through employer-sponsored plans that received Medicare's retiree drug subsidy. The remaining 25 percent of Medicare beneficiaries not enrolled in a Part D plan or in an employer plan receiving the retiree drug coverage subsidy were divided about equally between those who had creditable drug coverage (i.e., benefits at least as generous as Part D) from other sources, and those with no coverage or coverage less generous than Part D.

For 2018, plan sponsors are offering 782 PDPs and 2,003 MA–PDs, about 5 percent and 16 percent, respectively, more plans than in 2017. Beneficiaries continue to have broad choice among plans—between 19 and 26 PDPs to choose from, depending on where they live, as well as typically 10 or more MA options. MA–PDs continue to be more likely than PDPs to offer enhanced benefits. For 2018, 216 premium-free PDPs are available to enrollees who receive the LIS, a 6 percent decrease from 2017. With the exception of one region (Florida), all regions continue to have at least 3 and as many as 10 PDPs available at no premium to LIS enrollees.

In 2018, the 10 PDPs with the highest 2017 enrollment continue to use a 5-tier formulary with differential cost sharing. Over time, many plan sponsors have moved from charging fixed-dollar copayments to coinsurance for certain tiers.

**Part D program costs**—Between 2007 and 2016, Part D program spending on an incurred basis increased from \$46 billion to \$79 billion (an average annual growth rate of about 6 percent). Medicare’s reinsurance subsidy (which covers 80 percent of spending if an enrollee reaches the catastrophic phase of the benefit) became the largest component of program spending in 2014 and has remained the fastest growing component, at an average annual growth rate of nearly 18 percent between 2007 and 2016. Thus, in 2016, a higher share of Medicare payments was retrospective, cost-based reimbursement rather than prospective, risk-based payments—a result not contemplated in the original design of the program. Enrollees who incur spending high enough to reach the catastrophic phase of the benefit (high-cost enrollees) have been driving Part D program costs, accounting for 57 percent of gross spending in 2015. Spending on a per enrollee basis for high-cost individuals grew by more than 10 percent, and that growth was accounted for almost entirely by increases in the average price per prescription filled (reflecting both price inflation and changes in the mix of drugs used). Going forward, the pharmaceutical pipeline is shifting toward greater numbers of biologic products and specialty drugs, many of which have high prices. The use of high-priced drugs by Part D enrollees will likely grow and put significant upward pressure on Medicare spending for reinsurance and the LIS.

#### ***Financial disincentives to use biosimilars in***

**Part D**—Biologics make up a fast-growing segment in the biopharmaceutical sector and will continue to grow in importance. Biosimilars are expected to have lower prices than originator biologics. However, the take-up of biosimilars in Part D may be dampened by certain Part D policies. To rectify financial incentives that disadvantage biosimilars, the Commission recommends applying the same discount that manufacturers of originator biologics and brand-name drugs provide in the coverage gap to biosimilar products. Consistent with the Commission’s 2016 recommendations, discounts on biosimilars would not count as though they were an enrollee’s own out-of-pocket spending for purposes of determining when an enrollee reached Part D’s catastrophic phase. To the extent that the adoption of the Commission’s set of recommendations results in net program savings, the Congress could consider enhancing protections for non-LIS enrollees facing high cost-sharing burdens. (Subsequent to the Commission’s vote on this recommendation, the Bipartisan Budget Act of 2018 directed biosimilar manufacturers to, beginning in 2019,

provide a discount on their products in the coverage gap. However, unlike the Commission’s recommendation, the discount amount would continue to count as though it were the enrollees’ own OOP spending.)

**Access to prescription drugs**—Giving plans greater flexibility to use management tools could help ensure that prescribed medicines are safe and appropriate for the patient and could potentially reduce overuse or misuse. However, for some beneficiaries, those same tools could also limit access to needed medications. Beneficiary advocates, prescribers, plan sponsors, and CMS have all noted frustrations with Part D coverage determinations, exceptions, and appeals processes. A more efficient approach would be to resolve such issues at the point of prescribing, through e-prescribing and electronic prior authorization, rather than at the pharmacy counter.

**Quality in Part D**—In 2018, the average star rating among Part D plans increased somewhat for PDPs and remained about the same for MA–PDs. However, quality measures used currently for Part D may not help beneficiaries make informed choices among plan options. For example, Part D plans are required to implement medication therapy management (MTM) programs to improve quality. However, sponsors of stand-alone PDPs do not have financial incentives to engage in MTM. In 2017, Medicare began testing enhanced MTM programs by providing incentives for selected stand-alone PDPs to conduct medication reviews and tailor drug benefit designs that encourage adherence to appropriate drug therapies.

### **Moving beyond the Merit-based Incentive Payment System**

Recognizing that an enacted public policy is not fulfilling its intended goals and therefore calling for its elimination is complex. For example, the sustainable growth rate (SGR) system, which was intended to limit growth in Medicare fee schedule spending to a formula based on GDP, started in 1999, was repeatedly overridden by the Congress between 2003 to 2014 and was not eliminated until the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). The Commission supports the elements of MACRA that repealed the SGR and encouraged comprehensive, patient-centered care delivery models such as advanced alternative payment models (A–APMs).

Notwithstanding, the Commission has concluded that one part of MACRA, the Merit-based Incentive Payment System (MIPS), will not fulfill its goals and therefore



should be eliminated. The Commission did not reach this conclusion hastily. We first examined options for improving MIPS as it was implemented, and we provided constructive feedback as CMS established rules for the first two years of the program. However, as we continued to explore the issue in several Commission reports to the Congress, we determined that, from the Commission's perspective, the basic design of MIPS is fundamentally incompatible with the goals of a beneficiary-focused approach to quality measurement.

The basic design principle of MIPS is that quality of care and payment adjustments for quality can and should be determined primarily at the individual clinician level, based on measures that clinicians themselves choose to report. But a system built on this design will be inequitable for two reasons. First, clinicians will be evaluated and compared on dissimilar measures—measures which they will have likely chosen based at least in part on their self-assessment of their own ability to perform well on those measures. Second, many clinicians will not be evaluated at all. As individuals, they will not have a sufficient number of cases for statistically reliable scores. Further, the design is at odds with the fact that quality outcomes for patients—the principal objective of any value-improvement program—are determined primarily through the combined efforts of many providers rather than by the actions of any one clinician.

It is this underlying conception of how best to improve quality that is most essential. The core Commission principle for value-based purchasing programs is that clinical outcomes, patient experience, and cost must be evaluated together and that these measures are dependent on the totality of the delivery system that produces them. It can be difficult to put all these principles in operation given the uncoordinated nature of traditional FFS Medicare payment, but it can be done. However, MIPS, by design, does not meet this principle. In fact, the core of MIPS is based on predecessor Medicare programs that have generally not been successful at improving population outcomes or substantively improving care processes. In addition:

- MIPS imposes a significant reporting burden on clinicians (estimated by CMS as over \$1.3 billion in the first year);
- MIPS scores are not comparable among clinicians because each clinician's composite MIPS score will reflect a mix of different, self-chosen, measures;

- MIPS is complex and inequitable, with different rules for clinicians depending on location, practice size, and other factors, and it exempts more clinicians than will participate; and
- MIPS-based payment adjustments will be small in the first years, providing little incentive, and then arbitrary and possibly very large in the later years, creating significant financial uncertainty for clinicians.

For these reasons, the Commission recommends that the Congress eliminate the current MIPS program as soon as possible. At the same time, the Commission believes that traditional Medicare FFS payment should have a value-based payment component. Thus, we recommend creating a new clinician value-based purchasing program to take its place. This recommendation reflects a conceptual direction for rewarding clinician quality in Medicare FFS according to the core quality principles developed by the Commission. The Commission will engage in a more detailed development of the concept should the Congress choose to pursue these recommendations.

### **Mandated report: Telehealth services and the Medicare program**

The 21st Century Cures Act of 2016 mandated that the Commission provide, by March 15, 2018, information about (1) the extent to which the Medicare FFS program covers telehealth services, (2) the extent to which commercial insurance plans cover telehealth services, and (3) ways in which the telehealth coverage policies of commercial insurance plans might be incorporated into the Medicare FFS program. The Commission fulfills this mandate in Chapter 16.

**Medicare coverage of telehealth services**—(The Bipartisan Budget Act of 2018 expanded coverage of telehealth services under Medicare related to telestroke care, MA, and accountable care organizations.) Medicare coverage of telehealth services is broad and flexible under payment systems in which providers or payers bear some degree of financial risk, but more limited under the fee schedule for physicians and other health professionals (referred to as the physician fee schedule, or PFS). The PFS covers telehealth services originating at rural medical facilities and offices, as well as certain telehealth services paid for as a part of a bundle of services delivered in both urban and rural areas. Under Medicare's other FFS payment systems (e.g., hospital inpatient and home health), providers receive a fixed payment for patient encounters and are able to use telehealth services that best

serve beneficiaries under the fixed payment. Under the MA program, plans must cover all telehealth and non-telehealth services included in the basic Medicare FFS benefit, but plans also can offer extra telehealth benefits that are supplemental to the basic FFS benefit. MA plans must use rebate dollars or additional premiums to finance extra benefits. Under CMS's Center for Medicare & Medicaid Innovation (CMMI), some entities bearing financial risk (e.g., accountable care organizations (ACOs) in the Next Generation ACO Model) have waivers from PFS rules to use telehealth in urban areas or from a patient's residence.

The use of telehealth services under the PFS has grown rapidly in recent years, but remains low. In 2016, 108,000 beneficiaries (0.3 percent of FFS beneficiaries) accounted for over 300,000 telehealth visits totaling \$27 million. These services were most commonly used for basic physician office and mental health services. Use was concentrated among a small group of clinicians and beneficiaries. Beneficiaries using telehealth services tended to be under age 65, disabled, and dually eligible for Medicare and Medicaid; reside in rural areas; and disproportionately have chronic mental health conditions. In addition, our analysis suggests that some portion of telehealth claims are supplemental to, rather than a substitute for, in-person services.

***Commercial insurance plan coverage of telehealth***—The coverage of telehealth services by commercial insurance plans in 2017 was variable. In general, most plans we surveyed covered some form of telehealth service, but few covered a comprehensive set of services. The most commonly used telehealth services were basic physician office and mental health services. Several plans covered direct-to-consumer (DTC) virtual visits (i.e., clinical services provided by clinicians other than the patient's primary care provider that are available to patients 24 hours per day, typically routine medical services). Plans consistently covered telehealth in urban and rural areas; only half covered telehealth from the patient's residence. As with Medicare FFS, commercial use was low, less than 1 percent of plan enrollees. Commercial insurers often test telehealth using pilot programs before implementation.

In general, cost reduction does not appear to be a significant consideration in plans' decisions to cover telehealth services. Plan representatives with whom we spoke cited competitive pressures from employers or other insurers rather than cost reduction as the primary rationale for covering telehealth services.

### ***Expanding Medicare coverage of telehealth services***—

Our analysis found relatively little use of telehealth services among enrollees in commercial plans and a lack of uniformity in how commercial insurers covered telehealth services. We also found that cost is not a significant consideration in commercial insurers' adoption of telehealth services. However, as a public payer, Medicare is obligated to consider costs to the program, beneficiaries, and taxpayers in determining whether to expand coverage of telehealth. Therefore, because we do not see clear examples of commercial payer practices that should be imported into FFS Medicare, this report does not make recommendations about coverage of specific telehealth services. Instead, the Commission recommends that policymakers use a set of principles (cost, access, and quality) to evaluate individual telehealth services separately before adoption into Medicare coverage. The Commission's principle-based approach can be applied to telehealth services commonly used by commercial plans today and for telehealth services developed or considered for coverage in the future.

Several of the most commonly implemented and tested services by commercial insurers include telestroke services, telehealth services for beneficiaries with disability-related treatment-intensive conditions, tele-mental health services, DTC services, telehealth for nursing home residents, and remote patient monitoring. In cases where evidence exists that these services balance the cost, access, and quality principles, policymakers could consider adopting them for Medicare. However, when such evidence is lacking, policymakers should consider pilot testing these services through CMMI, just as testing before implementation is common among commercial insurers. Under the Medicare FFS payment systems other than the PFS, providers maintain adequate flexibility to evaluate and use telehealth services. MA plans and risk-bearing ACOs could be granted greater flexibility to use telehealth services because, in bearing financial risk, they have the financial incentive to assess the value of these services. ■



C H A P T E R

# 1

---

## **Context for Medicare payment policy**

---





# Context for Medicare payment policy

## Chapter summary

Part of the Commission’s mandate is to consider the effect of its recommendations on the federal budget and view Medicare in the context of the broader health care system. To help meet this mandate, this chapter examines health care spending growth—for the nation at large and Medicare in particular—and considers its effect on federal and state budgets as well as the budgets of individuals and families. The chapter also reviews recent mortality and morbidity trends, profiles the health status of the next generation of Medicare beneficiaries, and reviews evidence of inefficient health care spending, structural features of the Medicare program that contribute to inefficient spending, and the Commission’s approach to combating those challenges.

In 2016, total national health care spending was \$3.3 trillion, or 17.9 percent of gross domestic product (GDP). Private health insurance spending was \$1.1 trillion, or 6.0 percent of GDP. Medicare spending was \$672.1 billion, or 3.6 percent of GDP.

Health care spending growth has fluctuated recently, first with several years of historic lows, followed by a period of accelerated growth, and most recently with a return to modest growth. For decades—from 1975 to 2009—total health care spending and Medicare spending grew robustly, annually averaging 9.0 percent and 10.6 percent, respectively. Then from 2009 to 2013,

## In this chapter

- National health care spending
- Medicare spending
- Medicare’s financing challenge
- Health care spending consumes growing shares of state and family budgets
- Recent trends in life expectancy, morbidity, and mortality
- The relationship between Medicare spending and quality
- Baby boomers will make up the next generation of Medicare beneficiaries
- Inefficient spending suggests Medicare could spend less without compromising care, but not without challenges

growth in total health care spending and Medicare spending slowed to average annual rates of 3.6 percent and 4.3 percent, respectively.

The causes of the system-wide slowdown are still a matter of speculation. A variety of factors could have contributed—weak economic conditions, payment and delivery system reforms, lower Medicare payment rates for most types of providers as mandated by the Patient Protection and Affordability Act of 2010 (PPACA), and the increased use of generic drugs as top-selling brand drugs lost patent protection (Boards of Trustees 2016, Centers for Medicare & Medicaid Services 2015b, Cutler and Sahni 2013, Holahan et al. 2017).

However, spending increased from 2013 to 2015. Medicare actuaries estimate that national health care spending grew 5.4 percent and Medicare spending grew 4.9 percent. The increase in the national health care spending growth rate was largely due to the continued effects of coverage expansions for health insurance that commenced in 2014 under PPACA; higher growth in spending for private health insurance (driven largely by price growth and increases in hospital care and physician and clinical services); and the continued rapid growth in Medicaid and retail prescription drug spending.

The aging of the baby-boom generation will have a profound impact both on the Medicare program and the taxpayers who support it. Over the next 15 years, as Medicare enrollment surges, the number of taxpaying workers per beneficiary is projected to decline. By 2028 (when most boomers will have aged into Medicare), the Medicare Trustees project there will be just 2.4 workers for each Medicare beneficiary, down from 4.6 around the time of the program's inception and 3.0 in 2018. Those demographics create a financing challenge not only for the Medicare program but also for the entire federal budget. By 2039, under federal tax and spending policies specified in current law, Medicare spending combined with spending on other major health care programs, Social Security, and net interest on the national debt will exceed total projected federal revenues and will thus either increase federal deficits and debt further or crowd out spending on all other national priorities.

The growth in health care spending also affects state budgets and the budgets of individuals and families. States pay for a significant portion of Medicaid spending (funded jointly by states and the federal government for health care services provided to state residents with low incomes). Under PPACA, the Medicaid population is expanding; however, under current law, the federal government will pay for most of the costs associated with the expansion. Increases in private insurance premiums have outpaced the growth of individual and family incomes

over the past decade, and out-of-pocket costs for Medicare beneficiaries have grown faster than Social Security benefits.

Some health care spending is inefficient. For Medicare, if such spending could be identified and eliminated, the efficiencies achieved could result in improved beneficiary health, greater fiscal sustainability for the program, and reduced federal budget pressures. Certain structural features of the Medicare program pose challenges for targeting inefficient spending; however, the Commission has a framework to address those challenges, focusing on payment accuracy and efficiency, care coordination and quality, information for patients and providers, engaged beneficiaries, and an aligned health care workforce. ■



---

## Introduction

---

The Medicare program lies at the junction between the national health care system as a whole and the federal government. For this reason, this chapter reviews the following key areas to help explain the Medicare payment policies discussed in the rest of this report:

- national health care spending and Medicare spending;
- impact of health care spending on federal and state budgets;
- effects of health care spending on individuals and families;
- recent trends in life expectancy, morbidity, and mortality;
- impact of Medicare spending on the quality of health care;
- the next generation of Medicare beneficiaries; and
- evidence of inefficient health care spending.

This chapter also reviews the challenges that Medicare in particular faces and the Commission's principles for constructing recommendations to address those challenges.

---

## National health care spending

---

### Spending growth

The relationship between health care spending growth and the nation's economic growth serves as a gauge for assessing spending trends. For decades, health care spending rose as a share of gross domestic product (GDP), but in the recent past, its growth rate slowed. That general trend has been true both for private health insurance spending and Medicare (Figure 1-1, p. 8). From 1975 to 2009, health care spending as a share of GDP more than doubled, from 7.9 percent to 17.3 percent (\$133 billion to \$2.5 trillion). Private health insurance spending as a share of GDP more than tripled over that period, from 1.8 percent to 5.8 percent (\$31 billion to \$833 billion). Medicare spending as a share of GDP also more than tripled over that period, from 1.0 percent to 3.5 percent (\$16 billion to \$499 billion). In contrast, from 2009

through 2013, total health care, private health insurance, and Medicare spending as a share of GDP remained relatively constant. But beginning in 2014, spending as a share of GDP for all three began rising again (Centers for Medicare & Medicaid Services 2017a).

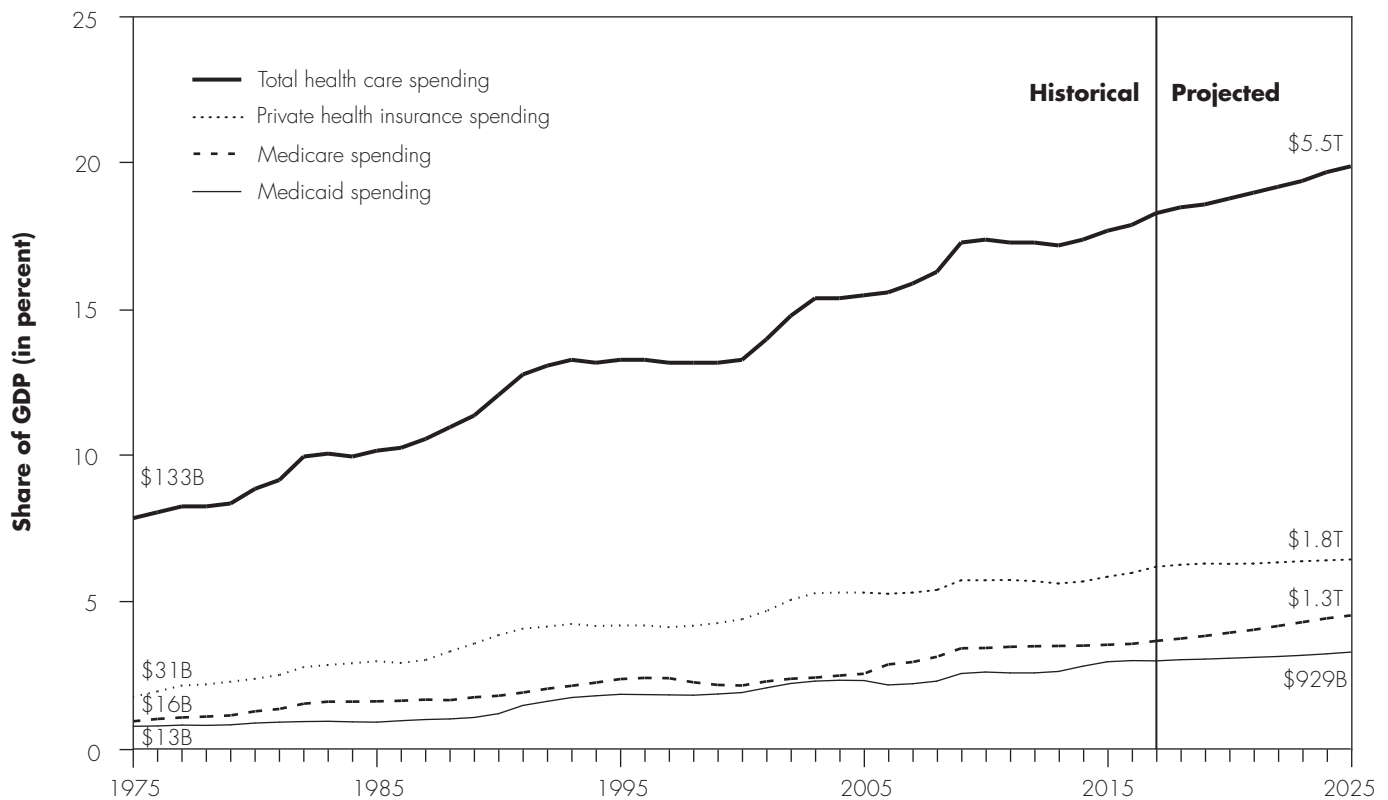
The recent slowdown in the rate of health care spending growth has not been fully explained. Contributing factors could include weak economic conditions, payment and delivery system reforms, lower Medicare payment rates for most types of providers as mandated by the Patient Protection and Affordable Care Act of 2010 (PPACA), and the increased use of generic drugs as top-selling brand drugs lost patent protection (Boards of Trustees 2016, Centers for Medicare & Medicaid Services 2015b, Cutler and Sahni 2013, Holahan et al. 2017).<sup>1</sup>

Medicare actuaries estimate that spending growth was higher from 2013 through 2015 and then slowed somewhat from 2015 to 2016, both for private health insurance and for Medicare (Hartman et al. 2017). Higher growth is projected to continue in 2017 and beyond. From 2009 to 2013, total health care spending growth averaged 3.6 percent annually, while from 2013 to 2015, it averaged 5.4 percent annually. From 2015 to 2016, growth fell to 4.3 percent. By 2016, total health care spending accounted for 17.9 percent of GDP (Centers for Medicare & Medicaid Services 2017a). The growth from 2013 through 2015 was due largely to the increase in the insured population resulting from the implementation of the PPACA health insurance exchanges and the Medicaid expansions, which have since leveled off. The growth in total health care spending from 2013 to 2015 was also due to higher growth in spending for private health insurance—driven largely by hospital care and physician and clinical services, as well as the continued rapid growth in Medicaid and retail prescription drug spending (Hartman et al. 2017, Martin et al. 2016).

From 2009 to 2013, Medicare spending averaged 4.3 percent growth annually. Then, from 2013 to 2015, it grew 4.9 percent annually (Centers for Medicare & Medicaid Services 2017a, Centers for Medicare & Medicaid Services 2017b). Specifically, growth from 2013 to 2014 was “primarily attributable to faster growth in spending for prescription drugs, physician and clinical services, and government administration and the net cost of insurance” (Martin et al. 2015). The growth from 2014 to 2015 was the result of mixed trends among services: Hospital and prescription drug spending growth slowed, while spending growth for nursing home and home health care accelerated

**FIGURE  
1-1**

**Health care spending growth rates have begun to gradually increase following recent slowdown**



Note: GDP (gross domestic product), B (billion), T (trillion). First projected year is 2017. Beginning in 2014, private health insurance spending includes federal subsidies for both premiums and cost sharing for the health care exchanges created by the Patient Protection and Affordable Care Act of 2010.

Source: MedPAC analysis of National Health Expenditure Accounts from CMS, historical data released December 2017, projected data released March 2017.

(Martin et al. 2016). From 2015 to 2016, growth fell to 3.6 percent (Centers for Medicare & Medicaid Services 2017a). The slowdown was due to lower per enrollee growth rates for both the traditional fee-for-service (FFS) program and Medicare Advantage (MA). Medicare enrollment growth peaked at 4.1 percent in 2012 and has since fallen to 2.8 percent in 2016 (Hartman et al. 2017).

Medicare actuaries project that, over the next decade, faster projected growth in medical prices will be partly offset by slower projected growth in the use and intensity of medical goods and services, relative to the high growth that resulted from PPACA coverage expansions. Thus, growth rates for health care spending will average 5.6 percent, outpacing average growth in GDP by 1.2 percentage points. By 2025, total health care spending as

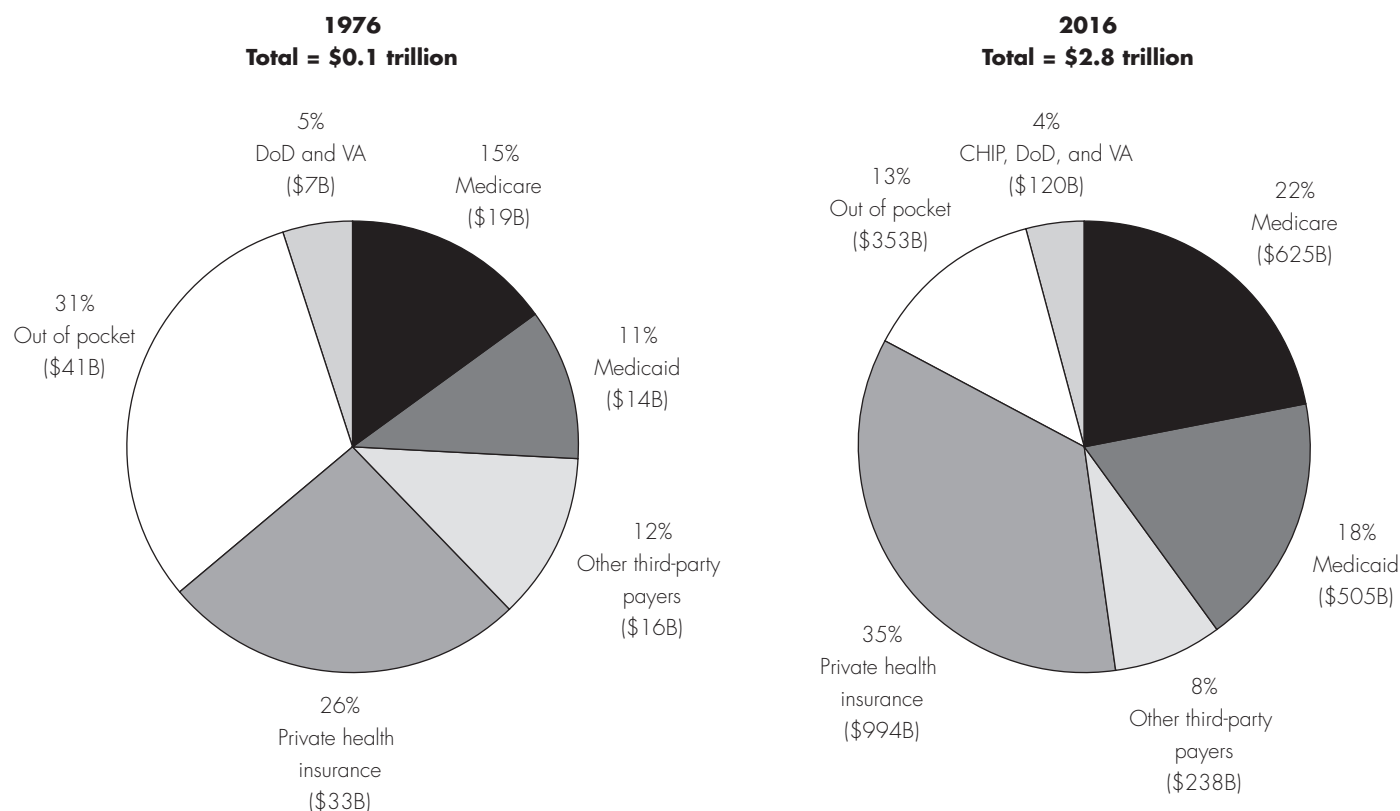
a share of GDP will grow to 19.9 percent (Keehan et al. 2017). In that year, private health insurance spending and Medicare spending are projected to reach 6.5 percent and 4.6 percent of GDP, respectively (Centers for Medicare & Medicaid Services 2017b).

### Personal health care spending

To better understand who is paying for health care, we examine personal health care spending—all medical goods and services provided for an individual's treatment. In 2016, personal health care spending—which excludes spending on government public health activities (e.g., epidemiological surveillance and disease prevention programs), administration of private and public health insurance, and investments in medical research,

**FIGURE  
1-2**

**Out-of-pocket spending as a share of personal health care spending declined, while the share of spending by payers—private, Medicare, and Medicaid—increased, 1976 and 2016**



Note: DoD (Department of Defense), VA (Department of Veterans Affairs), B (billion), CHIP (Children's Health Insurance Program). Spending is in nominal dollars. "Out-of-pocket" spending includes cost sharing for both privately and publicly insured individuals. Premiums are included in the shares of each program (e.g., Medicare and private insurance) rather than in the out-of-pocket category. "Other third-party payers and programs" includes work-site health care, other private revenues, Indian Health Service, workers' compensation, general assistance, maternal and child health, vocational rehabilitation, other federal programs such as the Substance Abuse and Mental Health Services Administration, other state and local programs, and school health.

Source: MedPAC analysis of National Health Expenditure Accounts historical data from CMS, released December 2017.

equipment, and structures—accounted for 85 percent of total health care spending (Centers for Medicare & Medicaid Services 2017a).

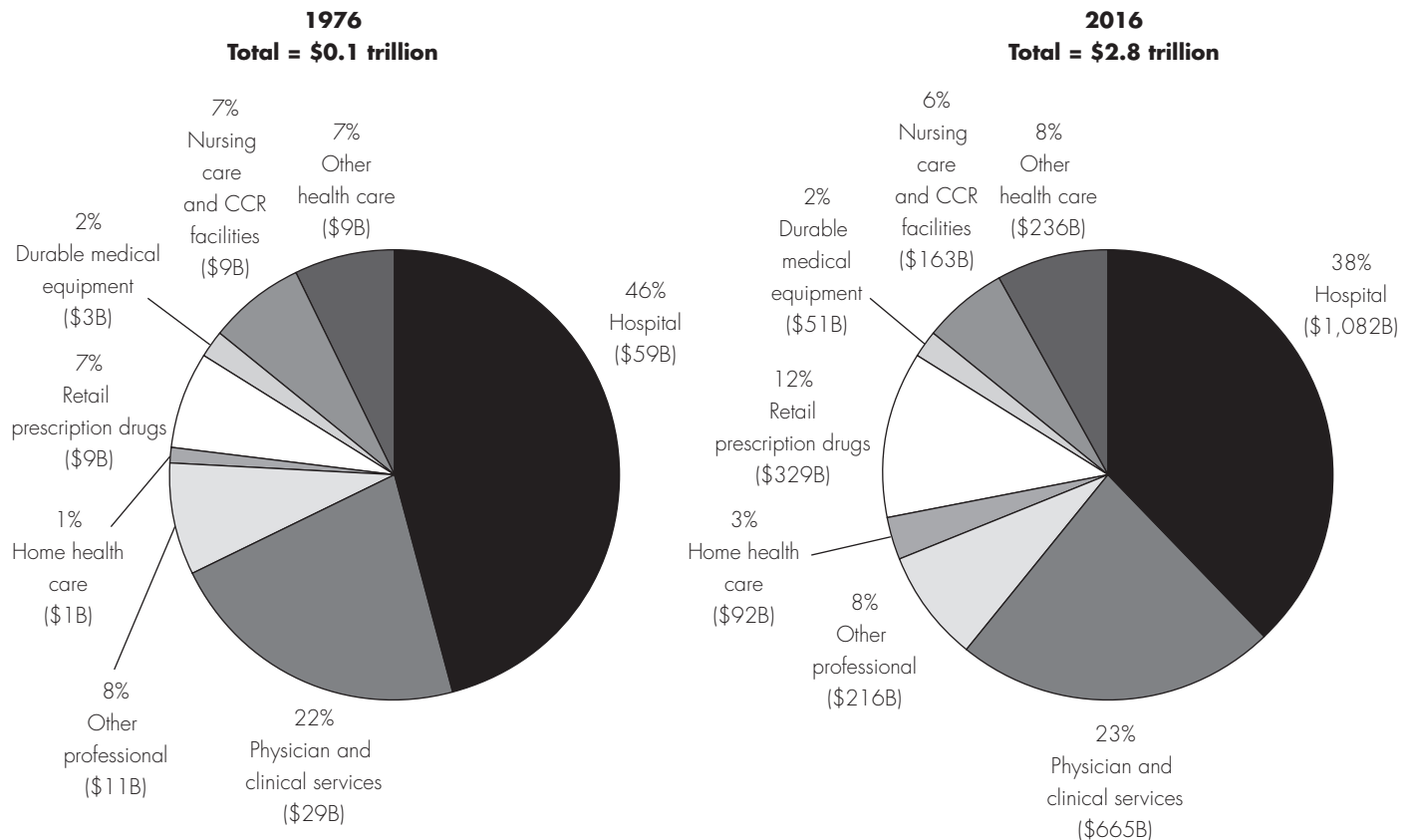
Over the past four decades, total personal health care spending increased from \$0.1 trillion to \$2.8 trillion (Figure 1-2). During this period, out-of-pocket (OOP) spending (e.g., cost sharing, deductibles, and health care services not covered by insurance) as a share of total personal health care spending declined from 31 percent to 13 percent, while the shares accounted for by private

health insurance, Medicare, and Medicaid all increased. At the same time, Medicare has remained the single largest purchaser of health care in the United States (Centers for Medicare & Medicaid Services 2017a, Centers for Medicare & Medicaid Services 2017b).<sup>2</sup>

Despite the decline in the share of health care spending paid directly out of pocket by individuals and the increase in the share of health care spending paid by private and public insurance, people generally have not experienced real declines in the share of health care costs they pay.

**FIGURE  
1–3**

## Hospital care and physician and clinical services accounted for the largest shares of personal health care spending in 1976 and 2016



**Note:** CCR (continuing care retirement), B (billion). "Personal health care" is a subset of national health expenditures. It includes spending for all medical goods and services that are provided for the treatment of an individual and excludes other spending, such as government administration, the net cost of health insurance, public health, and investment. "Other health care" includes expenditures on nondurable medical products and other health, residential, and personal care. "Other professional" includes expenditures on dental and other professional services. "Nursing care facilities" includes nursing care facilities and continuing care retirement communities. "Hospital" includes inpatient care and inpatient prescription drugs.

**Source:** MedPAC analysis of National Health Expenditure Accounts historical data from CMS, released December 2017.

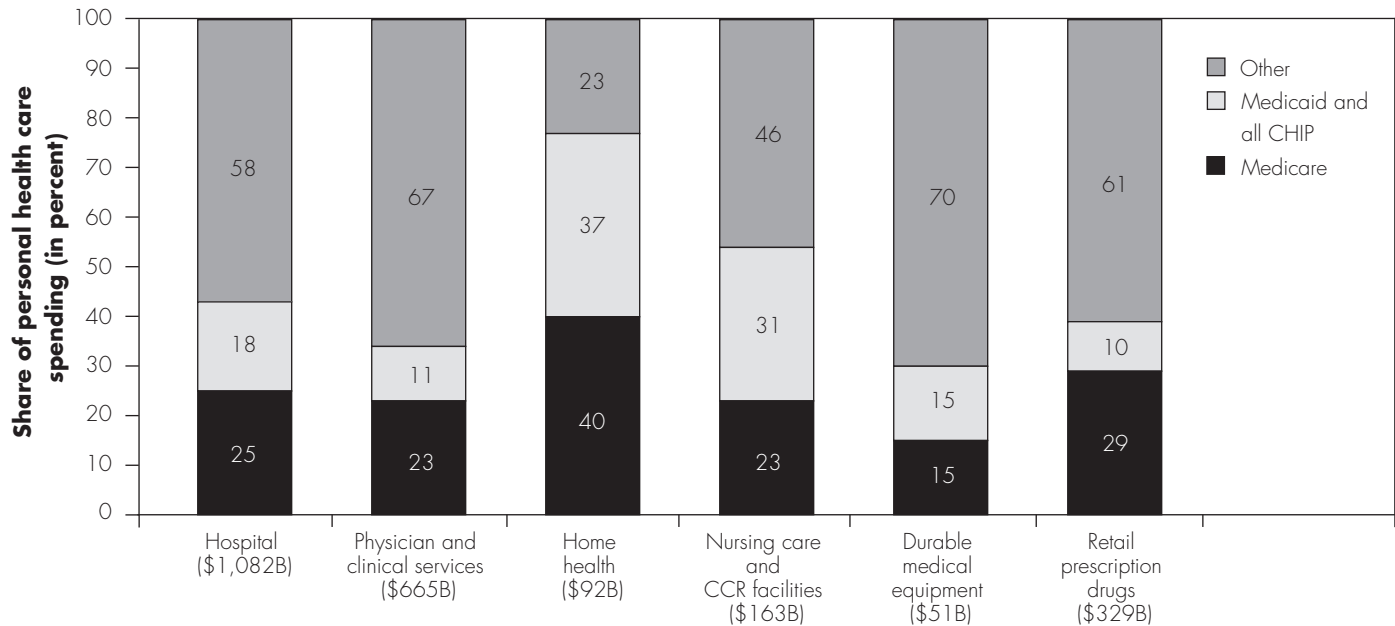
One reason is that, in the commonly defined health care spending categories, the premiums people pay (which have grown over time) are not included in the OOP category but, rather, in the private health insurance and Medicare categories. Second, people receive lower salaries and reduced benefits in exchange for employer-sponsored health insurance (Baicker and Chandra 2006, Gruber 2000, Milusheva and Burtless 2012).

CMS actuaries estimate that, in 2016, Medicare covered about 56 million people, and Medicaid covered about 71 million people. Private health insurance covered 196

million people, and 29 million people were uninsured (Hartman et al. 2017). Enrollment in Medicare, Medicaid, and private health insurance continues to increase because of the aging of the baby-boom generation and the enactment of PPACA, albeit at a slower pace in the most recent year.

Some people have coverage from more than one source. For example, in 2015, about 10 million people were enrolled in both Medicare and Medicaid (Boards of Trustees 2016). Medicaid pays for either a portion or all of the Medicare premium and OOP health care expenses



**FIGURE  
1-4****Medicare's share of spending on personal health care varied by type of service, 2016**

Note: CHIP (Children's Health Insurance Program), B (billion), CCR (continuing care retirement). "Personal health care" is a subset of national health expenditures. It includes spending for all medical goods and services that are provided for the treatment of an individual and excludes other spending, such as government administration, the net cost of health insurance, public health, and investment. "Hospital" includes all services provided in hospitals to patients: room and board, ancillary services such as operating room fees, inpatient and outpatient care, services of resident physicians, inpatient pharmacy, hospital-based nursing home care, hospital-based home health care, and fees for any other services billed by the hospital, such as hospice. "Nursing care and CCR facilities" includes freestanding facilities primarily engaged in providing inpatient nursing, rehabilitative, and continuous personal care services to persons requiring nursing care and continuing-care retirement communities with on-site nursing care facilities. "Other" includes private health insurance, out-of-pocket spending, and other private and public spending. Other service categories included in personal health care that are not shown here include other professional services; dental services; other health, residential, and personal care; and other nondurable medical equipment.

Source: MedPAC analysis of National Health Expenditure Accounts from CMS, historical data released December 2017.

for those enrollees who qualify for dual enrollment based on limited income and resources. Enrollees in public health insurance programs may also have private health insurance. For example, Medicare beneficiaries typically also have supplemental insurance sold by private companies to pay some of the health care costs that Medicare does not cover, such as copayments, coinsurance, and deductibles.

In 2016 as well as 1976, the largest shares of personal health care spending were for hospital care and physician and clinical services (Figure 1-3). In 2016, hospital care accounted for 38 percent of spending (\$1,082 billion), and physician and clinical services accounted for 23 percent (\$665 billion). Smaller shares went to spending on retail prescription drugs (12 percent, or \$329 billion), nursing

care and continuing care retirement facilities (6 percent, or \$163 billion), and home health care services (3 percent, or \$92 billion). Between 1976 and 2016, the share of spending on hospital care declined (from 46 percent to 38 percent), while the share of spending for retail prescription drugs increased (from 7 percent to 12 percent) (Centers for Medicare & Medicaid Services 2017a, Centers for Medicare & Medicaid Services 2017b).

In 2016, Medicare accounted for 22 percent of spending for all personal health care services (Figure 1-2, p. 9), but its share varied by type of service, with a slightly higher share of spending on hospital care (25 percent) and a much higher share of spending on home health services (40 percent) (Figure 1-4). Medicare's share of spending

on nursing care facilities was smaller than Medicaid's share because Medicare's benefit pays for skilled nursing or rehabilitation services only, whereas Medicaid pays for custodial care (assistance with activities of daily living) provided in nursing homes for people with limited income and assets. Other service categories included in personal health care that are not shown in Figure 1-4 include other professional services; dental services; other health, residential, and personal care; and other nondurable medical equipment.

---

## Medicare spending

---

Medicare spending can be divided into three program components: the traditional FFS program, the MA program, and the Part D prescription drug program.

- **Medicare's traditional fee-for-service program.** In FFS, Medicare pays health care providers directly for health care goods and services furnished to Medicare FFS beneficiaries at prices set through legislation and regulation. In 2016, Medicare spent \$384 billion, or \$10,079 per beneficiary in traditional FFS.<sup>3</sup>
- **Medicare Advantage program.** As an alternative to FFS, beneficiaries can choose to enroll in MA, which consists of private health plans that receive capitated payments (or per enrollee payments) for providing health care coverage for enrollees. MA plans pay health care providers for health care goods and services furnished to their enrollees at prices negotiated between the plans and providers. In 2016, Medicare spent \$188 billion, or \$10,231 per beneficiary in MA.
- **Medicare Part D prescription drug program.** Through Part D, beneficiaries can obtain subsidized prescription drug coverage by voluntarily purchasing insurance policies from private stand-alone drug plans or MA prescription drug plans. Medicare heavily subsidizes the premiums established by those plans. In 2016, Medicare spent \$79 billion, inclusive of Part D premiums, or \$1,827 per beneficiary in Part D.

Growth in per beneficiary spending tends to differ across the three program components. From 2009 to 2013, growth was fairly slow across all three (Figure 1-5). More mixed trends emerged between 2013 and 2016. The lower

growth rates were generally because of decreased use of health care services and restrained payment rate increases.

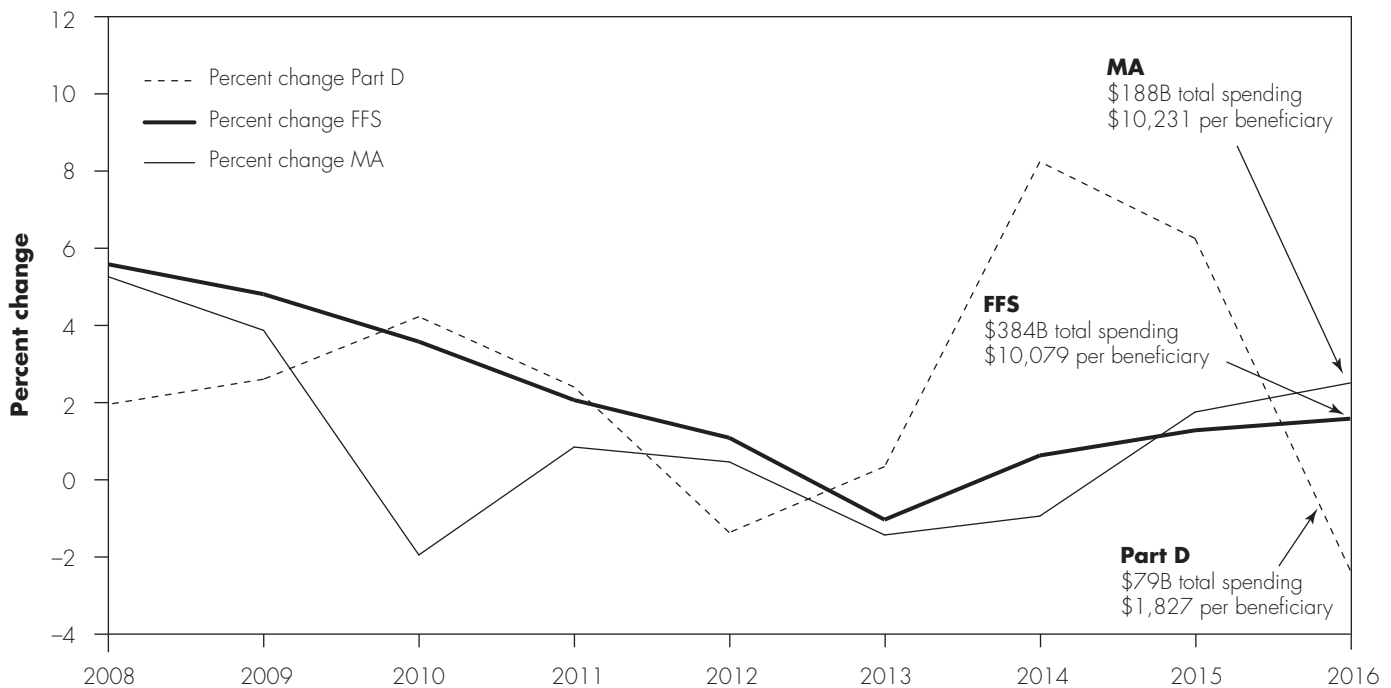
From 2013 to 2016, FFS per beneficiary spending growth averaged 1.2 percent annually. PPACA lowered payment rate updates in FFS for many types of providers (except for physicians) beginning in 2011. However, beginning in 2014, FFS spending grew because of an increase in per beneficiary spending on a wide range of outpatient services, including services received in hospital outpatient departments and physician services.

From 2013 to 2016, MA per beneficiary spending growth averaged 1.1 percent annually. Historically, Medicare has spent more for a beneficiary enrolled in MA than if that same beneficiary had been enrolled in FFS. To bring payments more in line with FFS, PPACA began lowering payments to plans in 2011. MA's growth rate would therefore have been lower, but the PPACA payment reductions were offset somewhat by quality bonus payments and plans' increased coding of beneficiaries' medical conditions (payments to MA plans are higher when beneficiaries have more medical conditions, all other things being equal).

Part D per beneficiary spending growth has fluctuated the most of the three program components over the past decade. However, from 2010 to 2013, average per beneficiary spending was somewhat constant, growing from \$1,600 to \$1,650 per year.<sup>4</sup> The low growth for those years was in part due to the increase in low-priced generic drugs on the market and plans' efforts to encourage beneficiaries to use generics and other low-priced drugs.

However, in both 2014 and 2015, per beneficiary spending growth in excess of 6 percent caused Part D spending to spike to \$1,871 per beneficiary. Increased spending on high-priced specialty drugs to treat hepatitis C mainly accounts for this jump. For 2016, the surge of hepatitis C drug spending tapered off while Part D enrollment continued to grow, which contributed to per Part D enrollee spending declining by 2.3 percent to \$1,827 (Boards of Trustees 2017). The Medicare Trustees project the annual growth in per beneficiary Part D spending from 2017 to 2026 to remain higher than growth in other spending categories of spending, averaging 5 percent per year (Boards of Trustees 2017).

Figure 1-6 (p. 14) provides a more detailed look at FFS spending growth over the last decade. Generally, all settings experienced a slowdown in per beneficiary

**FIGURE  
1–5****Growth in per beneficiary Medicare spending was slow between 2009 and 2013 and mixed between 2013 and 2016**

Note: FFS (fee-for-service), MA (Medicare Advantage), B (billion). Spending is on an incurred basis. Part D spending excludes total premiums paid to Part D plans by enrollees. We calculate per beneficiary spending by dividing total spending for each category reported in the Trustees report by the appropriate enrollment number (i.e., for Part A, Part B, or Part D) reported in the Trustees report.

Source: MedPAC analysis of data from the 2017 annual report of the Boards of Trustees of the Medicare trust funds.

spending growth; however, the impact was not uniform. For example, for inpatient hospital care, the average annual growth in per beneficiary spending fell from 2.4 percent in the period from 2007 to 2009 to –0.5 percent in the period from 2013 to 2016. Even the fastest growing categories experienced some reductions. For example, the average annual per beneficiary spending growth in outpatient hospital and lab services was lower between 2009 and 2013 (6.7 percent) than between 2007 and 2009 (8.2 percent) but bounced back to 7.5 percent between 2013 and 2016 annually, in part because of shifts in site of care from both the inpatient hospital setting and physician offices to the outpatient hospital setting.<sup>5</sup> As a reference point, average annual growth in GDP between 2007 and 2016 was about 2.8 percent (data not shown).

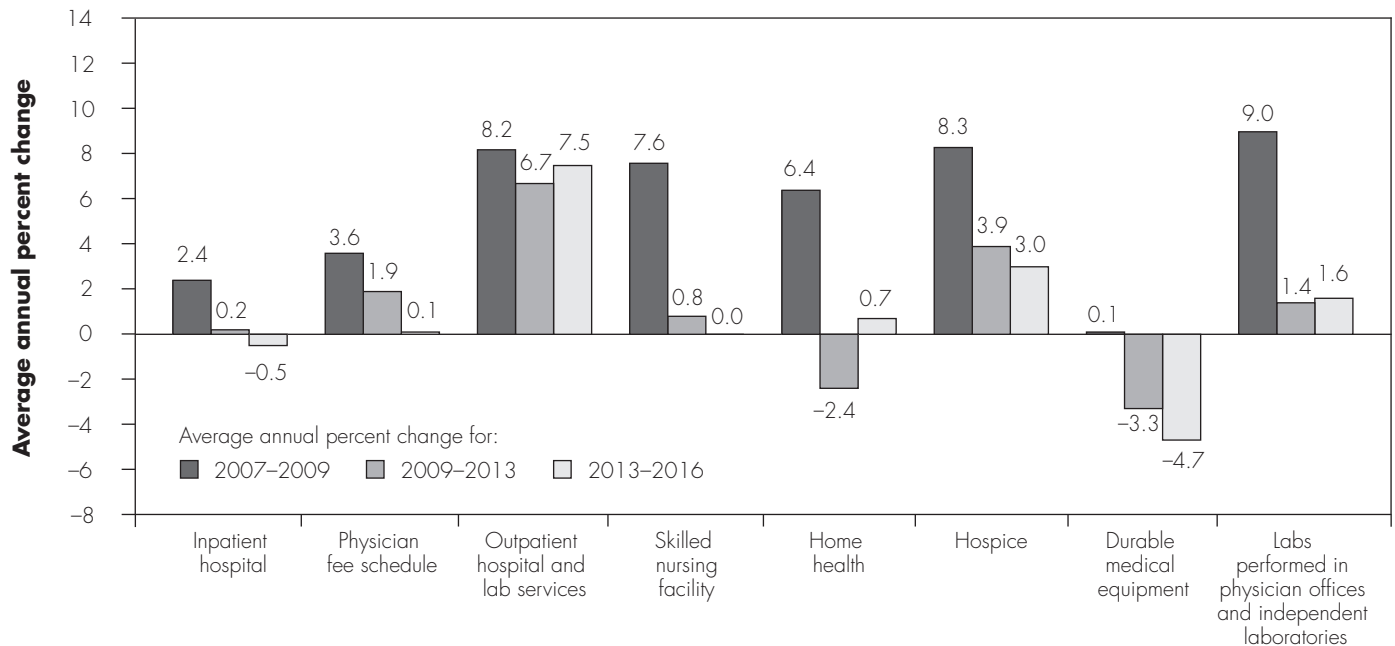
Despite the recent slowing of growth rates, cumulative growth in per beneficiary FFS spending over the last decade has increased in almost all settings and increased

substantially in some settings. Per beneficiary spending on outpatient hospital and lab services, hospice, and labs performed in physician offices and independent laboratories all grew faster than per capita GDP. In contrast, during this time, per beneficiary spending on durable medical equipment fell by an average of 3.3 percent per year. That decline was primarily due to the phasing in of a competitive bidding program for durable medical equipment in which suppliers submit bids to provide services to beneficiaries.

Prior Commission reports have explored the relationship between inpatient, outpatient, and physician services and found that growth in outpatient services in part reflects hospitals purchasing freestanding physician practices and billing these services through the higher paying hospital outpatient prospective payment system (Medicare Payment Advisory Commission 2015, Medicare Payment Advisory Commission 2014b, Medicare Payment

**FIGURE  
1-6**

**Per beneficiary FFS spending growth remained high in some settings despite 2009–2013 slowdown in growth of health care spending, 2007–2016**



Note: FFS (fee-for-service). We calculate per beneficiary spending by dividing total spending for each category reported in the Trustees report by the appropriate enrollment number (i.e., for Part A, Part B, or Part D) reported in the Trustees report. Outpatient hospital services and outpatient lab services are combined in the figure because a large portion of outpatient laboratory services were bundled into the outpatient prospective payment system effective January 1, 2014.

Source: MedPAC analysis of data from the 2017 annual report of the Boards of Trustees of the Medicare trust funds.

Advisory Commission 2013, Medicare Payment Advisory Commission 2012).

### Comparison of private sector and Medicare spending trends

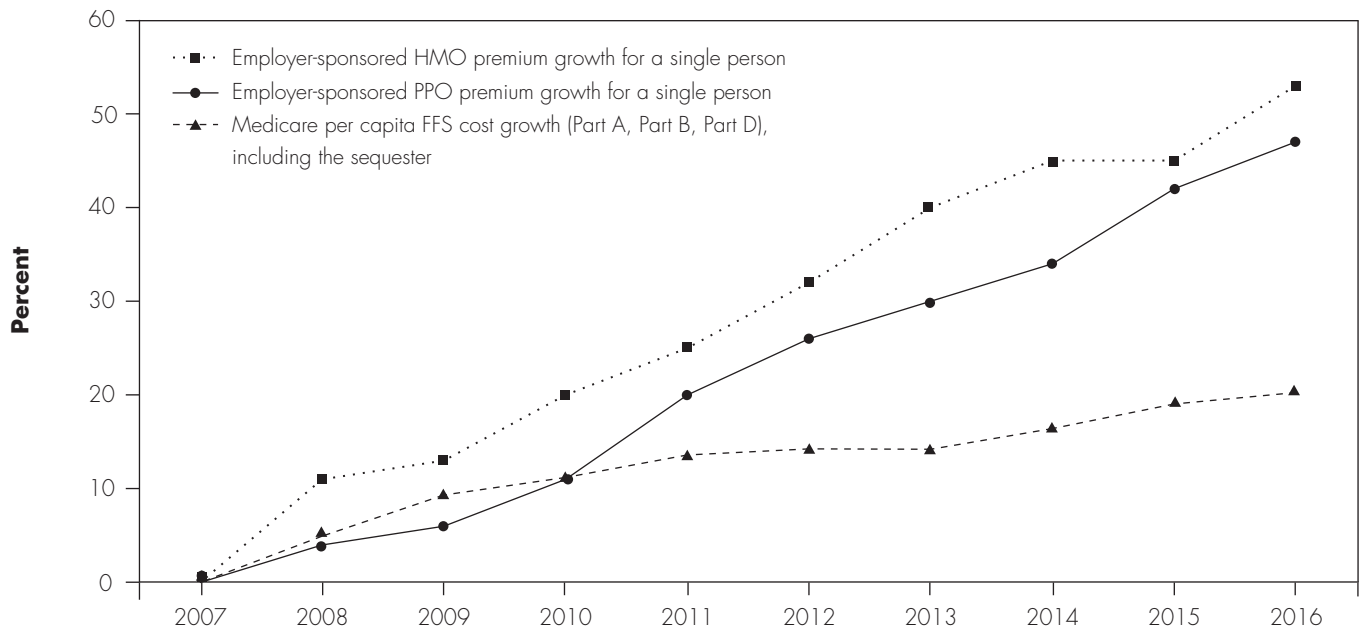
From 2010 to 2015, per capita spending on health care in the private sector grew steadily (Health Care Cost Institute 2016, Health Care Cost Institute 2015). Increased prices were largely responsible for spending growth, which occurred despite a decline in service use. One key driver of the private sector's higher prices was provider market power (Baker et al. 2014a, Baker et al. 2014b, Gaynor and Town 2012, Medicare Payment Advisory Commission 2017, Robinson and Miller 2014). Hospitals and physician groups have increasingly consolidated, in part to gain leverage over insurers in negotiating higher payment rates. For the private sector, that consolidation contributed to per capita spending growth from 2010 to 2015 of 3.2 percent annually. By comparison, over that same period, Medicare spending per beneficiary increased by 1.3 percent annually

(Martin et al. 2016). This increase is partly attributable to restrained increases in Medicare's payment rates.

On average, since 2007, commercial insurance prices have grown faster than Medicare's prices (Health Care Cost Institute 2016, Medicare Payment Advisory Commission 2017). The faster growth in provider prices from 2007 to 2016 has contributed to HMO premiums growing by 53 percent and preferred provider organization (PPO) premiums by 47 percent (Figure 1-7).

To compare employer-sponsored plans' premium growth with Medicare cost growth, we examined per capita spending for beneficiaries with FFS Medicare, including per capita spending on Part A, Part B, and Part D. Over the period from 2007 to 2016, combined Medicare per capita costs grew by about 20 percent. If FFS Medicare spending had followed growth in commercial pricing, Medicare costs would have grown substantially more.

Regulators and researchers have noted concerns about increased consolidations and their effect on prices. In

**FIGURE  
1-7****Cost of employer-sponsored commercial insurance  
has grown more than twice as fast as Medicare costs**

Note: HMO (health maintenance organization), PPO (preferred provider organization), FFS (fee-for-service). Medicare spending is reported including the effects of the sequester, which reduced program spending by 2 percent.

Source: Employer-sponsored premium data from Kaiser Family Foundation surveys, 2007 through 2016. Medicare spending figures from Part A and Part B spending data from CMS actuaries; Part D spending per capita figures through 2015 from MedPAC analysis of claims and reinsurance data for individuals with Part D coverage. Part D spending for 2016 is a projection based on MedPAC analysis.

2015, the number of hospital mergers increased 18 percent from the prior year and 70 percent from 2010 (Ellison 2016). Consolidation of clinician practices has also increased; a study of available data found a 47 percent jump from 2014 (Irving Levin Associates Inc. 2016). The American Medical Association's survey of physicians indicates that, over time, physicians have shifted from solo and small practices to larger practices (Kane 2015). The Government Accountability Office (GAO) found that, between 2007 and 2013, the number of physicians in "vertically consolidated" practices—hospital-acquired physician practices, physicians hired as salaried employees, or both—nearly doubled (Government Accountability Office 2015). In addition, the Federal Trade Commission observed that "providers increasingly pursue alternatives to traditional mergers such as affiliation arrangements, joint ventures, and partnerships, all of which could also have significant implications for competition" (Federal Trade Commission 2016). Increased

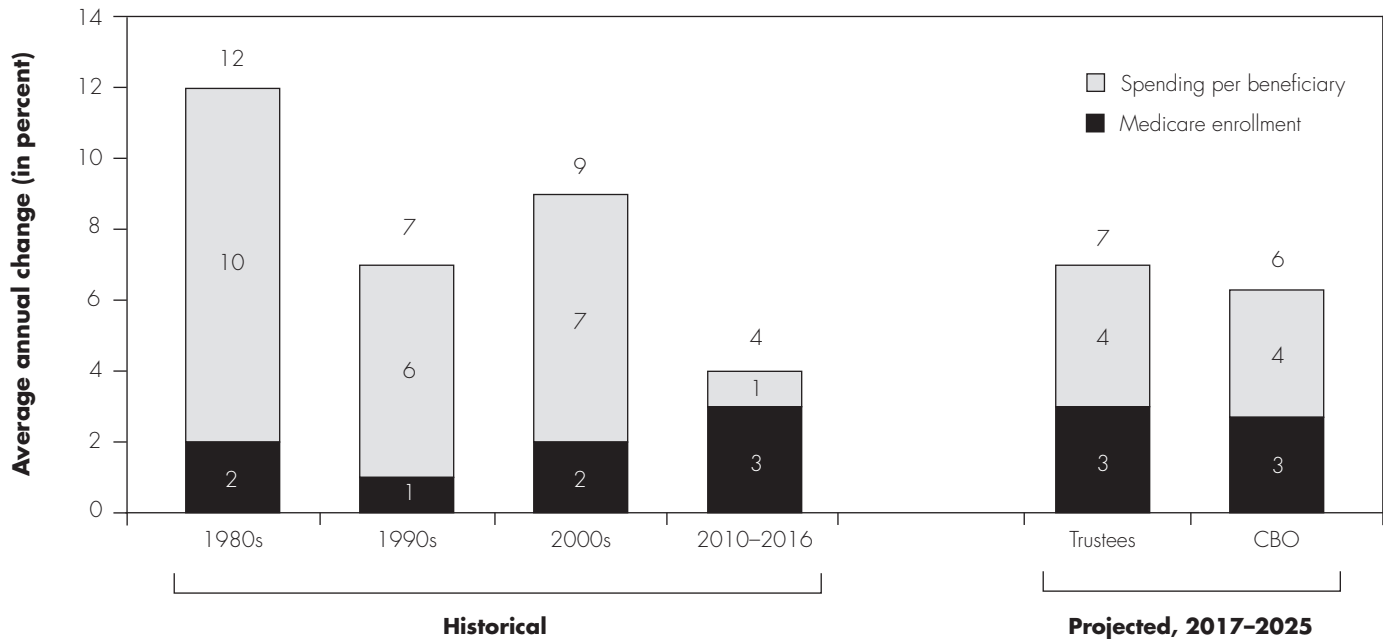
consolidation has an inflationary effect on prices paid in the private sector. A recent study found that disparity in hospital prices within regions is the primary driver of variation in health care spending for the privately insured (Cooper et al. 2015). The study shows that hospitals that face fewer competitors have substantially higher prices; hospital prices in monopoly markets are more than 15 percent higher than those in areas with four or more competitors. It also found that, where hospitals face only one competitor, prices are over 6 percent higher; where they face two, almost 5 percent higher.

The Commission recently investigated the effect of provider consolidation on private prices and the pressure that has created for Medicare to increase FFS payment rates (Medicare Payment Advisory Commission 2017). The Commission presented the following key findings:

- Markets with greater physician practice consolidation have had greater increases in physician prices.

**FIGURE  
1–8**

**Despite recent slowdown in per beneficiary spending growth, total Medicare spending growth rate is projected to rise**



Note: CBO (Congressional Budget Office). Components of average annual changes may not sum to totals due to rounding.

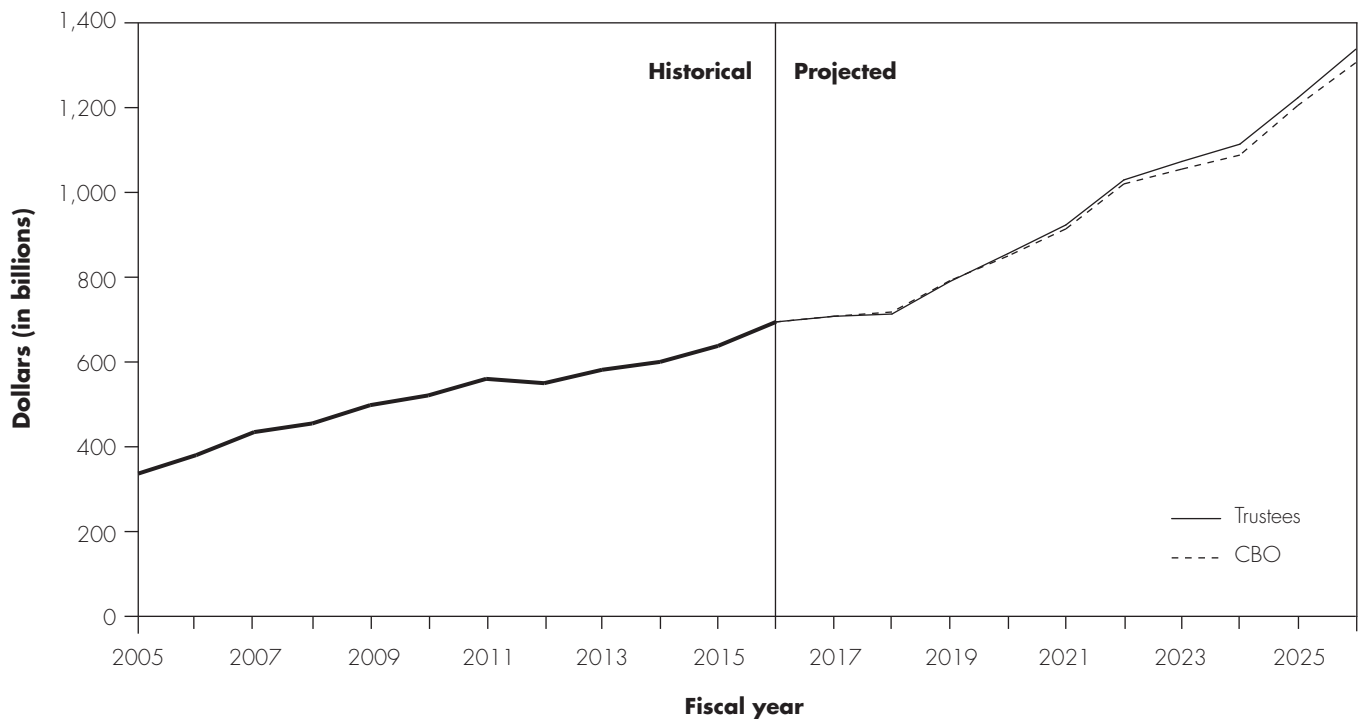
Source: 2017 annual report of the Boards of Trustees of the Medicare trust funds and CBO's Medicare June 2017 baseline.

- Commercial insurers pay small independent physician practices at rates similar to Medicare for standard office visits. However, physicians in large practices and hospital-affiliated practices (who have stronger market power) receive higher rates from insurers for those visits.
- Commercial insurers also pay higher rates to hospitals with greater market power. Gaynor and colleagues report that “mergers between rival hospitals are likely to raise the price of inpatient care and these effects are larger in concentrated markets. The estimated magnitudes are heterogeneous and differ across market settings, hospitals, and insurers” (Gaynor et al. 2014).
- Commercial prices vary widely by individual hospital and individual insurer. On average, commercial prices are about 50 percent higher than average hospital costs and are often far more than 50 percent above Medicare payment rates (Cooper et al. 2015, Health Care Cost Institute 2014, Medicare Payment Advisory Commission 2014a, Selden et al. 2015).

The Commission is concerned that these market concentration effects will lead to higher Medicare spending if commercial prices are “imported” into Medicare. The Commission has tried to counteract these effects by recommending restrained payment updates and by recommending site-neutral payments (paying the same for a service regardless of the setting of care). Medicare beneficiaries have robust access to hospital and physician services in most markets. And with respect to hospital services, given the low occupancy rates and the marginal profits of taking a Medicare patient, access to care is unlikely to be of concern in the near term (Medicare Payment Advisory Commission 2017).

Over time, private sector trends can influence Medicare trends. If the private sector is unable to constrain price growth, the profitability of caring for commercially insured patients will increase relative to the profitability of caring for Medicare beneficiaries. Eventually, the difference between commercial rates and Medicare rates will grow so large that more hospitals would have an incentive to focus primarily on patients with commercial



**FIGURE  
1-9****Trustees and CBO project Medicare annual  
spending to reach \$1 trillion by 2022**

Note: CBO (Congressional Budget Office).

Source: 2017 annual report of the Boards of Trustees of the Medicare trust funds and CBO's Medicare June 2017 baseline.

insurance, which will exert pressure on the Medicare program to increase its payment rates. Thus, in the long term, Medicare beneficiaries' access to care may in part depend on commercial payers restraining rates paid to hospitals (Medicare Payment Advisory Commission 2009, Stensland et al. 2010, White and Wu 2014).

### Medicare spending projections

What do these current trends portend for Medicare? The growth in Medicare's per beneficiary spending has fallen from average annual rates of 10 percent in the 1980s and 6 percent and 7 percent in the 1990s and 2000s (respectively) to 1 percent over the last five years (Figure 1-8). This average annual growth over the last five years, however, includes some zero-growth years.

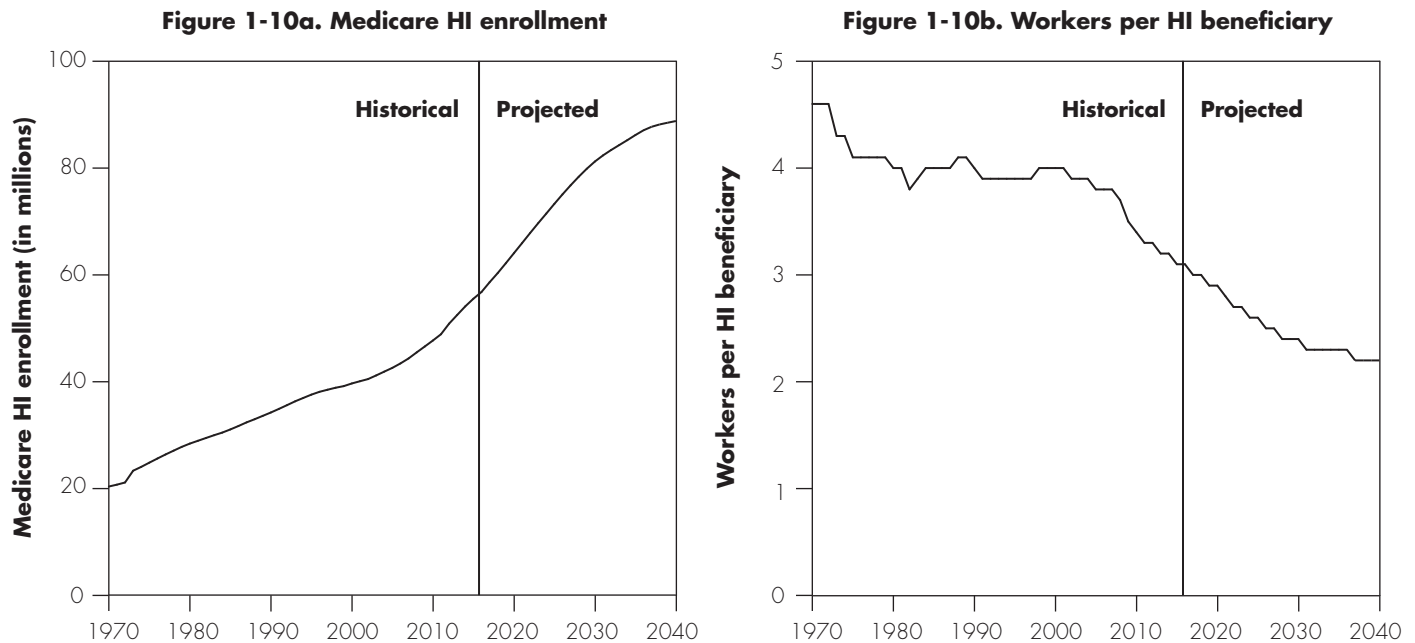
For the next 10 years, the Trustees and the Congressional Budget Office (CBO) project that growth in per beneficiary spending will be higher than the recent lows but lower than the historical highs, with an average

annual growth rate of 4 percent (Boards of Trustees 2017, Congressional Budget Office 2017c). High spending growth could trigger a PPACA provision designed to limit Medicare spending growth by the Independent Payment Advisory Board.

At the same time, the aging of the baby-boom generation is causing an enrollment increase. Over the last few years, the enrollment growth rate rose from about 2 percent per year historically to 3 percent and is projected to continue growing throughout the next decade. So, despite the slowdown in spending per beneficiary (relative to historical standards), growth in total spending over the next decade is projected by the Trustees and CBO to average 7 percent annually, which outpaces the projected average annual GDP growth of less than 5 percent. At those rates, Medicare annual spending would rise from nearly \$700 billion in fiscal year 2016 to \$1 trillion by 2022 under either projection (Figure 1-9) (Boards of Trustees 2017, Congressional Budget Office 2017a).

## FIGURE 1-10

### Medicare enrollment is rising while workers per HI beneficiary is declining



Note: HI (Hospital Insurance). Hospital Insurance is also known as Medicare Part A.

Source: 2017 annual report by the Boards of Trustees of the Medicare trust funds.

## Medicare's financing challenge

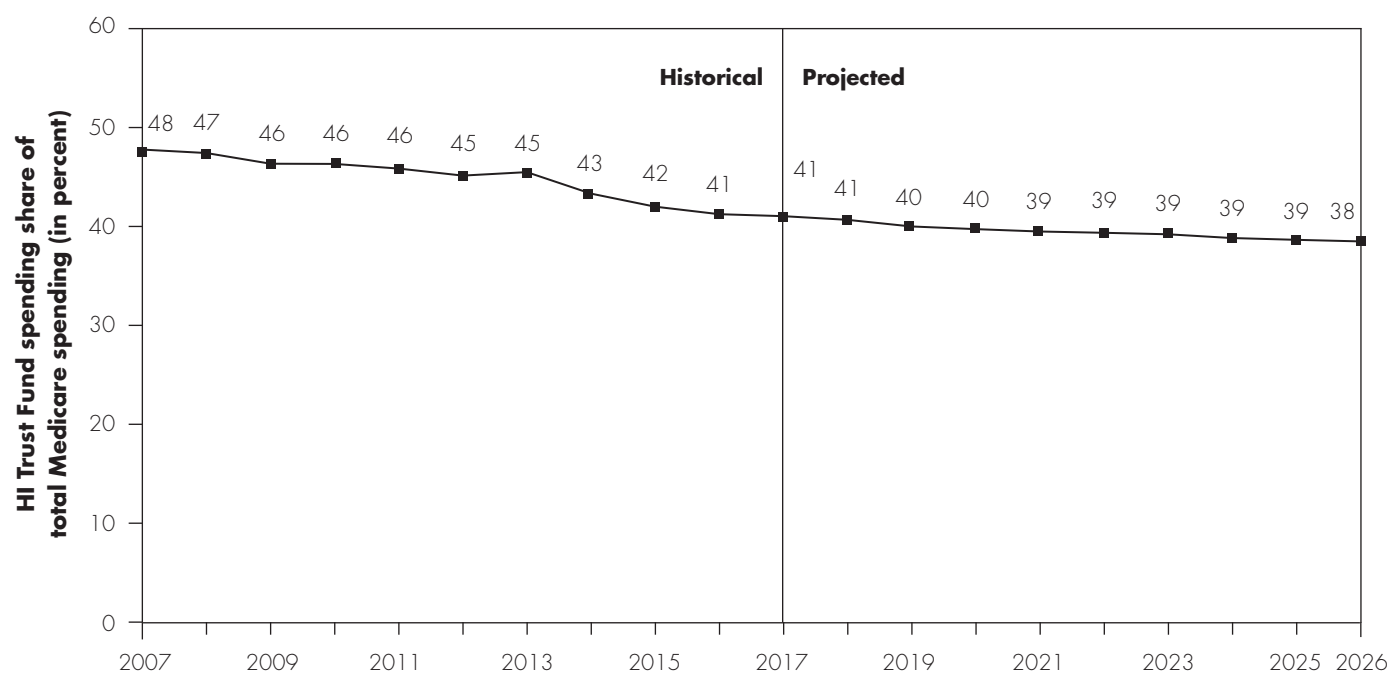
The aging of the baby-boom generation will have a profound impact both on the Medicare program and the taxpayers who support it. Workers pay for the Medicare program through payroll taxes and taxes that are deposited into the general fund of the Treasury. The number of workers per Medicare beneficiary has already declined from about 4.6 around the program's inception to 3.1 in 2016 (Figure 1-10). Over the next 15 years, as Medicare enrollment surges, the number of workers per beneficiary is projected to decline further. By 2030 (the year by which all baby boomers will have aged into Medicare), the Medicare Trustees project just 2.4 workers for each Medicare beneficiary.<sup>6</sup>

These demographics create a financing challenge for the Medicare program.<sup>7</sup> Since payroll tax revenues are not growing as fast as Part A spending, the Trustees project that Medicare's Hospital Insurance (HI) Trust Fund will

become insolvent by 2029—one year later than predicted in last year's report—but that date does not tell the whole financial story (Boards of Trustees 2017). The HI Trust Fund covers less than half of Medicare spending (41 percent in 2016), and that share is projected to fall to 38 percent by 2026 (Figure 1-11). The Supplementary Medical Insurance (SMI) Trust Fund covers the remainder and is described on page 19. The HI Trust Fund pays for Medicare Part A services, such as inpatient hospital stays, skilled nursing facilities, and hospice, and is largely (88 percent in 2015) funded through a dedicated payroll tax (i.e., a tax on wage earnings).<sup>8</sup>

To keep the HI Trust Fund solvent over the next 25 years, the Trustees estimate that either the payroll tax would need to be increased immediately by 18 percent, rising from its current rate of 2.90 percent to 3.43 percent, or Part A spending would need to be reduced immediately by 13 percent (Boards of Trustees 2017).<sup>9</sup> (For projection periods of 50 years and 75 years, see Table 1-1, p. 20.)



**FIGURE  
1-11****The HI Trust Fund covers a declining share of total Medicare spending**

Note: HI (Hospital Insurance). Hospital Insurance is also known as Medicare Part A. The rest of Medicare spending is covered by the Supplementary Medical Insurance Trust Fund, which comprises Part B and Part D.

Source: 2017 annual report of the Boards of Trustees of the Medicare trust funds.

Under current law, once the HI Trust Fund is depleted, payments to providers would be reduced to levels that could be covered by incoming tax and premium revenues. However, the Trustees note that:

If the projections reflected such payment reductions, then any imbalances between payments and revenues would be automatically eliminated, and the [Trustees] report would not serve its essential purpose, which is to inform policymakers and the public about the size of any trust fund deficits that would need to be resolved to avert program insolvency. To date, lawmakers have never allowed the assets of the Medicare HI Trust Fund to become depleted. (Boards of Trustees 2017)

The rest of Medicare benefit spending is covered by SMI. It covers services under Part B (physician services and other ambulatory care received in hospital outpatient

departments) and Part D (prescription drug coverage). SMI is a trust fund in name only; it has no funding through a dedicated tax such as there is with the HI Trust Fund. Specifically, Part B and Part D are financed by premiums paid by beneficiaries (covering 25 percent of spending) and general tax revenues plus federal borrowing (covering 75 percent of spending), which are reset each year to match expected Part B and Part D spending.<sup>10</sup>

Since premiums and transfers are set to grow at the same rate as Part B and Part D spending, the SMI Trust Fund is expected to remain solvent by construction. However, as SMI spending rises, premiums and transfers from the nation's Treasury to the Medicare program also grow, increasing deficits, the debt, and the strain on household budgets both of workers and retirees, and—assuming no other policy or legislative interventions—reducing the resources available to make investments that expand future economic output (e.g., investments in education, transportation, and research and development).

**TABLE  
1-1**

**Increase in payroll tax or decrease in HI spending needed to maintain HI Trust Fund solvency for specific time periods**

<b>To maintain HI Trust Fund solvency for:</b>	<b>Increase 2.9 percent payroll tax by:</b>	<b>Or decrease HI spending by:</b>
25 years (2017–2041)	18%	13%
50 years (2017–2066)	22	14
75 years (2017–2091)	22	14

Note: HI (Hospital Insurance). Hospital Insurance is also known as Medicare Part A.

Source: MedPAC analysis of 2017 annual report of the Boards of Trustees of the Medicare trust funds.

For a more complete financial picture, consider the combined spending and sources of income from the two trust funds. The top line of Figure 1-12 depicts total Medicare spending as a share of GDP; the layers below the line represent sources of Medicare income. Medicare’s three primary sources of income are payroll taxes, premiums paid by beneficiaries, and general revenue transfers. The white space below the total Medicare spending line in Figure 1-12 represents the Part A deficit created when payroll taxes fall short of Part A spending. Figure 1-12 reflects projections in the Medicare Trustees’ report, which are based on current law with the exception of disregarding payment reductions that would result from the projected depletion of the HI Trust Fund. Under current law, payments to Part A providers would be reduced to levels that could be covered by incoming tax and premium revenues when the HI Trust Fund becomes depleted. Thus, as Medicare actuaries and others have observed, total Medicare spending would be shifted down from the total projected spending by an amount equal to the Part A deficit, as presented in Figure 1-12 (Aaron 2015, Spitalnic 2016). As described above, the actuaries note that if the projections reflected such payment reductions, then any imbalances between payments and revenues would be automatically eliminated. To date, lawmakers have never allowed the assets of the Medicare HI Trust Fund to become depleted (Centers for Medicare & Medicaid Services 2014).

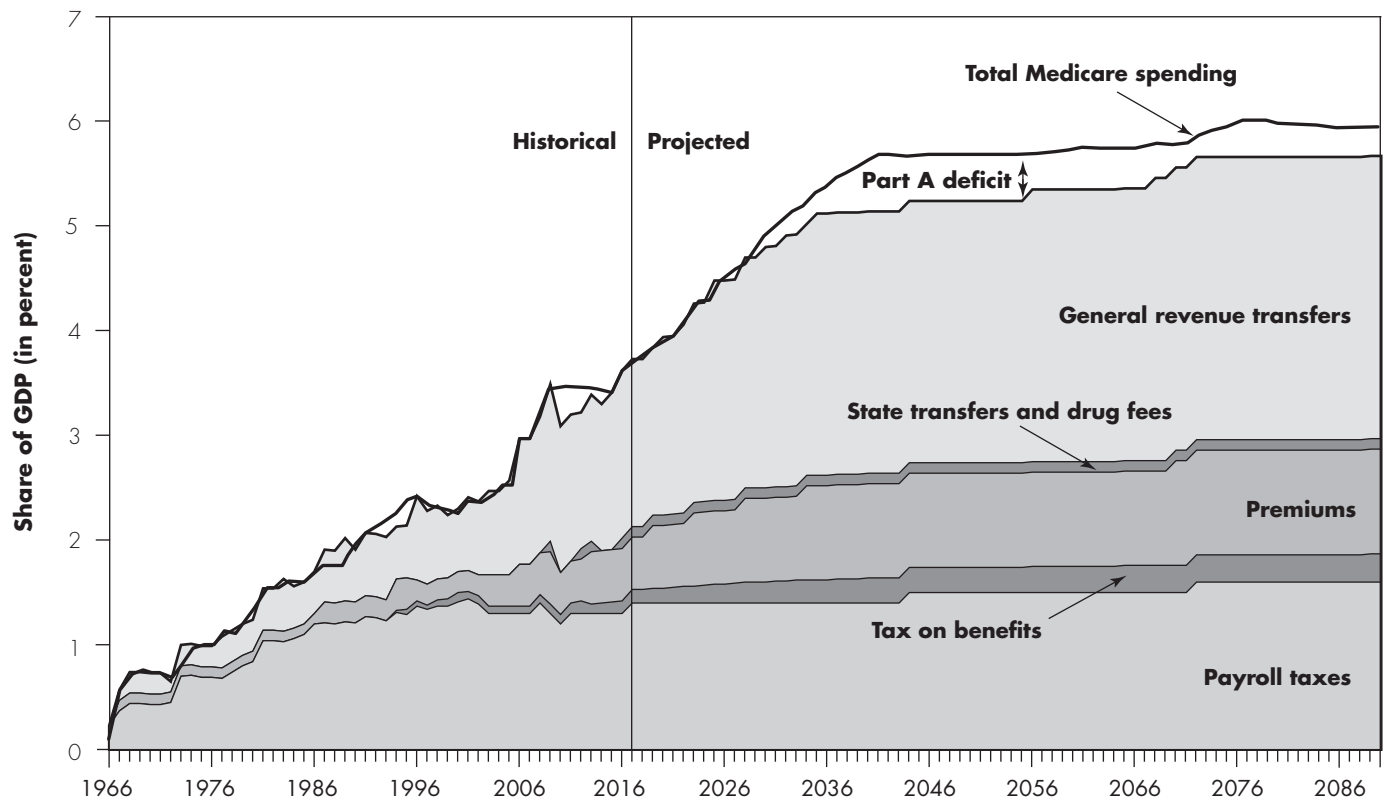
Undeniably, the Part A deficit is a financing challenge, but so too is the large and growing share of Medicare spending funded through general revenues. General revenues account for 43 percent of Medicare funding today and, under current law, are projected to grow to 48 percent by 2030; notably, in this context, general revenues include both general tax revenue as well as federal borrowing

since, with few exceptions, federal spending has exceeded federal revenues since the Great Depression.

To understand why the growing reliance on general revenues presents a financing challenge, consider the situation from the perspective of the federal budget. The line at the top of Figure 1-13 (p. 22) represents total federal spending as a share of GDP; the line below spending represents total federal revenues. The difference between these two lines represents the budget deficit, which must be covered by federal borrowing. For most years over the past several decades, the federal government has spent more than it collects in revenues, increasing the federal debt to levels not seen since World War II. Federal revenues have remained relatively constant even though the federal government has taken responsibility for a broader array of services (e.g., the Children’s Health Insurance Program).

The layers below the top line in Figure 1-13 (p. 22) depict federal spending by program. Under current law, Medicare spending is projected to rise from 3.1 percent of our economy in 2017 to about 6 percent of our economy in 2046 (Congressional Budget Office 2017a). In fact—assuming no other policy or legislative interventions—spending on Medicare, Medicaid, the other major health programs, Social Security, and net interest payments are projected to reach almost 20 percent of the nation’s economy by 2039 and, by themselves, will exceed total federal revenues.<sup>11</sup>

Moreover, the projection assumes that federal revenues will rise above 19 percent of GDP, above the historical average of 17 percent of GDP. The increase in revenues is projected to occur mainly because income is projected to grow more rapidly than inflation, pushing more income

**FIGURE  
1-12****General revenue is paying for a growing share of Medicare spending**

Note: GDP (gross domestic product). "Tax on benefits" refers to the portion of income taxes that higher income individuals pay on Social Security benefits that is designated for Medicare. "State transfers" (often called the Part D "clawback") refers to payments from the states to Medicare, required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, for assuming primary responsibility for prescription drug spending. "Drug fees" refers to the fee imposed by the Patient Protection and Affordable Care Act of 2010 on manufacturers and importers of brand-name prescription drugs. These fees are deposited in the Part B account of the Supplementary Medical Insurance Trust Fund.

Source: 2017 annual report of the Boards of Trustees of the Medicare trust funds.

into higher inflation-indexed tax brackets over time. However, if federal revenues continue at their historical average of 17 percent of GDP, spending on these major programs and net interest payments would exceed total federal revenues even sooner.

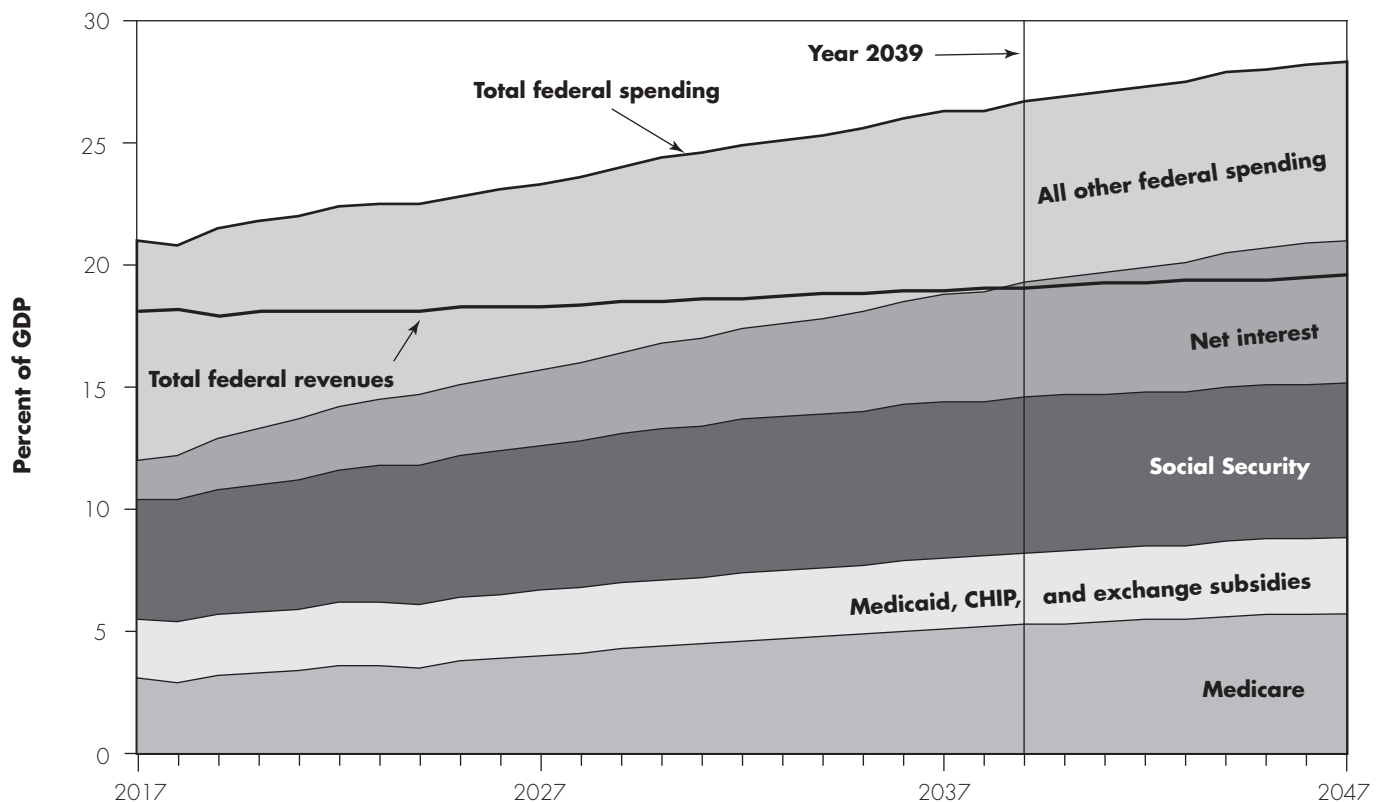
Note that the trends shown in Figure 1-13 are based on CBO's budget projections published before the Tax Cuts and Jobs Act of 2017 was enacted. According to CBO and the Joint Committee on Taxation, the Act will reduce revenues by about \$1,649 billion and decrease federal spending by about \$194 billion over the period from 2018 to 2027, leading to an increase in the deficit of about \$1.5

trillion over the next 10 years (Congressional Budget Office 2017b). A temporary spending bill waived the 2010 "pay-as-you-go" law, or PAYGO, requirement that would have triggered an automatic spending cut to Medicare. However, reduced revenues and an increased deficit will intensify pressure on Medicare and other federal spending.

With their reliance on general tax dollars and federal deficit spending, Medicare and the other major health care programs have a substantial effect on the federal debt. Debt equaled 35 percent of GDP at the end of 2007 as the economy entered the last recession (Figure 1-14, p. 23). Because of the recession, the debt soared, reaching 74

**FIGURE  
1-13**

**Spending on Medicare, other major health programs, Social Security, and net interest is projected to exceed total federal revenues in 22 years (by 2039)**



Note: GDP (gross domestic product), CHIP (Children's Health Insurance Program).

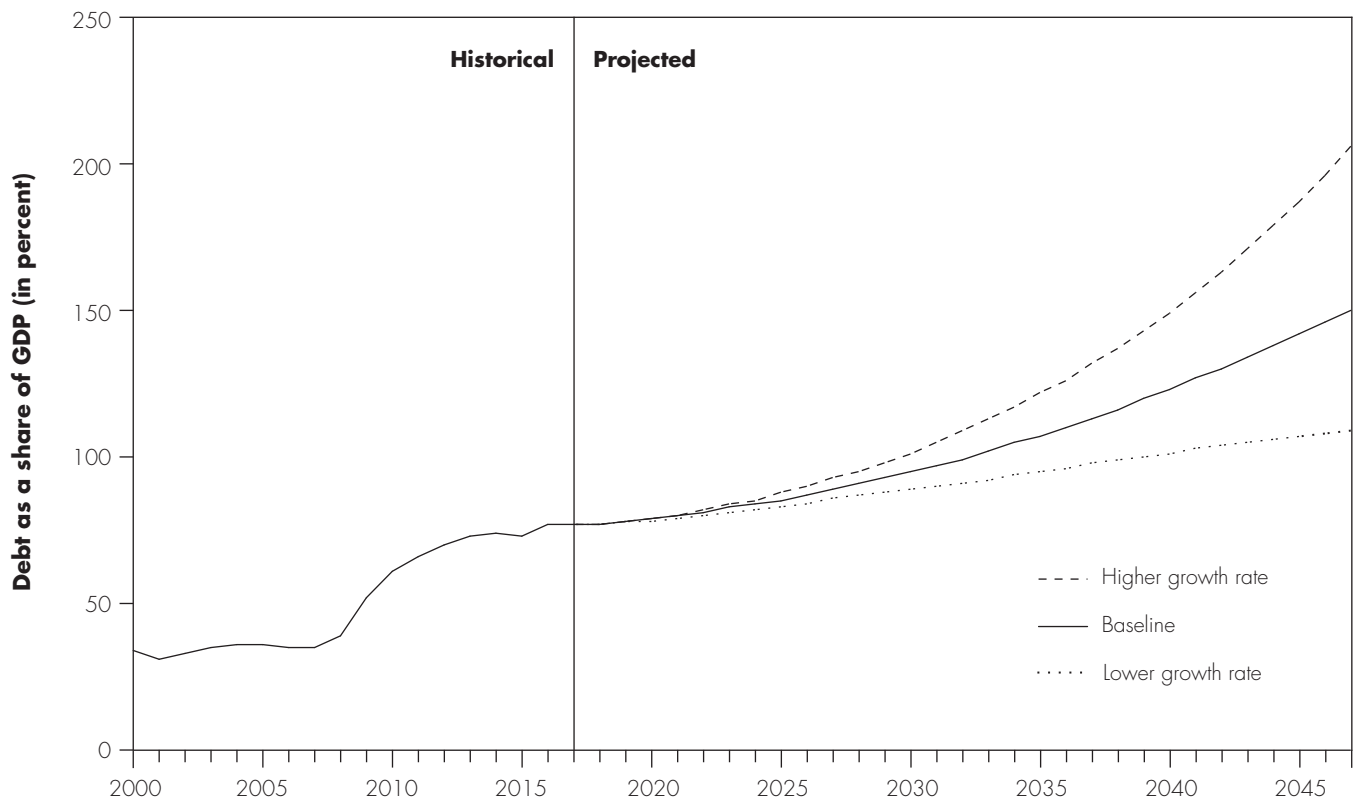
Source: *The 2017 Long-Term Budget Outlook* (published March 2017) and *Update to the Budget and Economic Outlook: 2017 to 2027* (published June 2017) from the Congressional Budget Office.

percent of GDP in 2015—a higher share than at any point in U.S. history, except briefly around World War II.

Under baseline assumptions, which reflect current law, CBO projects the debt will reach 85 percent of GDP in 2025 and 142 percent of GDP in about 30 years (or by 2045). However, the CBO baseline assumes that per beneficiary spending for Medicare and Medicaid will increase more slowly in the future than it has during the past several decades. If per beneficiary spending growth were three-quarters of a percentage point higher than that of the baseline, the federal debt would be 187 percent of GDP by 2045. On the other hand, if per beneficiary spending growth were three-quarters of a percentage point lower, the federal debt would be only 107 percent of GDP by 2045.

## Health care spending consumes growing shares of state and family budgets

Part of the Commission's mandate is to view Medicare in the context of the broader health care system. This section examines the effect of health care spending on state budgets and the budgets of individuals and families. States bear a significant share of Medicaid costs, so rising health care spending also has implications for state budgets. For individuals and families, increases in premiums and cost sharing have negated real income growth in the past decade. Likewise, premiums and cost sharing for Medicare beneficiaries are projected to grow faster than Social Security benefits, which make up a significant share of many beneficiaries' income.

**FIGURE  
1-14****Health care spending growth impacts future debt levels**

Note: GDP (gross domestic product). The higher growth rate of per beneficiary spending on Medicare and Medicaid is 0.75 percentage point per year higher than under the baseline assumptions; the lower growth rate is 0.75 percentage point per year lower than under the baseline assumptions.

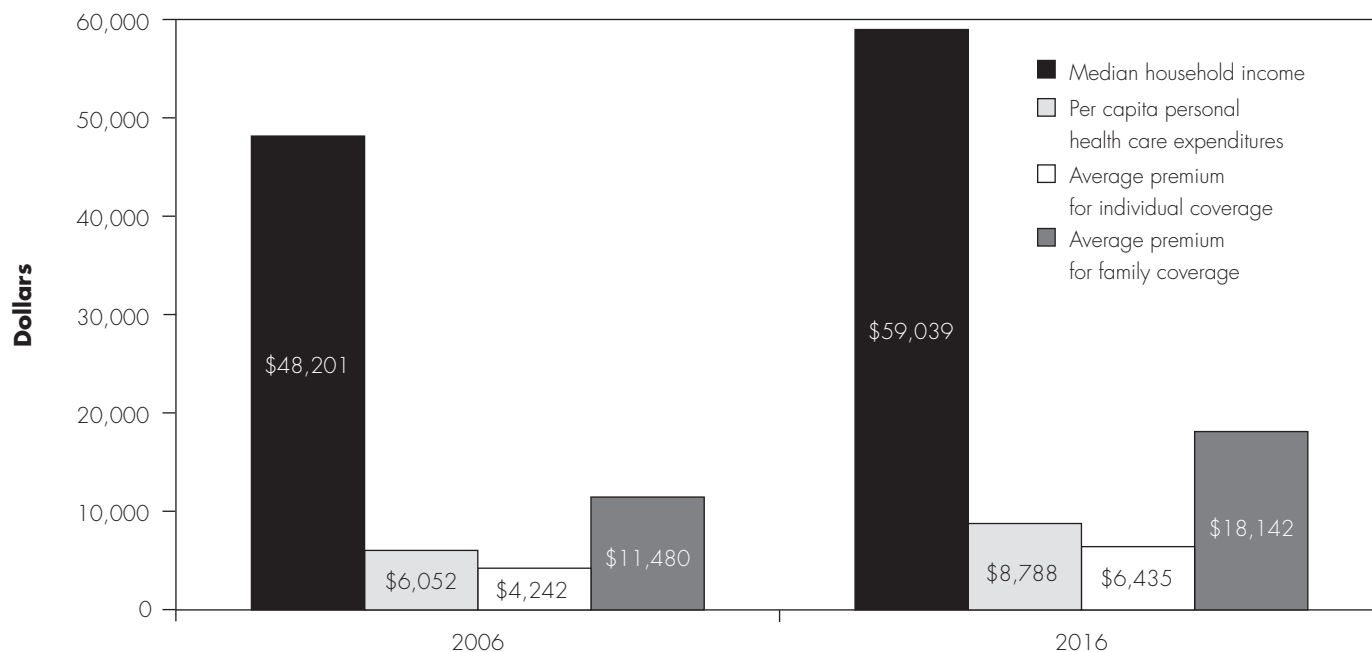
Source: *The 2017 Long-Term Budget Outlook* (published March 2017) from the Congressional Budget Office.

**Health care spending and state budgets**

States and the federal government jointly finance Medicaid, a program that pays for health care services provided to people with low incomes. In fiscal year 2013, before the coverage expansions made by PPACA, monthly enrollment in Medicaid averaged almost 60 million people, and total spending was \$455.6 billion, with the states paying 42 percent on average and the federal government paying the remainder (Centers for Medicare & Medicaid Services 2016). Medicaid spending accounted for an estimated 19.3 percent of state expenditures in that year (Centers for Medicare & Medicaid Services 2014).

PPACA gave states the option to expand Medicaid coverage—beginning in 2014—to non-elderly individuals with total family income of less than 138

percent of the federal poverty threshold. States received full federal financing to cover this expansion population in 2014, phasing down to 90 percent federal financing by 2020. CMS actuaries estimate that, in fiscal year 2015, monthly enrollment in Medicaid increased to cover about 70 million people, and total spending increased to reach \$552.3 billion (Centers for Medicare & Medicaid Services 2016). Because the federal government paid for 100 percent of the costs of newly eligible enrollees, the states' share of all Medicaid expenditures in 2015 decreased to 37 percent. Government actuaries project that the states' share will remain lower than 40 percent over the next 10 years as more states expand coverage (the states' share is projected to range between 37 percent and 39 percent from 2016 to 2025).

**FIGURE  
1-15****Growth in health care spending and premiums outpaced growth in household income, 2006–2016**

Note: Household income, health expenditures, and premiums are all measured in nominal dollars. Average premiums for individual and family coverage are for employer-sponsored health insurance and include contributions from workers and employers.

Source: MedPAC analysis of Census Bureau, Current Population Survey, Annual Social and Economic Supplements 2017; National Health Expenditure Accounts from CMS 2017; and Kaiser Family Foundation and Health Research & Educational Trust 2017 survey of employer health benefits.

PPACA also increased the payment amount primary care providers received for seeing Medicaid patients in 2013 and 2014 so that it equaled Medicare's payment. This policy represented a significant increase in payments to providers since Medicaid primary care FFS payment rates averaged 59 percent of Medicare fee levels in 2012. The federal government incurred 100 percent of the cost of the payment increase. Federal spending is expected to reach about \$12 billion. (The actual amount is not yet known because states have up to two years to submit claims for federal reimbursement.) Even though the federal subsidies expired at the end of 2014, 16 states and the District of Columbia are continuing to pay enhanced rates (Tollen 2015).

A provision also established under PPACA authority allows state demonstrations for beneficiaries dually eligible for Medicare and Medicaid. Under a financial alignment initiative, CMS has approved 14 demonstrations in 13 states, and all are in operation. CMS does not expect

any additional states to join the demonstrations. Most demonstrations will operate for five years. About 450,000 dual eligibles are currently enrolled in what is one of the largest demonstrations that CMS has ever conducted related to dual-eligible beneficiaries. Most demonstrations (11 of 14) are testing a "capitated" model, which uses health plans known as Medicare–Medicaid Plans to provide all Medicare benefits and all or most Medicaid benefits to dual-eligible individuals (Medicare Payment Advisory Commission 2016).

**Health care spending and individual and family budgets**

For individuals and families, growth in health care spending has meant higher health insurance premiums and higher taxes devoted to health care (Auerbach and Kellermann 2011). Additionally, for those covered by employer-sponsored health insurance, an increase in premiums results in lower wage growth because, through



## Health care occupations employment and salaries

Health care occupations represent a large (9 percent) and growing (21 percent growth rate from 2006 to 2016) share of the country's workforce (Table 1-2). According to data from the Bureau of Labor Statistics (BLS), mean salaries for clinicians—health care practitioners who diagnose or treat conditions—are more than twice the average of all other occupations (Bureau of Labor Statistics 2017, Bureau of Labor Statistics 2007). Salaries for health care technicians (e.g., radiologic technologists and technicians, dental hygienists, and emergency

medical technicians and paramedics) are similar to the average for the non-health care workforce. However, health care support occupations' salaries (e.g., home health aides, orderlies, medical assistants, and medical transcriptionists) are less than average salaries. BLS data also indicate that wages for health care professionals may have grown more rapidly (28 percent), in nominal dollars, than for other occupations (26 percent).<sup>12</sup> (Note that BLS cautions against using these data to make comparisons across time.) ■

**TABLE 1-2** Employment and salary for health care and all other occupation categories, 2016

Occupation categories	Employees (in millions)	Increase from 2006	Share of all occupations	Mean salary	Increase from 2006
All occupations	140	6%	N/A	\$49,630	27%
All but health care total	128	5	91%	\$48,317	26
All but clinicians	135	5	96	\$47,759	26
Health care total	12	21	9	\$63,234	28
Health care practitioners and technical occupations	8	24	6	\$79,160	28
Clinicians	5	27	4	\$98,830	28
Technicians	3	14	2	\$46,460	19
Health care support occupations	4	16	3	\$30,470	24

Note: N/A (not applicable). "Clinicians" includes health care practitioners who diagnose or treat conditions, such as physicians, dentists, physician assistants, registered nurses, and physical therapists. "Technicians" includes health care technical occupations such as radiologic technologists and technicians, dental hygienists, emergency medical technicians and paramedics, and pharmacy technicians. "Health care support occupations" includes occupations such as home health aides, orderlies, medical assistants, and medical transcriptionists. Data from self-employed persons are not collected and are not included in the estimates. Salary increases from 2006 are measured in nominal dollars. The Bureau of Labor Statistics cautions against using Occupational Employment Statistics (OES) data to compare two points in time because the survey methodology is designed to create detailed cross-sectional employment and wage estimates but presents challenges in using OES data as a time series. These challenges include changes in the occupational, industrial, and geographical classification systems; changes in the way data are collected; changes in the survey reference period; and changes in mean wage estimation methodology, as well as permanent features of the methodology.

Source: MedPAC analysis of Bureau of Labor Statistics May 2016 National Occupational Employment and Wage Estimates United States and Bureau of Labor Statistics May 2006 National Occupational Employment and Wage Estimates United States.

wage reductions, employers offset their increased costs of providing health insurance to their employees (Baicker and Chandra 2006, Gruber 2000). As health care spending increases, an increasing share of income from individuals and families is transferred to insurers, hospitals, physicians, and other providers of health care services.

In the last decade, per capita health care spending and premiums have grown much more rapidly than median household incomes and thus account for a greater share of income (Figure 1-15). In 2006, per capita personal health care spending accounted for 13 percent (\$6,052) of median household income (\$48,201). Insurance premiums



## Recent mortality and morbidity trends

Several recent studies and news reports have highlighted aspects of increasing mortality and morbidity among some Americans (Arias 2016, Case and Deaton 2017, Case and Deaton 2015, Montez et al. 2016, Zolot 2017). While researchers have applied diverse methods and reported various aspects of the trend, two key findings are (1) increases in mortality in groups of Whites, especially those with a high school diploma or less, and (2) lower and decreasing life expectancy for residents of certain geographic areas.

Over the last century, the United States has experienced generally consistent declines in the mortality rate. However, there has recently been an increase in mortality among the middle-aged (45 to 54 years old) non-Hispanic White population (Case and Deaton 2015, Kochanek et al. 2015). Economists Case and Deaton found no similar mortality rate increase in other industrialized countries or in the non-Hispanic African American or Hispanic population of this age group (Case and Deaton 2015). Case and Deaton note that three causes of death have dramatically increased among this group in the last decade: suicides, intentional and unintentional poisonings, and chronic liver disease. Additionally, increases in midlife mortality in this group are paralleled by increases in self-reported midlife morbidity and troubling health indicators and behaviors such as increased alcohol consumption, smoking, and obesity. Case and Deaton's findings indicate that the increase in reports of poor health by this group has been matched by increasing reports of physical pain and psychological distress.

As with any population-level trend, the causes of increased midlife morbidity and mortality among non-Hispanic Whites are difficult to identify. A recent study found that varying inequalities in women's mortality across states may be partially explained by macro-level socioeconomic and political factors—for example, policies that shape access to health care, use of tobacco, availability of affordable housing, children's health care, and financial safety nets (Montez et al. 2016). Some researchers point to the availability of opioid drugs as a possible source of rising mortality rates. Increased reports of pain combined with the increased availability of opioid prescriptions for pain that began in the late 1990s have been widely noted, as well as the associated mortality (Rudd et al. 2016). Studies have also found that recent restrictions of opioid prescriptions may lead to unintended negative consequences such as increased use of heroin (Compton et al. 2016). There is concern that those affected by opioid and substance use in midlife include current Medicare beneficiaries under 65 and others who will age into Medicare in worse health than current beneficiaries. Researchers have found that patients with a diagnosed opioid dependency are high utilizers of health care services, including office visits, lab tests, and related treatments (FAIR Health 2016). However, this utilization may be related to the underlying conditions for which opioids were used as much as the consequences of opioid abuse or related effects. Addiction is hard to treat, chronic pain is challenging to control, and these conditions appear to be potential problems among the next generation of Medicare beneficiaries. ■

for individuals and families were 9 percent (\$4,242) and 24 percent (\$11,480), respectively (Census Bureau 2017, Centers for Medicare & Medicaid Services 2017a, Kaiser Family Foundation and Health Research & Educational Trust 2017).<sup>13</sup> By 2016, per capita personal health care spending had grown to 15 percent (\$8,788) of median household income (\$59,039). The premiums for typical individual and family health insurance were 11 percent (\$6,435) and 31 percent (\$18,142) of median household income, respectively. A greater share of the nominal-

dollar income increase may have gone to health care providers than to other occupation categories (see text box on health care occupations, p. 25). From 2007 to 2014, middle-income households' health care spending grew by 25 percent, while their spending fell for categories such as food, housing, clothing, and transportation (Baily and Holmes 2015).

Many Medicare beneficiaries are not exempt from the financial challenges of the program's ever-growing cost-

**TABLE  
1-3****Life expectancy at birth by race/ethnicity and sex, 2006 and 2015**

	2006	2014	2015	Change 2006-2015	Change 2014-2015
All races and ethnicities, both sexes	77.8	78.9	78.8	1.0	-0.1
White, not Hispanic, both sexes	78.3	79.1	79.0	0.7	-0.1
African American, not Hispanic, both sexes	73.4	75.6	75.5	2.1	-0.1
Hispanic, both sexes	80.3	82.0	82.0	1.7	0
All races and ethnicities, female	80.3	81.3	81.2	0.9	-0.1
White, not Hispanic, female	80.7	81.4	81.3	0.6	-0.1
African American, not Hispanic, female	76.7	78.5	78.5	1.8	0
Hispanic, female	82.9	84.4	84.3	1.4	-0.1
All races and ethnicities, male	75.2	76.5	76.3	1.1	-0.2
White, not Hispanic, male	75.8	76.7	76.6	0.8	-0.1
African American, not Hispanic, male	69.9	72.5	72.2	2.3	-0.3
Hispanic, male	77.5	79.4	79.3	1.8	-0.1

Source: National Center for Health Statistics 2017.

sharing liabilities.<sup>14</sup> In 2015, SMI (Medicare Part B and Part D) premiums and cost sharing consumed 23 percent of the average Social Security benefit, up from 7 percent in 1980 (Boards of Trustees 2016). (Those percentages do not include beneficiary spending on premiums for Medicare supplemental insurance.) The Medicare Trustees estimate that those costs will consume 30 percent of the average Social Security benefit by 2030. On average, Social Security benefits account for more than 60 percent of income for seniors. For more than one-fifth of seniors, Social Security benefits account for 100 percent of income (Social Security Administration 2016). However, some seniors also rely on accumulated assets to supplement their income in retirement. Additionally, despite the increasing cost-sharing burden, the availability of SMI Part B and Part D benefits greatly reduces the costs that beneficiaries would otherwise pay for health care services without those benefits since general revenues cover a large share of those costs.

### Recent trends in life expectancy, morbidity, and mortality

Several recent studies and news reports have highlighted aspects of decreasing life expectancy and increasing mortality and morbidity among some Americans (see

text box on recent mortality and morbidity trends). These aspects include—for specific groups—decreases in life expectancy; increasing rates of suicide and deaths from drug poisonings; and troubling health indicators and behaviors such as increased alcohol consumption, smoking, and obesity. These trends interact with longstanding underlying variations in life expectancy, mortality, and morbidity by sex, income, race and ethnicity, and geographic location.

### Life expectancy by sex, race, and Hispanic origin

In general, life expectancy in the United States has been increasing over the last century (although more slowly than in other Organisation for Economic Co-operation and Development (OECD) countries).<sup>15</sup> These increases in longevity are influenced by a range of factors, including health behavior changes, increased disease prevention efforts, and advances in medical treatments. In 2015, average life expectancy at birth for an individual living in the United States was 78.8 years (Table 1-3). However, an individual's life expectancy can vary significantly from this average based on certain characteristics, including race, sex, socioeconomic status, and geographic location. Variations have existed ever since official data have been collected. One example is that, in 2015, women on average had a longer life expectancy (81.2 years) than men (76.3 years)



## Life expectancy, by geographic areas

Life expectancy in the United States varies based on an array of geographic characteristics, including urban and rural location and among states. A 2017 study by Zolot found a greater than 20-year difference in life expectancy by county and that these geographic disparities have been increasing over the past few decades (Zolot 2017). A 2014 study by Singh and Siahpush found that life expectancy was inversely related to levels of rurality and that rural African Americans and Whites had lower life expectancies than their urban counterparts (Singh and Siahpush 2014).<sup>16</sup> From 2005 through 2009, those in large metropolitan areas had a life expectancy of 79.1 years compared with 76.9 years in small towns and 76.7 years in rural areas. Compared with their urban peers, people in rural areas had higher rates of both smoking and lung cancer, along with obesity. Additionally, rural residents on average had a lower median family income and higher poverty rate, and fewer had college degrees, which may contribute to the difference in life expectancy. Another study by Chetty and colleagues exploring the association between life expectancy and income found that low-income individuals' life expectancy varied substantially based on where they lived (Chetty et al. 2016). The study found that individuals in the lowest income quartile often lived longer and had more healthful behaviors if they resided in urban areas with highly educated populations, high incomes, and high levels of government expenditures. Some potential explanations for these findings are that these areas may have public policies that improve health (e.g., smoking bans) or they may have greater funding for public services. However, the Commission's research has found little difference between rural and urban beneficiaries' satisfaction with access to care and amount of service use. With respect to quality of care, quality is similar for most types of providers in rural and urban areas; however, rural hospitals tend to have below-average rankings on mortality and some process measures (Medicare Payment Advisory Commission 2012).

A recent study by Montez and colleagues examined variation in women's mortality rates across states (Montez et al. 2016).<sup>17</sup> The study found that a state's economic and social environment (e.g., welfare policy, tobacco tax rate, level of economic inequality) had a significant effect on women's mortality rate. The researchers found that many of the states with the best economic and social indicators had some of the lowest mortality rates among women. The same correlation was not seen among males. These findings imply that geographic inequities in

women's mortality rates may not be fully explained just by women's personal characteristics; rather, the influence of socioeconomic and political contexts must be also considered.

Numerous researchers and media stories have highlighted the growing opioid abuse and mortality trend (Case and Deaton 2017, Case and Deaton 2015, Rudd et al. 2016, Zolot 2017). Case and Deaton note, "In 2000, the epidemic was centered in the southwest. By the mid-2000s it had spread to Appalachia, Florida, and the west coast. Today, it's country-wide" (Case and Deaton 2017). Figure 1-16 shows the age-adjusted opioid-related death rate per 100,000 population in 2015. In 2015, the five states with the highest rates of death due to drug overdose were West Virginia (41.5 per 100,000), New Hampshire (34.3 per 100,000), Kentucky (29.9 per 100,000), Ohio (29.9 per 100,000), and Rhode Island (28.2 per 100,000).

Significant increases in drug overdose death rates from 2014 to 2015 were seen primarily in the Northeast and South Census Regions. States with statistically significant increases in drug overdose death rates from 2014 to 2015 included Connecticut, Florida, Illinois, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Tennessee, Washington, and West Virginia.

## Life expectancy at age 65

Recent decreases in life expectancy and increases in mortality are isolated to the under-65 population. Between 2006 and 2015, life expectancy at 65 (i.e., remaining years of life) increased for all groups (Table 1-4, p. 30).

## Leading causes of death

Over the past few decades, there has been little change in the leading causes of death in the United States, both for all Americans and those 65 and older (Table 1-5, p. 30, and Table 1-6, p. 31). Heart disease and cancer have remained the first and second leading causes of death, respectively, for both age groups for more than 75 years (Hoyert 2012, National Center for Health Statistics 2017). In each year between 1935 and 2015, three causes—heart disease, cancer, and stroke—remained among the five leading causes (not all data shown). Suicide was the 10th leading cause of death among all Americans in both 1980 and 2015.

Some of the leading causes of death overlap with the most prevalent and most expensive chronic conditions among

**TABLE  
1-4****Life expectancy at age 65 by race/ethnicity and sex, 2006 and 2015**

	2006	2014	2015	Change 2006–2015	Change 2014–2015
All races and ethnicities, both sexes	18.7	19.4	19.4	0.7	0
White, not Hispanic, both sexes	18.7	19.4	19.4	0.7	0
African American, not Hispanic, both sexes	17.2	18.2	18.2	1.0	0
Hispanic, both sexes	20.2	21.5	21.4	1.2	–0.1
All races and ethnicities, female	19.9	20.6	20.6	0.7	0
White, not Hispanic, female	19.9	20.6	20.5	0.6	–0.1
African American, not Hispanic, female	18.6	19.7	19.7	1.1	0
Hispanic, female	21.5	22.8	22.7	1.2	–0.1
All races and ethnicities, male	17.2	18.0	18.0	0.8	0
White, not Hispanic, male	17.3	18.0	18.0	0.7	0
African American, not Hispanic, male	15.2	16.4	16.4	1.2	0
Hispanic, male	18.5	19.7	19.7	1.2	0

Source: National Center for Health Statistics 2017.

Medicare FFS beneficiaries (Table 1-7). In Table 1-7, the Medicare total per capita spending amounts represent all Medicare spending for FFS beneficiaries with the specified condition (i.e., the spending cannot be attributed strictly to the specified condition because beneficiaries

may have other health conditions that contribute to their total Medicare utilization and spending amounts).

It is unclear how the prevalence of these and other acute and chronic conditions contributes to Medicare spending trends in part because treatments for conditions are

**TABLE  
1-5****Leading causes of death, 1980 and 2015****Table 1-5a. Leading causes of death, 1980**

Cause of death	Share of deaths
1. Heart disease	38.2%
2. Cancer	20.9
3. Stroke	8.6
4. Unintentional injuries	5.3
5. Chronic obstructive pulmonary diseases	2.8
6. Pneumonia and influenza	2.7
7. Diabetes mellitus	1.8
8. Chronic liver disease and cirrhosis	1.5
9. Atherosclerosis	1.5
10. Suicide	1.4

**Table 1-5b. Leading causes of death, 2015**

Cause of death	Share of deaths
1. Heart disease	23.4%
2. Cancer	22.0
3. Chronic lower respiratory diseases	5.7
4. Unintentional injuries	5.4
5. Stroke	5.2
6. Alzheimer's disease	4.1
7. Diabetes mellitus	2.9
8. Pneumonia and influenza	2.1
9. Nephritis, nephrotic syndrome, and nephrosis	1.8
10. Suicide	1.6

Note: Starting with 2011 data, the rules for selecting renal failure as the underlying cause of death were changed, affecting the number of deaths in the “nephritis, nephrotic syndrome, and nephrosis” and “diabetes mellitus” categories. These changes directly affect the cases of death with mention of renal failure and other associated conditions such as diabetes mellitus with renal complications. The result is a decrease in the number of deaths attributed to nephritis, nephrotic syndrome, and nephrosis and an increase in the number of deaths attributed to diabetes mellitus. Therefore, trend data for these two causes of death should be interpreted with caution.

Source: 2017 data on mortality from the National Center for Health Statistics.



**TABLE  
1-6****Leading causes of death at age 65 and older, 1980 and 2015****Table 1-6a. Leading causes of death at age 65 and older, 1980**

Cause of death	Share of deaths
1. Heart disease	44.4%
2. Cancer	19.3
3. Stroke	10.9
4. Pneumonia and influenza	3.4
5. Chronic obstructive pulmonary diseases	3.2
6. Atherosclerosis	2.1
7. Diabetes mellitus	1.9
8. Unintentional injuries	1.9
9. Nephritis, nephrotic syndrome, and nephrosis	1.0
10. Chronic liver disease and cirrhosis	0.7

**Table 1-6b. Leading causes of death at age 65 and older, 2015**

Cause of death	Share of deaths
1. Heart disease	25.5%
2. Cancer	21.1
3. Chronic lower respiratory diseases	6.6
4. Stroke	6.0
5. Alzheimer's disease	5.5
6. Diabetes mellitus	2.8
7. Unintentional injuries	2.6
8. Pneumonia and influenza	2.4
9. Nephritis, nephrotic syndrome and nephrosis	2.1
10. Septicemia	1.5

Note: Starting with 2011 data, the rules for selecting renal failure as the underlying cause of death were changed, affecting the number of deaths in the "nephritis, nephrotic syndrome, and nephrosis" and "diabetes mellitus" categories. These changes directly affect the number of deaths attributed to renal failure and other associated conditions such as diabetes mellitus with renal complications. The result is a decrease in the number of deaths attributed to nephritis, nephrotic syndrome, and nephrosis and an increase in the number of deaths attributed to diabetes mellitus. Therefore, trend data for these two causes of death should be interpreted with caution.

Source: 2017 data on mortality from the National Center for Health Statistics.

**TABLE  
1-7****Selected chronic conditions by prevalence and total per capita spending among Medicare FFS beneficiaries, 2015**

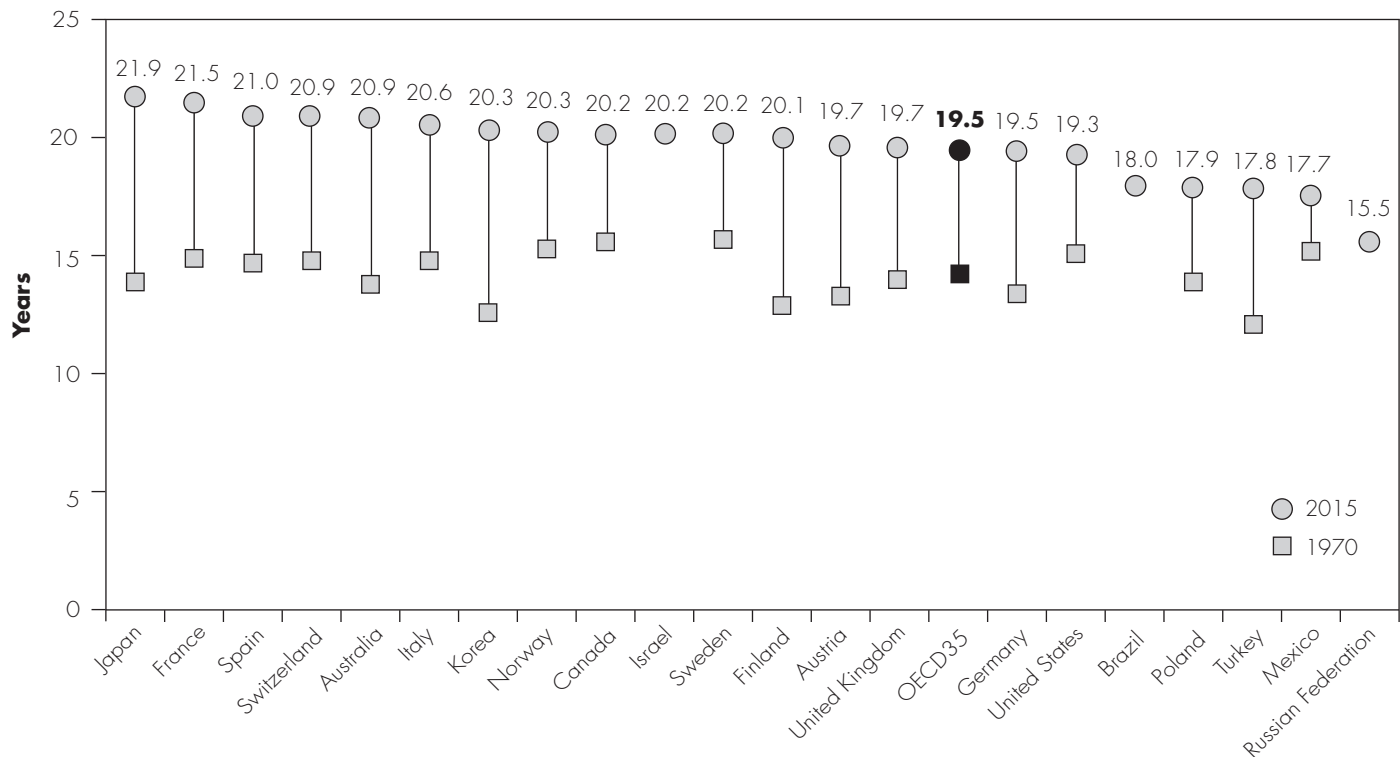
Chronic condition	Prevalence among Medicare FFS beneficiaries	Total per capita spending for beneficiaries with the specified condition
<b>Five chronic conditions most prevalent among Medicare FFS beneficiaries:</b>		
Hypertension	58.3%	\$13,718.10
Hyperlipidemia	47.3	13,053.20
Rheumatoid arthritis/osteoarthritis	32.1	15,231.10
Diabetes mellitus	28.2	15,067.40
Ischemic heart disease	28.2	18,214.30
<b>Five chronic conditions with highest total per capita spending among Medicare FFS beneficiaries:</b>		
Stroke	3.9	29,852.60
Heart failure	14.5	27,078.20
COPD	12.0	24,332.90
Schizophrenia/other psychotic disorders	N/A	24,270.90
Chronic kidney disease	19.3	24,027.90

Note: FFS (fee-for-service), COPD (chronic obstructive pulmonary disease), N/A (not available). Data include all Medicare beneficiaries who were eligible for or enrolled in Medicare on or after January 1, 2015. Period prevalence is calculated for these rates: beneficiaries with full or nearly full FFS coverage (i.e., 11 or 12 months of Medicare Part A and Part B (or coverage until time of death) and 1 month or less of HMO coverage) during the year who received treatment for the condition within the condition-specified look-back period (chronic conditions have a 1- to 3-year look-back period). Beneficiaries may be counted in more than one chronic condition category. The Medicare utilization and spending information presented above represents total Medicare FFS spending for beneficiaries with the condition. The information should not be used to attribute utilization or payments strictly to the specific condition selected because beneficiaries with any of the specific conditions presented may have other health conditions that contribute to their Medicare utilization and spending amounts.

Source: 2017 data from the Chronic Conditions Warehouse from the Centers for Medicare & Medicaid Services.

**FIGURE  
1-17**

**Life expectancy at age 65 is lower and increased less in the United States than in other OECD countries, 1970–2015**



Note: OECD (Organisation for Economic Co-operation and Development). "OECD35" refers to the average of all 35 OECD countries. Selected OECD countries are shown. Earlier life expectancy for Italy, Canada, and Finland as of 1971. Recent life expectancy for Canada as of 2012 and for Brazil as of 2013. Data are not available for 1970 for Brazil, Israel, and the Russian Federation.

Source: 2017 data on life expectancy at age 65 from the Organisation for Economic Co-operation and Development.

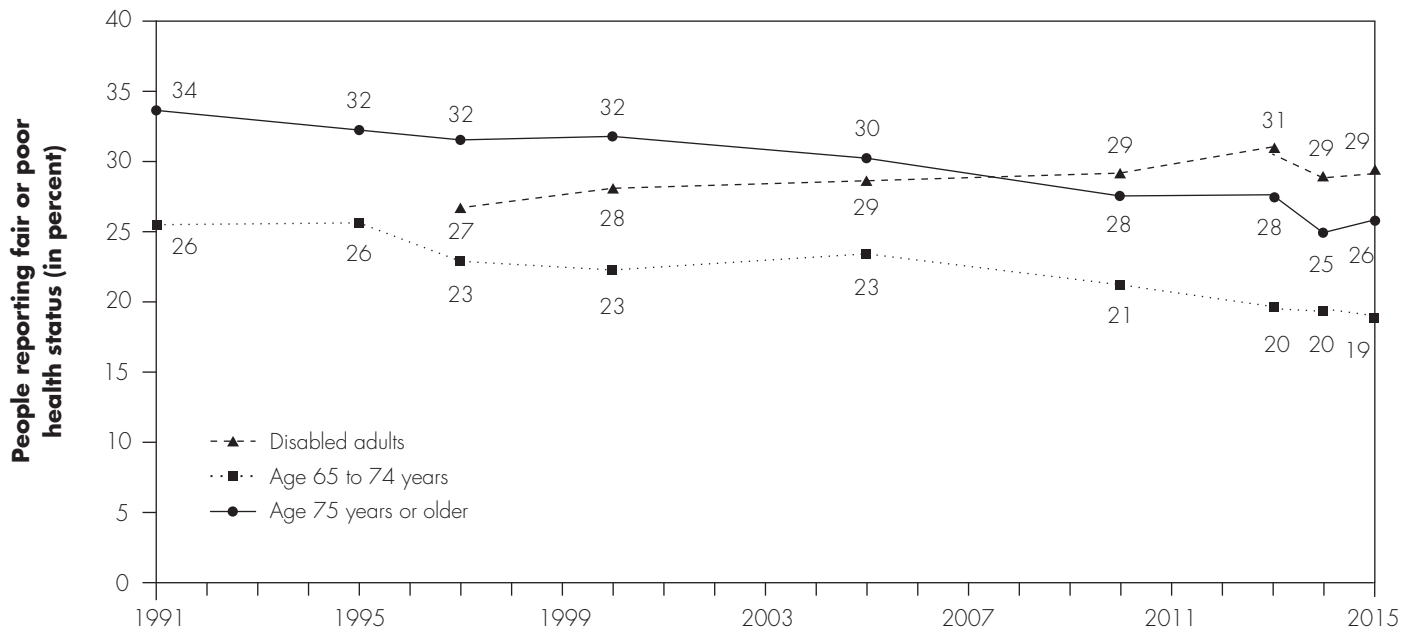
influenced by changes in technology and definitions of what constitutes disease shift over time. The Commission explored this question in 2007 and found upward pressure on Medicare costs because of a greater proportion of beneficiaries being treated for multiple chronic conditions (Medicare Payment Advisory Commission 2007). This increase reflected growth in the prevalence of obese beneficiaries, advances in technology for diagnosing and treating conditions, and changes in disease definitions. More recently, the Congressional Budget Office found that, while ample evidence exists of increased health care spending associated with obesity, evidence about the effects of weight loss on the health and health care spending of obese people is inconclusive at best (Congressional Budget Office 2015).

## The relationship between Medicare spending and quality

As Medicare per beneficiary spending has increased over the life of the program, has the quality of health care received by Medicare beneficiaries improved? From the perspective of beneficiary health and longevity, indicators show improvements, primarily for beneficiaries ages 65 and older; the limited data available for younger Medicare beneficiaries include one indication of potentially poorer quality:

- Life expectancy at age 65 has steadily increased since the introduction of Medicare. Individuals who reached age 65 in 2015 had a remaining life expectancy of 19.3 years, compared with 15.1 years for this age



**FIGURE  
1-18****The percentage of Medicare eligibles reporting fair or poor health status changed over time, available years 1991-2015**

Note: "Disabled adults" includes people 18 and older who have one or more of the following limitations or difficulties: movement difficulty, emotional difficulty, sensory (seeing or hearing) difficulty, cognitive difficulty, self-care (activities of daily living or instrumental activities of daily living) limitation, social limitation, or work limitation. Disability measure among adults 18 years and older did not begin being reported until 1997.

Source: 2017 data on health status from the National Center for Health Statistics.

group in 1970. However, these beneficiaries' gains in longevity are outpaced by their peers in other OECD countries. From 1970 to 2015, U.S. life expectancy at age 65 improved by 4.2 years (Figure 1-17), compared with an average gain of 5.3 years for the 35 OECD countries.<sup>18</sup> (Comparable information for the Medicare population under age 65 is not readily available.)

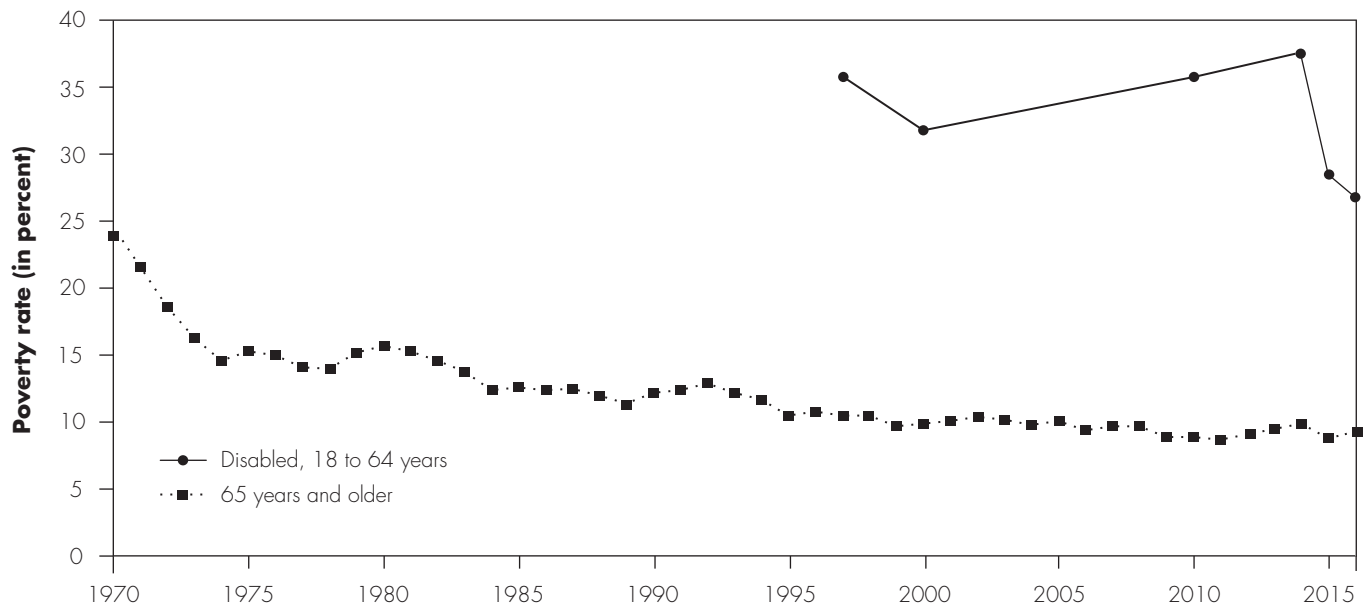
- Between 1991 and 2015, the share of people ages 65 to 74 reporting fair or poor health status declined from 26 percent to 19 percent (Figure 1-18); the share of people ages 75 and older reporting fair or poor health status declined from 34 percent to 26 percent; but the share of adults with disabilities reporting fair or poor health status increased from 27 percent in 1997 (the first year the measure was reported) to 29 percent in 2015.

- While the share of people ages 65 and older with chronic conditions such as diabetes, hypertension, and high cholesterol has increased over time, the share of people who have those conditions under control has also increased (National Center for Health Statistics 2015). (Comparable information for the Medicare population under age 65 is not readily available.)

However, many factors other than health care also impact individual and population health, including poverty, income levels, and health-related behaviors such as smoking and alcohol consumption. For example, the poverty rate among people ages 65 years and older has fallen, with the support of the Social Security program, from almost 25 percent in 1970 to about 9 percent in 2016, potentially having a substantial effect on individual and population health for that age group (Figure 1-19, p. 34). The poverty rate for younger adults with disabilities has shifted over time, decreasing overall from 36 percent in 1997 to 27 percent in 2016.

**FIGURE  
1-19**

**The poverty rate has fallen over time among people ages 65 years and older and adults with disabilities, available years 1970–2016**



Note: Data on the poverty rate among people with disabilities has been reported for only six years: 1997, 2000, 2010, 2014, 2015, and 2016.

Source: Data on income and poverty from the Census Bureau.

## **Baby boomers will make up the next generation of Medicare beneficiaries**

As the baby-boom generation ages, enrollment in the Medicare program will surge. In 15 years, Medicare is projected to have more than 80 million beneficiaries—up from 54 million beneficiaries today—almost 90 percent of whom will be of the baby-boom generation.<sup>19</sup> These individuals will define the upcoming Medicare population in terms of age distribution, health status, health insurance experiences before Medicare enrollment, and financial security.

### **The Medicare population becomes younger as it expands and then grows older as the baby-boom generation ages**

Enrollment in the Medicare program is projected to grow rapidly as members of the baby-boom generation age into the program (see Figure 1-10a, p. 18). These individuals began aging into Medicare in 2011 at an average rate of

10,000 people per day. Medicare enrollment is projected to grow by nearly 50 percent by 2030, and this growth will be made up almost entirely of baby boomers (Figure 1-20) (Census Bureau 2014b).

The Medicare population over the next 15 years will be relatively younger, as members of the baby-boom generation join and increase the number of beneficiaries in younger age categories (Figure 1-21, p. 36).

The share of the Medicare population age 85 years or older is projected to decline slightly through 2025 and then grow as baby boomers continue to age (Boards of Trustees 2014, Census Bureau 2014b). In 2013, per beneficiary spending for those ages 85 and older was about twice that of those ages 65 to 74. So, the changing age structure of the Medicare population will exert somewhat less pressure on spending in the very near term, at least on a per capita basis, and then pressure will increase again over the longer term.

## FIGURE 1-20

### By 2030, the entire baby-boom generation will be eligible for Medicare

Figure 1-21a: Population by age and sex: 2010

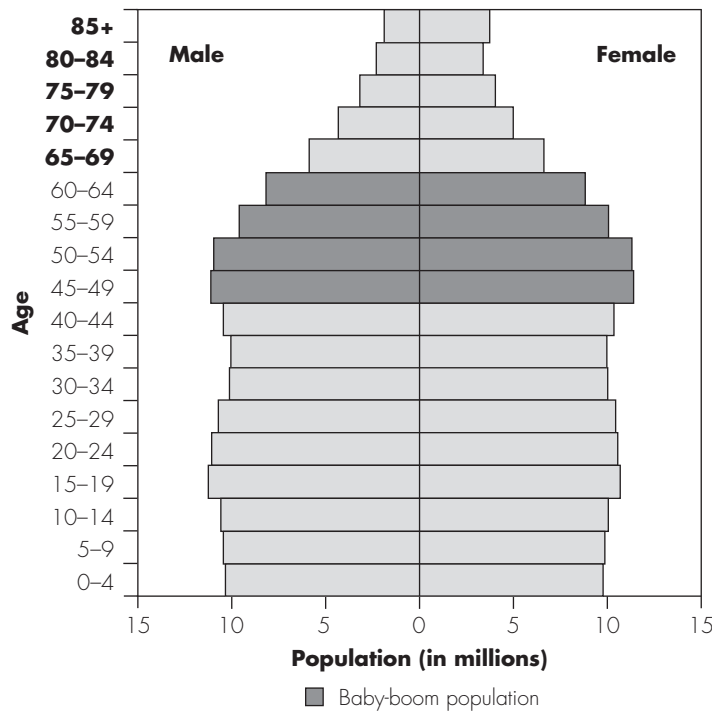
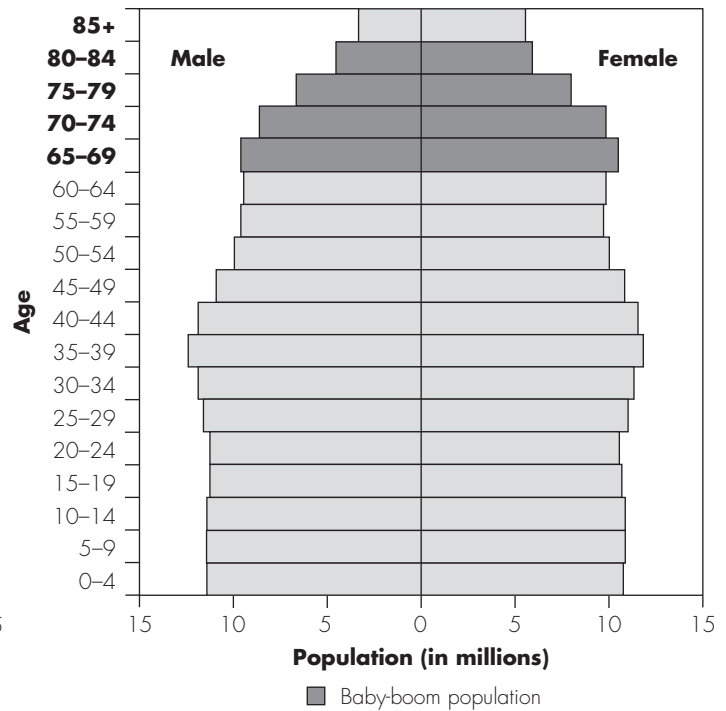


Figure 1-21b: Population by age and sex: 2030



Note: Ranges eligible for Medicare on the basis of age are shown in bold.

Source: Census Bureau, 2010 Census and 2014 National Population Projections, middle series.

### The health of the future Medicare population

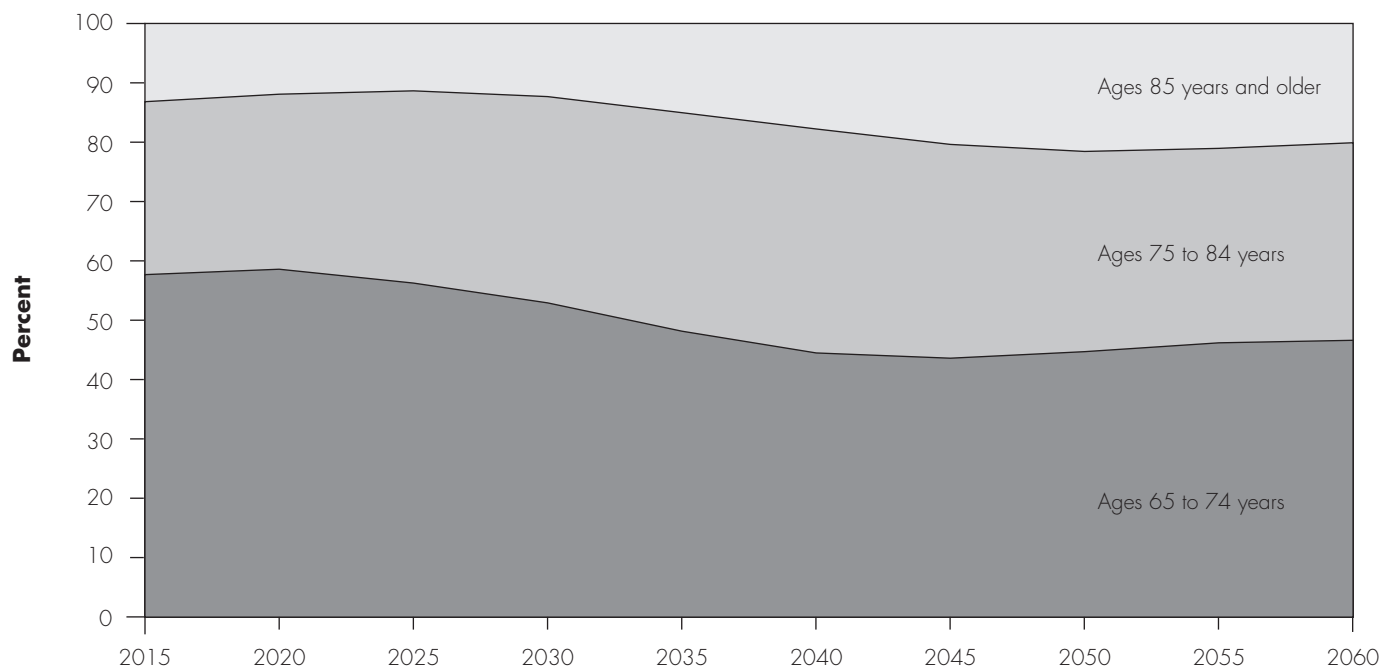
How will the health of the Medicare population change as the baby-boom generation ages into the program? A lot of uncertainty surrounds that question. What is known is that members of the baby-boom generation have longer life expectancies and a much lower rate of smoking than earlier generations. This generation also has higher rates of certain diseases and chronic conditions, but these rates could be driven in part by expanded testing and disease definitions. Moreover, baby boomers are much more likely than prior generations to have some chronic conditions under control.

America's Health Rankings compares the health status of middle-age adults (which defines "middle age" as ages 50–64 years) in 2014 with the same cohort in 1999 (who are now Medicare beneficiaries). Compared with their predecessors, middle-age adults about to age into Medicare:

- are 50 percent less likely to smoke,
- have a 55 percent higher prevalence of diabetes,
- have a 25 percent higher prevalence of obesity, and
- have a 9 percent lower prevalence of very good or excellent health status (United Health Foundation 2016).

### Positive indicators: Longer life expectancies and lower rates of smoking

The baby-boom generation enjoys much longer life expectancies than earlier generations, overall and at older ages (Census Bureau 2014a). Individuals born in 1905 who reached age 65 in 1970 had a remaining life expectancy of about 15 years. Individuals born in 1945 who reached age 65 in 2010 had a remaining life expectancy of about 19 years, a 4-year increase over the 1905 birth cohort.

**FIGURE  
1-21****The Medicare population will become younger and then older**

Source: Census Bureau, 2014 National Population Projections.

The baby-boom generation's rate of smoking is much lower than that of previous generations (Cutler and Glaeser 2006). When members of the previous generation were adults in the 1950s and mid-1960s, Americans had one of the highest smoking rates in the developed world: In 1965, over 40 percent of those ages 18 years and older smoked (Census Bureau 2014a). But since the mid-1960s and throughout the period in which baby boomers entered adulthood, that rate has been on a dramatic decline. By 2012, only 18 percent of those ages 18 years and older smoked.

**Negative indicators: Higher rates of obesity and diabetes**

Although smoking rates have declined, the share of adults who are obese has risen dramatically over the last 40 years. In the 1970s, about 15 percent of the adult population ages 20 to 74 years was obese. By 2010, the share more than doubled—reaching 36 percent. The proportion of boomers who were obese in 2010 was even higher, at about 40 percent.

Related to higher rates of obesity, baby boomers have higher rates of diabetes than the previous generation (15.0 percent versus 13.9 percent, respectively). However, baby boomers diagnosed with diabetes are much more likely to have the disease under control than members of the previous generation.<sup>20</sup> For the U.S. adult population overall, researchers found a doubling of the share with diabetes from 1990 to 2008 that plateaued between 2008 and 2012 (Geiss et al. 2014). Despite the leveling off in recent years, the share of African Americans, Hispanics, and those with a high-school education or less who have diabetes appears to continue to increase.

Mortality from diabetes has declined, leading to more years spent with diabetes but fewer years of life lost to the disease for the average individual with diabetes (Gregg et al. 2014a, Gregg et al. 2014b). For the population as a whole, however, the number of years of life lost to diabetes has increased because of the increase in the numbers of people who have the disease.

### **Mixed indicators: Higher rates of certain diseases and chronic conditions, but evidence of better management**

When compared with the previous generation, the baby-boom generation has rates of heart disease and stroke similar to the previous generation. Some research indicates that cancer rates have increased in the baby-boom population (National Center for Health Statistics 2014). However, higher rates of disease and chronic conditions could also be the result of increased use of diagnostic testing and more aggressive treatment practices (Welch et al. 2011). For example, an extremely slow-growing cancer may now be detectable in a person with no symptoms, but might never progress to make the person sick; in such cases, treatment might be unwise.

Also, not all diseases and conditions have the same impact on health status and per beneficiary spending. For example, high blood pressure and high cholesterol were the two most prevalent conditions among Medicare beneficiaries in 2012 but in isolation were not the most costly to treat. Stroke, heart failure, and chronic kidney disease were among the chronic conditions associated with the highest per beneficiary spending (Centers for Medicare & Medicaid Services 2015a, Centers for Medicare & Medicaid Services 2015b).

Another factor affecting per beneficiary Medicare spending is whether beneficiaries were continuously insured before age 65. Research has found that Medicare spending is significantly higher for previously uninsured adults than for previously insured adults (McWilliams et al. 2009). Therefore, the increased availability of health insurance under PPACA—absent future changes—could reduce future Medicare spending for younger baby boomers. Coverage under PPACA through Medicaid expansions (in participating states) and federal and state exchanges began in 2014, when the youngest boomers were 50 years old. So, some boomers who otherwise would have been uninsured before aging into the Medicare program now may have up to 15 years of continuous coverage before becoming eligible for Medicare.

A final factor to consider regarding future Medicare spending is that health care costs in a person's last year of life are substantial (in the last decade, Medicare spending was more than six times higher for decedents than for survivors). So as the baby-boom generation ages, the increased number of beneficiaries entering their last year of life will likely exert upward pressure on Medicare spending (Hogan 2015).

### **Effect of baby boomers' health insurance experience pre-Medicare on enrollment decisions for Medicare**

The health insurance experience of baby boomers before Medicare eligibility can also affect their decisions regarding enrollment in Medicare Advantage and medigap plans as they consider trade-offs between cost sharing and limitations placed on choice of providers.

The baby-boom generation's experience with private health insurance coverage has been evolving. Baby boomers likely began their working years in conventional health plans—that is, plans in which health care can be delivered by any provider, with the insurer paying a share of the provider's charges. But over time, many also experienced the disappearance of conventional plans and the rise and subsequent decline of managed care in the form of HMOs—plans that limit health care delivery to the network's providers.

For the baby-boom generation, pre-Medicare enrollment in preferred provider organizations (PPOs) has grown steadily. PPOs generally have lower cost sharing for services delivered by in-network providers versus out-of-network providers. They likely have broad provider networks supported by rapidly rising premiums, deductibles, and copayments. After the backlash against managed care in the mid-1990s, employees and employers favored the broadest possible access to providers and demanded very large networks. Only during the Great Recession that began in 2007 did employees and employers become increasingly willing to accept plans with narrower networks in return for lower premiums, deductibles, and copayments.

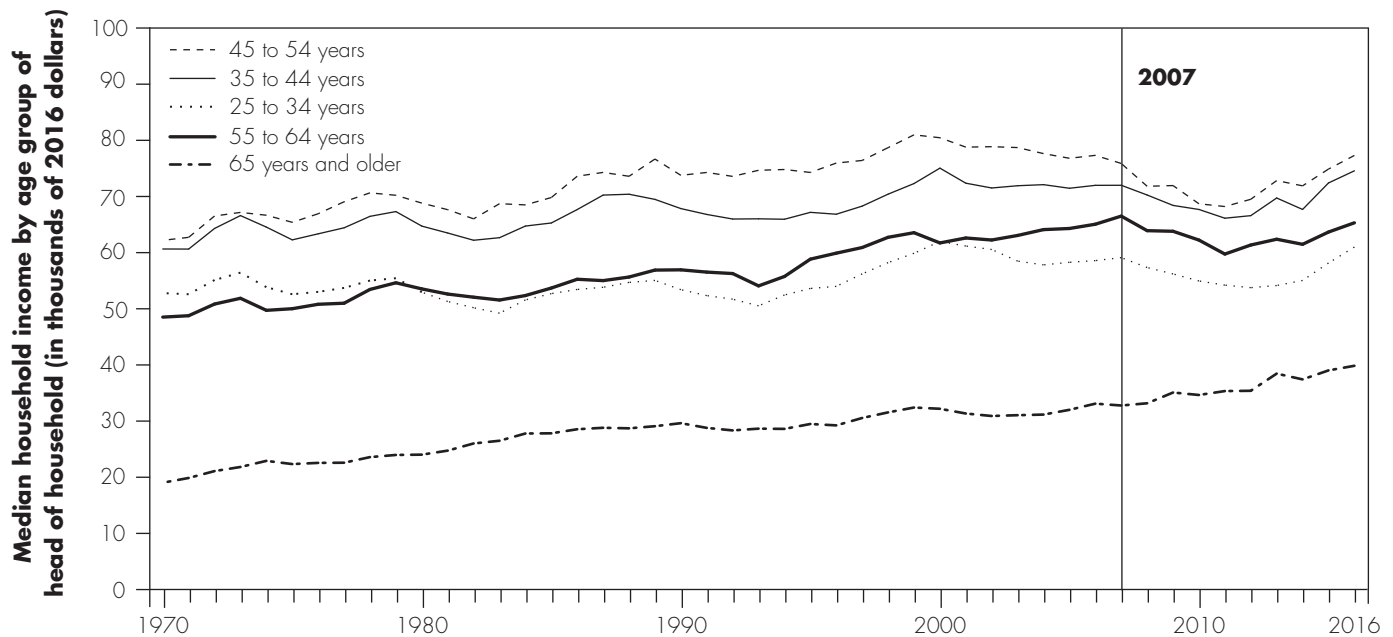
Only the youngest boomers are likely to have had experience with high-deductible plans—plans that have lower premiums than traditional plans, but require the enrollee to pay a large deductible before receiving insurance benefits—or with the health insurance exchanges that commenced in 2014 under PPACA, owing to their recency.

### **Baby boomers may be less financially secure than previous generations in retirement**

During the Great Recession, which began in 2007, real median household income declined for all age groups under age 65 (Figure 1-22, p. 38).<sup>21</sup> Since many baby boomers may have been near retirement during the economic slowdown, they may be less financially secure

**FIGURE  
1-22**

**Real median household income declined for all age groups under age 65 during the Great Recession, which began in December 2007**



Note: The Great Recession began in December 2007 and ended June 2009 (National Bureau of Economic Research 2014).

Source: Census Bureau, 2016 household historical income tables, released August 2017.

than previous generations in retirement.<sup>22</sup> For example, in 2014, the real median household income for 55- to 64-year-olds had fallen 4 percent over the decade (Figure 1-22). In contrast, real median household income for members of this age group had increased by 13 percent a decade earlier and by 6 percent in the decade ending in 1994.

Income tends to peak when people are between 45 and 54 years old (Figure 1-22). However, this age group, which includes part of the baby-boom generation, experienced a real median household income decline of 7 percent over the decade ending in 2014 (Figure 1-22). In contrast, real median household income for members of this age group had increased by 2 percent a decade earlier and by 9 percent in the decade ending in 1994.

During the Great Recession, family net worth (assets minus liabilities) also declined (Figure 1-23). Between 2007 and 2013, the median net worth of families with heads of household ages 55 to 64 fell 42 percent in real

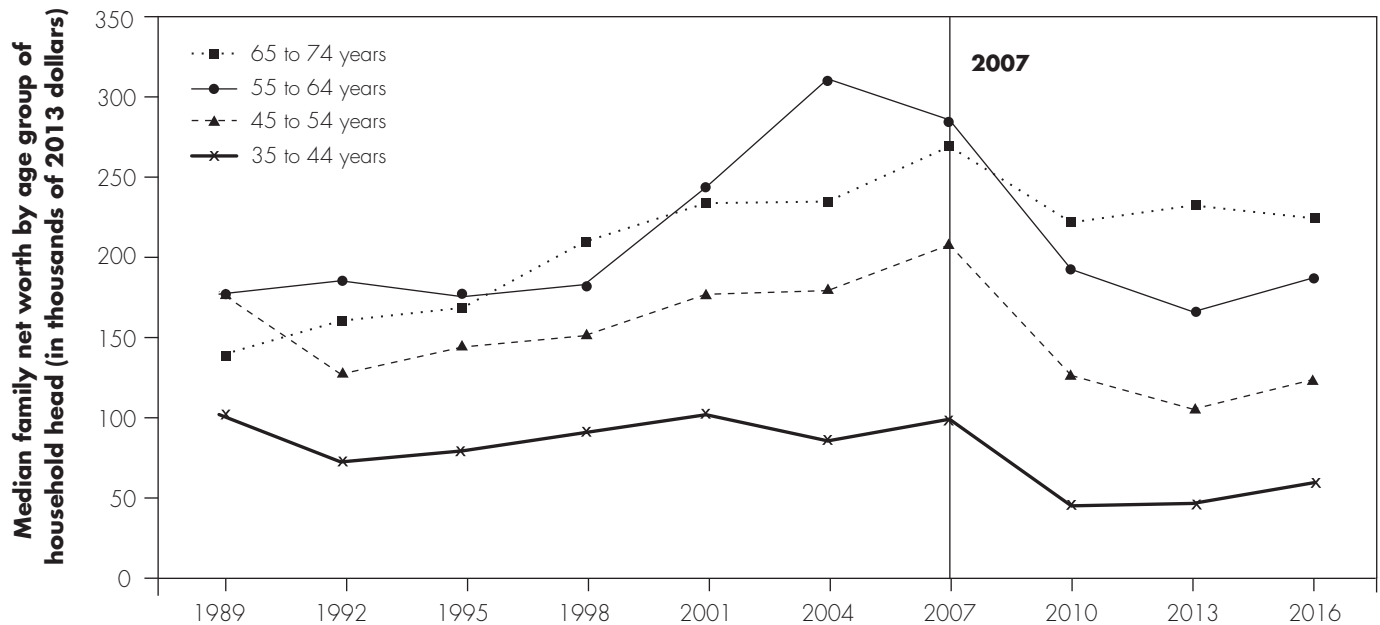
terms. In contrast, the same age group's real median family net worth increased by 70 percent over the six-year period ending in 2004 and decreased by 1 percent over the six-year period ending in 1995. In fact, someone 55 to 64 years old in 2013 had slightly lower net worth than a member of this age group in 1995 (in 2016 dollars). Note that, unlike other age groups that experienced increases in net worth from 2013 to 2016, families headed by 65- to 74-year-olds experienced a decline.

The economic slowdown also took its toll on the generation that came after the baby boomers (called "Generation X").<sup>23</sup> When compared at similar ages, members of Generation X are less financially secure than the baby boomers. The extent to which members of Generation X will recover financially depends in part on the pace of economic growth from now until they retire. Some experts expect the economy to grow more slowly in the future than it did in the 1980s and 1990s because the labor force is anticipated to expand more slowly than



**FIGURE  
1-23**

**Real family net worth declined for all age groups during the Great Recession, which began in December 2007**



Note: The Survey of Consumer Finances is normally a triennial cross-sectional survey of U.S. families.

Source: Federal Reserve, 2016 Survey of Consumer Finances, released October 2017.

it did then. Labor force growth is anticipated to be held down by the ongoing retirement of the baby boomers and a relatively stable labor force participation rate among working-age women, after sharp increases from the 1960s to the mid-1990s (Congressional Budget Office 2015).

### **Inefficient spending suggests Medicare could spend less without compromising care, but not without challenges**

With few exceptions throughout modern history, health care spending in the United States has grown robustly, outpacing the growth in the economy. Even if Medicare's recent low growth in per beneficiary spending is sustained (and experience in 2014 suggests it may not be), enrollment growth from the aging of the baby boomers will contribute to growth in total spending regardless. However, the Commission does not believe that ever-increasing health care spending is inevitable. There is

strong evidence that a sizable share of current health care spending—both overall and by Medicare—is inefficient or unnecessary, providing an opportunity for policymakers to reduce spending, extend the life of the program, and reduce pressure on the federal budget.

### **Geographic variation within and outside the United States indicates that some share of spending is inefficient**

Research on Medicare spending shows that areas with higher spending or more intensive use of services do not always have higher quality of care or improved patient outcomes (Fisher et al. 2003a, Fisher et al. 2003b). Measures of service use, adjusted for health status and standardized prices, also show considerable variation (Medicare Payment Advisory Commission 2011b). Services that have been widely recognized as low value continue to be performed regularly (Schwartz et al. 2014).

The United States spends more on health care than any other country in the world (both on a per capita basis and



as a share of GDP), but studies consistently show it ranks poorly on indicators of efficiency, equity, and outcomes. According to a 2014 study by the Commonwealth Fund, the United States ranks last of 11 nations on 2 indicators of healthy lives—mortality amenable to medical care and healthy life expectancy at age 60 (Davis et al. 2014).

## Medicare's challenges to increasing efficiency

The Medicare program is a complex and fragmented system, consisting of multiple paths to entitlement, multiple types of coverage (Part A, Part B, Part C, and Part D), multiple payment systems, and different rules for each setting. The Medicare program must set prices for thousands of discrete services at different levels of aggregation (e.g., inpatient hospital payments are paid based on the stay, while physician payments are based on the service) and in different labor markets across the country. The Medicare program statute and rulemaking include a substantial number of exceptions, adjustments, and modifications to its general policies. Several of Medicare's structural features (and some shared across the health care system) complicate efforts to achieve spending efficiencies:

- ***Medicare is just one payer in the overall, multipayer health care system.*** While Medicare is the single largest payer in the health care sector, the policy signals from multiple payers can interact in ways that sometimes result in unintended consequences. For example, if a dual-eligible nursing home resident is hospitalized for three days, he or she would then potentially qualify for a Medicare-covered skilled nursing facility stay, shifting the cost burden from the state Medicaid program to the federal Medicare program. Other care for beneficiaries dually eligible for Medicare and Medicaid can be fragmented.
- ***Fragmented payment system across multiple settings.*** The program sets payment rates each year for at least nine health care settings or provider types: acute care hospitals, physician and other health professional services, home health agencies, skilled nursing facilities, long-term care facilities, hospice, inpatient rehabilitation facilities, ambulatory surgical centers, and end-stage renal disease dialysis facilities. In addition to the yearly rule-making process involved in setting these rates, administrators oversee other parts of the program that operate on fee schedules (ambulances, outpatient lab facilities) or on cost-

based payment (rural health centers, critical access hospitals). Payment rates for Part C (Medicare Advantage) are set using administrative pricing based on a competitive process, and Part D payments (prescription drugs) are set generally by market rates. The fragmented payment system across multiple health care settings reduces incentives to provide patient-centered, coordinated care.

- ***Coverage of services delivered by any willing provider.*** Under Medicare's statute, the program generally covers all medically necessary (a criterion that is open to interpretation) services that are delivered by any willing provider (any provider that is willing to meet Medicare's criteria). As a result, Medicare does not have the authority to develop provider networks or to credential providers, tools that private payers often use to reduce the potential for fraud and abuse. In some cases, the Medicare program even has difficulty removing providers or suppliers whose claims histories clearly demonstrate aberrant patterns of billing, care, or both.
- ***The program's benefit design.*** Beneficiaries face differential cost sharing by service (for example, coinsurance for physician services is 20 percent, while home health has no coinsurance); in addition, the cost-sharing amounts, percentages, and deductibles vary by setting, and some services are not covered (for example, Medicare does not generally cover long-term care). Medicare Part A and Part B lack a cap on out-of-pocket (OOP) costs (a feature that exists in nearly all private insurance policies). In response, many beneficiaries purchase supplemental coverage that includes an OOP maximum. Most supplemental policies also substantially reduce or eliminate most of the beneficiary liability for coinsurance and deductibles, thereby blunting the impact of cost sharing. As a result, there is little incentive for beneficiaries to be cost conscious—that is, to select only those services that are necessary and choose providers who use efficient clinical practices (Medicare Payment Advisory Commission 2012).
- ***Different prices for the same or similar services.*** Because of the different settings in which services are delivered, the Medicare program in some cases has different payment rates for the same or similar services. Under these circumstances, providers have an incentive to shift care to the higher paid setting,

which leads to increased program spending and higher beneficiary cost sharing.

- ***Undervalued and overvalued services.*** In the process of setting rates for thousands of services, certain services are undervalued relative to others, providing incorrect incentives for their use. For example, the Commission has raised concerns that the Medicare fee schedule overpays for services provided by clinicians in procedural specialties and underpays for services provided by clinicians in primary care specialties (Medicare Payment Advisory Commission 2011a). This imbalance results in significantly higher income for clinicians in procedural specialties relative to those in primary care specialties, contributing to a corresponding imbalance in clinician supply.
- ***Prompt payment standards.*** The Medicare program also follows prompt payment requirements, paying claims within 30 days of receipt. Otherwise, Medicare is liable for interest. This emphasis on timely payment means that, in many cases, the claim may be paid and only thereafter identified as potentially fraudulent or erroneous.
- ***Vulnerability to patient selection, steering, and overuse.*** Another consequence of Medicare's payment structure is its vulnerability to patient selection, steering, and overuse. For example, with some payment systems, it is financially advantageous for providers to treat certain kinds of beneficiaries and avoid others, provide certain types of services over others, or treat beneficiaries in a higher paid setting. In addition, in Medicare's FFS system, providers may be able to increase their revenue by increasing the volume of services they provide without commensurate value to the beneficiary. In addition, clinicians can prescribe drugs and medical devices while receiving payment from manufacturers.

These features make the program vulnerable to inappropriate care, waste, and fraud. GAO annually designates Medicare as a high-risk program because of its size, complexity, and susceptibility to mismanagement and improper payments, which include fraud and errors but not overuse. For fiscal year 2014, the agency found improper payments of 12.7 percent for Medicare FFS, 9 percent for Part C, and 3.3 percent for Part D (Government Accountability Office 2013).

In recent years, CMS has gained new authorities to exclude potentially fraudulent providers from the program and apply different levels of scrutiny to new providers based on their fraud potential. CMS has also further developed its ability to identify potentially fraudulent billing patterns. However, all of CMS's activities in this area are constrained by resources and subject to statutory requirements that limit its ability to use the same tools as private insurers to reduce fraud (Government Accountability Office 2013).

Congress has recognized the need for CMS to pursue value-based purchasing policies. For example, the Improving Medicare Post-Acute Care Transformation Act of 2014 required post-acute care providers to report standardized performance data and linked these measures to payment. Earlier, in 2010, PPACA emphasized tying payment to quality in the Medicare program (e.g., by allowing accountable care organizations (ACOs) that meet quality thresholds to share in cost savings and by reducing payments to hospitals with excessive readmissions and hospital-acquired conditions). PPACA also included new CMS authorities through the establishment of an Innovation Center to test different payment structures and methodologies; the intention is to reduce program expenditures while maintaining or improving quality of care, which, if successful, could be extended within Medicare.

### **The Commission's approach to addressing these challenges**

Medicare's goal should be to obtain the greatest possible value for the program's expenditures, which means maintaining beneficiaries' access to high-quality services while encouraging efficient use. However, managing payment rates alone will not address the Medicare FFS system's key challenge—that providers are usually paid more for doing more services but are usually not held accountable for outcomes. Resolving this conundrum will require further reform of both the payment and delivery systems.

The Commission's work can be categorized in the following domains: (1) payment accuracy and efficiency, (2) care coordination and quality, (3) information for patients and providers, (4) engagement of beneficiaries, and (5) alignment of the health care workforce. Regardless of the issue, the Commission always considers the interests of three main actors: the beneficiary—access

to high-quality, efficient care; the provider—fair and equitable pay; and the taxpayer—the most prudent and valuable use of the public’s dollar.

The Commission has made numerous recommendations to improve Medicare across these five domains (see online Appendix 1-A, available at <http://www.medpac.gov>, for information on prior Commission recommendations). Many of these recommendations still await adoption from the Congress or the Secretary. The Commission strongly urges action on outstanding recommendations:

- ***Improving payment accuracy and encouraging efficiency to influence change.*** In Medicare’s payment systems, the payment rates for individual products and services too often do not accurately reflect the cost of furnishing the product or service. Inaccurate payment rates create incentives for higher volume growth for certain services, thereby unduly disadvantaging some providers and rewarding others. The Commission pursues payment accuracy in its update recommendations as well as other policy recommendations, with a focus on ensuring that payment is adequate for the efficient provision of care.

The Commission has also identified areas in which payment differences, not clinical differences, among settings for the same service drive the choice of a patient’s treatment setting. In principle, the Medicare program should pay the same amount for the same service, regardless of the setting in which it is provided, unless payment differentials are justifiable based on differences in patient mix, provider mission, or other explicitly recognized factors. In June 2017, the Commission made a recommendation to adopt a unified post-acute care (PAC) payment system. In March 2012, 2013, and 2014, the Commission made a host of recommendations addressing site-neutral payment issues.

In addition, the Commission has embraced a preference for moving the Medicare program beyond a primarily FFS system to one where payment policy is designed to improve care coordination. By thus addressing the underlying delivery of care, Medicare would hold providers responsible for the health outcomes of beneficiaries. The Commission has made numerous recommendations and provided details on mechanisms to support this program shift (e.g., opportunities for providers to organize into ACOs, ways to standardize measures and payment across

PAC settings, per beneficiary payment for primary care providers).

- ***Encouraging care coordination and quality.*** Medicare has relied on providers’ norms to uphold professional standards and satisfy patients, but until recently the program did not have the authority to hold providers accountable for improving or to provide incentives to improve the quality of care they provide. Similarly, few structures exist in Medicare to hold providers accountable for a beneficiary’s full spectrum of care, even when they make the referrals that dictate additional resource use. The Commission has supported policies that move Medicare beyond FFS into payment systems that make a provider responsible for the patient’s entire episode of care to help address these gaps between settings.

One such payment policy involves ACOs. In an October 2011 comment letter to the Congress and the March 2013 report to the Congress, the Commission recommended increasing the shared savings opportunity for physicians and health professionals who join or lead two-sided-risk ACOs—holding providers at financial risk to meet quality measures while obligating the program to pay for successful provider performance. Other suggested improvements to the ACO program include providing these ACOs with regulatory relief, making risks and rewards asymmetric, and giving them better tools to engage beneficiaries (e.g., waiving some or all cost sharing for beneficiaries when they use ACO providers). In addition to the 2014 recommendations, the Commission provided extensive guidance to the Congress and CMS in identifying ways to improve Medicare’s ACO program in its June 2009 report to the Congress and in comment letters to CMS in November 2010, June 2011, June 2014, February 2015, March 2016, and November 2017.

- ***Broadening information available to Medicare, patients, and providers.*** Medicare and its providers lack the information and tools needed to improve quality and use program resources efficiently. For example, Medicare lacks quality data from many settings of care and does not have timely cost or market data to set accurate payment rates. In addition, beneficiaries are called on to make complex choices among delivery systems, drug plans, and providers. Medicare has started to make information available

for beneficiaries that could help them choose higher quality providers or lower cost treatments and improve their satisfaction. The Commission has supported policies that promote comparative effectiveness, disclosure of physician financial relationships, and public reporting of quality information.

The Commission has extensively discussed the use of shared decision making to engage patients in health care enrollment and treatment decisions. In 2010, we recommended that the Secretary of the Department of Health and Human Services produce comparable information on the performance of MA plans and FFS providers so that beneficiaries could make informed decisions about the means of their Medicare coverage. In 2015, we recommended that hospitals be required to notify beneficiaries placed in outpatient observation status of their status and the financial implications of that placement decision.

- **Engaging beneficiaries.** While much of the Commission’s work focuses on providers and their payment incentives, how beneficiaries view the Medicare program and how they make decisions about their health care are vital to the program’s success. Developing policies that engage the beneficiary as well as the provider has the potential to improve health, improve the experience of health care provided through Medicare, and control costs for the beneficiary and taxpayer alike. The Commission has supported reforming the current benefit design to include a cap on OOP spending and has promoted shared decision making.

The Commission has discussed the importance of altering beneficiary financial liability in a way that would encourage beneficiaries to be more cost conscious when making health care decisions. In 2011, the Commission recommended implementing a copayment for home health care that is not preceded by a hospital stay. In June 2012, the Commission recommended many elements of FFS redesign including an OOP maximum deductible for Part A and Part B services. Similarly, in March 2012, noting that low-income beneficiaries were using more high-cost, brand-name drugs that have generic substitutes than higher income beneficiaries were, the Commission recommended that Part D cost sharing be changed for low-income subsidy enrollees to give them more of a financial incentive (such as no copayment for

generics) to weigh the benefits of continuing to take brand-name drugs or switching to a generic equivalent.

- **Aligning the health care workforce.** Our nation’s system of medical education and graduate training is not aligned with the delivery system reforms essential for increasing the value of health care in the United States.<sup>24</sup> The Commission has pursued policies that increase the incentives for residency programs to focus on quality, efficiency, and accountability so that the future clinician workforce can better address the needs of beneficiaries.

The Commission has published recommendations involving physicians and other health professionals and their role in a reformed delivery system. In 2010, the Commission made a number of recommendations aimed at improving how physicians are trained and paid by Medicare.

---

## Conclusion

---

The high and growing level of health care spending as a share of the economy means that—absent substantial changes in spending or the economy—an ever-increasing amount of the country’s economic activity and gain will be dedicated to purchasing health care. Medicare is the single largest payer in the health care sector and will expand with the aging of the baby-boom generation, greatly increasing program spending. Significant cross-sectional variation in use and spending that does not correspond to better quality raises concern that higher health care use and spending are not improving overall health and are putting beneficiaries at risk, both medically and financially.

Because of its size and because other payers use its payment methods, Medicare is an important influence on the nation’s health care delivery system and its evolution. Reciprocally, trends in the private health insurance market can influence whether Medicare’s payment reforms are ultimately successful. Because of this interaction between public and private payers, the alignment of incentives across payers is an important consideration for delivery system reforms.

Despite the relatively lower rates of spending growth recently experienced by Medicare, the program is projected to continue to absorb increasing amounts of



federal revenue. Absent changes to current policy, other public investments such as education and infrastructure will be crowded out by high and growing levels of health care spending. State and federal budgets face continued

fiscal pressure, effects intensified by health care spending trends. In light of strained federal, family, and individual budgets, the Medicare program must urgently pursue reforms that decrease spending and improve quality. ■

## Endnotes

---

- 1 Going forward, the Medicare Trustees project that opportunities for further generic use may diminish. Growth in the use and development of high-cost specialty drugs is beginning to overtake the moderating price influence of generics (Medicare Payment Advisory Commission 2016).
- 2 Figure 1-2 (p. 9) shows that the share of spending accounted for by private health insurance (35 percent in 2016) is greater than Medicare's share (22 percent in 2016). However, in contrast to Medicare, private health insurance is not a single purchaser of health care; rather, it includes many payers, including traditional managed care, self-insured health plans, and indemnity plans.
- 3 FFS, MA, and Part D spending reflect reimbursement amounts on an incurred basis and do not include beneficiary premiums. We calculate per beneficiary spending by dividing total spending for each category reported in the Trustees report by the appropriate enrollment number (i.e., for Part A, Part B, or Part D) reported in the Trustees report.
- 4 The Commission's calculations are based on aggregate Part D reimbursements to plans and employers on an incurred basis as shown in Table IV.B10 of the 2017 annual report of the Boards of Trustees of the Medicare trust funds. Per beneficiary spending excludes premium payments.
- 5 Outpatient hospital services and outpatient lab services are combined in Figure 1-6 (p. 14) because a large portion of outpatient laboratory services were bundled into the outpatient prospective payment system effective January 1, 2014.
- 6 Note that the Medicare Trustees project enrollment and costs for each of the three categories of Medicare enrollees: aged, disabled, and end-stage renal disease (ESRD). Costs for beneficiaries with ESRD are greater than and include a different mix of services than those for other beneficiaries. Costs for beneficiaries who qualify as the result of disabilities are roughly similar to those who qualify because of age but include a different mix of services. While the number of under-65 and ESRD beneficiaries are projected to increase, this growth is outpaced by the influx of baby boomers turning 65. Aged beneficiaries are projected to account for about 83 percent of FFS enrollees in 2007, growing to about 88 percent by 2026.
- 7 Moon and colleagues at the American Institutes for Research argue that the ratio of workers per beneficiary presents an incomplete picture. They note that new benefits (e.g., Part D) have been added to the program and, "over time, taxpayers' share of Medicare's costs has actually declined and will decline further as older Americans remain longer in the labor force and as income-related elements in the law that raise premiums over time for higher income beneficiaries become even more important." Additionally, they contend that while Medicare spending is projected to grow faster than GDP, GDP grows larger over time, so the burden on taxpayers will not be enough to "substantially dampen growth in real incomes over time" (Moon et al. 2016).
- 8 In addition to payroll taxes, the HI Trust Fund's income sources include taxation of Social Security benefits (7 percent in 2015), premiums from people who are not eligible for premium-free Part A (1 percent in 2015), general revenue transfers for certain uninsured beneficiaries who are not entitled to HI coverage based on their work history but are eligible through special statutes (less than 1 percent in 2015), monies from fraud and abuse control activities (less than 1 percent in 2015), and interest earned on the trust fund investments (3 percent in 2015).
- 9 The standard HI payroll tax rate is scheduled to remain constant at 2.9 percent (for employees and employers, combined). In addition, starting in 2013, high-income workers pay an additional 0.9 percent of their earnings above \$200,000 for single workers or \$250,000 for married couples filing joint income tax returns.
- 10 For Part D, the beneficiary premium share is based on 25.5 percent of the average cost of the basic benefit.
- 11 Other major health programs include Medicaid, the Children's Health Insurance Program, and federal subsidies for the federal and state exchanges legislated under PPACA.
- 12 The Medicare fee schedule includes geographic practice cost indexes (GPCIs) that adjust payment rates for costs that vary depending on the geographic area in which a service is furnished. There are three GPCI adjustments: work, practice expense, and professional liability insurance (PLI). The work GPCI is constructed using BLS data on the earnings of professionals in seven reference occupational categories: architecture and engineering; computer, mathematical, life, and physical science; social science, community and social service, and legal; education, training, and library; registered nurses; pharmacists; and art, design, entertainment, sports, and media. The practice expense GPCI is an adjustment for costs such as rent and staff wages that are incurred in operating a medical practice and are known to vary geographically. The PLI GPCI is an adjustment for the premiums that physicians and other health professionals pay for that type of insurance. Medicare's payment rates to hospitals are also adjusted for differences in reported hospital wages across geographic areas in the United States. Like the GPCI, the hospital wage index is intended to measure differences in wage rates among labor

- markets. By law, CMS calculates the index using data only from hospitals paid under Medicare’s inpatient prospective payment system. It uses self-reported data in hospital cost reports and hence is prone to the problem of circularity. For example, hospitals that successfully moderate increases in hourly wages relative to the national average increase will see a decrease in their wage index.
- 13 Household income, health expenditures, and premiums are all measured in nominal dollars.
  - 14 Medicare beneficiaries with low income and assets have their premiums and may have their cost sharing paid for by Medicaid, and some others have retiree coverage or medigap policies that cover cost sharing.
  - 15 The National Center for Health Statistics defines life expectancy as the average number of years that a hypothetical group of infants would live at each attained age if the group were subject, throughout its lifetime, to the age-specific death rates prevailing from the actual population in a given year (Arias 2016).
  - 16 The authors noted limitations to their study: “Life expectancy estimates for Hispanics, Asian/Pacific Islanders, and American Indians/Alaska Natives should be interpreted with caution as vital statistics–based mortality rates for these groups tend to be underestimated by 5 percent, 7 percent, and 30 percent, respectively.”
  - 17 The measures of life expectancy and mortality rate are not interchangeable. However, the two measures are closely related. The National Centers for Health Statistics life expectancy estimate represents the average number of years of life remaining if a group of persons were to experience the mortality rates for that specific year of calculation over the course of their remaining life.
  - 18 Researchers at the Commonwealth Fund attribute this difference to the effects of the United States’ poorer performance on access to care (measured in terms of timeliness and affordability), administrative efficiency (as reported by patients and doctors), and income-related disparities in access to care and quality (Schneider and Squires 2017).
  - 19 Baby boomers are people born during the demographic post–World War II baby boom between the years 1946 and 1964.
  - 20 When compared with the previous generation at ages 45 to 64, the baby-boom generation had a larger share of individuals with physician-diagnosed and undiagnosed diabetes (15.0 percent vs. 13.9 percent, respectively), but a smaller share of individuals with diagnosed diabetes who had poor glycemic control (14.1 percent versus 26.0 percent, respectively) (National Center for Health Statistics 2014).
  - 21 Income for individuals over age 65 grew because, as individuals leave the workforce, Social Security makes up a larger and larger share of their income (DeNavas-Walt and Proctor 2013, National Bureau of Economic Research 2014).
  - 22 In 2014, baby boomers were between the ages of 50 and 68.
  - 23 Members of Generation X were born between 1965 and 1980.
  - 24 A recent article highlighted multiple ways that medical education aligns with quality of care goals and suggests improvements to support delivery system reform (Dow and Thibault 2017).



## References

---

- Aaron, H. J. 2015. *The myth behind America's deficit*. Washington, DC: The Brookings Institution.
- Arias, E. 2016. *Changes in life expectancy by race and Hispanic origin in the United States, 2013–2014*. NCHS data brief, no. 244. Hyattsville, MD: National Center for Health Statistics.
- Auerbach, D. I., and A. L. Kellermann. 2011. A decade of health care cost growth has wiped out real income gains for an average US family. *Health Affairs* 30, no. 9 (September): 1630–1636.
- Baicker, K., and A. Chandra. 2006. The labor market effects of rising health insurance premiums. *Journal of Labor Economics* 24, no. 3: 609–634.
- Baily, M. N., and S. E. Holmes. 2015. *Serving the best interests of retirement savers: Framing the issues*. Washington, DC: The Brookings Institution.
- Baker, L. C., M. K. Bundorf, and D. P. Kessler. 2014a. Vertical integration: Hospital ownership of physician practices is associated with higher prices and spending. *Health Affairs* 33, no. 5 (May): 756–763.
- Baker, L. C., M. K. Bundorf, A. B. Royalty, et al. 2014b. Physician practice competition and prices paid by private insurers for office visits. *Journal of the American Medical Association* 312, no. 16 (October 22–29): 1653–1662.
- Beltran-Sanchez, H., C. E. Finch, and E. M. Crimmins. 2015. Twentieth century surge of excess adult male mortality. *Proceedings of the National Academy of Sciences of the United States of America* 112, no. 29 (July 21): 8993–8998.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2017. *2017 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2016. *2016 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2014. *2014 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Bureau of Labor Statistics, Department of Labor. 2017. May 2016 national occupational employment and wage estimates United States. <http://www.bls.gov/oes/>.
- Bureau of Labor Statistics, Department of Labor. 2007. May 2006 national occupational employment and wage estimates United States. <http://www.bls.gov/oes/>.
- Case, A., and A. Deaton. 2017. *Mortality and morbidity in the 21st century*. Washington, DC: Brookings Institution.
- Case, A., and A. Deaton. 2015. Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century. *Proceedings of the National Academy of Sciences of the United States of America* 112, no. 49 (December 8): 15078–15083.
- Census Bureau. 2017. Household income data for 2014. <https://factfinder.census.gov>.
- Census Bureau. 2014a. *65+ in the United States: 2010*. P23–212. Washington, DC: Government Printing Office.
- Census Bureau. 2014b. National population projections: Downloadable files: Table 1. Projected population by single year of age, sex, race, and Hispanic origin for the United States, 2012 to 2060: Middle series. <https://www.census.gov/data/tables/2014/demo/popproj/2014-summary-tables.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017a. National health expenditures, 1960–2016 historical data. <http://www.cms.gov/ResearchStatistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017b. National health expenditures, projections 2016–2025. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. *2016 actuarial report on the financial outlook for Medicaid*. Baltimore, MD: CMS. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/ActuarialStudies/Downloads/MedicaidReport2016.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015a. County-level chronic conditions report: Prevalence. [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/MCC\\_Main.html](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/MCC_Main.html).

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015b. State-level chronic conditions report: Medicare utilization and spending. [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/MCC\\_Main.html](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/MCC_Main.html).

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014. *2014 actuarial report on the financial outlook for Medicaid*. Baltimore, MD: CMS.

Chetty, R., M. Stepner, S. Abraham, et al. 2016. The association between income and life expectancy in the United States, 2001–2014. *Journal of the American Medical Association* 315, no. 16 (April 26): 1750–1766.

Compton, W. M., C. M. Jones, and G. T. Baldwin. 2016. Relationship between nonmedical prescription-opioid use and heroin use. *New England Journal of Medicine* 374, no. 2 (January 14): 154–163.

Congressional Budget Office. 2017a. *The 2017 long-term budget outlook*. Washington, DC: CBO.

Congressional Budget Office. 2017b. *Cost estimate for the conference agreement on H.R. 1*. Washington, DC: CBO.

Congressional Budget Office. 2017c. *An update to the budget and economic outlook: 2017 to 2027*. Washington, DC: CBO.

Congressional Budget Office. 2015. *The budget and economic outlook: 2015 to 2025*. Washington, DC: CBO.

Cooper, Z., S. V. Craig, M. Gaynor, et al. 2015. *That price ain't right? Hospital prices and health spending on the privately insured*. NBER working paper no. 21815. Cambridge, MA: National Bureau of Economic Research.

Cutler, D. M., and E. L. Glaeser. 2006. *Why do Europeans smoke more than Americans?* NBER working paper 12124. Cambridge, MA: National Bureau of Economic Research.

Cutler, D. M., and N. R. Sahn. 2013. If slow rate of health care spending growth persists, projections may be off by \$770 billion. *Health Affairs* 32, no. 5 (May): 841–850.

Davis, K., K. Stremikis, D. Squires, et al. 2014. *Mirror, mirror on the wall, 2014 update: How the U.S. health care system compares internationally*. New York: Commonwealth Fund. <http://www.commonwealthfund.org/publications/fund-reports/2014/jun/mirror-mirror>.

DeNavas-Walt, C., and B. Proctor. 2013. *Income and poverty in the United States: 2013*. P60–249. Suitland, MD: Census Bureau.

Dow, A., and G. Thibault. 2017. Interprofessional education: A foundation for a new approach to health care. *New England Journal of Medicine* 377, no. 9 (August 31): 803–805.

Ellison, A. 2016. Hospital M&A activity jumps 70% in 5 years. *Becker's Hospital Review*, January 21.

FAIR Health. 2016. *The opioid crisis among the privately insured*. New York, NY: FAIR Health.

Federal Trade Commission. 2016. Keynote address of FTC Chairwoman Edith Ramirez at the Antitrust in Healthcare Conference, May 12. [https://www.ftc.gov/system/files/documents/public\\_statements/950143/160519antitrusthealthcarekeynote.pdf](https://www.ftc.gov/system/files/documents/public_statements/950143/160519antitrusthealthcarekeynote.pdf).

Fisher, E. S., D. E. Wennberg, T. A. Stukel, et al. 2003a. The implications of regional variations in Medicare spending. Part 1: The content, quality, and accessibility of care. *Annals of Internal Medicine* 138, no. 4 (February 18): 273–287.

Fisher, E. S., D. E. Wennberg, T. A. Stukel, et al. 2003b. The implications of regional variations in Medicare spending. Part 2: Health outcomes and satisfaction with care. *Annals of Internal Medicine* 138, no. 4 (February 18): 288–298.

Gaynor, M., and R. Town. 2012. *The impact of hospital consolidation—Update*. The Synthesis Project, policy brief no. 9. Princeton, NJ: Robert Wood Johnson Foundation.

Gaynor, M., K. Ho, and R. Town. 2014. *The industrial organization of health care markets*. NBER working paper no. 19800. Cambridge, MA: National Bureau of Economic Research.

Geiss, L. S., J. Wang, Y. J. Cheng, et al. 2014. Prevalence and incidence trends for diagnosed diabetes among adults aged 20 to 79 years, United States, 1980–2012. *Journal of the American Medical Association* 312, no. 12 (September 24): 1218–1226.

Government Accountability Office. 2015. *Medicare: Increasing hospital physician consolidation highlights need for payment reform*. GAO–16–189. Washington, DC: GAO.

Government Accountability Office. 2013. *High-risk series: An update*. Washington, DC: GAO.

Gregg, E. W., Y. Li, J. Wang, et al. 2014a. Changes in diabetes-related complications in the United States, 1990–2010. *New England Journal of Medicine* 370, no. 16 (April 17): 1514–1523.

Gregg, E. W., X. Zhuo, Y. J. Cheng, et al. 2014b. Trends in lifetime risk and years of life lost due to diabetes in the USA, 1985–2011: A modelling study. *Lancet Diabetes & Endocrinology* 2, no. 11 (November): 867–874.

- Gruber, J. 2000. Health insurance and the labor market. In *Handbook of Health Economics*, vol. 1, edited by A. J. Culyer and J. P. Newhouse. New York, NY: Elsevier Science.
- Hartman, M., A. B. Martin, N. Espinosa, et al. 2017. National health care spending in 2016: Spending and enrollment growth slow after initial coverage expansions. *Health Affairs* (published December 6 online ahead of print).
- Health Care Cost Institute. 2016. *2015 health care cost and utilization report*. Washington, DC: HCCI.
- Health Care Cost Institute. 2015. *2014 health care cost and utilization report*. Washington, DC: HCCI.
- Health Care Cost Institute. 2014. *2013 health care cost and utilization report*. Washington, DC: HCCI.
- Hogan, C. 2015. *Spending in the last year of life and the impact of hospice on Medicare outlays*. Addendum added August 6. Report prepared by Direct Research LLC for the Medicare Payment Advisory Commission. Washington, DC: MedPAC.
- Holahan, J., L. Blumberg, and L. Clemans-Cope. 2017. *The evidence on recent health care spending growth and the impact of the Affordable Care Act*. Washington, DC: Urban Institute.
- Hoyert, D. L. 2012. *75 years of mortality in the United States, 1935–2010*. NCHS data brief, no. 88. Hyattsville, MD: National Center for Health Statistics.
- Irving Levin Associates Inc. 2016. *The health care services acquisition report: 22nd edition*. Norwalk, CT: Irving Levin Associates Inc.
- Kaiser Family Foundation and Health Research & Educational Trust. 2017. *Employer health benefits: 2017 annual survey*. Menlo Park, CA: Kaiser Family Foundation/HRET.
- Kane, C. K. 2015. *Updated data on physician practice arrangements: Inching toward hospital ownership*. Chicago, IL: American Medical Association.
- Keehan, S. P., D. A. Stone, J. A. Poisal, et al. 2017. National health expenditure projections, 2016–25: Price increases, aging push sector to 20 percent of economy. *Health Affairs* 36, no. 3 (March 1): 553–563.
- Kochanek, K., E. Arias, and R. N. Anderson. 2015. *Leading causes of death contributing to decrease in life expectancy gap between Black and White populations: United States, 1999–2013*. Data brief, no. 218. Hyattsville, MD: National Center for Health Statistics.
- Martin, A. B., M. Hartman, J. Benson, et al. 2015. National health spending in 2014: Faster growth driven by coverage expansion and prescription drug spending. *Health Affairs* (December 2).
- Martin, A. B., M. Hartman, B. Washington, et al. 2016. National health spending: Faster growth in 2015 as coverage expands and utilization increases. *Health Affairs* (published December 2 online ahead of print).
- McWilliams, J. M., E. Meara, A. M. Zaslavsky, et al. 2009. Medicare spending for previously uninsured adults. *Annals of Internal Medicine* 151, no. 11 (December 1): 757–766.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014a. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2011a. Moving forward from the sustainable growth rate (SGR) system. Letter to the Congress. October 14.
- Medicare Payment Advisory Commission. 2011b. *Report to the Congress: Regional variation in Medicare service use*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2007. *Report to the Congress: Promoting greater efficiency in Medicare*. Washington, DC: MedPAC.

- Milusheva, S., and G. Burtless. 2012. *Effects of employer health costs on the trend and distribution of Social-Security-taxable wages*. Washington, DC: The Brookings Institution.
- Montez, J. K., A. Zajacova, and M. D. Hayward. 2016. Explaining inequalities in women's mortality between U.S. states. *SSM Population Health* 2 (December): 561–571.
- Moon, M., J. Guo, and Y. Wang. 2016. *Can we afford Medicare?* Issue brief. Washington, DC: American Institutes for Research. <http://www.air.org/system/files/downloads/report/Center-on-Aging-Can-We-Afford-Medicare-4-May-2016.pdf>.
- National Bureau of Economic Research. 2014. US business cycle expansions and contractions. <http://www.nber.org/cycles.html>.
- National Center for Health Statistics, Department of Health and Human Services. 2017. *Health, United States, 2016: With chartbook on long-term trends in health*. Hyattsville, MD: NCHS.
- National Center for Health Statistics, Department of Health and Human Services. 2015. *Health, United States, 2014: With special feature on prescription drugs*. Hyattsville, MD: NCHS.
- National Center for Health Statistics, Department of Health and Human Services. 2014. *Health, United States, 2013: With special feature on prescription drugs*. Hyattsville, MD: NCHS.
- Robinson, J. C., and K. Miller. 2014. Total expenditures per patient in hospital-owned and physician-owned physician organizations in California. *Journal of the American Medical Association* 312, no. 16 (October 22–29): 1663–1669.
- Rudd, R. A., N. Aleshire, J. E. Zibbell, et al. 2016. Increases in drug and opioid overdose deaths—United States, 2000–2014. *Morbidity and Mortality Weekly Report* 64, no. 50–51 (January 01): 1378–1382.
- Schneider, E. C., and D. Squires. 2017. From last to first: Could the U.S. health care system become the best in the world? *New England Journal of Medicine* 377, no. 10 (September 7): 901–904.
- Schwartz, A., B. Landon, A. Elshaug, et al. 2014. Measuring low-value care in Medicare. *JAMA Internal Medicine* 174, no. 7 (July): 1067–1076.
- Selden, T. M., Z. Karaca, P. Keenan, et al. 2015. The growing difference between public and private payment rates for inpatient hospital care. *Health Affairs* 34, no. 12 (December 1): 2147–2150.
- Singh, G. K., and M. Siahpush. 2014. Widening rural–urban disparities in life expectancy, U.S., 1969–2009. *American Journal of Preventative Medicine* 46, no. 2 (February): e19–e29.
- Social Security Administration. 2016. Income of the population 55 or older. Baltimore, MD: SSA. [http://www.ssa.gov/policy/docs/statcomps/income\\_pop55/index.html](http://www.ssa.gov/policy/docs/statcomps/income_pop55/index.html).
- Spitalnic, P. 2016. *The 2016 Medicare trustees report: One year closer to IPAB cuts?* Keynote address at Brookings Institution event at the Brookings Institution, June 23. <https://www.brookings.edu/events/the-2016-medicare-trustees-report-one-year-closer-to-ipab-cuts/>.
- Stensland, J., Z. R. Gaumer, and M. E. Miller. 2010. Private-payer profits can induce negative Medicare margins. *Health Affairs* 29, no. 5 (May): 1045–1051.
- Tollen, L. 2015. *Health policy brief: Medicaid primary care parity*. Updated May 15. Washington, DC: Health Affairs/Robert Wood Johnson Foundation.
- United Health Foundation. 2016. *America's Health Rankings senior report*. Minnetonka, MN: UHF.
- Welch, H. G., L. M. Schwartz, and S. Woloshin. 2011. *Overdiagnosed: Making people sick in the pursuit of health*. Boston, MA: Beacon Press.
- White, C., and V. Y. Wu. 2014. How do hospitals cope with sustained slow growth in Medicare prices? *Health Services Research* 49, no. 1 (February): 11–31.
- Zolot, J. 2017. U.S. life expectancy varies depending on county of birth. *American Journal of Nursing* 117, no. 8 (August): 15.

# CHAPTER 2

---

## **Assessing payment adequacy and updating payments in fee-for-service Medicare**

---





# Assessing payment adequacy and updating payments in fee-for-service Medicare

## Chapter summary

As required by law, the Commission annually makes payment update recommendations for providers paid under fee-for-service (FFS) Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a payment system is changed relative to the prior year. To determine an update, we first assess the adequacy of Medicare payments for providers in the current year (2018) by considering beneficiaries' access to care, the quality of care, providers' access to capital, and Medicare payments and providers' costs. Next, we assess how those providers' costs are likely to change in the year the update will take effect (the policy year, 2019). As part of the process, we examine payments to support the efficient delivery of services, consistent with our statutory mandate. Finally, we make a judgment about what, if any, update is needed. (The Commission also assesses Medicare payment systems for Part C and Part D and makes recommendations as appropriate. But because they are not FFS payment systems, they are not part of the discussion in this chapter.)

This year, we consider recommendations in nine FFS sectors: acute care hospitals, physicians and other health professionals, ambulatory surgical centers, outpatient dialysis facilities, skilled nursing facilities, home health care agencies, inpatient rehabilitation facilities, long-term care hospitals, and hospices. Each year, the Commission looks at all available indicators of payment adequacy and reevaluates any assumptions from prior years using the most recent data available to make sure its recommendations accurately

## In this chapter

- Are Medicare payments adequate in 2018?
- What cost changes are expected in 2019?
- How should Medicare payments change in 2019?
- Payment adequacy in context

reflect current conditions. We may also consider recommending changes that redistribute payments within a payment system to correct any biases that may make patients with certain conditions financially undesirable, make particular procedures unusually profitable, or otherwise result in inequity among providers. Finally, we may also make recommendations to improve program integrity.

Our recommendations, if enacted, could significantly change the revenues providers receive from Medicare. Rates set to cover the costs of relatively efficient providers help create fiscal pressure on all providers to control their costs. Medicare rates also have broader implications for health care spending. For example, Medicare rates are commonly used to set hospital rates charged to uninsured patients eligible for financial assistance, used by Medicare Advantage plans to set hospital prices, and used by the Department of Veterans Affairs (VA) to pay non-VA providers (Department of Veterans Affairs 2010, Internal Revenue Service 2014, Medicare Payment Advisory Commission 2013).

The Commission also examines payment rates for services that can be provided in multiple settings. Medicare often pays different amounts for similar services across settings. Basing the payment on the rate in the most efficient setting would save money for Medicare, reduce cost sharing for beneficiaries, and reduce the financial incentive to provide services in the higher paid setting. However, putting into practice the principle of paying the same rate for the same service across settings can be complex because it requires that the definition of the services and the characteristics of the beneficiaries across settings be sufficiently similar. In March 2012, we recommended equalizing rates for evaluation and management office visits provided in hospital outpatient departments and physicians' offices (Medicare Payment Advisory Commission 2012). In 2014, we extended that recommendation to additional services provided in those two settings and recommended consistent payment between acute care hospitals and long-term care hospitals for certain classes of patients (Medicare Payment Advisory Commission 2014). In the Bipartisan Budget Act of 2015, the Congress made payment to outpatient departments for certain services equal to the physician fee schedule rates for those same services provided at any new outpatient off-campus location beginning in 2018. In 2016, to make payments across all of the post-acute care payment settings comparable, the Commission recommended elements of a single prospective payment system (PPS) for all post-acute care to replace the four independent PPSs in use today (skilled nursing facility, inpatient rehabilitation facility, long-term care hospital, and home health) (Medicare Payment Advisory Commission 2016). In Chapter 7, we recommend blending setting-specific and unified post-acute care prospective payment system relative weights to help transition to a unified system. The Commission will continue to analyze opportunities for applying this principle to other services and settings. ■

---

## Background

---

The goal of Medicare payment policy should be to obtain good value for the program's expenditures, which means maintaining beneficiaries' access to high-quality services while encouraging efficient use of resources. Anything less does not serve the interests of the taxpayers and beneficiaries who finance Medicare through their taxes and premiums. Steps toward this goal involve:

- setting the base payment rate (i.e., the payment for services of average complexity) at the right level;
- developing payment adjustments that accurately reflect market, service, and patient cost differences beyond providers' control;
- adjusting payments for quality; and
- considering the need for annual payment updates and other policy changes.

To help determine the appropriate base payment rate for a given payment system in 2019, we first consider whether payments are adequate for relatively efficient providers in 2018. To inform the Commission's judgment, we examine data on beneficiaries' access to care, the quality of care, providers' access to capital, and Medicare payments and providers' costs for 2018. We then consider how providers' costs will change in 2019. Taking these factors into account, we then recommend how Medicare payments for the sector in aggregate should change in 2019.

Within a given level of funding for a sector, we may also consider changes in payment policy to improve payment accuracy. Such changes are intended to improve equity among providers or access to care for beneficiaries and may also affect the distribution of payments among providers in a sector. For example, in this report, the Commission is recommending that CMS use a blend of the setting-specific relative weights and the unified post-acute care (PAC)–prospective payment system (PPS) relative weights for each of the four PAC settings to redistribute payments within each setting toward medically complex patients.

We also make recommendations to improve program integrity when needed. In some cases, our data analysis reveals problematic variation in service utilization across geographic regions or providers. For example, in reaction to patterns of unusually long stays in a subset of hospices, we recommended medical review focused on hospices that

have many long-stay patients. In 2016, we recommended the Secretary closely examine the coding practices of certain inpatient rehabilitation facilities that appear to result in very high Medicare margins.

We compare our recommendations for updates and other policy changes for 2019 with the base payment rates specified in Medicare law to understand the implications for beneficiaries, providers, and the Medicare program. As has been the Commission's policy in the past, we consider our recommendations each year in light of the most current data and, in general, recommend updates for a single year.

---

## Are Medicare payments adequate in 2018?

---

The first part of the Commission's approach to developing payment updates is to assess the adequacy of current Medicare payments. For each sector, we make a judgment by examining information on the following:

- beneficiaries' access to care
- quality of care
- providers' access to capital
- Medicare payments and providers' costs for 2018

Some measures focus on beneficiaries (e.g., access to care) and some focus on providers (e.g., the relationship between payments and costs). The direct relevance, availability, and quality of each type of information vary among sectors, and no single measure provides all the information needed for the Commission to judge payment adequacy. Ultimately, the Commission makes its recommendations considering all of these factors.

### Beneficiaries' access to care

Access to care is an important indicator of the willingness of providers to serve Medicare beneficiaries and the adequacy of Medicare payments. For example, poor access could indicate that Medicare payments are too low. However, factors unrelated to Medicare's payment policies may also affect access to care. These factors include coverage policies, beneficiaries' preferences, local market conditions, and supplemental insurance.

The measures we use to assess beneficiaries' access to care depend on the availability and relevance of

information in each sector. We use results from several surveys to assess the willingness of physicians and other health professionals to serve beneficiaries and beneficiaries' opinions about their access to physician and other health professional services. For home health services, we examine data on whether communities are served by providers.

### **Access: Capacity and supply of providers**

Rapid growth in the capacity of providers to furnish care may increase beneficiaries' access and indicate that payments are more than adequate to cover providers' costs. Changes in technology and practice patterns may also affect providers' capacity. For example, less invasive procedures could be performed in outpatient settings, and lower priced equipment could be more easily purchased by providers, increasing the capacity to provide certain services.

Substantial increases in the number of providers may suggest that payments are more than adequate and could raise concerns about the value of the services being furnished. If Medicare is not the dominant payer for a given provider type (such as ambulatory surgical centers), changes in the number of providers may be influenced more by other payers and their demand for services and thus may be difficult to relate to Medicare payments. When facilities close, we try to distinguish between closures that have serious implications for access to care in a community and those that may have resulted from excess capacity.

### **Access: Volume of services**

The volume of services can be an indirect indicator of beneficiary access to services. An increase in volume shows that beneficiaries are receiving more services and suggests sufficient access—although it does not necessarily demonstrate that the services are appropriate. Volume is also an indicator of payment adequacy; an increase in volume beyond that expected for an increase in the number of beneficiaries could suggest that Medicare's payment rates are too high. Very rapid increases in the volume of a service might even raise questions about program integrity or whether the definition of the corresponding benefit is too vague. Reductions in the volume of services can sometimes be a signal that revenues are inadequate for providers to continue operating or to provide the same level of service. Finally, rapid changes in volume between sectors whose services

can be substituted for one another may suggest distortions in payment and raise questions about provider equity. For example, payment rates for evaluation and management (E&M) office visits are much higher in hospital outpatient departments (HOPDs) than in physicians' offices, and over the last several years, the volume of those services in HOPDs has increased while the volume in physicians' offices has decreased.

However, changes in the volume of services are not direct indicators of access because increases and decreases can be explained by other factors such as population changes, changes in disease prevalence among beneficiaries, technology, practice patterns, deliberate policy interventions, and beneficiaries' preferences. For example, the number of Medicare beneficiaries in the traditional fee-for-service (FFS) program varies from year to year; therefore, we look at the volume of services per FFS beneficiary as well as the total volume of services. Explicit policy decisions can also influence volume. For example, during fiscal year 2016, CMS began phasing in a policy that lowers payments for certain long-term care hospital (LTCH) cases. As a result, LTCHs—as expected—changed their admitting practices largely in response to the implementation of the policy, and the number of LTCH discharges decreased markedly.

Changes in the volume of physician services must be interpreted particularly cautiously. Evidence suggests that for discretionary services, volume may go up when payment rates go down—the so-called volume offset. Whether a volume offset phenomenon exists in other sectors depends on how discretionary the services are and on the ability of providers to influence beneficiaries' demand for them.

### **Quality of care**

The relationship between the quality of care and the adequacy of Medicare payment is not direct. Simply increasing payments through an update for all providers in a sector, regardless of their individual quality, is unlikely to influence the quality of care because, historically, Medicare payment systems have created little or no incentive for providers to spend additional resources on improving quality. The Medicare program has begun to implement quality-based payment policies in a number of sectors; however, some issues have arisen. First, it is very difficult to differentiate quality performance among providers when the number of cases per provider is low. This issue has been particularly vexing in measuring



quality performance for individual clinicians. Second, the Commission has been increasingly concerned that Medicare's approach to quality measurement is flawed because it relies on too many clinical process measures. Many current process measures are weakly correlated with outcomes of interest such as mortality and readmissions, and most process measures focus on addressing the underuse of services, while the Commission believes that overuse and inappropriate use are also of concern. Third, reliance on self-reported measures can create a burden on providers and lead to under- or over-reporting in response to strong financial incentives. As an alternative approach, we have begun exploring the use of a small set of population-based outcome measures to assess and compare the performance of FFS Medicare, Medicare Advantage, and Medicare accountable care organizations within a local area. For example, in Chapter 15, we discuss a small set of outcome, patient experience, and cost measures for use in a voluntary value program to replace the Merit-based Incentive Payment System under the fee schedule for physicians and other health professionals.

### **Providers' access to capital**

Providers must have access to capital to maintain and modernize their facilities and to improve their capability to deliver patient care. Widespread ability to access capital throughout a sector may reflect the adequacy of Medicare payments. Some sectors such as hospitals require large capital investments, and access to capital can be a useful indicator. Other sectors such as home health care do not need large capital investments, so access to capital is a more limited indicator. In some cases, a broader measure such as changes in employment may be a useful indicator of financial health within a sector. Similarly, in sectors where providers derive most of their payments from other payers (such as ambulatory surgical centers) or other lines of business, or when conditions in the credit markets are extreme, access to capital may be a limited indicator of the adequacy of Medicare payments.

### **Medicare payments and providers' costs for 2018**

For most payment sectors, we estimate Medicare payments and providers' costs for 2018 to inform our update recommendations for 2019. To maintain Medicare beneficiaries' access to high-quality care while keeping financial pressure on providers to make better use of taxpayers' and beneficiaries' resources, we investigate whether payments are adequate to cover the costs of

relatively efficient providers, where available data permit such providers to be defined.

Relatively efficient providers use fewer inputs to produce quality outputs. Efficiency could be increased by using the same inputs to produce a higher quality output or by using fewer inputs to produce the same quality output. The Commission follows two principles when selecting a set of efficient providers. First, the providers must do relatively well on cost and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric over the past three years. The Commission's approach is to develop a set of criteria and then examine how many providers meet them. It does not establish a set share of providers to be considered efficient and then define criteria to meet that pool size.

For providers that submit cost reports to CMS—acute care hospitals, skilled nursing facilities (SNFs), home health agencies, outpatient dialysis facilities, inpatient rehabilitation facilities (IRFs), LTCHs, and hospices—we estimate total Medicare-allowable costs and assess the relationship between Medicare's payments and those costs. We typically express the relationship between payments and costs as a payment margin, which is calculated as aggregate Medicare payments for a sector, minus costs, divided by payments. By this measure, if costs increase faster than payments, margins will decrease.

In general, to estimate payments, we first apply the annual payment updates specified in law for 2017 and 2018 to our base data (2016 for most sectors). We then model the effects of other policy changes that will affect the level of payments in 2018. To estimate 2018 costs, we consider the rate of input price inflation or historical cost growth, and, as appropriate, we adjust for changes in the product (such as fewer visits per episode of home health care) and trends in key indicators (such as historical cost growth and the distribution of cost growth among providers).

### **Use of margins**

In most cases, we assess Medicare margins for the services furnished in a single sector and covered by a specific payment system (e.g., SNF or home health services). However, in the case of hospitals, which often provide services that are paid for by multiple Medicare payment systems, our measures of payments and costs for an individual sector could become distorted because of the allocation of overhead costs or the presence of complementary services. For example, having a hospital-based SNF or IRF may allow a hospital to achieve shorter

lengths of stay in its acute care units, thereby decreasing costs and increasing inpatient margins. For hospitals, we assess the adequacy of payments for the whole range of Medicare services they furnish—inpatient and outpatient (which together account for more than 90 percent of Medicare payments to hospitals), SNF, home health, psychiatric, and rehabilitation services—and compute an overall Medicare hospital margin encompassing costs and payments for all the sectors. The hospital update recommendation in Chapter 3 applies to hospital inpatient and outpatient payments; the updates for other distinct units of the hospital, such as SNFs, are covered in separate chapters.

The adequacy of Medicare payments is assessed relative to the costs of treating Medicare beneficiaries, and the Commission's recommendations address a sector's Medicare payments, not total payments. (Total margins, which include payments from all payers and revenue from nonpatient sources, do not play a direct role in the Commission's update deliberations, but can inform our assessment of the overall fiscal pressure on providers.) We calculate a sector's Medicare margin to determine whether total Medicare payments cover average providers' costs for treating Medicare patients and to inform our judgment about payment adequacy. Margins will always be distributed around the average, and aggregate payment adequacy does not mean that every provider has a positive Medicare margin. To assess whether changes are needed in the distribution of payments, we calculate Medicare margins for certain subgroups of providers with unique roles in the health care system. For example, because location and teaching status enter into the payment formula, we calculate Medicare margins based on where hospitals are located (in urban or rural areas) and their teaching status (major teaching, other teaching, or nonteaching).

Multiple factors can contribute to changes in the Medicare margin, including changes in the efficiency of providers, changes in coding that may change case-mix adjustment, and other changes in the product (e.g., reduced lengths of stay at inpatient hospitals). Knowing whether these factors have contributed to margin changes may inform decisions about whether and how much to change payments.

Another factor we consider when evaluating the adequacy of payments is whether providers have any financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal

revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries. We note, however, that in instances in which a sector does not have substantial excess capacity, or in which Medicare composes a dominant share of a sector's patients, marginal profit may be a less useful indicator of payment adequacy.

In sectors where the data are available, the Commission makes a judgment when assessing the adequacy of payments relative to costs. No single standard governs this relationship for all sectors, and margins are only one indicator for determining payment adequacy. Moreover, although payments can be ascertained with some accuracy, there may be no “true” value for reported costs, which reflect accounting choices made by providers (such as allocations of costs to different services) and the relationship of service volume to capacity in a given year. Further, even if costs are accurately reported, they reflect strategic investment decisions of individual providers and Medicare—as a prudent payer—may choose not to recognize some of these costs or may exert financial pressure on providers to encourage them to reduce their costs.

### **Appropriateness of current costs**

Our assessment of the relationship between Medicare's payments and providers' costs is complicated by differences in providers' efficiency, responses to changes in payment systems, product changes, and cost reporting accuracy. Measuring the appropriateness of costs is particularly difficult in new payment systems because changes in response to the incentives in the new system are to be expected. For example, the number and types of visits in a home health episode changed significantly after the home health PPS was introduced, although the payments were based on the older, higher level of use and costs. In other systems, coding may change. As an example, the hospital inpatient PPS introduced a new patient classification system in 2008 to improve payment accuracy. However, for a number of years after its implementation, it resulted in higher payments because provider coding became more detailed, making patient complexity appear higher—although the underlying patient complexity was largely unchanged. Any kind of



rapid change in policy, technology, or product can make it difficult to measure costs per unit.

To assess whether reported costs reflect the costs of efficient providers, we examine recent trends in the average cost per unit, variation in standardized costs and cost growth, and evidence of change in the product. One issue Medicare faces is the extent to which private payers exert pressure on providers to constrain costs. If private payers do not exert pressure, providers' costs will increase and, all other things being equal, margins on Medicare patients will decrease. Providers who are under pressure to constrain costs generally have managed to slow their growth in costs more than those who face less pressure (Medicare Payment Advisory Commission 2011, Robinson 2011, White and Wu 2014). Some have suggested that, in the hospital sector, costs are largely outside the control of hospitals and that hospitals shift costs onto private insurers to offset Medicare losses. This belief assumes that costs are immutable and not influenced by whether the hospital is under financial pressure. We find that costs do vary in response to financial pressure and that low margins on Medicare patients can result from a high cost structure that has developed in reaction to high private-payer rates. In other words, when providers receive high payment rates from insurers, they face no particular need to keep their costs low, and so, all other things being equal, their Medicare margins are low because their costs are high. Lack of pressure is more common in markets where a few providers dominate and have negotiating leverage over payers. In some sectors, Medicare itself could, and should, exert greater pressure on providers to reduce costs.

Variation in cost growth among a sector's providers can give us insight into the range of performance that facilities can achieve. For example, if some providers' costs grow more rapidly than others in a given sector, we might question whether those increases are appropriate. Changes in product can also significantly affect unit costs. Returning to the example of home health services, one would expect that substantial reductions in the number of visits per 60-day home health episode would reduce costs per episode. If costs per episode instead increased while the number of visits decreased, one would question the appropriateness of the cost growth and not increase Medicare payments in response.

In summary, Medicare payment policy should not be designed simply to accommodate whatever level of cost growth a sector demonstrates. Cost growth can oscillate

from year to year depending on factors such as economic conditions and relative market power. Payment policy should accommodate cost growth only after taking into account a broad set of payment adequacy indicators, including the current level of Medicare payments.

---

## What cost changes are expected in 2019?

---

The second part of the Commission's approach to developing payment update recommendations is to consider anticipated policy and cost changes in the next payment year. For each sector, we review evidence about the factors that are expected to affect providers' costs. One factor is the change in input prices, as measured by the price index that CMS uses for that sector. (These indexes are estimated quarterly; we use the most recent estimate available when we do our analyses.) For facility providers, we start with the forecasted increase in an industry-specific index of national input prices, called a "market basket index." For physician services, we start with a CMS-derived weighted average of price changes for inputs used to provide physician services. Forecasts of these indexes approximate how much providers' costs would change in the coming year if the quality and mix of inputs they use to furnish care remained constant—that is, if there were no change in efficiency. Other factors may include the trend in actual cost growth, which could be used to inform our estimate if it differs significantly from the projected market basket.

---

## How should Medicare payments change in 2019?

---

The Commission's judgments about payment adequacy, forthcoming policy changes, and expected cost changes result in an update recommendation for each payment system. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a payment system is changed relative to the prior year. In considering updates, the Commission makes its recommendations for 2019 relative to the 2018 base payment as defined in Medicare's authorizing statute—Title XVIII of the Social Security Act. The Commission's recommendations may call for an increase, a decrease, or no change from the 2018 base payment. For example, if the statutory base payment for a sector were \$100 in

2018, an update recommendation of a 1 percent increase for a sector means that we are recommending that the base payment in 2019 for that sector be 1 percent greater, or \$101.

A complicating factor in our analyses in recent years has been the “sequester” (the federal budget sequestration established by the Budget Control Act of 2011). The Commission has argued against the sequester as it has been applied to Medicare because it reduces payments for all sectors by 2 percent without regard to payment adequacy. That said, the sequester effects are now fully reflected in provider cost report data and, thus, in our payment adequacy analyses. Our recommendations are made in this context and reflect conditions and impacts in the sequester budget environment. Therefore, we will continue to assess payment adequacy sector by sector and year by year—including the effects of the sequester—to give the Congress our best analysis and advice on the level and distribution of Medicare FFS payments.

When our recommendations differ from current law, as they often do, the Congress and the Secretary of Health and Human Services would have to take action and change law or regulation to put them into effect. Each year, we look at all available indicators of payment adequacy and reevaluate prior-year assumptions using the most recent data available. The Commission does not start with any presumption that an update is needed or that any increase in costs should be automatically offset by a payment update. Instead, an update (which may be positive, zero, or negative) is warranted only if it is supported by the empirical data, in the judgment of the Commission.

In conjunction with the update recommendations, we may also make recommendations to improve payment accuracy that might in turn affect the distribution of payments among providers. These distributional changes are sometimes, but not always, budget neutral. Our recommendation to shift payment weights from therapy to medically complex PAC cases is one example of a distributional change that would affect providers differentially based on their patients’ characteristics.

The Commission, as it makes its update recommendations, may in some cases take into consideration payment differentials across sectors and make sure the relative update recommendations for the sectors do not exacerbate existing incentives to choose a site of care based on payment considerations. The difficulty of harmonizing payments across sectors to remove inappropriate incentives illustrates one weakness of FFS payment

systems specific to each provider type and highlights the importance of moving beyond FFS to more global and patient-centric payment systems. As we continue to support moving Medicare payment systems toward those approaches, we will also continue to look for opportunities to rationalize payments for specific services across sectors to approximate paying the costs of the most efficient sector and lessen financial incentives to prefer one sector over another. Our June 2016 report on a unified PAC PPS addressed these issues directly (Medicare Payment Advisory Commission 2016).

### **Consistent payment for the same service across settings**

A beneficiary can sometimes receive a similar service in different settings. Depending on which setting the beneficiary or the treating clinician chooses, Medicare and the beneficiary may pay different amounts. For example, when leaving the hospital, patients with joint replacements requiring physical therapy might be discharged with home health care or outpatient therapy, or they might be discharged to a SNF or IRF, and Medicare payments (and beneficiary cost sharing) can differ widely as a result.

A core principle guiding the Commission is that Medicare should pay the same amount for the same service, even when it is provided in different settings. Putting this principle into practice requires that the definition of services in the settings and the characteristics of the patients be sufficiently similar. Where these conditions are not met, offsetting adjustments would have to be made to ensure comparability. Because Medicare’s payment systems were developed independently and have had different update trajectories, payments for similar services can vary widely. Such differences create opportunities for Medicare and beneficiary savings if payment is set at the level applicable to the lowest priced setting in which the service can be safely performed. For example, under the current payment systems, a beneficiary can receive the same physician visit service in a hospital outpatient clinic or in a physician’s office. In fact, the same physician could see the same patient and provide the same service, but depending on whether the service is provided in an outpatient clinic or in a physician’s office, Medicare’s payment and the beneficiary’s coinsurance can differ by 80 percent or more.

In 2012, the Commission recommended that payments for E&M office visits in the outpatient and physician office sectors be made equal. This service is comparable across the two settings. Our recommendation sets

payment rates for E&M office visits both in the outpatient department and physician office sectors equal to those in the physician fee schedule, lowering both program spending and beneficiary liability (Medicare Payment Advisory Commission 2012). In 2014, we extended that principle to additional services for which payment rates in the outpatient PPS should be lowered to better match payment rates in the physician office setting (Medicare Payment Advisory Commission 2014). In the Bipartisan Budget Act of 2015, the Congress made payment for outpatient departments for the same services equal to the physician fee schedule rates for those services at any new outpatient off-campus clinic beginning in 2018. We also recommended consistent payment between acute care hospitals and long-term care hospitals for certain categories of patients (Medicare Payment Advisory Commission 2014). In 2016, we recommended elements of a unified PAC PPS that would make payments based on a patient's needs and characteristics, generally irrespective of the PAC entity that provided their care (Medicare Payment Advisory Commission 2016). The Commission will continue to study other services that are provided in multiple sites of care to find additional services for which the principle of the same payment for the same service can be applied.

## **Budgetary consequences**

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 requires the Commission to consider the budgetary consequences of our recommendations. Therefore, this report documents how spending for each recommendation would compare with expected spending under current law. We also assess the effects of our recommendations on beneficiaries and providers. Although we recognize budgetary consequences, our recommendations are not driven by any specific budget target but, instead, reflect our assessment of the level of payment needed to provide adequate access to appropriate care.

---

## **Payment adequacy in context**

---

As discussed in Chapter 1, it is essential to look at payment adequacy not only within the context of individual payment systems but also in terms of Medicare as a whole. The Commission is concerned by any increase in Medicare spending per beneficiary without a commensurate increase in value such as higher quality of

care or improved health status. Growth in spending per beneficiary, combined with the aging of the baby boomers, will result in the Medicare program absorbing increasing shares of the gross domestic product and federal spending. Medicare's rising costs are projected to exhaust the Hospital Insurance Trust Fund (which funds Medicare Part A) and significantly burden taxpayers. Ensuring that the recent moderate growth trends in Medicare spending per beneficiary continue will require vigilance. The financial future of Medicare prompts us to look at payment policy and ask what can be done to develop, implement, and refine payment systems to reward quality and efficient use of resources while improving payment equity.

In many past reports, the Commission has stated that Medicare should institute policies that improve the program's value to beneficiaries and taxpayers. CMS is beginning to take such steps, and we discuss them in the sector-specific chapters that follow. Ultimately, increasing Medicare's value to beneficiaries and taxpayers requires knowledge about the costs and health outcomes of services. Until more information about the comparative effectiveness of new and existing health care treatments and technologies is available, patients, providers, and the program will have difficulty determining what constitutes high-quality care and effective use of resources.

As we examine each of the payment systems, we also look for opportunities to develop policies that create incentives for providing high-quality care efficiently across providers and over time. Some of the current payment systems create strong incentives for increasing volume, and very few of these systems encourage providers to work together toward common goals. Alternative payment models (e.g., the Next Generation accountable care organization model) are meant to stimulate delivery system reform toward more integrated and value-oriented health care systems and may address these issues. We will continue to contribute to their development and track their progress. In the near term, the Commission will continue to closely examine a broad set of indicators, make sure there is consistent pressure on providers to control their costs, and set a demanding standard for determining which sectors qualify for a payment update each year. ■

## References

---

Department of Veterans Affairs. 2010. VA announces use of standard payment rates for some non-VA care. Press release. December 16. <http://www1.va.gov/opa/pressrel/pressrelease.cfm?id=2021>.

Internal Revenue Service, Department of the Treasury. 2014. Additional requirements for charitable hospitals; community health needs assessments for charitable hospitals; requirement of a Section 4959 excise tax return and time for filing the return. Final rule. *Federal Register* 79, no. 250 (December 31): 78954–79016.

Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2011. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Robinson, J. 2011. Hospitals respond to Medicare payment shortfalls by both shifting costs and cutting them, based on market concentration. *Health Affairs* 30, no. 7 (July): 1265–1271.

White, C., and V. Y. Wu. 2014. How do hospitals cope with sustained slow growth in Medicare prices? *Health Services Research* 49, no. 1 (February): 11–31.

C H A P T E R

# 3

---

## **Hospital inpatient and outpatient services**

---

## R E C O M M E N D A T I O N

- 3** For 2019, the Congress should update the 2018 Medicare base payment rates (inpatient and outpatient) for acute care hospitals by the amount determined under current law.

**COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2**



# Hospital inpatient and outpatient services

## Chapter summary

In 2016, the Medicare fee-for-service (FFS) program paid 4,700 hospitals \$183 billion for about 10 million Medicare inpatient admissions and 200 million outpatient services, and for \$6 billion of their non-Medicare uncompensated care payments. These sums represent a 2.3 percent increase in hospital spending per FFS beneficiary from 2015 to 2016. On net, inpatient payments increased by roughly \$4 billion, outpatient payments increased by almost \$3 billion, and uncompensated care payments declined by \$1 billion. Inpatient payments increased primarily because of an increase in inpatient surgeries. Outpatient payments rose by almost \$3 billion because of rapid growth in Part B drug spending and an increase in physician services billed as hospital outpatient services. This increase in part reflects hospitals' acquisition of physician practices. On net, the \$6 billion increase in overall hospital spending between 2015 and 2016 is equivalent to payments per FFS beneficiary increasing from \$4,903 to \$5,013.

## Assessment of payment adequacy

Most payment adequacy indicators (including access to care, quality of care, and access to capital) are positive. Aggregate Medicare margins continue to be negative, although hospitals with excess capacity still have an incentive to see Medicare beneficiaries because Medicare payment rates remain about 8 percent higher than the variable costs associated with Medicare patients.

## In this chapter

- Are Medicare payments adequate in 2018?
- How should Medicare payment rates change in 2019?

***Beneficiaries' access to care***—Access measures for hospital services include the capacity of providers and the volume of services.

- ***Capacity and supply of providers***—The average hospital occupancy rate was 62 percent in 2016, suggesting hospitals have excess inpatient capacity in most markets.
- ***Volume of services***—Inpatient admissions per beneficiary decreased by 2.8 percent in 2016, and outpatient services increased by 1.1 percent. The decline in admissions reflects a 5 percent decrease in medical admissions per capita and a 4.3 percent increase in surgical admissions per capita. For the first time in 20 years, inpatient surgical admissions per capita have increased.

***Quality of care***—Hospital mortality and readmission rates have improved in recent years. Patient satisfaction has also improved somewhat: The share of patients who rated their hospital a 9 or a 10 on a 10-point scale increased between 2011 and 2016 from 69 percent to 73 percent.

***Providers' access to capital***—Access to bond markets is very strong, with hospital bond offerings increasing from \$25 billion in 2015 to \$37 billion in 2016. Much of the increase represented refinancing of older debt. While some hospitals struggle with low occupancy and limited access to capital, most hospitals have good access to capital because of strong all-payer profit margins. After reaching a record high of 7.2 percent in 2013, all-payer margins dipped slightly to 6.4 percent by 2016, which is still well above historical averages.

***Medicare payments and providers' costs***—In 2016, hospitals' aggregate Medicare margin was –9.6 percent. The decline in margins from 2015 was primarily due to a freeze in outpatient rates in 2016 and a decline in uncompensated care payments as the share of people insured increased from 2015 to 2016. While average Medicare payments were lower than average costs, Medicare payments were higher than the variable costs of treating Medicare patients in 2016—resulting in a marginal profit of about 8 percent. Therefore, hospitals with excess capacity still have a financial incentive to serve more Medicare patients.

## **Recommendation**

For 2019, the Commission recommends that the Congress update the inpatient and outpatient payments by the amount determined under current law. ■

**TABLE  
3-1****Growth in Medicare inpatient and outpatient spending**

<b>Hospital services</b>	<b>2006</b>	<b>2015</b>	<b>2016</b>	<b>Average annual percent change 2006–2015</b>	<b>Percent change 2015–2016</b>
<b>Inpatient services</b>					
Total FFS payments (in billions)	\$110.4	\$111.7	\$116.0	0.1%	3.9%
Payments per FFS beneficiary	3,084	2,961	3,047	–0.5	2.9
<b>Outpatient services</b>					
Total FFS payments (in billions)	29.3	57.9	60.6	7.9	4.6
Payments per FFS beneficiary	885	1,740	1,797	7.8	3.3
<b>Uncompensated care payments</b>					
Total (in billions)	N/A	7.6	6.4	N/A	–16.0
Payments per FFS beneficiary	N/A	201	168	N/A	–16.0
<b>Inpatient, outpatient, and uncompensated care payments</b>					
Total FFS payments (in billions)	139.6	177.2	183.0	2.7	3.3
Payments per FFS beneficiary	3,970	4,903	5,013	2.4	2.3

Note: FFS (fee-for-service), N/A (not applicable). Reported hospital FFS spending includes all hospitals covered by Medicare's inpatient prospective payment system along with critical access hospitals and Maryland hospitals. Fiscal year 2016 payments include partial imputation to account for the hospitals that had not yet submitted cost reports covering fiscal year 2016. The combined amount for inpatient and outpatient services per capita is based on a weighted average of the Part A and Part B services. Percent change columns were calculated before rounding and may not be computable from the payment data in the table, which were rounded.

Source: MedPAC analysis of CMS Medicare hospital cost reports and Medicare Provider Analysis and Review files.

## Background

### Medicare spending on hospitals

In 2016, the Medicare fee-for-service (FFS) program paid acute care hospitals \$116 billion for inpatient care, almost \$61 billion for outpatient care, and slightly more than \$6 billion in uncompensated care payments (Table 3-1). From 2015 to 2016, payments for inpatient care increased by about \$4 billion, resulting from an increase in payment rates of about 2 percent and an increase in inpatient surgery volume. In the same period, outpatient payments per FFS beneficiary grew by 3.3 percent (Table 3-1), driving a 2.3 percent increase in overall Medicare inpatient, outpatient, and uncompensated care payments per beneficiary in 2016.<sup>1</sup> The nearly \$3 billion rise in outpatient payments reflects a 20 percent increase in payments for Part B drugs, growing outpatient visit volume, and an increase in physician services billed as hospital outpatient services after hospitals acquired physician practices. Given the increase

in outpatient payments, the increase in inpatient payments, and a \$1 billion decline in uncompensated care payments, overall payments increased by almost \$6 billion from 2015 to 2016.

### Medicare's payment systems for inpatient and outpatient services

Medicare's inpatient and outpatient prospective payment systems (PPSs) have a similar basic structure. Each PPS has a base rate that is modified for the differences in type of case or service as well as for geographic differences in input prices. However, the inpatient and outpatient PPSs have different units of service and a different set of payment adjustments.

Medicare FFS payment rates have implications that go beyond the FFS program. Thirty-two percent of Medicare beneficiaries are in Medicare Advantage (MA) plans, and most MA plans contract with hospitals to pay rates that are benchmarked and almost exactly equal to Medicare FFS

## Effect of expanded payment bundles in the outpatient prospective payment system

CMS has designed the outpatient prospective payment system (OPPS) so that a single payment is made for a bundle of items and services. Each bundle consists of a primary service and ancillary items and services that are packaged with the primary service. In 2014 and 2015, CMS took substantial steps to expand the size of payment bundles in the OPPS so that the OPPS has fewer primary services (also called “separately payable services”) and more packaged items and services. The main purpose was to encourage hospitals to consider the most cost-effective ways to treat their patients. The most important changes to the payment bundles include:

- Comprehensive ambulatory payment classifications (C-APCs), which (for select services) combine all services (with exceptions) on a claim into a single payment bundle, whether they have separately payable status or packaged status under the OPPS.
- Packaging clinical diagnostic tests covered under the clinical lab fee schedule (CLFS) when provided on the same date as a primary service. Previously, clinical diagnostic tests had always been paid separately under the CLFS. Exceptions include molecular pathology.

- Packaging ancillary services that are in ambulatory payment classifications with geometric mean costs of less than \$100 when provided on the same date as a primary service. Such services include wound debridement, electrocardiograms, X-rays, and some pathology and hearing tests.

The expanded payment bundles represent a fairly large portion of OPPS spending. For example, spending on C-APCs was about \$7 billion in the OPPS in 2015. Consequently, the expanded payment bundles have the potential to affect hospital behavior.

We evaluated whether the expanded payment bundles have had the desired effect of inducing hospitals to be more cost-effective in their treatment of patients. We focused our evaluation on three of the policies listed above: C-APCs, the packaging of clinical diagnostic tests, and the packaging of ancillary services that cost less than \$100.

An attribute of the C-APC policy that makes it unique in the OPPS is that when a hospital provides a primary service designated as a C-APC, all items and services listed on the same claim are bundled into a single payment (with a few exceptions), including items and

*(continued next page)*

rates (Berenson et al. 2015). In addition, the Department of Veterans Affairs (VA) annually pays for about \$2 billion of inpatient care at community hospitals. The VA began setting hospital rates equal to Medicare FFS rates in 2012 (Government Accountability Office 2013). The rates uninsured individuals pay are also often benchmarked to Medicare due to limits on rates charged to low-income uninsured individuals that were enacted in the Patient Protection and Affordable Care Act of 2010 (PPACA).

### Acute inpatient prospective payment system

Medicare’s inpatient prospective payment system (IPPS) pays acute care hospitals a predetermined amount for most discharges. The payment rate is the product of a base rate and a relative weight that reflects the expected costliness

of cases in a particular clinical category compared with the average of all cases. The labor-related portion of the base payment rate is adjusted by a hospital geographic wage index to account for differences in hospital input prices among market areas. Payment rates are updated annually.

To set inpatient payment rates, CMS uses a clinical categorization system called Medicare severity–diagnosis related groups (MS-DRGs). The MS-DRG system classifies each patient case into 1 of 756 groups, which reflect similar principal diagnoses, procedures, and severity levels. The severity levels are determined according to whether patients have a complication or comorbidity (CC) associated with the base MS-DRG (the categories are no CC, a nonmajor CC, or a major CC). A more detailed description of the acute IPPS, including

## Effect of expanded payment bundles in the outpatient prospective payment system (cont.)

services that would otherwise be paid separately under the OPPTS. This bundling has the effect of moving the OPPTS closer to the concept of the diagnosis related groups used in the inpatient prospective payment system. We investigated the extent to which hospitals responded to this incentive by reducing cost growth for services that were packaged into C-APCs in 2015. To evaluate the behavioral response, we compared cost growth after the policy was implemented (2014 to 2015) with cost growth before it was implemented (2013 to 2014). Our results suggest that hospitals have responded to this incentive:

- From 2014 to 2015, the average cost of C-APC services decreased by 1.8 percent, and the average cost for ancillary items and services in C-APC services decreased by 1.6 percent.
- From 2013 to 2014 (before CMS implemented the C-APC policy in 2015), the average cost of C-APC services increased by 0.5 percent, and the average cost of ancillary items and services in C-APCs increased by 0.3 percent.

CMS also implemented the policy that packages ancillary items and services that cost less than \$100 in

2015. From 2013 to 2014 (before CMS implemented this policy), per capita use of these packaged items and services increased by 0.2 percent. From 2014 to 2015 (the first year of this policy), per capita use decreased by 1.4 percent. Together, these findings suggest that greater outpatient packaging has created modest reductions in costs.

In 2014, CMS established a policy that packages laboratory tests that had previously been paid separately under the CLFS—with some exceptions—with the primary service provided in a hospital outpatient department visit. A laboratory test is not packaged when (1) it is the only service provided to a beneficiary on that date of service or (2) it is conducted on the same date as a primary service but is ordered for a purpose different from the primary service by a practitioner different from the practitioner who ordered the primary service. Under these circumstances, the laboratory test is paid under the CLFS. The exceptions to this policy may have resulted in little effect on the use of laboratory tests. From 2012 to 2013, use of clinical laboratory tests in outpatient departments increased by about 0.1 percent. From 2013 to 2014 (the first year of this packaging policy), they decreased by just 0.6 percent. ■

payment adjustments, can be found at <http://www.medpac.gov/-documents/-payment-basics>.

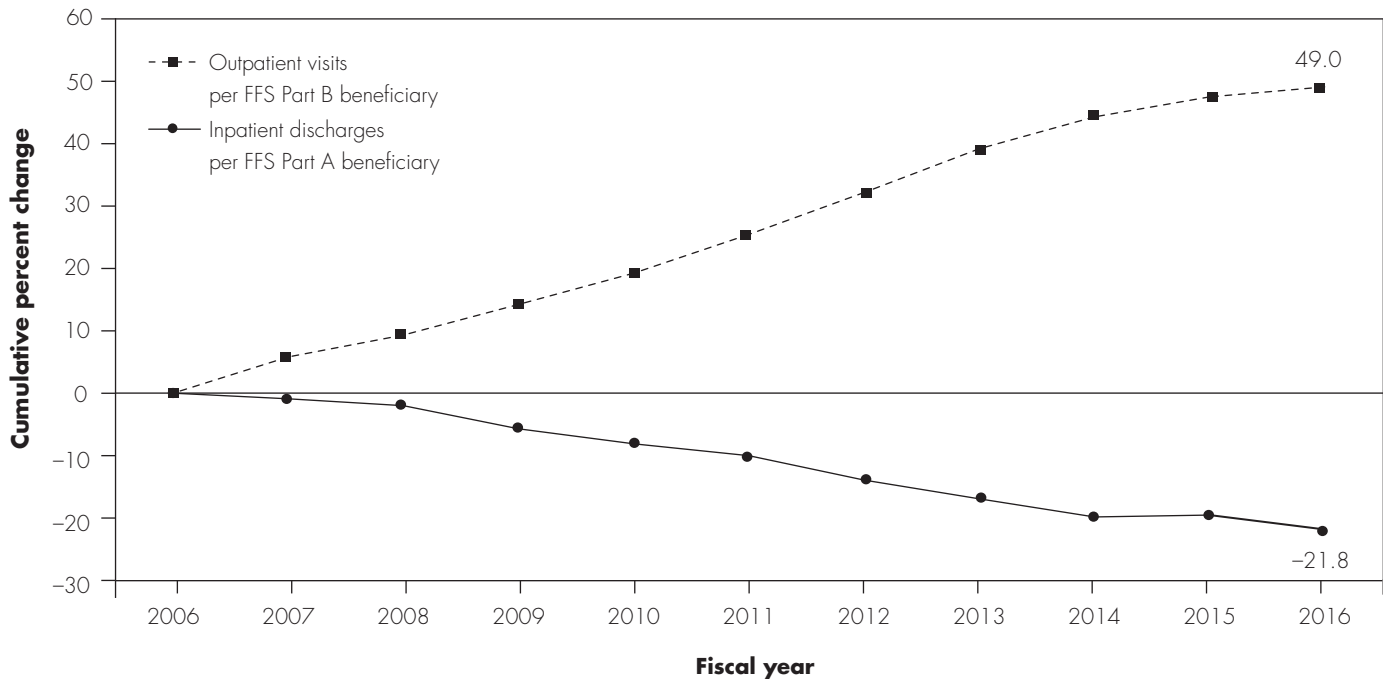
### Hospital outpatient prospective payment system

The outpatient prospective payment system (OPPTS) pays hospitals a predetermined amount per service. CMS assigns each outpatient service to 1 of about 700 ambulatory payment classification (APC) groups. Each APC has a cost-based relative weight, and a conversion factor translates these relative weights into dollar payment amounts. In 2014 and 2015, CMS implemented several policies that expanded the size of the OPPTS payment bundles so that the OPPTS has fewer primary services (also called “separately payable services”) and more packaged items and services. The main purpose was to encourage hospitals to consider the most cost-effective ways to treat

their patients. Data from 2015 outpatient claims suggest that these policies had the intended effect of inducing hospitals to be slightly more cost-effective in the services they provide (see text box on expanded payment bundles).

### Are Medicare payments adequate in 2018?

To judge whether payments in 2018 are adequate for relatively efficient hospitals, we examine several indicators of payment adequacy. We consider beneficiaries’ access to care, changes in the quality of care, hospitals’ access to capital, and the relationship of Medicare’s payments to hospitals’ costs for both average and relatively efficient

**FIGURE  
3-1****Medicare inpatient discharges per beneficiary declined as  
outpatient visits per beneficiary continued to increase**

Note: FFS (fee-for-service). Data include general and surgical, critical access, and children's hospitals.

Source: MedPAC analysis of CMS's inpatient and outpatient claims and enrollment data.

hospitals. Most of our payment adequacy indicators for hospitals are positive, but 2016 Medicare margins remained negative for most hospitals and were -1 percent for the median relatively efficient provider.

**Beneficiaries' access to care remained good:  
Excess inpatient capacity persisted**

To evaluate access to care, we examine the availability of hospital services to Medicare beneficiaries by analyzing inpatient and outpatient utilization, hospital service offerings, hospital openings and closures, hospital occupancy rates, and other measures. Our framework also includes an evaluation of hospitals' access to capital, which provides an outlook on the industry's ability to sustain or expand its existing resources.

Medicare beneficiaries' access to hospital services remains good, in part because of inpatient excess capacity in most markets. Between 2015 and 2016, discharges per

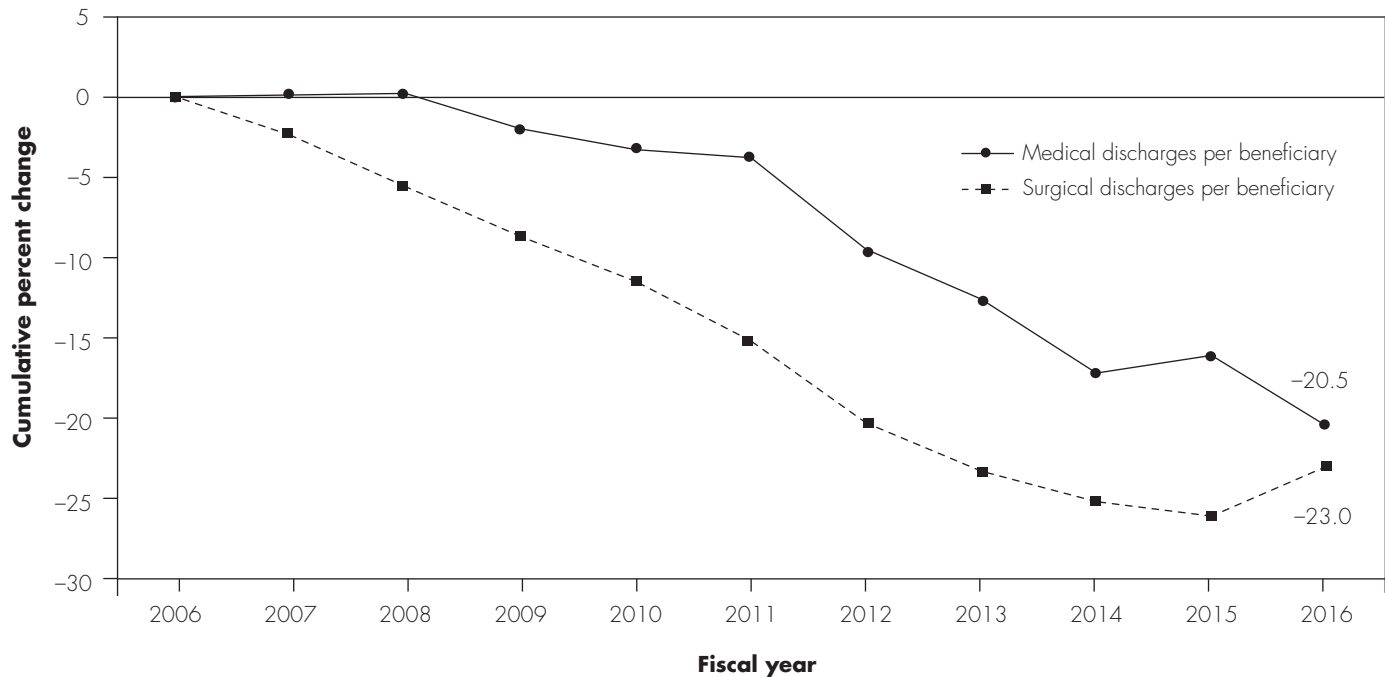
beneficiary decreased by 2.8 percent (data not shown). In contrast, outpatient visits per FFS beneficiary increased by 1.1 percent. These annual changes reflect a continuation of long-term trends. From 2006 to 2016, inpatient discharges per beneficiary decreased 21.8 percent, and outpatient visits per beneficiary increased 49.0 percent (Figure 3-1).

The decline in inpatient cases from 2015 to 2016 reflects a 5.2 percent per FFS beneficiary decline in medical discharges and a 4.3 percent per FFS beneficiary increase in surgical discharges (data not shown). This annual change in medical discharges conforms to the long-term trend, but the change in surgical discharges differs from the long-term trend. From 2006 to 2016, medical discharges declined a cumulative 20.5 percent per beneficiary, and surgical discharges declined by 23.0 percent per beneficiary (Figure 3-2). The volume of inpatient surgeries had been consistently declining since the 1990s until the 4.3 percent per beneficiary increase in 2016. The category of hospitals with the largest increases



**FIGURE  
3-2**

**Medical discharges per beneficiary declined, despite a recent increase in surgical discharges**



Note: Data include general and surgical, critical access, and children's hospitals.

Source: MedPAC analysis of CMS's inpatient claims and enrollment data.

in inpatient surgeries were major teaching hospitals (5.5 percent per beneficiary).

The increase in inpatient surgical discharges in 2016 is in large part attributable to growth in orthopedic, infectious disease–related, and digestive system inpatient surgeries. Major joint replacements for lower extremities (MS–DRGs 469 and 470) accounted for approximately 28 percent of this increase. Infectious and parasitic disease procedures (MS–DRGs 853–855) accounted for another 21 percent. Stomach or esophageal procedures (MS–DRGs 326–328) accounted for 14 percent of the increase. The growth in infectious disease cases could be attributable to the change in the definition of sepsis cases, which are classified in the infectious disease MS–DRGs (Seymour et al. 2016, Townsend et al. 2016).<sup>2</sup> The growth in surgical stomach or esophageal discharges may be the result of changes in practice patterns and the greater use of surgical procedures to treat these patients; we observe a corresponding decline in medical gastroenterology cases

(discussed later). Further research is needed to evaluate the degree to which the introduction of payment bundling for hip and knee replacements resulted in surgical volume increases. The Comprehensive Care for Joint Replacement (CCJR) payment model started bundled payment incentives in April 2016, and the Bundled Payments for Care Improvement (BPCI) initiative was started in 2013 but continued to grow, with additional entrants in April and July 2015. Both models create incentives to reduce the cost of care within an episode and increase the volume of episodes.<sup>3</sup> The per capita volume of change in hip and knee replacements (MS–DRG 469 and 470) increased by 7.1 percent from 2015 to 2016, a significantly faster increase than the –1.2 to 2.4 percent growth rates from 2010 to 2015.

The decrease in overall medical discharges in 2016 stems from declines in respiratory, circulatory, and digestive cases. Respiratory cases for pneumonia (MS–DRGs 193–195) and chronic obstructive pulmonary disease (MS–DRGs 190–192) individually accounted for 17 percent

**TABLE  
3-2****Hospital outpatient departments have had strong spending growth for observation care, ED visits, clinic visits, chemotherapy administration, and separately payable drugs, 2011–2016**

Service or item	Spending (in billions)		Percent change, 2011–2016
	2011	2016	
Observation care	\$0.69	\$3.11	349%*
ED visits	2.27	3.90	76
Clinic visits	1.74	3.07	76
Chemotherapy administration	0.33	0.66	102
Drugs	5.15	10.18	98
Total	39.78	60.01	51

Note: ED (emergency department). Spending amounts include both program outlays and beneficiary coinsurance amounts. “Drugs” are those that are separately payable under the outpatient prospective payment system, which includes pass-through drugs and drugs that are separately payable but do not have pass-through status.  
\*A large portion of the growth in observation spending is due to packaging more services into the observation stay.

Source: MedPAC analysis of 2011 and 2016 hospital outpatient standard analytic claims files and data from the CMS Office of the Actuary.

of the decrease each, which may in part reflect lower readmission rates for these conditions. Taken together, circulatory system MS–DRGs (e.g., syncope, chest pain, and cardiac arrhythmia) accounted for 14 percent of the decrease, perhaps due to shifting these discharges to observation status. Taken together, digestive conditions such as gastrointestinal hemorrhage (MS–DRGs 377–379) and esophagitis and miscellaneous digestive disorders (MS–DRGs 391 and 392) accounted for 15 percent of the decrease. The largest declines in medical discharges were at small rural hospitals—those with 50 or fewer inpatient beds (–9.5 percent per beneficiary).

**Growth in outpatient hospital services reflects growth in drug costs and incentives to shift patients to higher cost sites of care**

The hospital outpatient setting has had higher growth in program spending than any other sector in Medicare. From 2011 through 2016, combined program spending and beneficiary cost sharing on services covered under the OPPS increased by 51 percent, from \$39.8 billion to \$60.0 billion, an average of 8.6 percent per year.

Some of the growth in the hospital outpatient department (HOPD) setting is from a shift of services from the inpatient setting to the outpatient setting. Also, there was

an unusually large increase in OPPS spending from 2013 to 2014 (13.0 percent, from \$46.5 billion to \$52.5 billion, respectively) that was driven, in part, by a CMS decision to package most clinical laboratory tests into the OPPS payment rates; previously, these tests had been paid under the clinical laboratory fee schedule.

OPPS spending also rose substantially for observation care and emergency department (ED) visits (Table 3-2). From 2011 to 2016, OPPS spending for observation care increased by 349 percent (35.0 percent per year) because of packaging more services within the payment for observation care and an increase in observation stays. In this same period, OPPS spending for ED visits increased by 76 percent (11.9 percent per year). It is not clear what caused this increase in observation stays and ED visits, but the increase may be due, in part, to reactions to denials for certain short inpatient stays and the introduction in fiscal year 2014 of a two-midnight rule for inpatient stays (Medicare Payment Advisory Commission 2015a).

From 2015 to 2016, the number of observation stays decreased by 5 percent, while the payment rate per observation stay increased by 76 percent. The net result was an approximately 75 percent increase in payments for observation care. The lower volume of observation care in 2016 was likely caused by slightly stronger criteria that

needed to be met in the OPSS for observation care to be paid separately. The increase in payments per observation stay was due to a CMS decision to redefine observation care as a C-APC in 2016. The idea of C-APCs is to combine all services recorded on an outpatient claim into a single payment, including services that would otherwise be paid separately. Therefore, the payment bundle for observation care provided in 2016 included more services, on average, than the payment bundle for observation care in previous years.

Another large source of growth in spending on HOPD services appears to have been the shift of services from (lower cost) physician offices to (higher cost) HOPDs. From 2011 to 2016, spending for and volume of clinic visits and chemotherapy administration rose substantially in the OPSS setting, while there was a decrease or only slight growth in volume of these services in freestanding physician offices. Over this period, the volume of OPSS clinic visits increased by 43.8 percent (7.5 percent per year) and OPSS chemotherapy administration by 56.1 percent (9.3 percent per year). At the same time, the volume of office visits in freestanding offices rose by only 0.4 percent, and chemotherapy administration decreased by 13.4 percent in physician offices.<sup>4</sup> The growth in volume in HOPDs over this period is reflected in increased spending on clinic visits, which rose by 76 percent (12.0 percent per year) and spending on chemotherapy administration, which rose by 102 percent (15.1 percent per year). This shift in care setting to HOPDs is important in that it increases Medicare program spending and beneficiary cost-sharing liability because Medicare payment rates for the same or similar services are generally higher in HOPDs than in freestanding offices. For example, we estimate that the Medicare program spent \$1.8 billion more in 2016 than it would have if payment rates for evaluation and management (E&M) office visits in HOPDs were the same as freestanding office rates. Analogously, beneficiaries' cost sharing was \$460 million more in 2016 than it would have been because of the higher rates paid in HOPDs.

To address the increased spending that results when services shift from freestanding physician offices to HOPDs, the Commission recommended lowering OPSS payment rates so that Medicare payment would be equal for E&M office visits in freestanding physician offices and HOPDs (Medicare Payment Advisory Commission 2012). The Commission also recommended adjusting OPSS rates for a set of other services so that payment rates would be

equal or more closely aligned across these two settings (Medicare Payment Advisory Commission 2014b). A review of the Commission's proposals to make rates comparable across sectors is in last year's report (Medicare Payment Advisory Commission 2017b).

Finally, growth in spending on Part B drugs that are separately paid under the OPSS—including those that have pass-through status and those that are not pass through but have costs per day that exceed the packaging threshold—has been exceptionally large. From 2011 through 2016, OPSS spending for these drugs increased from almost \$5.2 billion to about \$10.2 billion, an increase of 98 percent (14.6 percent per year). About two-thirds of the increased spending on separately payable drugs was for those that are used to treat cancer. During the same period, OPSS spending on cancer drugs increased by 109 percent, from \$3.2 billion to \$6.6 billion. The growth in spending on Part B drugs reflects both price increases in existing drugs and the introduction of new expensive cancer drugs (Medicare Payment Advisory Commission 2017a).

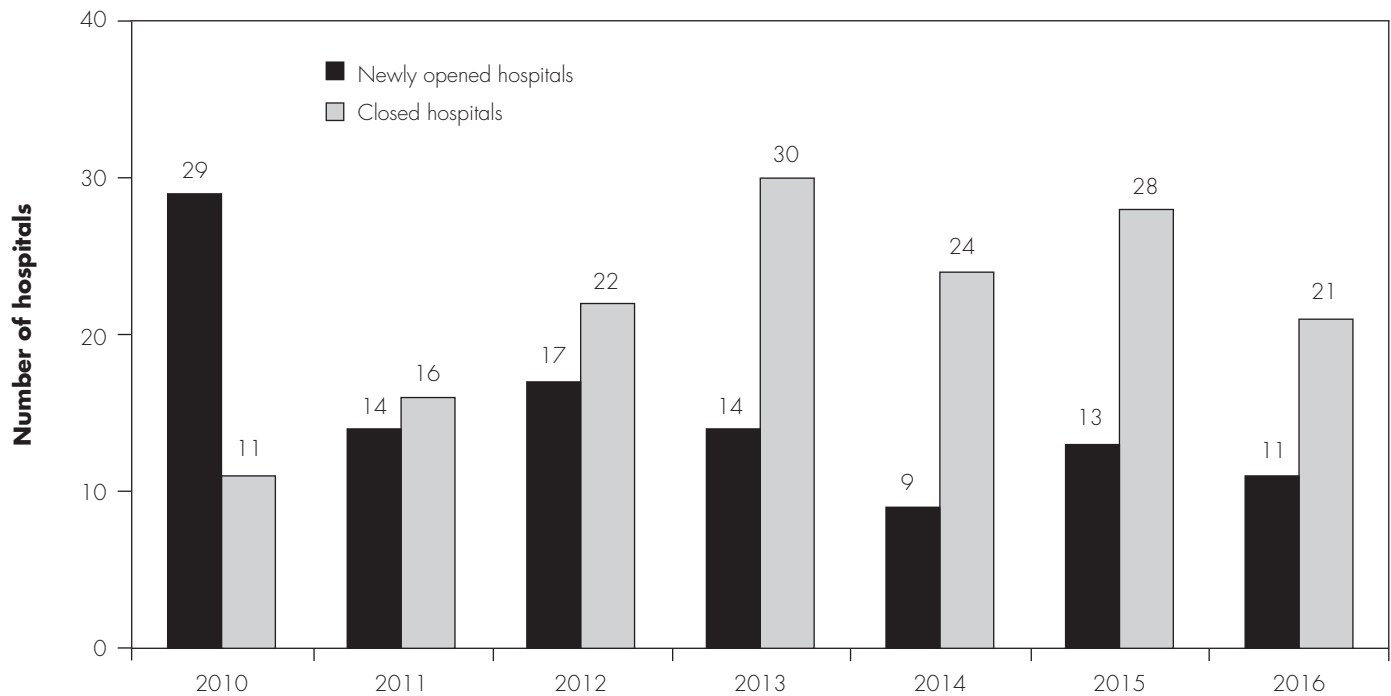
### **Excess inpatient capacity**

Between 2015 and 2016, aggregate occupancy rates for hospitals remained largely unchanged at 62 percent. Occupancy rates of urban hospitals were higher, at approximately 66 percent, also relatively unchanged from the prior year. By contrast, occupancy rates at rural hospitals declined from 41 percent in 2015 to 40 percent in 2016. In 2016, rural hospitals with fewer than 50 beds had the lowest occupancy rates at 31 percent.

Nationally, from 2010 to 2015, inpatient bed capacity declined from 2.7 inpatient hospital beds per 1,000 residents to 2.5 beds per 1,000 residents (American Hospital Association 2016). However, bed capacity varied by market. In 2015, Phoenix had 2.0 beds per 1,000 residents while Philadelphia had 3.8 beds per 1,000 residents. We did not observe any metropolitan statistical areas with bed capacity losses that pose an obvious access concern for Medicare beneficiaries.

### **Hospital closures increased slightly**

While closures are still relatively rare events, there have been slightly more hospital closures than hospital openings over the past six years. In 2016, we identified 21 closures and 11 openings (Figure 3-3, p. 74). Among those that closed in 2016, 15 were in rural counties and 6 were in urban counties. Only two of the openings were in rural areas.

**FIGURE  
3-3****More hospital closures than openings from 2010 through 2016**

Source: MedPAC analysis of the CMS Provider of Services file, Internet searches, and personal communication with the Department of Health and Human Services Office of Rural Health Policy.

Hospitals that closed in 2016 were smaller than average and had low occupancy and poor profitability. The 21 closed hospitals had an average of 50 inpatient beds and an average occupancy rate of 32 percent. Their average total all-payer margin in 2013 was -3 percent. Sixty percent of hospitals that closed in 2016 were in states that did not expand their Medicaid programs under PPACA. In addition, urban hospitals that closed were an average of 5 miles from the nearest hospital, and the rural hospitals were an average of 19 miles from the nearest hospital. One-third of the hospitals that closed converted to outpatient-only or post-acute care facilities. Specifically, 14 hospitals closed completely, 4 became stand-alone EDs, 2 became outpatient facilities without ED services, and 1 became a nursing home. The 11 hospitals that opened in 2016 had an average of 61 beds, and 9 (82 percent) were urban. Six of the 11 are general hospitals; 2 are urban micro-hospitals with only 4 inpatient beds and a focus on ED, imaging, and certain surgical services; and 3 are urban surgical hospitals.

**Quality of care has been improving**

The quality of hospital care has been improving in recent years, and at least part of this improvement appears to be because of various financial incentives included in recent years in the Medicare program. While these incentives are not perfect and the Commission has discussed refinements to quality improvement programs, the data suggest that even imperfect incentives can lead to improved quality (see text box on value incentive programs).

In 2018, hospitals' performance on quality metrics has the potential to increase a hospital's base IPPS payment rates by as much as 3.5 percent and lower payments by as much as 6 percent. Three payment adjustments are responsible for these potential changes: the Hospital Readmissions Reduction Program (HRRP) (which accounts for up to a 3.0 percent reduction), the hospital value-based purchasing program (which accounts for between a 3.5 percent increase and a 2.0 percent reduction to payments), and the Hospital-Acquired Condition Reduction Program (which accounts for a 1.0 percent reduction to payments for 25 percent of hospitals). While these adjustments have the

## Redesigning Medicare's hospital value incentive programs

**T**he Medicare program currently adjusts hospital payments based on these four quality payment programs: the Hospital Inpatient Quality Reporting Program, the Hospital Readmissions Reduction Program, the Hospital-Acquired Condition Reduction Program, and the hospital value-based purchasing program. The Commission has four main concerns about the design of these current hospital quality programs. First, the Commission has taken the position that there are currently too many hospital quality payment and reporting programs, many of which overlap, creating unneeded complexity in the Medicare program. Second, the Commission asserts that all-condition measures are more appropriate to measure the performance of hospitals, rather than the condition-specific readmissions and mortality measures that are currently used. Third, the programs include process measures and measures that may be inconsistently reported by providers. Fourth, the programs score hospitals using “tournament models,”

not clear, absolute, and prospectively set performance targets.

During the October 2017 meeting, the Commission discussed redesigning the hospital quality payment programs to make a single hospital value incentive program (HVIP) that will be patient oriented, encourage coordination across providers and time, and promote delivery system change. We believe that CMS has the authority to make some changes to hospital quality payment without congressional action (e.g., using all-condition measures versus condition-specific measures, using fixed performance targets in the scoring methodology, and improving public reporting), but other changes would require statutory authority. The Commission began discussions around possible HVIP measures and scoring methodology in the fall of 2017 and will discuss the results of modeling HVIP scores and payment adjustments during the spring of 2018. ■

potential to change inpatient payments, they do not alter outpatient payments. In 2018, about a quarter of hospitals will see a net increase in payments (averaging about \$113,000) and a little less than three-quarters will see a net decrease in payments (averaging around \$443,000) under the combined effect of these programs. On net, these three programs lower Medicare payments by about \$940 million, or 0.5 percent of overall Medicare payments.

### Overall hospital quality metrics show improvement

To assess aggregate trends in quality of care across all IPPS hospitals, we use mortality rates, readmission rates, and patient experience. We find that, from 2012 to 2016, mortality and readmissions declined. In addition, patient experience measures (e.g., communication with nurses and doctors, quietness of hospital environment) improved from 2011 to 2016. The share of patients rating their overall hospital experience a 9 or 10 on a 10-point scale has increased from 69 percent to 73 percent. The quality improvements reflect the efforts hospitals have

made to improve patient outcomes, but also reflect the closure or restructuring of some of the poorest performing hospitals. In 2014, we examined hospitals that, from 2009 through 2011, had a combination of low occupancy, high readmission rates, and poor patient experience ratings (Medicare Payment Advisory Commission 2014b). By 2015, 13 of the 112 hospitals closed, a quarter of the hospitals changed ownership, and others replaced their facilities. This finding is consistent with a recent study that suggests market share is flowing to higher quality hospitals (Chandra et al. 2015).

**Readmission rates have been declining** The Congress enacted a Medicare HRRP in 2010, and since that time readmission rates have continued to fall. Last year we also showed that readmission rates declined for all of the conditions covered by the readmission policy from 2010 to 2015 (Medicare Payment Advisory Commission 2017b). This year we examined the readmission rates across all conditions for those over 65. We found that the risk-adjusted unplanned readmission rate declined from about 17 percent in 2010 down to 15 percent in 2015. It declined



**TABLE  
3-3****Risk-adjusted 30-day postdischarge mortality rates have declined**

<b>Mortality rate</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Unadjusted mortality	7.2%	7.9%	8.1%	8.4%	8.4%	8.6%	8.4%
Expected mortality	7.5	8.1	8.5	9.0	9.4	9.9	10.2
Risk-adjusted mortality	8.4	8.0	7.7	7.5	7.2	7.0	6.7

Source: MedPAC analysis of 2012 through 2016 Medicare claims using 3M all-patient refined–diagnosis related group risk of mortality V32 grouper and beneficiary age and gender to calculate risk-adjusted mortality rates (using 2010 through 2012 data to set expected rates).

further to about 14.4 percent in 2016.<sup>5</sup> In fiscal year 2018, hospitals are penalized if they have above-average readmission rates (from a prior three-year period (July 1, 2013, through June 30, 2016)) for any one of six clinical conditions (acute myocardial infarction, heart failure, pneumonia, congestive obstructive pulmonary disease, elective total hip or knee replacement, or coronary artery bypass graft surgery).

In 2013, the Commission suggested a budget-neutral package of improvements to the HRRP. The first suggestion was to set a fixed target for readmission rates so aggregate penalties would go down when industry performance improves. Second, we suggested fixing the penalty formula to make the penalty per excess readmission close to the cost of each excess readmission. Third, to create greater precision in measuring relative performance and to offset the cost of fixing the penalty formula, we discussed expanding the policy to cover all conditions.<sup>6</sup> Fourth, we discussed evaluating hospitals' readmission rates against rates for peer hospitals with similar shares of low-income patients as a way to adjust penalties for the effects of socioeconomic status on hospitals' readmission rates, which the Congress adopted in the 21st Century Cures Act (Public Law 114–255) (Medicare Payment Advisory Commission 2013a). Section 15002 of the Act requires the Secretary to compare cohorts of hospitals in determining the extent of excess readmissions beginning in fiscal year 2019. Through rulemaking, CMS has defined a methodology for calculating the adjustment factor based on a hospital's performance relative to other hospitals treating a similar proportion of dual-eligible patients (i.e., quintile cohorts).

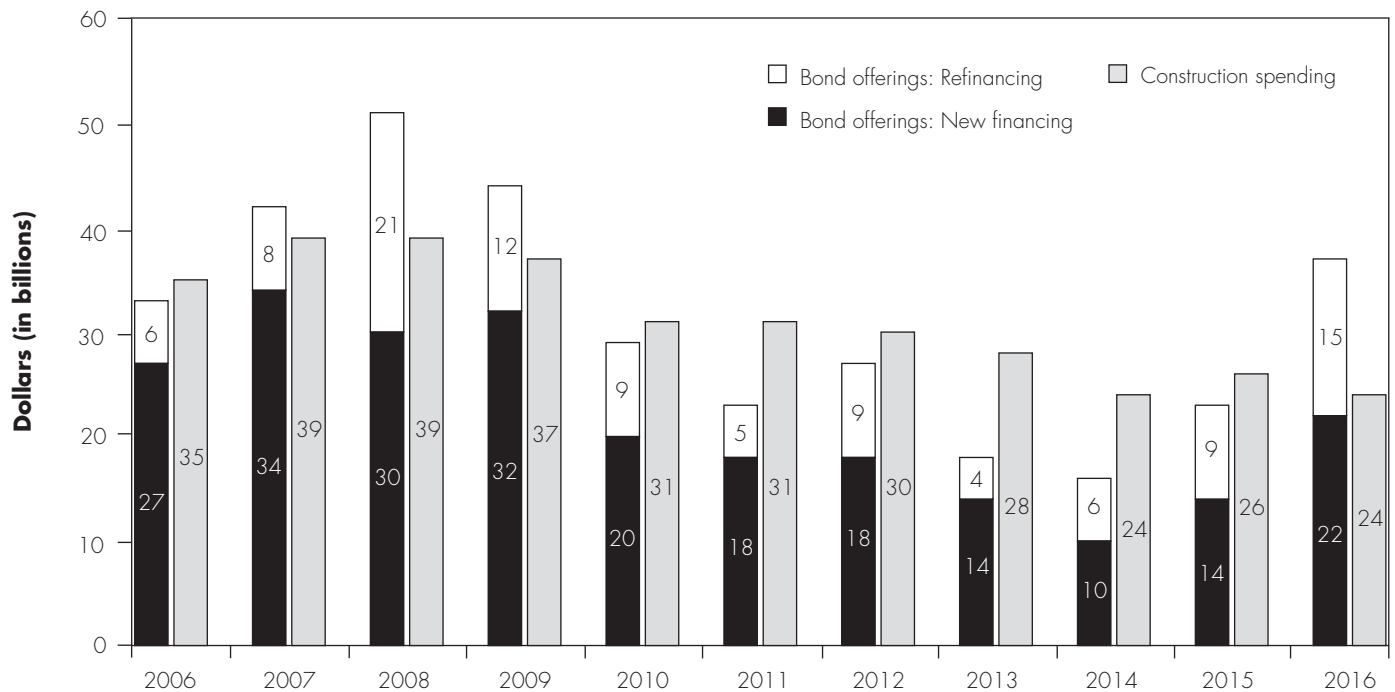
**Mortality rates declining** From 2010 to 2016, risk-adjusted mortality rates declined by 1.7 percentage

points; 0.3 percentage point of that decline occurred in 2016 (Table 3-3). Since 2013, raw mortality rates were relatively constant, suggesting that beneficiaries admitted in recent years tended to have more comorbidities and thus a higher risk of mortality. The higher expected mortality per discharge is consistent with Figure 3-1 (p. 70), which shows a decline in Medicare admissions per capita in recent years. Other studies have found similar improvements for condition-specific mortality (Hines 2015, Krumholz 2015). The combination of a decline in readmissions and a decline in hospital mortality is strong evidence of improving quality.

**Hospitals' access to capital and employment remains strong**

Hospitals' access to capital remained strong in 2016. Nonprofit hospitals issued \$37 billion in bonds in 2016 (\$22 billion in new financing and \$15 billion in refinancing), surpassing the \$23 billion of bond offerings in 2015 (Figure 3-4) (Thomson Reuters 2017). The rebound of bond offerings in 2016 reflects hospitals' strong financial position (high all-payer margins and strong balance sheets) and continuing low interest rates. The average interest rate for double-A tax-exempt 30-year nonprofit hospital bonds remained low at 3.10 percent in December 2017 compared with 3.95 percent in December 2016 (Cain Brothers 2017). Hospital construction spending was \$24 billion in 2016, approximately the same level as 2015 and roughly equivalent to the level of bond issuances for new financing (Census Bureau 2017). The data suggest that the increase in bond offerings in 2016 reflects refinancing and hospitals taking advantage of low interest rates rather than a big increase in construction. Construction



**FIGURE  
3-4****Nonprofit hospital bond offerings for new financing  
roughly equal to hospital construction spending in 2016**

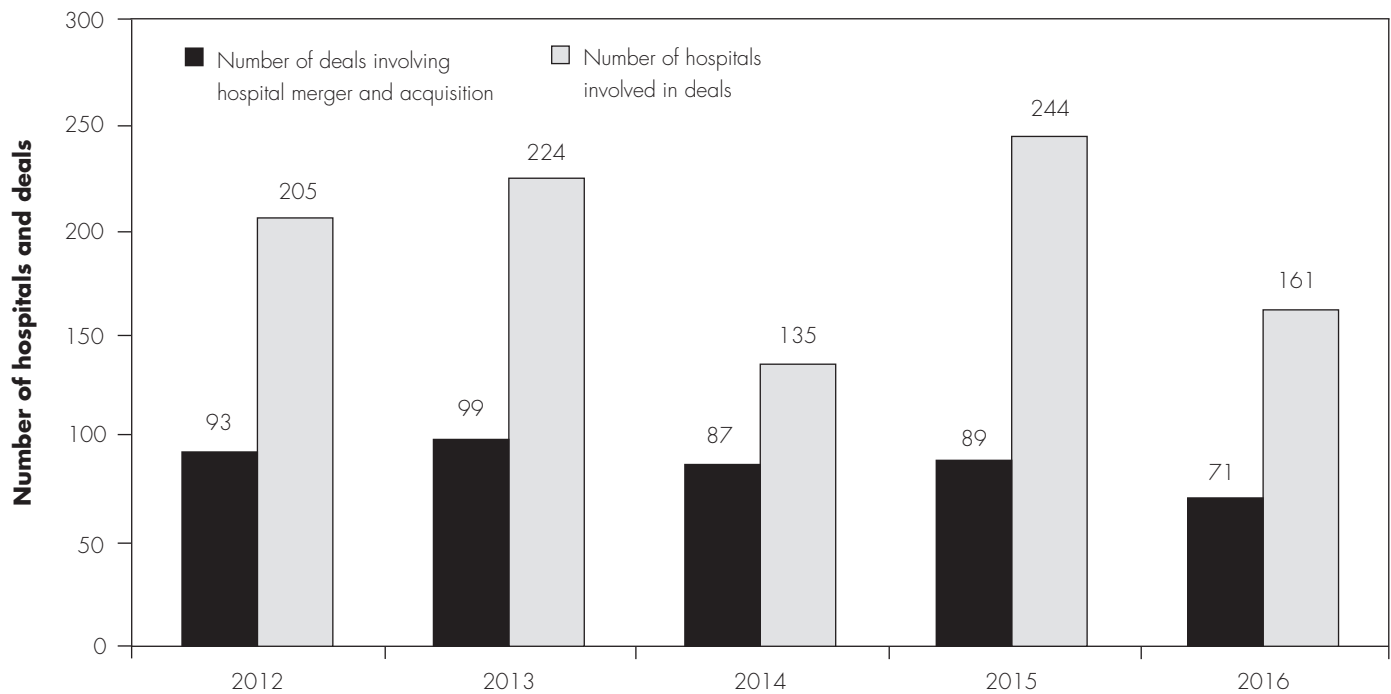
Source: Nonprofit hospitals' bond offering data from Thomson Reuters and hospital construction spending data from the U.S. Census Bureau.

spending in 2016 was lower than levels observed between 2006 and 2009 because the industry is focused on building less expensive outpatient capacity rather than inpatient capacity (Conn 2017).

While the financial condition of hospitals remains strong, hospital all-payer profit margins fell slightly from their recent record highs in 2013. The three major bond-rating agencies (Fitch Ratings, Moody's Investor Services, Standard & Poor's Ratings Services) reported that nonprofit hospitals in 2016 experienced slower revenue growth than the previous year, rising expense growth, and slightly lower facility-wide operating profits in 2016 (Fitch Ratings 2017, Moody's Investors Service 2017b, Standard & Poor's Ratings Services 2017). The three largest for-profit hospital systems reported similar trends in 2016 (Community Health Systems 2017, Morningstar Document Research 2017a, Morningstar Document Research 2017b).

In 2017, hospital revenues continue to grow, but at a slower pace than in previous years because the peak of Medicaid expansion has passed (Fitch Ratings 2017, Moody's Investors Service 2017b, Standard & Poor's Ratings Services 2017). In addition, as more patients shift toward higher deductible plans, increases in bad debt in 2016 and the first half of 2017 have been reported (Moody's Investors Service 2017a). For-profit hospital systems also report slowed revenue growth. For example, HCA's same-facility revenues increased 6.4 percent in 2015 and 4.1 percent in 2016 (Morningstar Document Research 2017a).

Hospital expense growth increased in 2016 because of increases in the cost of nursing labor, information technology, and pharmaceutical and medical supplies. All three rating agencies cited the growth in nursing wages as the reason for labor cost growth at nonprofit hospitals (Fitch Ratings 2017, Moody's Investors Service 2017b, Standard & Poor's Ratings Services 2017).

**FIGURE  
3-5****Hospital merger and acquisition activity has been high in recent years**

Source: MedPAC analysis of 2016 data from Irving Levin Associates Inc.

Three for-profit hospital systems similarly cited labor, pharmaceutical, and medical supply costs as key reasons for expense growth (Community Health Systems 2017, Morningstar Document Research 2017a, Morningstar Document Research 2017b).

**Mergers and acquisitions**

Hospitals and hospital systems also continued to expand through acquisition. In 2016, 161 individual hospitals were acquired in 71 transactions, a decline in the level of transactions in recent years (Figure 3-5) (Irving Levin Associates Inc. 2017). Smaller hospitals and health systems were more often the target of acquisition in 2016. Approximately one-third of these transactions involved single-facility acquisitions rather than multiple-facility transactions. These acquisitions have resulted in greater market power for hospitals in negotiating contracts with insurers, physicians, and drug and device manufacturers.

**Hospital employment increased**

Between October 2015 and October 2017, the number of individuals employed by hospitals grew from 4.9 million

to 5.1 million, an increase of 3.9 percent, slightly slower than the rest of the health care sector (4.4 percent), but faster than the rest of the economy (3.1 percent) (Bureau of Labor Statistics 2017b). Over 10 years (2007 to 2017), hospital employment increased 13 percent while employment in the rest of the economy increased 5 percent.

Hospitals have hired individuals in certain high-skill occupational categories and reduced the number of staff in certain lower skilled occupations. From 2014 to 2016, the number of physicians employed by hospitals increased by 2.3 percent but varied by type of physician (Bureau of Labor Statistics 2017a). For example, the number of family and general physicians rose 15 percent, and the number of anesthesiologists fell 17 percent. Overall, the number of nurses employed by hospitals rose 1.4 percent during this period, with the number of higher skilled registered nurses increasing by about 40,000 individuals and the number of licensed practice or vocational nurses declining by about 17,000. Hospitals also reduced operational staff from categories such as

health care support (–1.5 percent) and food services (–3.0 percent). Hospital employment growth and occupational employment growth within hospitals may have been more rapid than the Bureau of Labor Statistics (BLS) reports because BLS estimates of workers in hospitals do not include contract workers paid outside hospitals' payroll systems, which some suggest have increased in recent years (Government Accountability Office 2015). For example, the decline in food-service workers could reflect a decrease in employment or an increase in the use of outside contractors.

## Medicare payments and providers' costs

In assessing payment adequacy, the Commission also considers the relationship between Medicare payments and the costs of providing care to Medicare patients. We assess the adequacy of Medicare payments for the hospital as a whole (across all Medicare services), thus measuring the relationship between payments and costs using an overall Medicare margin. This margin includes all Medicare payments and Medicare-allowable costs for the six hospital departments covered by the inpatient, outpatient, and post-acute (PAC) PPS systems, as well as uncompensated care payments and graduate medical education payments and costs.<sup>7</sup>

We report the overall Medicare margin across service lines because no hospital service line is a purely independent line of business. For example, we find that operating any PAC provider improves the profitability of acute inpatient care services because an in-hospital PAC provider allows hospitals to safely discharge patients sooner from their acute care beds, thus reducing the cost of inpatient stays. The overall Medicare margin also takes into account revenues that are not included in the service-line payments for inpatient and outpatient care. These revenues include Medicare payments for health information technology (beginning fiscal year 2011) and uncompensated care payments (beginning fiscal year 2014). Excluding these Medicare revenues would understate Medicare payments to hospitals. Another benefit of focusing on overall margins is that we can avoid the challenges of precisely allocating overhead and administrative costs among the different service lines.

To determine whether hospitals have an incentive to treat additional Medicare patients, we also examine the marginal profits for treating additional Medicare patients. This measure examines whether Medicare payments cover the variable cost of treating an additional Medicare patient.

We find that, while average Medicare payments do not cover all costs (fixed and variable), they are sufficient to cover the variable costs of treating additional Medicare patients, which is an indicator of whether hospitals with excess capacity have an incentive to see more Medicare patients.

To measure the overall pressure that hospitals are under to control costs, we also examine hospital total (all-payer) profit margins and hospital cash flows. When total margins and cash flows are strong, hospitals are under less pressure to control their costs, which in turn affects their Medicare margin.

## Medicare payment growth

Changes in Medicare inpatient hospital payments per discharge under the IPPS depend primarily on three factors: (1) annual updates to base payment rates; (2) changes in reported patient case mix (a measure of relative patient complexity); and (3) policy changes that are not implemented in a budget-neutral manner. In 2016, the average Medicare inpatient payment per case increased 4.6 percent. While inpatient payments increased, uncompensated care payments declined in 2016 because of an increase in the number of insured patients. In 2016, hospitals received \$9.9 billion in disproportionate share (DSH) and uncompensated care payments (down from \$11 billion in 2015). Between 2015 and 2016, three key changes to inpatient payments occurred:

- a 0.9 percent increase in base payment rates,
- a 3.4 percent increase in inpatient case mix, and
- a \$1.1 billion reduction in DSH and uncompensated care payments.

Medicare continues to see growth in the use of outpatient services, attributable to a combination of increases in the number of beneficiaries, the number of outpatient visits, and a \$1.7 billion increase (19 percent growth) in payments for separately payable Part B drugs administered in hospitals' outpatient departments. The 19 percent increase was due to an increase in both the volume and prices of Part B drugs. Medicare pays hospitals 106 percent of pharmaceutical companies' average sales prices for most Part B drugs. Because hospitals and the Medicare program do not set pharmaceutical prices, manufacturer price increases for Part B drugs can drive up hospitals' drug costs and Medicare program payments.

**TABLE  
3-4****Cost growth, case-mix change, and hospital input price inflation, 2012-2016**

Cost measure	Annual cost growth					Average annual cost growth 2012-2016
	2012	2013	2014	2015	2016	
Inpatient costs per discharge	3.3%	2.7%	2.2%	2.3%	4.2%	2.9%
Inpatient case-mix-index change	1.4	2.0	2.0	0.8	3.4	1.9
Input price inflation*	2.1	1.9	1.8	1.7	1.6	1.8

Note: Cost-growth numbers are not adjusted for reported changes in case mix. Analysis excludes critical access hospitals and Maryland hospitals.

\*Input price inflation reflects a four-quarter moving and weighted average of changes in the hospital operating and capital market basket indexes calculated for the second quarter of each year.

Source: MedPAC analysis of Medicare cost reports, claims files, and hospital input price inflation estimates from CMS.

**Rate of cost growth remains close to rate of input price inflation**

Hospitals' per case cost increases were relatively low between 2012 and 2015, averaging 2.6 percent annually, and were about 0.6 percentage points faster than input price inflation (the hospital market basket index) (data not shown). The per discharge cost increased by about 4.2 percent in 2016, in large part reflecting a shift in services toward inpatient surgeries (Table 3-4). Although more rapid than the annual increase between 2012 and 2015, this growth is still slower than experienced through most of the 2000s, when costs per case increased an average of 5.6 percent per year, or 1.4 percentage points faster than underlying input price inflation (data not shown).

The lower cost growth from 2012 through 2015 was partly due to lower input price inflation facing hospitals, reflecting low economy-wide inflation and slow wage growth. Hospitals benefited from this low economy-wide wage growth, with compensation costs for hospital workers growing by less than 2 percent in each year from 2012 through 2015 (Bureau of Labor Statistics 2016). In 2016, compensation costs for hospital workers grew 2.2 percent, about equal to that of the rest of the economy at 2.5 percent (Bureau of Labor Statistics 2017a).

From 2015 to 2016, inpatient case mix increased 3.4 percent, the most significant increase in Medicare inpatient case mix in over 10 years, and it is being driven by the corresponding increase in surgical cases (4.3 percent) and decrease in medical cases (-5.2 percent). In 2016, surgical cases had an average case mix of 3.05 and medical cases

had an average case mix of 1.21. The growth in the share of surgical cases in 2016 drove up the overall average case mix. However, if we control for the increase in the number of surgical cases, the hospital cost increase for the past three years would be roughly equivalent to underlying input price inflation.

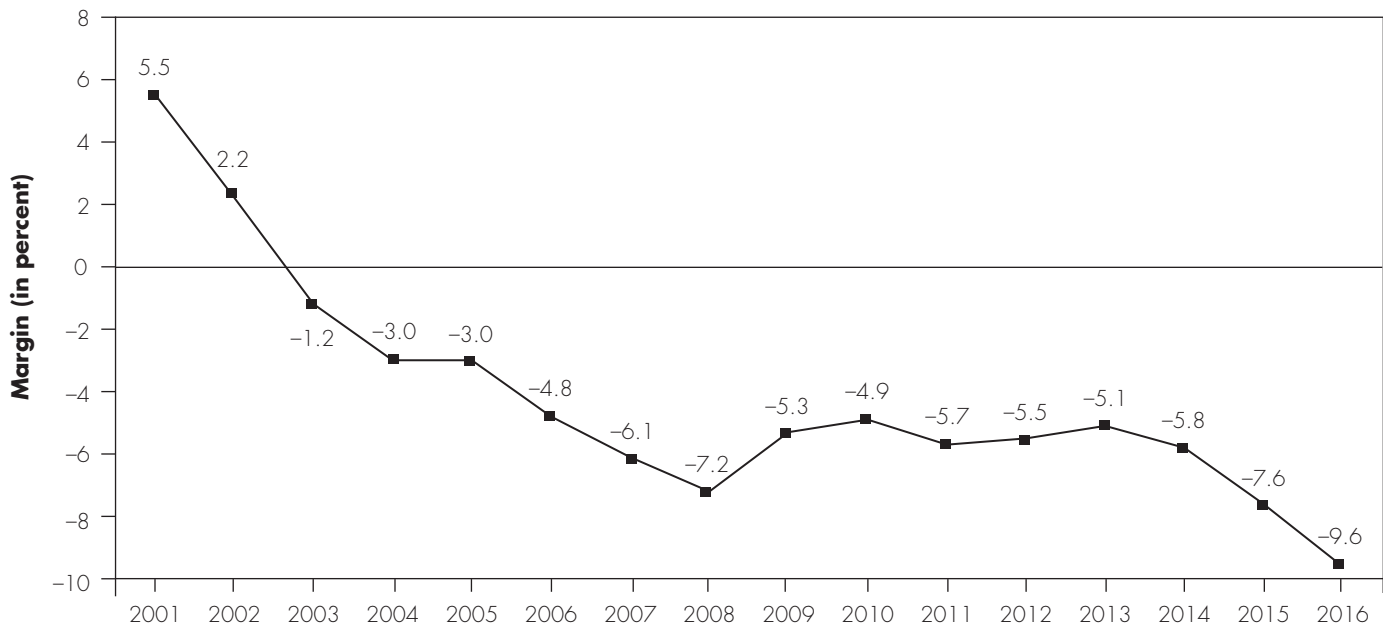
The increasing volume of inpatient surgeries (in particular, hip and knee replacements) could also have contributed to higher device costs. From 2014 through 2016, the cost per discharge (averaged across medical and surgical discharges) grew by 7.9 percent. Drug costs grew even faster during that period, increasing by 12.4 percent over the two-year period. On a combined basis, drugs and devices represented 19 percent of all hospital costs in 2016 and 26 percent of all cost growth per Medicare discharge. Consistent with a growth in inpatient surgery, cost report data indicate anesthesiology, operating rooms, and recovery rooms grew at 8.5 percent, 6.5 percent, and 5.9 percent, respectively, from 2015 to 2016.

**Trend in the overall Medicare margin**

We define Medicare margins as Medicare payments minus the allowable costs of treating Medicare patients divided by Medicare payments. In analyzing hospital margins, we compute margins with and without critical access hospitals (CAHs), which are 1,300 rural hospitals whose payments are based on their incurred costs. We also exclude hospitals in Maryland, which are not part of the IPPS but rather are paid under a statewide all-payer prospective payment system. From 2001 through 2008, the overall

**FIGURE  
3-6**

**Overall Medicare margin continued to trend downward after holding relatively steady between 2009 and 2014**



**Note:** A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. Analysis excludes critical access and Maryland hospitals. Medicare inpatient margins include services covered by the acute inpatient prospective payment systems. "Overall Medicare margin" covers acute inpatient, outpatient, hospital-based skilled nursing facility (including swing beds), hospital-based home health, and inpatient psychiatric and rehabilitation services, plus graduate medical education and electronic health record incentive payments and payments for uncompensated care.

**Source:** MedPAC analysis of Medicare cost reports from CMS.

Medicare margin trended downward from 5.5 percent in 2001 to -7.2 percent in 2008 (Figure 3-6).<sup>8</sup> However, from 2008 to 2010, the overall Medicare margin went up, from -7.2 percent to -4.9 percent, largely because of increases in reported case mix—the result of documentation and coding changes hospitals made with the introduction of MS-DRGs in 2008—and lower cost growth as a result of the economy's downturn from the recession (Medicare Payment Advisory Commission 2013b). From 2010 to 2014, the overall Medicare margin held relatively steady, varying from -4.9 to -5.8 percent. From 2014 to 2016, the overall Medicare margin dropped from -5.8 percent to -9.6 percent. The decrease in the overall Medicare margin that occurred from 2014 to 2016 is not unexpected given several payment adjustments required by statute, including reductions to the annual payment update adjustments for documentation and coding improvement, decreases in incentive payments for the adoption of electronic health

records, and decreases in uncompensated care payments that correspond to increases in the insured population.

As discussed in our March 2016 report to the Congress, the Medicare margin held relatively steady from 2009 through 2014 in part because CMS overestimated hospital wage inflation. Each year, the hospital update is based on a forecast of input price inflation. In every year from 2012 to 2016, the forecast inflation exceeded actual input price inflation. This forecast error added over 2 percentage points to hospital payment rates from 2012 to 2014 and allowed hospital margins to remain relatively constant during this period. In 2015 and 2016, the forecast error added close to another 2 percentage points to hospital payment rates. However, four factors contributed to the decrease in the overall Medicare margin that exceeded this forecast error. First, PPACA-mandated reductions to the hospital market basket update equaled 0.8 percent in 2015 and 0.7 percent in 2016. Next, the Congress



**TABLE  
3-5****Overall Medicare margins by hospital type**

Hospital group	2009	2010	2011	2012	2013	2014	2015	2016
All hospitals (excluding CAHs)	-5.3%	-4.9%	-5.7%	-5.5%	-5.1%	-5.8%	-7.6%	-9.6%
Urban	-5.4	-5.1	-6.1	-5.9	-5.9	-6.0	-7.9	-9.8
Rural								
Excluding CAHs	-4.0	-2.6	-2.6	-1.1	2.4	-3.6	-5.0	-7.4
Including CAHs	-2.8	-1.7	-1.4	0.3	2.5	-1.9	-3.2	-5.3
Nonprofit	-6.6	-6.3	-7.2	-7.1	-6.5	-7.4	-9.1	-11.0
For profit	-0.2	-0.1	-0.3	1.2	1.1	0.7	-1.4	-2.4
Major teaching	-1.1	-0.9	-2.3	-2.8	-3.6	-4.5	-6.4	-8.6
Other teaching	-5.0	-4.7	-5.5	-5.1	-4.8	-4.9	-6.3	-8.5
Nonteaching	-8.5	-8.0	-8.5	-7.8	-6.4	-7.6	-9.7	-11.3
High DSH	1.4	0.9	-0.5	-0.3	-0.4	-1.1	-3.2	-6.2
Moderate-to-low DSH	-7.7	-6.9	-7.4	-7.1	-6.4	-7.1	-8.6	-10.4
No DSH	-13.4	-12.4	-13.2	-13.2	-12.6	-13.5	-15.2	-15.5

Note: CAH (critical access hospital), DSH (disproportionate share). Data are for all hospitals covered by the Medicare acute inpatient prospective payment system in 2016 and for CAHs where indicated. A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. "Overall Medicare margins" covers acute inpatient, outpatient, hospital-based skilled nursing facility (including swing beds), hospital-based home health, and inpatient psychiatric and rehabilitation services, plus uncompensated care, graduate medical education, and electronic health record incentive payments. The rural margins are shown with and without 1,300 CAHs, which are paid 101 percent of costs for inpatient and outpatient services. The margins without CAHs illustrate the profitability of rural inpatient prospective payment system hospitals; the rural margins with CAHs give a fuller picture of rural hospital profitability. "High DSH" includes hospitals with the highest disproportionate share adjustments (top quartile). "Moderate-to-low DSH" includes hospitals with disproportionate share adjustments that exceed zero but are not included in the top quartile.

Source: MedPAC analysis of Medicare cost reports, Medicare Provider Analysis and Review files, and impact files from CMS.

mandated reductions in the inpatient base rate in 2015, 2016, and 2017 because of documentation and coding improvements that occurred earlier in the decade. Third, the American Recovery and Reinvestment Act of 2008 provided payments to hospitals for the adoption of health information technology for a limited number of years. The program expired for IPPS hospitals at the end of fiscal year 2016, and payments have been declining since 2014. From 2014 to 2016, these subsidy payments decreased by over \$1.7 billion. Finally, by design, as the number of insured individuals increases, CMS decreases the amount available to hospitals through uncompensated care payments. Thus, the increase in the number of insured individuals resulted in the lower level of uncompensated care payments to hospitals.

### Medicare margins by hospital type, 2016

In 2016, rural IPPS hospitals (excluding CAHs) had a -7.4 percent overall Medicare margin, which was 2.4

percentage points higher than the -9.8 percent margin for urban hospitals (Table 3-5). Major teaching hospitals (i.e., hospitals with a high resident-to-bed ratio) had an overall Medicare margin of -8.6 percent. In large part, major teaching hospitals had higher overall Medicare margins than the average IPPS hospital because of the extra payments they receive through the indirect medical education and DSH hospital adjustments and uncompensated care payments.

In 2016, for-profit hospitals had the highest overall Medicare margins (-2.4 percent), well above the -11.0 percent overall Medicare margin for nonprofit hospitals (Table 3-5). Much of this differential reflects lower outpatient costs at for-profit hospitals. A detailed analysis of 2009 outpatient services indicated that for-profit hospitals' outpatient margins also benefit somewhat from a more favorable service mix and from being less likely to incur outpatient teaching costs (Medicare Payment Advisory Commission 2014b).



In 2016, hospitals that treated the highest shares of low-income patients (high-DSH hospitals) had a –6.2 percent overall Medicare margin (Table 3-5). In contrast, hospitals treating the lowest share of low-income patients (non-DSH hospitals) had the lowest overall Medicare margin (–15.5 percent). The difference in margins was attributable in part to the DSH adjustments and uncompensated care payments received by hospitals. In addition, hospitals with high shares of Medicare and Medicaid patients tend to have more pressure to control costs and therefore tend to have lower costs per discharge (see p. 84 for a discussion of financial pressure and costs).

### **Marginal profits**

Another factor we consider when evaluating the adequacy of payments is whether providers have any financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments exceed the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries.

To operationalize this concept, we compare payments for Medicare services with marginal costs, which is approximated as:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

On average, the marginal profit across hospital service lines was approximately 8 percent in 2016.<sup>9</sup> Because hospitals would be expected to generate about 8 percent profit on a marginal increase in Medicare volume, hospitals with excess capacity would have a financial incentive to serve more Medicare beneficiaries.

### **Total (all-payer) profitability remains strong**

Hospitals' total (all-payer) profit margins are an indicator of how much financial pressure hospitals are under to control costs (Figure 3-7, p. 84). In 2016, total margins

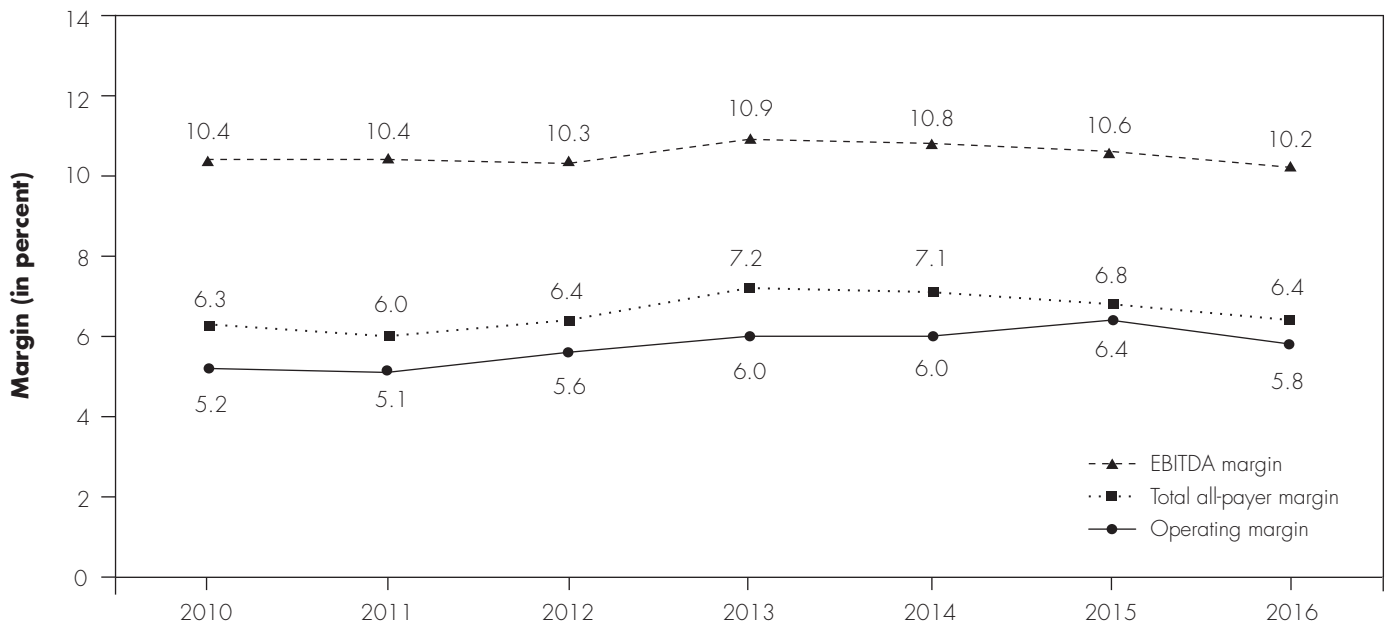
for hospitals were 6.4 percent, slightly lower than the preceding 3 years, but still near their highest levels since the beginning of the prospective payment system more than 30 years ago (historical data not shown). All-payer margins remain strong because the growth of private-payer rates continues to rise faster than costs (Bureau of Labor Statistics 2013, Health Care Cost Institute 2015, Health Care Cost Institute 2014, Health Care Cost Institute 2012). While Medicare represents about one-third of all-payer revenues, commercially insured patients represent slightly more than one-third of patient revenues and generate almost all of the operating profits for a typical hospital.<sup>10</sup> Operating margins, which exclude charitable donations and income from investments, peaked in 2015 at 6.4 percent following a growth in insured patients. Other measures of all-payer profitability are also strong. Cash flow—as measured by earnings before interest, taxes, depreciation, and amortization—has remained steady and strong for the past seven years, between 10 percent and 11 percent.

In 2016, total margins varied across hospital types. For the second year in a row, for-profit hospitals had a high total (all-payer) margin, 11.2 percent, more than 4 percentage points higher than in 2007. In addition, the frontier IPPS hospitals (those in low population–density counties) had an average total margin of 10.8 percent, suggesting that isolated hospitals can do well in frontier areas when they have sufficient volumes of insured individuals. The total margin for CAHs was 3.6 percent, a slight decrease from 2015, which was the highest level since 2007. In contrast, rural hospitals adjacent to urban areas had low total margins (–0.1 percent in aggregate).

### **Fiscal pressure constrains costs**

Hospitals under financial pressure tend to have lower costs. To illustrate this finding, we compare hospitals under low and high financial pressure in the analysis below. In addition to financial pressure affecting the level of costs, the literature shows that changes in Medicare rates can affect the rate of cost growth. Hospitals that receive larger increases in Medicare payment rates tend to have larger increases in costs.

To determine the association between financial pressure and costs, we grouped hospitals into three levels of financial pressure from private payers—high, medium, and low—based on their median non-Medicare profit margins and other factors from 2011 to 2015. For these years,

**FIGURE  
3-7****Hospitals' financial performance has remained stable since 2010**

Note: EBITDA (earnings before interest, taxes, depreciation, and amortization). A margin is calculated as revenues minus costs, divided by payments. Analysis excludes critical access hospitals.

Source: MedPAC analysis of Medicare hospital cost report data.

the hospitals under high pressure historically had non-Medicare profit margins of less than 1 percent, while the low-pressure hospitals had non-Medicare profit margins of more than 5 percent. We found that hospitals under high pressure during the five-year period ended up with lower standardized Medicare costs per discharge in 2016 than hospitals under low levels of financial pressure. For more details on our analytic methods, see our earlier analysis of payment adequacy (Medicare Payment Advisory Commission 2011).

The following are key findings from our analysis of financial pressure on hospitals:

- **High pressure equals low cost:** The 26 percent of hospitals under the most financial pressure had median standardized Medicare costs per case that were 7 percent lower than the national median for the 2,762 IPPS hospitals with available data. Because of their lower Medicare costs, hospitals under pressure broke even on Medicare (0 percent margin), which is 8 percentage points above the national median. High-

pressure hospitals tended to be paid government rates for larger shares of patients (51 percent of inpatient days were Medicare and Medicaid patients).

- **Low pressure equals high cost:** The 62 percent of hospitals under a low level of financial pressure had median standardized Medicare costs per case that were 3 percent above the national median. Because of higher costs, they generated a median Medicare profit margin of nearly -11 percent, scoring 3 percentage points below the national median. Low-pressure hospitals tended to be paid government rates for smaller shares of patients (46 percent of inpatient days were Medicare and Medicaid patients).

In addition to cost differences at the hospital level, cost differences appear at the state level. The literature generally finds that a dominant insurer in a state can reduce the relative market power of hospitals and the prices commercial insurers pay hospitals (Trish and Herring 2015). We find that lower commercial prices may then result in lower costs. For example, in Alabama

and North Dakota, where there is one dominant insurer (each) and relatively low commercial payment rates, hospital wage rates are relatively low. (By “relatively low,” we mean that the ratio of hospital wages to wages paid by other employers for comparable employees is lower in Alabama and North Dakota than the average state) (Medicare Payment Advisory Commission 2007).

Another way to examine the relationship between financial pressure and costs is to see how changes in financial pressure affect changes in costs. For example, White and Wu found that hospitals that received higher Medicare payment increases because of policy changes tended to have higher cost growth (White and Wu 2014). Contrary to “cost-shift” theory, they also found that lower Medicare price growth did not cause hospitals to increase prices negotiated with commercial insurers. Instead, they found lower Medicare prices led to lower cost growth (White 2013). Similar findings have been reported by others (Clemens and Gottlieb 2017, Frakt 2015). A recent study examined how hospitals responded when they received a large increase in their wage index because of Section 508 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. The study found that the hospitals that received higher Medicare payments through the 508 program “treated more patients, increased payroll, hired nurses, added new technology, raised CEO pay, and ultimately increased their spending by over \$100 million annually” (Cooper et al. 2017). The implication of these studies is that constraining Medicare prices should help constrain hospital costs. This finding that costs vary with income is consistent with a recent press account of how a hospital (with a history of receiving relatively high commercial prices) started to feel more pressure to reduce costs and did find ways to reduce staffing and supply expenses (Boghosian 2017).

### **Relatively efficient hospitals**

The Commission follows two principles when identifying a set of efficient providers. First, the providers must do relatively well on cost and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric over the past three years. In the hospital sector, the variables we use to identify relatively efficient hospitals are hospital-level mortality rates (3M<sup>®</sup> risk-adjusted all-condition mortality), readmission rates (3M<sup>®</sup> potentially preventable readmissions), and standardized inpatient Medicare costs per case. Our assessment of efficiency is not in absolute terms but, rather, relative to other IPPS hospitals.

**Categorizing hospitals as relatively efficient** We assigned hospitals to the relatively efficient group or the control group according to each hospital’s performance relative to the national median on a set of risk-adjusted cost and quality metrics for the period 2013 to 2015.<sup>11</sup> We then examined the performance of the two hospital groups in fiscal year 2016.

Hospitals were identified as relatively efficient if they met four criteria in each year from 2013 to 2015:

- Risk-adjusted mortality rates were among the best two-thirds of all hospitals.
- Risk-adjusted readmission rates were among the best two-thirds of all hospitals.
- Standardized costs per discharge were among the best two-thirds of all hospitals.
- Risk-adjusted mortality or standardized costs per discharge were among the best one-third of all hospitals.

The objective was to identify hospitals that consistently performed at an above-average level on at least one measure (cost or quality) and that always performed reasonably well on all measures. The rationale for this methodology and the details of computing the various measures are discussed in our March 2011 report (Medicare Payment Advisory Commission 2011). As a secondary check on hospital quality, we also require that at least 60 percent of the hospital’s patients rated the hospital a 9 or 10 on a 10-point scale.<sup>12</sup>

**Examining performance of relatively efficient and other hospitals from 2013 to 2015** Of the 2,190 hospitals that met our screening criteria during the 2013 to 2015 period, 331 (15 percent) were found to be relatively efficient. We examined the performance of relatively efficient hospitals on three measures by reporting the group’s median performance divided by the median for the set of hospitals in our analysis (Table 3-6, p. 86). The median efficient hospital’s relative risk-adjusted 30-day mortality rate for the 3-year assessment period was 90 percent of the national median, meaning that the 30-day mortality rate for the efficient group was 10 percent below (that is, better than) the national median. The median readmission rate for the efficient group was 6 percent below the national median. The standardized Medicare cost per discharge for the efficient group was 11 percent lower than the national median. These relatively efficient hospitals were spread

**TABLE  
3-6****Performance of relatively efficient hospitals**

Relative performance measure	Type of hospital	
	Relatively efficient, 2013-2015	Other hospitals
Number of hospitals	331	1,859
Share of hospitals	15%	85%
<b>Historical performance, 2013-2015 (percent of national median)</b>		
Risk-adjusted:		
Composite 30-day mortality (3M <sup>TM</sup> )	90%	102%
Readmission rates (3M)	94	102
Standardized Medicare costs per discharge	89	103
<b>Performance metrics, 2016 (percent of national median)</b>		
Risk-adjusted:		
Composite 30-day mortality (3M)	93%	101%
Composite 30-day readmission (3M)	94	101
Standardized Medicare costs per discharge	92	102
<b>Median:</b>		
Overall Medicare margin, 2016	-1%	-9%
Non-Medicare margin, 2016	9	9
Total (all-payer) margin, 2016	7	5

Note: Relative measures are the median for the group as a share of the median of all hospitals. Per case costs are standardized for area wage rates, case-mix severity, prevalence of outlier and transfer cases, interest expense, low-income shares, and teaching intensity. Composite mortality was computed using the 3M methodology to compute risk-adjusted mortality for all conditions. We removed hospitals with low Medicaid patient loads (the bottom 10 percent of hospitals) and hospitals in markets with high service use (top 10 percent of hospitals) because of concerns that socioeconomic conditions and aggressive treatment patterns can influence unit costs and risk-adjusted quality metrics.

Source: MedPAC analysis of 2013 to 2016 Medicare cost report and claims-based quality data.

across the country and had a set of diverse characteristics, but they were more likely to be larger nonprofit hospitals because those hospitals tend to have better performance on the quality metrics we analyzed. (For a more complete description of the methodology and other characteristics of relatively efficient providers, see online Appendix 3-B from our 2016 report to the Congress, available at <http://www.medpac.gov>.)

**Historically strong performers had lower mortality and costs in 2016** Lower costs allowed the relatively efficient hospitals to generate less negative overall Medicare margins. The median hospital in the efficient group had an overall Medicare margin of -1 percent in 2016, while the median hospital in the comparison group had an overall Medicare margin of -9 percent (Table 3-6). The relatively

efficient group also continued to perform better on quality metrics in 2016, with risk-adjusted mortality equal to 93 percent of the national median and risk-adjusted readmissions equal to 94 percent of the national median.

### Summary of hospitals' financial performance

The financial measures presented for 2016 present a mixed picture. All-payer margins were 6.8 percent, but Medicare margins were lower, at -9.6 percent in aggregate and -1.0 percent for the relatively efficient providers. While Medicare payments do not cover the full costs (fixed and variable) of the average hospital, they are approximately 8 percent higher than the marginal cost of adding additional Medicare patients. Therefore, hospitals with



excess capacity have an incentive to serve more Medicare patients.

### **How will current law changes for 2017, 2018, and 2019 affect hospitals' Medicare payments and beneficiaries' access?**

We project Medicare margins for 2018 based on margins in 2016 and policy changes that took or take place in 2017 and 2018. The 2017 update for inpatient and outpatient payments was 1.65 percent. In 2018, the update is 1.35 percent for both inpatient and outpatient services. Other changes in payment policy largely offset each other. Some regulatory changes increased payments (e.g., higher uncompensated care payments in 2018), but other changes decreased payments (e.g., offset for coding practices in 2017). The net result is that, from 2016 to 2018, payment rates increased by about 3 percent over two years. We expect cost growth per discharge to have remained about 2.5 percent per year in 2016 and 2017, resulting in cost growth of about 5 percent over two years. Given that costs are expected to increase about 2 percent faster than payments, we expect overall Medicare margins to decline from –9.6 percent in 2016 to about –11 percent in 2018. We also expect the efficient provider margins to remain negative.

### **Current law payment changes in 2019**

The hospital market basket is projected to be 2.8 percent in 2019. The hospital update will be lower than 2.8 percent because of a 0.8 percent adjustment for productivity and another 0.75 percent reduction mandated by PPACA. The net result is a projected update of 1.25 percent ( $2.8 - 0.8 - 0.75$ ). The change in Medicare margins for 2019 will depend on whether cost growth exceeds hospitals' payment rate growth on a case-mix-adjusted basis.

### **Hospitals will continue to have a financial incentive to see Medicare patients**

Despite Medicare margins of –9.6 percent in 2016, hospitals' all-payer margins (which include Medicare) in 2016 remained high at 6.4 percent. The all-payer margins reflect continued strong rate increases from private insurers, resulting in high margins for patients with commercial insurance (Health Care Cost Institute 2016, Health Care Cost Institute 2014, Medicare Payment Advisory Commission 2014a). Despite the growing gap between Medicare margins and commercial margins, we do not expect to see any near-term material reductions in Medicare beneficiaries' access to care for several reasons:

- Most hospitals have excess inpatient capacity.

- Medicare payment rates, while less than the total cost of care, are still sufficient to generate a marginal profit of about 8 percent on each additional Medicare patient. Therefore, it is still profitable for the average hospital to fill its empty beds with Medicare patients.
- Nonprofit hospitals have an incentive to admit Medicare patients to maintain their nonprofit status.

Because hospitals have a financial incentive and the capacity to serve Medicare patients, we do not believe beneficiaries' access to care is at risk in the near term. However, in the long run, if the disparity between Medicare rates and commercial rates continues to grow, the disparity in incentive to see Medicare patients and commercially insured patients will have to be addressed. The gap cannot be closed by increasing Medicare rates 3 percent or 4 percent every year; the Medicare Trust Fund would not be able to absorb those price increases. Therefore, commercial payment rate growth must be constrained, or eventually the difference between commercial rates and Medicare rates will grow so large that some hospitals will have an incentive to focus primarily on patients with commercial insurance. Thus, in the long term, Medicare beneficiaries' access to care may in part depend on commercial payers restraining rates paid to hospitals.

### **How should Medicare payment rates change in 2019?**

The Commission's recommendation for updating Medicare hospital payments for fiscal year 2019 is based on indicators of beneficiaries' access to hospital care, hospitals' access to capital, hospital quality, and the relationship between Medicare payments and hospital costs. Specifically, the Commission makes the following recommendation.

#### **RECOMMENDATION 3**

**For 2019, the Congress should update the 2018 Medicare base payment rates (inpatient and outpatient) for acute care hospitals by the amount determined under current law.**

Under current law, the update is expected to equal the projected market basket increase (2.8 percent), less an adjustment for productivity (–0.8 percent), less another adjustment mandated by PPACA (–0.75 percent).

Currently, the net expected update is 1.25 percent, but that amount may change by the time CMS calculates the final 2019 update. If the forecasted percent change in the hospital market basket increases from the current estimate (above 2.8 percent) because of higher expectations regarding input price inflation or the projected 10-year moving average of economy-wide productivity declines from the current estimate, then the update would be larger than 1.25 percent. Alternatively, if the forecasted market basket update declines (below 2.8 percent) or the productivity adjustment increases, the update would be less than 1.25 percent.

### RATIONALE 3

In examining our payment adequacy indicators, we found that, in 2016, beneficiaries had good access to care, hospitals maintained strong access to capital markets, and hospital quality improved, despite negative Medicare margins for most providers. Looking forward, we expect beneficiaries' access to care to remain adequate given

hospitals' modest occupancy rates and good access to capital. However, the aggregate Medicare profit margin is expected to decline by about 1.4 percentage points to -11 percent by 2018. Given these payment adequacy indicators, an update consistent with current law would be high enough to maintain access to care, but would also be low enough to help maintain some fiscal pressure on hospitals to control their costs.

### IMPLICATIONS 3

#### Spending

- The recommendation reflects the payment update projected under current law and therefore is not expected to affect spending relative to current law.

#### Beneficiaries and providers

- We do not expect the recommendation to affect beneficiaries' access to care or providers' willingness to treat Medicare beneficiaries relative to current law. ■



## Endnotes

---

- 1 Payments include roughly \$7 billion of inpatient and outpatient payments to critical access hospitals (CAHs), which are paid 1 percent over their costs of inpatient, outpatient, and post-acute services in swing beds. CAHs do not receive disproportionate share payments or uncompensated care payments.
- 2 In February 2016, a task force convened by the Society of Critical Care Management published a paper in the *Journal of the American Medical Association* altering the definition of *sepsis* and *septic shock*. The updated definition was intended to offer greater consistency for research purposes and facilitate earlier recognition and more timely management of patients with sepsis or at risk of developing sepsis.
- 3 We have not yet seen results from the CCJR demonstration. However, initial results from the BPCI study indicate that costs within an episode are being reduced because of lower device cost and less use of post-acute care. The effect on the volume of episodes has not yet been evaluated (Lewin Group 2016).
- 4 In previous years, our discussion of services shifting from freestanding offices to HOPDs also included echocardiography and nuclear cardiology. Service volume in these two categories continued to shift from freestanding offices to HOPDs in 2016. From 2015 to 2016, volume per beneficiary of echocardiography services increased by 5.4 percent in HOPDs and decreased by 0.9 percent in freestanding offices. Also, volume per beneficiary of nuclear cardiology services increased by 0.4 percent in HOPDs and decreased by 4.2 percent in freestanding offices. However, increased packaging of ancillary items in 2016 caused program spending on these services to decline in 2016. For example, OPPS payment for the echocardiography services decreased by \$89 million (10 percent).
- 5 The Commission's analysis of unplanned readmissions from 2010 through 2016 used Medicare claims data.
- 6 Recent analysis performed by the Office of the Assistant Secretary for Planning found that moving to an all-condition hospital readmission without making any of the other changes suggested in our March 2013 package of changes would result in higher annual penalties (Zuckerman et al. 2017). It is important to note that any increase in penalties because of expanding to all conditions would be fully offset by the other changes we discussed.
- 7 The six largest services in order of Medicare patient revenues are inpatient acute care (61 percent), outpatient care (29 percent), inpatient rehabilitation (2.1 percent), inpatient psychiatric (1.4 percent), home health care (0.8 percent), and skilled nursing services (0.4 percent).
- 8 The services included in the overall Medicare margin are Medicare's acute inpatient, outpatient, graduate medical education, hospital-based skilled nursing facility (including swing beds), hospital-based home health care, inpatient psychiatric, and inpatient rehabilitation services. Also included in the overall margin are special payments for health information technology, temporary extra payments to hospitals located in low-spending counties, and uncompensated care payments (as of fiscal year 2015).
- 9 Using a cost-accounting approach, we find that approximately 20 percent of hospital costs are fixed, resulting in a marginal profit of about 8 percent. This estimate is conservative because it ignores any potential managerial or clinical labor costs that are fixed. In the 2015 report, we also took an econometric approach to estimating hospitals' marginal costs and found that fixed costs were about 20 percent of overall costs. This amount matches the 20 percent figure used in the Medicare outlier policy. For a discussion of our econometric results and the literature on hospital marginal costs, see the online appendix to the 2015 report, available at <http://www.medpac.gov> (Medicare Payment Advisory Commission 2015b).
- 10 The Medicare share of hospital admissions rose from 42 percent in 2010 to 44 percent in 2015. However, because Medicare prices rose more slowly than commercial prices and because of additional revenue from the newly insured, Medicare's share of all hospital revenues remained at 33 percent from 2010 through 2015.
- 11 We use medians rather than means to limit the influence of outliers on our set of efficient providers.
- 12 While the Hospital Consumer Assessment of Healthcare Providers and Systems®—and similar patient satisfaction surveys—has the limitation of being subjective, we add it as another way to screen out low-value providers because it has the advantage of not being dependent on coding. It is possible that overly aggressive coding by some providers could artificially lower their risk-adjusted cost and risk-adjusted mortality metrics.

## References

---

- American Hospital Association. 2016. *AHA hospital statistics: 2016 edition*. Washington, DC: AHA.
- Berenson, R. A., J. H. Sunshine, D. Helms, et al. 2015. Why Medicare Advantage plans pay hospitals traditional Medicare prices. *Health Affairs* 34, no. 8 (August): 1289–1295.
- Boghossian, A. 2017. Not even the mattress pads were spared: An inside look at a top hospital's struggle to cut costs. *STAT*, September 28.
- Bureau of Labor Statistics, Department of Labor. 2017a. Employment cost index – September 2017. Table 4. News release. October 31. <https://www.bls.gov/news.release/pdf/eci.pdf>.
- Bureau of Labor Statistics. 2017b. National current employment statistics, October 2017. <https://www.bls.gov/ces/data.htm>.
- Bureau of Labor Statistics, Department of Labor. 2016. May 2015 national occupational employment and wage estimates: United States. <http://www.bls.gov/oes/>.
- Bureau of Labor Statistics, Department of Labor. 2013. Consumer Price Index–All Urban Consumers. Data for Los Angeles-Riverside-Orange County, CA. [http://data.bls.gov/pdq/SurveyOutputServlet?series\\_id=CUURA421SA0,CUUSA421SA0](http://data.bls.gov/pdq/SurveyOutputServlet?series_id=CUURA421SA0,CUUSA421SA0).
- Cain Brothers. 2017. *Industry Insights*. October 30.
- Census Bureau. 2017. Value of construction put in place survey at a glance. <http://www.census.gov/construction/c30/c30index.html>.
- Chandra, A., A. Finkelstein, A. Sacarny, et al. 2015. *Healthcare exceptionalism? Performance and allocation in the U.S. healthcare sector*. Working paper 21603. Cambridge, MA: National Bureau of Economic Research.
- Clemens, J., and J. Gottlieb. 2017. In the shadow of a giant: Medicare's influence on private physician payments. *Journal of Political Economy* 125, no. 1 (February): 1–39.
- Community Health Systems, I. 2017. Form 10–K annual report to the Securities and Exchange Commission. February 26.
- Conn, J. 2017. Consumers fueling outpatient construction. *Modern Healthcare*, March.
- Cooper, Z., A. Kowalski, E. Powell, et al. 2017. *Politics, hospital behavior, and health care spending*. National Bureau of Economic Research working paper no. 23748. Cambridge, MA: NBER.
- Fitch Ratings. 2017. 2017 medians ratios for not for profit hospitals and healthcare systems. September 20.
- Frakt, A. 2015. Hospitals are wrong about shifting costs to private insurers. *New York Times*, March 23.
- Government Accountability Office. 2015. *Contingent workforce: Size, characteristics, earnings, and benefits*. Washington, DC: GAO.
- Government Accountability Office. 2013. *VA health care: Management and oversight of fee basis care need improvement*. GAO–13–441. Washington, DC: GAO.
- Health Care Cost Institute. 2016. *2015 health care cost and utilization report*. Washington, DC: HCCI.
- Health Care Cost Institute. 2015. *2014 health care cost and utilization report*. Washington, DC: HCCI.
- Health Care Cost Institute. 2014. *2013 health care cost and utilization report*. Washington, DC: HCCI.
- Health Care Cost Institute. 2012. *Health care cost and utilization report: 2010*. Washington, DC: HCCI.
- Hines, A. 2015. *Trends in observed adult inpatient mortality for high-volume conditions, 2002–2012*. Washington: Agency for Healthcare Research and Quality.
- Irving Levin Associates Inc. 2017. *The health care services acquisition report: 23rd edition*. Norwalk, CT: Irving Levin Associates Inc.
- Irving Levin Associates Inc. 2013. *The health care services acquisition report: 19th edition*. Norwalk, CT: Irving Levin Associates Inc.
- Krumholz, H. 2015. Mortality, hospitalizations, and expenditures for the Medicare population aged 65 years or older 1999–2013. *Journal of the American Medical Association*: 355–365.
- Lewin Group. 2016. *CMS Bundled Payments for Care Improvement (BPCI) Initiative models 2–4: Year 2 evaluation & monitoring annual report*. Report prepared by the Lewin Group for the Centers for Medicare & Medicaid Services. Baltimore, MD: CMS. <https://innovation.cms.gov/Files/reports/bpci-models2-4-yr2evalrpt.pdf>.
- Medicare Payment Advisory Commission. 2017a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

- Medicare Payment Advisory Commission. 2017b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014a. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2011. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2007. *Report to the Congress: Promoting greater efficiency in Medicare*. Washington, DC: MedPAC.
- Moody's Investors Service. 2017a. 2018 outlook changed to negative due to reimbursement and expense pressures. December 4.
- Moody's Investors Service. 2017b. Non-profit and public healthcare medians: Key financial metrics underperform as pressures mount. August 21.
- Morningstar Document Research. 2017a. HCA holdings, for 10–K. February 22.
- Morningstar Document Research. 2017b. Tenet Healthcare Corporation, for 10–K. February 27.
- Seymour, C. W., V. X. Liu, T. J. Iwashyna, et al. 2016. Assessment of clinical criteria for sepsis: For the Third International Consensus Definitions for sepsis and septic shock (Sepsis-3). *Journal of the American Medical Association* 315, no. 8 (Feb 23): 762–774.
- Standard & Poor's Ratings Services. 2017. U.S. not-for-profit acute health care ratios: Operating performance weakens while balance sheets are stable. August 24.
- Thomson Reuters. 2017. Hospital municipal bond issuances: As of October 17, 2017. <http://financial.thomsonreuters.com/en/products/data-analytics/market-data/sdc-platinum-financial-securities.html>.
- Townsend, S. R., E. Rivers, and L. Tefera. 2016. Definitions for sepsis and septic shock. *Journal of the American Medical Association* 316, no. 4 (July 26): 457–458.
- Trish, E. E., and B. J. Herring. 2015. How do health insurer market concentration and bargaining power with hospitals affect health insurance premiums? *Journal of Health Economics* 42 (July): 104–114.
- White, C. 2013. Contrary to cost-shift theory, lower Medicare hospital payment rates for inpatient care lead to lower private payment rates. *Health Affairs* 32, no. 5 (May): 935–943.
- White, C., and V. Y. Wu. 2014. How do hospitals cope with sustained slow growth in Medicare prices? *Health Services Research* 49, no. 1 (February): 11–31.
- Zuckerman, R. B., K. E. Joynt Maddox, S. H. Sheingold, et al. 2017. Effect of a hospital-wide measure on the Readmissions Reduction Program. *New England Journal of Medicine* 377, no. 16 (October 19): 1551–1558.



C H A P T E R

# 4

---

## **Physician and other health professional services**

---

## R E C O M M E N D A T I O N

- 4** For calendar year 2019, the Congress should increase the calendar year 2018 payment rates for physician and other health professional services by the amount specified in current law.

**COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1**



# Physician and other health professional services

## Chapter summary

Physicians and other health professionals deliver a wide range of services, including office visits, surgical procedures, and diagnostic and therapeutic services in a variety of settings. In 2016, Medicare paid \$69.9 billion for physician and other health professional services, accounting for 15 percent of fee-for-service (FFS) Medicare benefit spending. About 952,000 clinicians billed Medicare—nearly 589,000 physicians and almost 363,000 nurse practitioners, physician assistants, therapists, chiropractors, and other practitioners. Medicare pays for the services of physicians and other health professionals using a fee schedule.

## Assessment of payment adequacy

We use the following factors to assess payment adequacy for physicians and other health professionals: beneficiaries' access to care, the supply of providers, volume growth, quality, and Medicare payments and providers' costs.

**Beneficiaries' access to care**—Overall, beneficiary access to physician and other health professional services is comparable with prior years. Most beneficiaries continue to report that they are able to find a new doctor without a problem. A small number of beneficiaries report more difficulty, with a higher share reporting problems obtaining a new primary care doctor than reporting problems obtaining a specialist.

## In this chapter

- Are Medicare fee schedule payments adequate in 2018?
- How should Medicare payments change in 2019?

- ***Supply of providers***—The number of physicians per beneficiary declined slightly, the number of advanced practice registered nurses and physician assistants per beneficiary rose, and the share of providers enrolled in Medicare’s participating provider program remains high.
- ***Volume of services***—In 2016, across all services, volume per beneficiary grew by 1.6 percent. Among broad service categories, growth rates were 1.1 percent for evaluation and management services, 1.4 percent for imaging services, 2.8 percent for major procedures, 2.5 percent for other procedures, and 1.7 percent for tests.

***Quality of care***—CMS assesses the quality of Medicare-billing physicians and other health professionals based on clinician-reported individual quality measures. Starting in 2019, clinicians’ Medicare FFS payments will be adjusted through the Merit-based Incentive Payment System, which assesses quality, cost, use of advancing care information (electronic health record technology), and use of clinical practice improvement activities. We report two population-based quality measures—avoidable hospitalizations for ambulatory care-sensitive conditions and rates of low-value care in Medicare.

***Medicare payments and providers’ costs***—CMS currently projects that the increase in 2019 in the Medicare Economic Index will be 1.8 percent. In 2016, Medicare payment rates for physician and other health professional services were 75 percent of commercial rates for preferred provider organizations, compared with 78 percent in 2015. Average compensation in 2016 was much lower for primary care physicians than for physicians in specialty groups such as radiology and nonsurgical procedural specialties, continuing to raise concerns about fee schedule mispricing and its impact on primary care.

The evidence suggests that payments for physicians and other health professionals are adequate. Therefore, the Commission recommends that the 2019 payment rates for physician and other health professional services be updated by the amount specified in current law. (Subsequent to the Commission’s vote on this update recommendation, the Bipartisan Budget Act of 2018 changed the 2019 current-law update to the fee schedule from 0.5 percent to 0.25 percent.) ■

## Background

Physicians and other health professionals billing under Medicare’s fee schedule deliver a wide range of services—office visits, surgical procedures, and diagnostic and therapeutic services—in a variety of settings.

In 2016, the Medicare program paid \$69.9 billion for physician and other health professional services, or 15 percent of benefit spending in Medicare’s traditional fee-for-service (FFS) program. In 2016, about 952,000 health professionals billed Medicare through the fee schedule—nearly 589,000 physicians and almost 363,000 nurse practitioners, physician assistants, therapists, chiropractors, and other practitioners.

Medicare uses a fee schedule to pay for physician and other health professional services based on a list of over 7,000 services and their payment rates. In determining payment rates for each service, CMS considers the amount of clinician work required to provide a service, expenses related to maintaining a practice, and professional liability insurance costs. These three factors are adjusted for

variation in the input prices in different markets, and the sum is multiplied by the fee schedule’s conversion factor (average payment amount) to produce a total payment amount.<sup>1</sup> The conversion factor was \$35.89 in 2017 and is \$36.00 in 2018. The change to the conversion factor for 2018 reflects the net effect of three changes: a statutory update of 0.5 percent, a 0.10 percent reduction due to a relative value unit (RVU) budget-neutrality adjustment, and a 0.09 percent reduction because CMS did not meet its target for adjusting the prices of misvalued services.<sup>2</sup>

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) established a new set of updates for clinicians billing under the Medicare fee schedule and repealed the prior framework—the sustainable growth rate (SGR) formula—that set the conversion factor. The SGR was established to limit total fee schedule spending by restraining annual updates when spending exceeded certain parameters. MACRA provides a new framework for updating clinician payments. It establishes two payment paths: a payment path for clinicians who participate in advanced alternative payment models (A-APMs) and a payment path for other clinicians (Table 4-1).

**TABLE  
4-1**

**Statutory payment updates and incentive payments for physicians and other health professionals, as established by the Medicare Access and CHIP Reauthorization Act of 2015**

	2015		2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026 and later
	January–June	July–December											
A-APM clinicians													
Update	0%	0.5%	0.5%	0.5%	0.5%	0.5%	0%	0%	0%	0%	0%	0%	0.75%
APM bonus						5%	5%	5%	5%	5%	5%		
Other clinicians													
Update	0%	0.5%	0.5%	0.5%	0.5%	0.5%	0%	0%	0%	0%	0%	0%	0.25%
Potential MIPS adjustments						(–4% to +4%)	(–5% to +5%)	(–7% to +7%)	(–9% to +9%)	(–9% to +9%)	(–9% to +9%)	(–9% to +9%)	(–9% to +9%)

Note: A-APM (advanced alternative payment model), MIPS (Merit-based Incentive Payment System). Clinicians who are subject to the MIPS can receive upward or downward adjustments of up to 4 percent in 2019, 5 percent in 2020, 7 percent in 2021, and 9 percent in 2022 and later. The maximum upward adjustment may exceed these limits or be less than these amounts due to scaling factors and an additional increase for exceptional performance. The basic MIPS adjustments are budget neutral, and there is an additional \$500 million per year from 2019 to 2024 for exceptional performance under MIPS. The 5 percent incentive payment for A-APM participation expires after 2024.

Source: Medicare Access and CHIP Reauthorization Act of 2015.

**TABLE  
4-2****Satisfaction with the overall  
quality of health care received in all  
settings in the past 12 months, 2017**

	<b>Medicare (ages 65 and older)</b>	<b>Private insurance (ages 50–64)</b>
Very satisfied	69%	57%
Somewhat satisfied	19	25
Somewhat dissatisfied	3	4
Very dissatisfied	2	2

Note: Table excludes the following responses: "Did not receive health care in past 12 months," "Don't know," and "Refused." It does not include Medicare beneficiaries under the age of 65.

Source: MedPAC-sponsored telephone survey conducted in 2017.

**Are Medicare fee schedule payments  
adequate in 2018?**

We assess payment adequacy by reviewing beneficiaries' access to care provided by physicians and other health professionals, the supply of physicians and other health professionals, volume growth, quality of care, and Medicare's payment rates relative to commercial rates for preferred provider organizations. Overall, most indicators show no significant change from prior years.

**Beneficiaries' access to care**

We use a number of measures to assess beneficiary access to timely, appropriate care, including direct reporting from beneficiaries (through, for example, our own beneficiary telephone survey), focus groups with beneficiaries, and health facility site visits conducted yearly. Supplementing these primary sources, we also review other patient access surveys and clinician surveys.

Each year, the Commission sponsors a telephone survey of 4,000 Medicare beneficiaries ages 65 and over and 4,000 privately insured individuals ages 50 to 64. The goal in surveying these two populations is to assess whether access concerns reported by Medicare beneficiaries are unique to the Medicare population or are part of trends in the broader health care delivery system. This year's survey was fielded in the summer and fall of 2017. In the discussion of the survey results that follows, references to Medicare beneficiaries are beneficiaries age 65 and over,

and privately insured individuals are individuals between the ages of 50 and 64.

The Commission also conducts focus groups in a select set of market areas around the country to provide a qualitative description of beneficiary and provider experiences with the Medicare program. This year, we conducted nine focus groups of Medicare beneficiaries in three markets; roughly a third of the beneficiaries we interviewed were dually entitled to Medicare and Medicaid. We also conducted a primary care physician focus group in each location and site visits and interviews with various providers, with a focus this year on telehealth services.

Overall, findings from our survey and focus groups are consistent with one another and with external sources. Medicare beneficiaries generally have adequate access to clinician services, and their reported access is largely comparable with (or, in some cases, better than) access for privately insured individuals.

Our survey results for 2017, as compared with 2016, show a modest increase in the ability of both Medicare beneficiaries and privately insured individuals to see a doctor as soon as they wanted for regular or routine care and illness or injury care. However, the rate in 2017 is comparable with the rates for years before 2016, which could mean that the 2016 survey results showing a reduction in access reflected normal survey variation. Medicare beneficiaries generally were reported to have comparable access with those who have private insurance.

This year, we continue to lack a supplemental source of data on wait times: CMS has redesigned the Medicare Current Beneficiary Survey (MCBS), and the newly revised version has not yet been released.

**Medicare beneficiaries' overall satisfaction with  
care is similar to satisfaction among privately  
insured patients**

In our telephone survey, a slightly higher share of Medicare beneficiaries reported that they were very or somewhat satisfied with their care (88 percent) compared with those who have private insurance (82 percent) (Table 4-2).

These overall satisfaction rates are similar to those in other surveys. The Medical Expenditure Panel Survey (MEPS) for 2014 found that patient experience and access for individuals ages 65 and over with Medicare was slightly better than for those under age 65 with private insurance. Patients reported that they were able to get appointments

as soon as needed and felt that their providers were respectful, explained clearly, and listened carefully.

### **Most beneficiaries report that they are able to see a doctor when they need to**

From our 2017 telephone survey, 73 percent of Medicare beneficiaries reported that they never had to wait longer than they wanted for routine care, and 80 percent reported the same for illness or injury care (Table 4-3, p. 100). In 2017, Medicare beneficiaries were less likely to report trouble obtaining both types of care when needed than privately insured individuals (the rates for privately insured individuals were 69 percent for routine care and 76 percent for illness or injury care). In comparison with last year's results, this year, the share of both Medicare beneficiaries and the privately insured were more consistent with the five-year trend. This finding suggests that the 2016 results (showing a small but significant decrease in timely access) was a normal variation in the results from a small telephone survey, not the beginning of a persistent downward trend.

### **Beneficiaries report more difficulty accessing primary care than specialty care**

Most beneficiaries reported that they were able to find a new doctor without a problem. Beneficiaries seeking a primary care doctor were more likely to report that they had a problem finding a doctor than beneficiaries seeking a specialist (Table 4-3, p. 100). For primary care, 9 percent were looking for a new doctor; of those looking, 14 percent reported a big problem. On net, then, 1.3 percent of the Medicare population reported a big problem. For specialty care, 17 percent were looking for a new doctor; of those looking, 5 percent reported a big problem, meaning that 0.9 percent of the total Medicare population on net reported a big problem.

This pattern of greater difficulty among Medicare beneficiaries in finding a new primary care doctor relative to finding a specialist is consistent with prior years, as well as with privately insured individuals. These results were also consistent with the beneficiary focus group responses: Among those who wanted to switch primary care providers, some felt they did not have the option because of long wait times or practices being closed to new patients. However, Medicare beneficiaries overall were less likely to report big problems obtaining either primary or specialty care than were individuals with private insurance (Table 4-3, p. 100).

Beneficiaries in both the focus groups and our telephone survey reported difficulty with certain specialty referrals, especially dermatologists (which may be due, in part, to specialization in cosmetic dermatology vs. medical dermatology). Some primary care physicians reported challenges with long wait times for orthopedic referrals. Physicians in all three markets also reported difficulty obtaining psychiatric referrals for all of their patients (Medicare and other payers). In their experience, many psychiatrists did not accept any type of insurance. Physicians noted that often they must provide mental health services and prescriptions to their patients because of the lack of access.

### **Some groups of beneficiaries report more difficulty obtaining care**

In our telephone survey, minority beneficiaries were more likely than White beneficiaries to report that they could not obtain care as quickly as they wanted. Differences in reported access between urban and rural beneficiaries were minimal.

**Minority beneficiaries reported (1) more difficulty receiving care as soon as they wanted and (2) higher rates of forgoing care** In our 2017 telephone survey of Medicare beneficiaries, the share of beneficiaries reporting that they never had to wait longer than they wanted for routine care was lower for minority beneficiaries compared with White beneficiaries (69 percent vs. 74 percent, respectively) (Table 4-4, p. 101). Minority beneficiaries were more likely than White Medicare beneficiaries to report that they always had to wait longer than they wanted for a routine doctor's appointment (6 percent vs. 2 percent, respectively). Minority beneficiaries were also more likely than White beneficiaries to say that they did not receive care when they thought they should have (14 percent vs. 11 percent, respectively).

Minority beneficiaries were also less likely than White beneficiaries to report that they faced no problem finding a specialist (75 percent vs. 85 percent, respectively), but were more likely to report no problem finding a primary care physician (80 percent vs. 67 percent, respectively). Similar differences also exist for privately insured individuals. Minorities generally reported worse access to care overall, for all types of insurance (Agency for Healthcare Research and Quality 2016). In addition, minority Medicare beneficiaries also were more likely to be in groups that have poorer access overall: African American and Hispanic beneficiaries were more likely

**TABLE  
4-3**

**Most aged Medicare beneficiaries and older privately insured individuals have good access to physician care, 2013–2017**

Survey question	Medicare (ages 65 and older)					Private insurance (ages 50–64)				
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
<b>Unwanted delay in getting an appointment:</b> Among those who needed an appointment in the past 12 months, “How often did you have to wait longer than you wanted to get a doctor’s appointment?”										
<b>For routine care</b>										
Never	73%	72% <sup>a</sup>	72% <sup>a</sup>	68% <sup>b</sup>	73% <sup>a</sup>	69%	69% <sup>a</sup>	69% <sup>a</sup>	67%	69% <sup>a</sup>
Sometimes	20	20 <sup>a</sup>	19 <sup>a</sup>	22 <sup>b</sup>	20	23	23 <sup>a</sup>	23 <sup>a</sup>	23	22
Usually	3	3	4	4	3	4	4	4	5	4
Always	3	3	3	3	3	3	3	3	4	3
Don’t know/Refused	1	2	2	2	1	*	1	1	1	1
<b>For illness or injury</b>										
Never	82	83 <sup>ab</sup>	82 <sup>a</sup>	79 <sup>a</sup>	80 <sup>a</sup>	77	79 <sup>a</sup>	77 <sup>a</sup>	75 <sup>a</sup>	76 <sup>a</sup>
Sometimes	14	12 <sup>ab</sup>	13 <sup>ab</sup>	16 <sup>a</sup>	15	17	16 <sup>a</sup>	17 <sup>a</sup>	19 <sup>a</sup>	18
Usually	2	2	3	2 <sup>a</sup>	2	3	2	3	3 <sup>a</sup>	2
Always	1	1 <sup>a</sup>	2	2 <sup>a</sup>	1	2	2 <sup>a</sup>	2	3 <sup>a</sup>	2
Don’t know/Refused	1	2 <sup>b</sup>	1	2	1	1	1	1	1	1
<b>Not accessing a doctor for medical problems:</b> “During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?”										
Share answering “Yes”	8 <sup>b</sup>	10	11	11 <sup>a</sup>	11	11	11	12	12 <sup>a</sup>	12
<b>Looking for a new doctor:</b> “In the past 12 months, have you tried to get a new...?” (Share answering “Yes”)										
Primary care doctor	7	8	7 <sup>a</sup>	8 <sup>a</sup>	9 <sup>a</sup>	8	8 <sup>b</sup>	9 <sup>ab</sup>	10 <sup>a</sup>	11 <sup>a</sup>
Specialist	14 <sup>b</sup>	17	16	18	17 <sup>a</sup>	16	17 <sup>b</sup>	18 <sup>b</sup>	18	20 <sup>a</sup>
<b>Getting a new physician:</b> Among those who tried to get an appointment with a new primary care physician or a specialist in the past 12 months, “How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it...”										
<b>Primary care physician</b>										
No problem	70	67	67	64	69 <sup>a</sup>	67	63	63	63	59 <sup>a</sup>
Share of total insurance group	5.2	5.5	4.7 <sup>b</sup>	5.1	6.2	5.2	4.9 <sup>b</sup>	5.7	6.1	6.5
Small problem	11	16	18	15	13	15	16	18	16	18
Share of total insurance group	0.8	1.3	1.2	1.2	1.2 <sup>a</sup>	1.2 <sup>b</sup>	1.3 <sup>b</sup>	1.7	1.5	2.0 <sup>a</sup>
Big problem	17	15	14	20	14 <sup>a</sup>	18	19	17	20	22 <sup>a</sup>
Share of total insurance group	1.3	1.2	1.0	1.6	1.3 <sup>a</sup>	1.4 <sup>b</sup>	1.5 <sup>b</sup>	1.5 <sup>b</sup>	1.9	2.4 <sup>a</sup>
<b>Specialist</b>										
No problem	86	85	87 <sup>a</sup>	82	83	87 <sup>b</sup>	85 <sup>b</sup>	82 <sup>a</sup>	79	81
Share of total insurance group	12.4 <sup>b</sup>	14.4	14.2	14.7	14.1	13.9 <sup>b</sup>	14.5	14.8	14.4	16.2
Small problem	8	7 <sup>b</sup>	7 <sup>b</sup>	10	11	6 <sup>b</sup>	9	8	9	11
Share of total insurance group	1.2 <sup>b</sup>	1.2 <sup>b</sup>	1.1 <sup>b</sup>	1.8	1.9	0.9 <sup>b</sup>	1.4 <sup>b</sup>	1.5 <sup>b</sup>	1.6	2.2
Big problem	5	7	6	8 <sup>a</sup>	5 <sup>a</sup>	7	6	9	11 <sup>a</sup>	8 <sup>a</sup>
Share of total insurance group	0.7 <sup>b</sup>	1.2	1.0 <sup>a</sup>	1.4	0.9 <sup>a</sup>	1.1	1.0	1.7 <sup>a</sup>	2.0	1.6 <sup>a</sup>

Note: Numbers may not sum to 100 percent because of rounding. Sample sizes for each group (Medicare and privately insured) are 4,000. Sample sizes for individual questions varied. “Aged” beneficiaries are those ages 65 or older.

<sup>a</sup> Statistically significant difference between the Medicare and privately insured groups in the given year (at a 95 percent confidence level).

<sup>b</sup> Statistically significant difference from 2017 within the same insurance category (at a 95 percent confidence level).

\*Percentage less than 0.5 percent.

Source: MedPAC-sponsored telephone surveys conducted from 2013 to 2017.



**TABLE  
4-4**

**Minorities report problems obtaining specialty care more frequently than non-minorities, 2017**

Survey question	Medicare (ages 65 and older)			Private insurance (ages 50-64)		
	All	White	Minority	All	White	Minority
<b>Unwanted delay in getting an appointment:</b> Among those who needed an appointment in the past 12 months, "How often did you have to wait longer than you wanted to get a doctor's appointment?"						
<b>For routine care</b>						
Never	73% <sup>a</sup>	74% <sup>ab</sup>	69% <sup>b</sup>	69% <sup>a</sup>	70% <sup>a</sup>	66%
Sometimes	20 <sup>a</sup>	20	19	22 <sup>a</sup>	23	23
Usually	3	3 <sup>b</sup>	5 <sup>b</sup>	4	4	5
Always	3	2 <sup>ab</sup>	6 <sup>b</sup>	3	3 <sup>ab</sup>	4 <sup>b</sup>
Don't know/Refused	1	1	2	1	*	1
<b>For illness or injury</b>						
Never	80 <sup>a</sup>	81 <sup>a</sup>	78 <sup>a</sup>	76 <sup>a</sup>	77 <sup>b</sup>	72 <sup>ab</sup>
Sometimes	15 <sup>a</sup>	15 <sup>a</sup>	15 <sup>a</sup>	18 <sup>a</sup>	18 <sup>ab</sup>	22 <sup>ab</sup>
Usually	2	2	3	2	2	3
Always	1 <sup>a</sup>	1	2	2 <sup>a</sup>	2 <sup>a</sup>	2
Don't know/Refused	1	1 <sup>a</sup>	1	1	*	1
<b>Not accessing a doctor for medical problems:</b> "During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?"						
Share answering "Yes"	11	11 <sup>b</sup>	14 <sup>b</sup>	12	12	12
<b>Looking for a new doctor:</b> "In the past 12 months, have you tried to get a new...?" (Share answering "Yes")						
Primary care physician	9 <sup>a</sup>	8	9	11 <sup>a</sup>	11	10
Specialist	17	18 <sup>a</sup>	15	20	21 <sup>ab</sup>	17 <sup>b</sup>
<b>Getting a new physician:</b> Among those who tried to get an appointment with a new primary care physician or a specialist in the past 12 months, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it..."						
<b>Primary care physician</b>						
No problem	69 <sup>a</sup>	67	80 <sup>a</sup>	59 <sup>a</sup>	58	61 <sup>a</sup>
Share of total insurance group, by race	6.2	5.4	7.2	6.5	6.4	6.1
Small problem	13	14	11	18	20	14
Share of total insurance group, by race	1.2 <sup>a</sup>	1.1 <sup>a</sup>	1.0	2.0 <sup>a</sup>	2.2 <sup>a</sup>	1.4
Big problem	14 <sup>a</sup>	16	8 <sup>a</sup>	22 <sup>a</sup>	22	21 <sup>a</sup>
Share of total insurance group, by race	1.3 <sup>a</sup>	1.3 <sup>a</sup>	0.7 <sup>a</sup>	2.4 <sup>a</sup>	2.4 <sup>a</sup>	2.1 <sup>a</sup>
<b>Specialist</b>						
No problem	83	85 <sup>b</sup>	75 <sup>b</sup>	81	82 <sup>b</sup>	74 <sup>b</sup>
Share of total insurance group, by race	14.1	15.3 <sup>ab</sup>	11.3 <sup>b</sup>	16.2	17.2 <sup>ab</sup>	12.6 <sup>b</sup>
Small problem	11	11	13	11	11	13
Share of total insurance group, by race	1.9	2.0	2.0	2.2	2.3	2.2
Big problem	5 <sup>a</sup>	3 <sup>ab</sup>	11 <sup>b</sup>	8 <sup>a</sup>	7 <sup>ab</sup>	13 <sup>b</sup>
Share of total insurance group, by race	0.9 <sup>a</sup>	0.5 <sup>ab</sup>	1.7 <sup>b</sup>	1.6 <sup>a</sup>	1.5 <sup>a</sup>	2.2

Note: Respondents who did not report race or ethnicity were not included in "White" or "Minority" results but were included in "All" results. Numbers may not sum to 100 percent because of rounding. Sample sizes for each group (Medicare and privately insured) were 4,000 in 2017. Sample sizes for individual questions varied.

<sup>a</sup> Statistically significant difference between the Medicare and privately insured populations in the given year (at a 95 percent confidence level).

<sup>b</sup> Statistically significant difference by race within the same insurance category in the given year (at a 95 percent confidence level).

\*Percentage less than 0.5 percent.

Source: MedPAC-sponsored telephone surveys conducted in 2017.

**TABLE  
4-5**

**Access to physician care for Medicare beneficiaries is similar to that for privately insured individuals in urban and rural areas, 2017**

Survey question	Medicare (ages 65 and older)			Private insurance (ages 50-64)		
	All	Urban	Rural	All	Urban	Rural
<b>Unwanted delay in getting an appointment:</b> Among those who needed an appointment in the past 12 months, "How often did you have to wait longer than you wanted to get a doctor's appointment?"						
<b>For routine care</b>						
Never	73% <sup>a</sup>	73% <sup>a</sup>	74%	69% <sup>a</sup>	68% <sup>ab</sup>	74% <sup>b</sup>
Sometimes	20 <sup>a</sup>	20 <sup>a</sup>	21	22 <sup>a</sup>	23 <sup>a</sup>	19
Usually	3	3	2	4	5	3
Always	3	3	3	3	3	4
Don't know/Refused	1	1	*	1	1	*
<b>For illness or injury</b>						
Never	80 <sup>a</sup>	81 <sup>a</sup>	81	76 <sup>a</sup>	76 <sup>a</sup>	80
Sometimes	15 <sup>a</sup>	14 <sup>a</sup>	14	18 <sup>a</sup>	19 <sup>a</sup>	16
Usually	2	2	2	2	2	2
Always	1 <sup>a</sup>	1 <sup>a</sup>	2	2 <sup>a</sup>	2 <sup>a</sup>	2
Don't know/Refused	1	1	1	1	1	*
<b>Not accessing a doctor for medical problems:</b> "During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?" (Share answering "Yes")						
	11	11	11	12	12	13
<b>Looking for a new primary care physician:</b> "In the past 12 months, have you tried to get a new...?" (Share answering "Yes")						
Primary care physician	9 <sup>a</sup>	8 <sup>a</sup>	9	11 <sup>a</sup>	11 <sup>a</sup>	10
Specialist	17 <sup>a</sup>	18 <sup>a</sup>	15	20 <sup>a</sup>	21 <sup>ab</sup>	17 <sup>b</sup>
<b>Getting a new physician:</b> Among those who tried to get an appointment with a new primary care physician or a specialist in the past 12 months, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it..."						
<b>Primary care physician</b>						
No problem	69 <sup>a</sup>	71 <sup>a</sup>	62	59 <sup>a</sup>	59 <sup>a</sup>	60
Share of total insurance group, by area	6.2	5.7	5.6	6.5	6.5	6.0
Small problem	13	12	16	18	18	18
Share of total insurance group, by area	1.2 <sup>a</sup>	1.0	1.4	2.0 <sup>a</sup>	2.0	1.8
Big problem	14 <sup>a</sup>	14 <sup>a</sup>	21	22 <sup>a</sup>	22 <sup>a</sup>	20
Share of total insurance group, by area	1.3 <sup>a</sup>	1.1 <sup>a</sup>	1.9	2.4 <sup>a</sup>	2.4 <sup>a</sup>	2.0
<b>Specialist</b>						
No problem	83	83	87	81	81	79
Share of total insurance group, by area	14.1	14.9	13.1	16.2	17.0	13.4
Small problem	11	13 <sup>b</sup>	4 <sup>ab</sup>	11	11	11 <sup>a</sup>
Share of total insurance group, by area	1.9	2.3 <sup>b</sup>	0.6 <sup>ab</sup>	2.2	2.3	1.9 <sup>a</sup>
Big problem	5 <sup>a</sup>	4 <sup>a</sup>	8	8 <sup>a</sup>	8 <sup>a</sup>	8
Share of total insurance group, by area	0.9 <sup>a</sup>	0.7 <sup>a</sup>	1.2	1.6 <sup>a</sup>	1.7 <sup>a</sup>	1.4

Note: Numbers may not sum to 100 percent because of rounding. Sample sizes for each group (Medicare and privately insured) were 4,000 in 2017. Sample sizes for individual questions varied. The Commission uses the Census Bureau definitions of "urban" and "rural." The Census Bureau classifies as urban all territory, population, and housing units located within an urbanized area (UA) or an urban cluster (UC). It delineates UA and UC boundaries to encompass densely settled territory, which consists of core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. In addition, under certain conditions, less densely settled territory may be part of each UA or UC. The Census Bureau's classification of rural consists of all territory, population, and housing units located outside of UAs and UCs.

<sup>a</sup> Statistically significant difference between the Medicare and privately insured populations in a given year (at a 95 percent confidence level).

<sup>b</sup> Statistically significant difference by area type within the same insurance category in a given year (at a 95 percent confidence level).

\*Percentage less than 0.5 percent.

Source: MedPAC-sponsored telephone survey conducted in 2017.

**TABLE  
4-6**

**Medicare FFS CAHPS® performance rates, 2012–2016**

CAHPS composite measure	2012	2013	2014	2015	2016
Getting needed care and seeing specialists	87%	87%	86%	85%	84%
Getting appointments and care quickly	75	75	76	75	77
Care coordination (e.g., personal doctor always or usually discusses medication, has relevant medical records, helps with managing care)	87	86	86	85	86
Rating of health plan (FFS Medicare)	85	85	84	82	84
Rating of health care quality	86	86	86	86	85

Note: FFS (fee-for-service), CAHPS® (Consumer Assessment of Healthcare Providers and Systems®). Questions in rows 1 to 3 have responses of “Never,” “Sometimes,” “Usually,” and “Always.” CMS converts these to a linear mean score on a 0 to 100 scale. Questions in rows 4 and 5 have responses of 1 to 10 (which CMS converts to a linear mean score on a 0 to 100 scale).

Source: FFS CAHPS mean scores provided by CMS.

to qualify as dually eligible for Medicaid, have lower incomes, and report fair or poor health status or functional limitations than did White Medicare beneficiaries (data not shown) (Centers for Medicare & Medicaid Services 2015).

**Few reported differences in access between urban and rural beneficiaries** The Commission’s telephone survey showed no major differences in access between urban and rural Medicare beneficiaries (Table 4-5). There was no significant difference between the share of urban and rural beneficiaries experiencing an unwanted delay in getting an appointment.

Generally, rates of access for Medicare beneficiaries in rural and urban areas were comparable. Urban Medicare beneficiaries reported more timely access to routine care than privately insured urban individuals. Differences between rural Medicare beneficiaries and privately insured rural individuals were minimal and not statistically significant in most cases.

**Nearly all beneficiaries have a regular source of care, with more use of nurse practitioners and physician assistants in rural areas**

Nearly all Medicare beneficiaries in our focus groups reported that they had a regular source of primary care and that they could access their provider that day or within a few days. From the 2017 National Health Interview Survey (NHIS), 97 percent of Medicare beneficiaries ages 65 and over reported that they had a usual source of medical care (National Center for Health Statistics 2017).

The share of respondents ages 65 and over with Medicare in the NHIS reporting that they had to forgo medical care because of cost remains significantly lower than other age groups—between 2 percentage points and 3 percentage points lower over the past decade.

In our telephone survey, 13 percent of beneficiaries responded that they saw a nurse practitioner (NP) or physician assistant (PA) for all or most of their primary care, and 28 percent said that they saw an NP or PA for some of their primary care. Similar to prior years, rural beneficiaries were more likely than urban beneficiaries to report seeing NPs and PAs for all or most of their primary care (17 percent vs. 12 percent, respectively) (data not shown).

**Other sources of access data show steady results over time and across Medicare coverage types**

The Consumer Assessment for Healthcare Providers and Systems® (CAHPS®) surveys are a suite of surveys that assess patient experience and reported access. CAHPS results are used for Medicare Advantage (MA) plans’ and Part D drug plans’ star ratings that measure quality in the MA and Part D programs, and a CAHPS survey module is issued to a sample of beneficiaries in the FFS Medicare population.

Overall, Medicare FFS beneficiaries’ rating of their health care quality and self-reported ability to get care quickly was generally stable between 2012 and 2016, although self-reports of getting needed care and appointments to specialists declined slightly (Table 4-6).

**TABLE  
4-7**

**MA and Medicare FFS CAHPS® performance rates, 2016**

CAHPS composite measure	2016		
	MA HMO	MA PPO	FFS
Getting needed care and seeing specialists	83%	84%	84%
Getting appointments and care quickly	76	77	77
Care coordination (e.g., personal doctor always or usually discusses medication, has relevant medical records, helps with managing care)	85	86	86
Rating of health plan	85	84	84
Rating of health care quality	86	86	85
Annual flu vaccine	72	74	72

Note: MA (Medicare Advantage), FFS (fee-for-service), CAHPS® (Consumer Assessment of Healthcare Providers and Systems®), HMO (health maintenance organization), PPO (preferred provider organization). Questions in rows 1 to 3 have responses of "Never," "Sometimes," "Usually," and "Always." CMS converts these to a linear mean score on a 0 to 100 scale. Questions in rows 4 and 5 have responses of 1 to 10 (which CMS converts to a linear mean score on a 0 to 100 scale). The question in row 6 is a yes/no response. Rates are case-mix adjusted for response bias.

Source: MedPAC databook 2017; FFS CAHPS mean scores provided by CMS.

The CAHPS surveys show little difference in reported access between Medicare beneficiaries in FFS and those in MA (Table 4-7).

**Clinician acceptance of Medicare beneficiaries is lower than that of private insurance, but when pediatricians are excluded, the rates are comparable**

The National Electronic Health Records Survey reports that, in 2015, 81 percent of office-based physicians reported that they accepted Medicare, less than the share accepting private insurance (89 percent) (National Center for Health Statistics 2016). In other studies using these data, the rates of Medicare acceptance were comparable with private insurance when pediatricians were excluded (Boccuti et al. 2013, Hing et al. 2015). During our site visits, most providers said that they accept Medicare, but some limit the number of new patients.

A 2015 survey of primary care physicians conducted by the Kaiser Family Foundation and the Commonwealth Fund reported that 72 percent of primary care physicians accept new Medicare patients and 80 percent accept new privately insured patients (Boccuti et al. 2015). Another 20 percent of primary care physicians reported that, while

they generally participated in Medicare, they were not currently taking *new* Medicare patients (92 percent of primary care physicians reported that they participated in Medicare). The 20 percent not taking new Medicare patients could include physicians with closed practices not accepting any new patients.

**Supply of physicians and other health professionals billing Medicare has kept pace with enrollment growth, and most services are paid on assignment**

Other indicators of access include the supply of clinicians billing Medicare, the share of physicians and other health professionals who are participating providers (which means that they accept Medicare's payment as payment in full), and the share of claims that are paid on assignment.

**Supply of physicians and other health professionals billing Medicare has kept pace with enrollment growth**

Our analysis of Medicare FFS claims data for 2014 to 2016 shows that the number of physicians and other health professionals furnishing services to Medicare beneficiaries has generally kept pace with enrollment growth in

**TABLE  
4-8****Physicians and other health professionals billing Medicare, 2014–2016**

Year	Physicians				Advanced practice registered nurses and physician assistants		Other practitioners	
	Primary care specialties		Other specialties					
	Number	Number per 1,000 beneficiaries	Number	Number per 1,000 beneficiaries	Number	Number per 1,000 beneficiaries	Number	Number per 1,000 beneficiaries
2014	180,165	3.6	396,289	8.0	165,164	3.3	150,037	3.0
2015	182,767	3.6	398,840	7.9	182,949	3.6	154,774	3.1
2016	184,905	3.5	403,822	7.8	202,874	3.9	160,040	3.1

Note: “Primary care specialties” are specialties that were eligible for the Primary Care Incentive Payment program: family medicine, internal medicine, pediatric medicine, and geriatric medicine. “Other practitioners” includes physical and occupational therapists, chiropractors, optometrists, psychologists, social workers, and podiatrists. The number billing Medicare includes those with a caseload of more than 15 different beneficiaries during the year. Beneficiary counts used to calculate numbers per 1,000 include those in fee-for-service and Medicare Advantage on the assumption that professionals are furnishing services to both types. Figures exclude nonperson providers such as suppliers or clinical laboratories.

Source: MedPAC analysis of Medicare claims data for 100 percent of beneficiaries and the 2017 annual report of the Boards of Trustees of the Medicare trust funds.

Medicare (Table 4-8). In 2016, the ratio of physicians in primary care specialties to the number of beneficiaries was 3.5 per 1,000, a slight drop from the ratio in 2015 (3.6 per 1,000). Between 2015 and 2016, the ratio of physicians in other specialties declined slightly from 7.9 per 1,000 beneficiaries to 7.8 per 1,000. Meanwhile, between 2015 and 2016, the number of advanced practice registered nurses and PAs per 1,000 beneficiaries grew by 8 percent, from 3.6 per 1,000 beneficiaries to 3.9 per 1,000.

### **Most physicians and other health professionals are part of Medicare’s participating provider program, and nearly all claims are taken on assignment**

In 2016, over 95 percent of physicians and other health professionals billing Medicare signed an agreement with Medicare to be part of the participating provider program. Participating providers agree to take assignment for all claims, which means they accept the fee schedule amount as payment in full (most claims are paid on assignment—99.5 percent in 2015) (Centers for Medicare & Medicaid Services 2017a).<sup>3</sup> Providers who do not elect to participate receive a 5 percent lower payment amount and can choose whether to take assignment for their claims on a claim-by-claim basis. If they do not assign a claim, providers may “balance bill” up to 109.25 percent of the fee schedule amount, with the beneficiary paying the

difference between 95 percent of the fee schedule amount and the amount billed (Table 4-9, p. 106).

### **Opt-out clinicians are concentrated in dental and behavioral health specialties**

Physicians and other health professionals may opt out of the Medicare program by signing an affidavit with Medicare stating that they will not receive any payment from Medicare, directly or indirectly, for any Medicare patient they see. In this arrangement, a provider who wishes to treat Medicare beneficiaries but not enroll in Medicare must file an opt-out affidavit for all of his or her patients, and the patient cannot separately submit the claim to Medicare. Opt-out clinicians must also enter into a contract with Medicare beneficiaries to treat them, which states that no payment will be made from Medicare either to the beneficiary or to the clinician for services delivered by the opt-out clinician. Providers opt out for a variety of reasons (see text box on providers who opt out, pp. 108–109).

MACRA established that agreements between the opt-out clinician and Medicare are automatically renewed every two years unless the clinician elects to rejoin Medicare.<sup>4</sup> Pursuant to MACRA, CMS also publicly released detailed information on opt-out clinicians in 2016 for the first time. As of September 2017, 23,287 physicians, dentists,

**TABLE  
4-9****Illustrative payment amounts for participating, nonparticipating, and opt-out providers**

<b>Medicare allowed amount = \$100</b>	<b>Participating provider</b>	<b>Nonparticipating provider billing at the limiting charge</b>	<b>Opt-out provider</b>
Payment from Medicare	\$80	\$76	None
Payment from the beneficiary	20	33.25	Unlimited
Coinsurance	20	19	N/A
Additional balance billing of beneficiary	None	14.25	N/A
<b>Total payment to provider</b>	<b>100</b>	<b>\$109.25</b>	<b>Unlimited</b>

Note: N/A (not applicable). Medicare's payment to nonparticipating providers is 95 percent of the fee schedule allowed amount. "Limiting charge" is 109.25 percent of the Medicare allowed amount. A nonparticipating provider that does not take assignment may balance bill to recoup 109.25 percent of the allowed amount from Medicare and the beneficiary in total.

and other clinicians had an opt-out record on file with the Medicare program, of which over 7,000 were mental health specialists (psychiatrists, psychologists, and clinical social workers), and nearly 11,000 were dental providers (Figure 4-1).

### Higher growth in the volume of clinician services

We analyze annual changes in use of services provided by physicians and other health professionals as another indicator of payment adequacy. However, we recommend caution in interpreting such data because factors unrelated to Medicare's payment rates can influence service volume. Evidence indicates that volume decreases may be related to the movement of services from freestanding offices to hospitals, general practice pattern changes, and concerns expressed by clinicians about overuse of imaging and tests. For example, in 2016, the number of echocardiograms per beneficiary administered in freestanding offices declined by 1.1 percent while the number administered in hospital outpatient departments (HOPDs) rose by 5.4 percent. Increases in volume can signal overpricing if practitioners favor certain services because they are relatively profitable, but other factors—including changes in the population, disease prevalence, Medicare benefits, site of care changes, technology, and beneficiaries' preferences—can also explain volume increases.

We used claims data from 2011, 2015, and 2016 to analyze volume changes. We identified the services

furnished by physicians and other professionals billing under Medicare's fee schedule and calculated two measures of changes in service use: units of service per beneficiary and volume of services per beneficiary. Volume is measured as units of service multiplied by each service's RVUs from the fee schedule. Our volume growth measure thus accounts for changes in both the number of services and the complexity, or intensity, of those services. For example, growth in the volume of imaging services would account not just for any change in the number of such services but also for any change in intensity (e.g., if providers substitute computed tomography (CT) scans for less complex X-rays). We used RVUs for 2016 to put service volume for all years on a common scale. We grouped individual service codes into broad service categories that are clinically meaningful (e.g., evaluation and management (E&M)). Each broad service category contains multiple subcategories of similar services (e.g., E&M contains office visits and outpatient services, hospital inpatient services, and other subcategories).

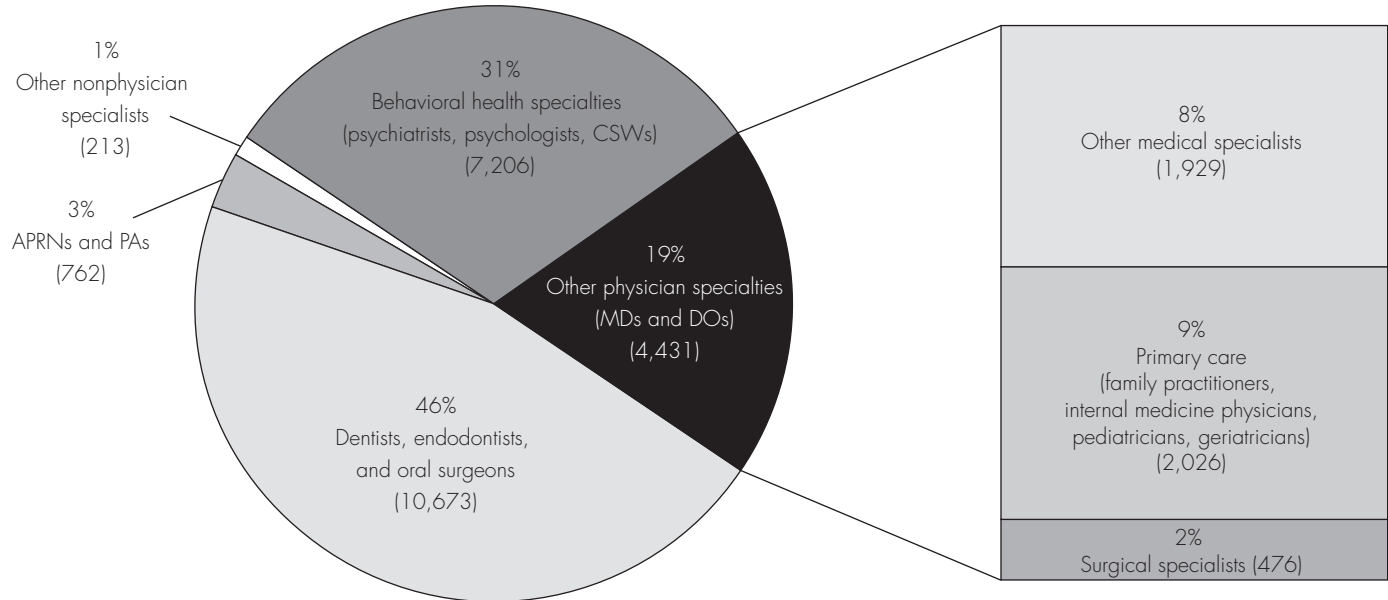
Between 2015 and 2016, across all services, volume per beneficiary grew by 1.6 percent (Table 4-10, p. 110). Among broad service categories, growth rates were 1.1 percent for E&M, 1.4 percent for imaging services, 2.8 percent for major procedures, 2.5 percent for other procedures, and 1.7 percent for tests. The 2016 growth rates for all services and for broad service categories were higher than the average annual growth rates from 2011 to 2015.



**FIGURE  
4-1**

**Clinicians who opted out of Medicare were concentrated in certain specialties, and nearly half were dental providers, 2017**

**Total number of clinicians and providers who opted out of Medicare = 23,287**



Note: CSW (clinical social worker), APRN (advanced practice registered nurse), PA (physician assistant), DO (doctor of osteopathic medicine).

Source: Analysis of opt-out affidavits from CMS.

Subcategories of a broad service category sometimes experienced more rapid volume growth in 2016 than the broad service category. For example, volume growth was 2.8 percent in the “major procedures” category, but volume growth in the subcategories of vascular procedures (e.g., revascularization of lower extremity) and musculoskeletal procedures (e.g., knee replacement) were 5.9 percent and 4.4 percent, respectively (Table 4-10, p. 110). Volume growth in the “other procedures” category was 2.5 percent, but volume growth in the subcategory of physical, occupational, and speech therapy was 7.8 percent. Physical therapy treatments accounted for most of the 2016 volume growth in these therapy treatments.

Care management/coordination had the highest rate of volume growth of all the service subcategories: 15.8 percent per year from 2011 to 2015 and 27.3 percent from 2015 to 2016. CMS created new billing codes for transitional care management (TCM) in 2013 and chronic

care management (CCM) in 2015, and these codes account for most of the growth in care management/coordination. In 2016, the volume of TCM increased by 29.9 percent and CCM by 141.5 percent (data not shown). At the same time, the volume of the other services in this subcategory (physician certification and recertification of home health care, home health care supervision, and hospice care supervision) decreased by 3.0 percent (data not shown).

While volume growth for imaging in 2016 was slightly lower than the average increase for all services and followed decreases from 2010 to 2014, use of imaging services remains much higher than it was in 2000 (Figure 4-3, p. 111). Cumulative growth in the volume of imaging per beneficiary from 2000 to 2009 totaled 85 percent, compared with a cumulative drop in imaging volume since then of about 7 percent. The growth in imaging volume from 2000 to 2009 was exceeded only by the 86 percent growth in the use of tests (e.g., allergy tests) during those

## Why providers who opt out of Medicare are concentrated in certain specialties

Providers opt out of Medicare for different reasons. Dentists opt out of Medicare in large numbers because their services are only rarely covered by the Medicare benefit. Routine or prophylactic dental services are not covered by Medicare (e.g., cleanings, fillings, extractions, or dentures). Dental services are covered by Medicare only if they address an underlying health problem or are required for a Medicare-covered service to be successful. For example, services provided in the hospital as prerequisite to surgery may be covered, as are some oral surgeries. By opting out of Medicare, dentists avoid, for the few services that Medicare would otherwise cover, the administrative requirements to enroll and bill Medicare and limits on fees for those services.

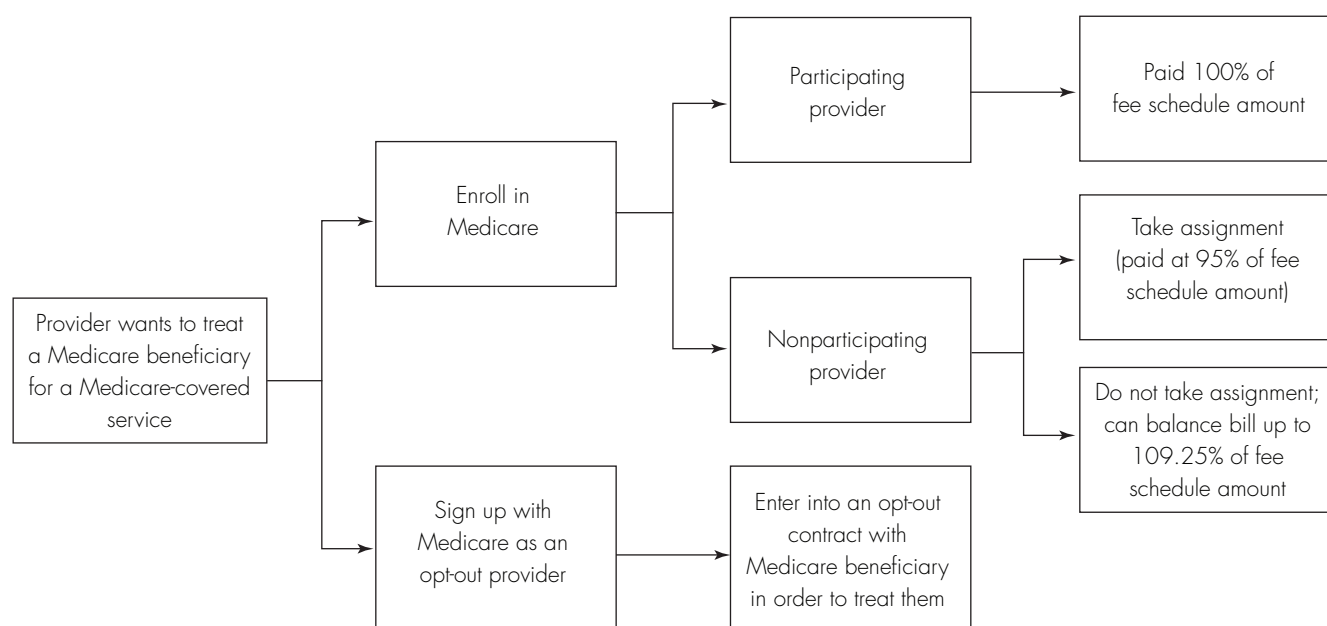
Psychiatrists also opt out in large numbers, even though most psychiatry services are covered by Medicare.

The Medicare statute requires that, to deliver a covered service to a Medicare beneficiary, the provider must either enroll in Medicare (as a participating or nonparticipating provider) or opt out of the program entirely (Figure 4-2). There is no analogue in Medicare to out-of-network benefits in preferred provider organization products in the commercial insurance market.

Mental health providers in general are much less likely to accept all types of insurance than any other specialty. Only about half of psychiatrists take any insurance at all, and their rates of accepting Medicare are comparable with rates for accepting private insurance (Medicaid acceptance is lower still) (Bishop et al. 2014). Several reasons account for low acceptance rates: high coinsurance (including, until 2014, a mental health limitation in Medicare), concern about stigma by patients, and utilization management tools by plans.

**FIGURE 4-2**

### Options for providers to deliver Medicare-covered services to beneficiaries



Note: There is no option for a provider to deliver a Medicare-covered service to a Medicare patient outside of these arrangements.

(continued next page)

## Why providers who opt out of Medicare are concentrated in certain specialties (cont.)

To the extent that psychiatrists and other mental health providers wish to treat Medicare patients, they need to enroll either as a Medicare provider (participating or nonparticipating) or as an opt-out provider. If mental health providers and beneficiaries wish to enter into an arrangement outside of the Medicare benefit (for example, if beneficiaries feel stigma about using their

insurance benefit and wish to pay for services out of pocket), the opt-out arrangement allows them to do so.

In both cases—that of dentists and of mental health providers—factors outside of Medicare’s payment rates contribute to the high number of clinicians opting out of the program. ■

years. Such growth was more than double the cumulative growth rates during the same period for E&M services and major procedures, which were 32 percent and 34 percent, respectively. In addition, volume increases in 2016 were higher for certain types of imaging than for others. For example, in 2016, CT volume grew by 3.6 percent. By contrast, from 2011 to 2015, average annual volume growth of CT was 1.4 percent. Similarly, in 2016, MRI volume increased by 2.6 percent, after falling by 0.2 percent per year from 2011 to 2015.

The relatively high use of imaging and tests has led to concerns about appropriate use of these services. Physicians have warned that diagnostic tests are often ordered without an understanding of how the results could change patient treatment (Hoffman and Cooper 2012, Redberg et al. 2011). Others have found that some clinicians routinely repeat tests and diagnostic procedures (Welch et al. 2012). When available, guidelines rarely specify how often to repeat these services. In response to concerns about overuse, the American Board of Internal Medicine (ABIM) Foundation developed the “Choosing Wisely” campaign. In the latest iteration of this ongoing effort, more than 80 specialty societies have identified 520 tests and procedures that are often overused (ABIM Foundation 2017). The goal of Choosing Wisely is to promote conversations between clinicians and their patients to help patients choose care that is supported by evidence, free from harm, truly necessary, and not duplicative of other tests or procedures. In addition, CMS is mandated by statute to require that claims for CT, MRI, and nuclear medicine studies include information about whether the services adhere to appropriate use criteria developed by medical societies or other provider-led entities. CMS is in the process of developing this program, which is scheduled to begin on January 1, 2020.

### Volume changes reflect shift in billing from freestanding offices to hospitals

Measuring volume growth has two advantages. First, volume growth accounts for changes not just in the number of services but also any changes in the intensity of services (e.g., substitution of CT scans for X-rays). Second, volume growth is important because it has a significant impact on spending growth, along with changes in payment rates.

Volume growth, however, is sensitive to shifts in the site of care. The RVUs used to calculate volume include practice expense RVUs, which are often lower for services provided in a facility setting, such as an HOPD, compared with services in a nonfacility setting, such as a freestanding office. In 2017, for example, the most common type of E&M office visit (Current Procedural Terminology code 99213) had an average nonfacility fee schedule payment of \$74. By contrast, the average fee schedule payment for this visit when provided in a facility setting was \$52 because the practice expense RVUs are lower. Medicare makes both a fee schedule payment and a facility payment when a service is provided in an HOPD (the facility payment accounts for the cost of the service in an HOPD). However, the program makes only a fee schedule payment when a service is furnished in a freestanding office. For example, in 2017, the total payment for the most common E&M office visit when provided in an HOPD (other than certain off-campus HOPDs) was \$158 (\$52 for the fee schedule payment to the clinician plus \$107 for the HOPD facility payment) compared with \$74 (the nonfacility fee schedule payment) for this visit when provided in a freestanding office.<sup>5</sup>

In recent years, there has been a trend toward billing for some services in hospitals instead of freestanding offices.

**TABLE  
4-10****Use of clinician services per FFS beneficiary**

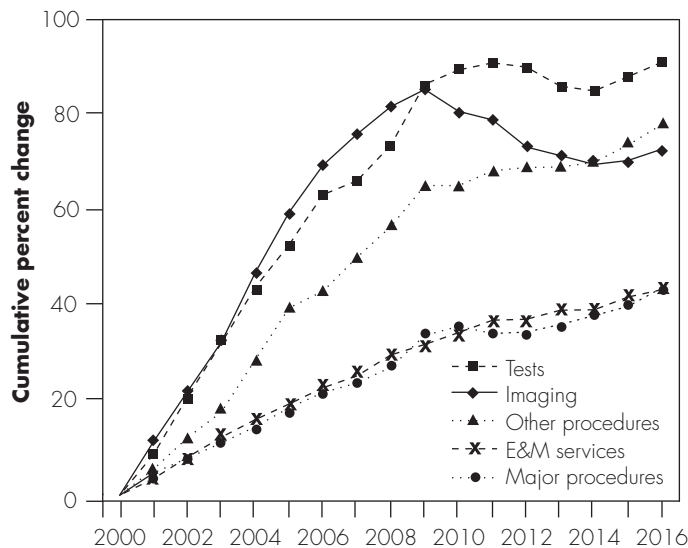
Type of service	Change in units of service per beneficiary		Change in volume per beneficiary		Share of 2016 allowed charges
	Average annual 2011-2015	2015-2016	Average annual 2011-2015	2015-2016	
<b>All services</b>	<b>0.1%</b>	<b>1.4%</b>	<b>0.5%</b>	<b>1.6%</b>	<b>100.0%</b>
<b>Evaluation and management</b>	<b>-0.1</b>	<b>0.6</b>	<b>0.6</b>	<b>1.1</b>	<b>52.6</b>
Office/outpatient services	0.7	1.1	1.3	1.8	26.9
Hospital inpatient services	-2.2	-2.1	-1.9	-1.7	11.6
Emergency department services	0.8	0.0	1.6	0.8	3.3
Nursing facility services	2.7	-0.9	3.3	-0.1	3.0
Ophthalmological services	-0.3	0.3	0.0	0.5	2.9
Behavioral health services	N/A	3.4	N/A	3.8	1.9
Critical care services	0.9	1.7	0.9	1.5	1.5
Observation care services	11.2	6.6	10.7	6.1	0.7
Care management/coordination	7.8	33.9	15.8	27.3	0.5
Home services	-0.7	0.4	-0.4	-0.1	0.4
<b>Imaging</b>	<b>-0.3</b>	<b>0.4</b>	<b>-1.2</b>	<b>1.4</b>	<b>11.5</b>
Standard X-ray	-1.2	-0.7	-1.0	1.2	3.3
Ultrasound	-0.6	0.5	-2.1	0.1	3.0
CT	2.1	3.5	1.4	3.6	1.9
Nuclear	-5.2	-0.9	-8.5	-2.0	1.3
MRI	1.0	2.6	-0.2	2.6	1.3
<b>Major procedures</b>	<b>-0.4</b>	<b>1.6</b>	<b>1.7</b>	<b>2.8</b>	<b>8.0</b>
Musculoskeletal	1.8	3.7	2.6	4.4	3.0
Vascular	-1.1	-2.2	8.7	5.9	1.4
Other organ systems	-2.1	0.7	-1.5	0.6	1.0
Cardiovascular	-0.6	2.9	0.2	1.5	1.0
Digestive/gastrointestinal	-2.8	-1.6	-2.1	-1.4	0.9
Skin	-2.6	1.0	-1.0	0.8	0.5
Eye	0.1	-1.1	0.2	-0.8	0.2
<b>Other procedures</b>	<b>0.8</b>	<b>3.3</b>	<b>0.7</b>	<b>2.5</b>	<b>23.0</b>
Skin	1.4	2.0	1.5	2.5	4.5
Physical, occupational, and speech therapy	2.9	7.4	3.5	7.8	3.7
Musculoskeletal	0.0	1.9	1.4	2.8	2.6
Eye	1.6	3.4	0.7	2.9	2.4
Radiation oncology	-2.2	-2.4	-2.8	-3.0	2.0
Other organ systems	0.2	2.8	2.0	2.5	1.7
Digestive/gastrointestinal	-1.0	1.0	-0.6	2.8	1.4
Vascular	-2.5	0.3	2.6	3.9	1.1
Dialysis	-0.9	-2.5	0.4	-0.2	1.2
Chiropractic	-2.4	-1.6	-2.6	-2.2	0.8
Injections and infusions: non-oncologic	-3.1	0.0	-3.3	-0.1	0.5
Chemotherapy administration	-4.1	-0.8	-4.1	-0.8	0.5
<b>Tests</b>	<b>-0.1</b>	<b>1.6</b>	<b>-2.0</b>	<b>1.7</b>	<b>4.6</b>
Anatomic pathology	-0.2	1.4	-0.4	1.4	1.4
Cardiography	-1.8	1.7	-4.5	2.8	1.2
Neurologic	1.3	1.3	-3.7	0.5	0.9

Note: FFS (fee-for-service), CT (computed tomography), MRI (magnetic resonance imaging), N/A (not available). Volume is measured as units of service multiplied by each service's relative value unit (RVU) from the physician fee schedule. To put service use in each year on a common scale, we used the RVUs for 2016. For billing codes not used in 2016, we imputed RVUs based on the average change in RVUs for each type of service. Use of behavioral health services is not reported for 2011 to 2015 because of a change in billing codes implemented in 2013. Some low-volume categories are not shown but are included in the summary calculations. The type-of-service categories and subcategories that we used in prior years were restructured for this table.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

**FIGURE  
4-3**

**Growth in the volume of clinician services per fee-for-service beneficiary, 2000-2016**



Note: E&M (evaluation and management). Volume growth for E&M from 2009 to 2010 is not directly observable because of a change in payment policy for consultations. To compute cumulative volume growth for E&M through 2016, we used a growth rate for 2009 to 2010 of 1.85 percent, which is the average of the 2008 to 2009 growth rate of 1.7 percent and the 2010 to 2011 growth rate of 2.0 percent.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

From 2012 to 2016, for example, HOPD-based E&M visits per beneficiary grew by 29 percent, compared with a 1.6 percent decline in physician office-based visits. Echocardiography and nuclear cardiology services have also shifted from freestanding offices to HOPDs. From 2015 to 2016, the number of echocardiograms per beneficiary delivered in HOPDs rose by 5.4 percent, compared with a 1.1 percent decline in freestanding offices (Table 4-11). Similarly, the number of nuclear cardiology studies per beneficiary provided in HOPDs increased by 0.3 percent, compared with a 4.2 percent decline in freestanding offices.

This change in setting raises overall Medicare program spending and beneficiary cost sharing because Medicare generally pays more for the same or similar services in HOPDs (other than certain off-campus HOPDs) than in freestanding offices (Medicare Payment Advisory Commission 2014, Medicare Payment Advisory Commission 2013, Medicare Payment Advisory

Commission 2012). For example, we estimate that the Medicare program spent \$1.8 billion more in 2016 than it would have if payment rates for E&M office visits in HOPDs were the same as freestanding office rates. In addition, beneficiaries' cost sharing for E&M office visits in HOPDs was \$460 million higher in 2016 than it would have been had payment rates been the same in both settings.

To address the increased spending that results when services shift from freestanding offices to HOPDs, the Commission recommended adjusting payment rates in the outpatient prospective payment system (OPPS) so that Medicare pays the same amount for E&M office visits in freestanding physician offices and HOPDs (Medicare Payment Advisory Commission 2012). The Commission also recommended adjusting OPPS rates for a set of other services so that rates are equal or more closely aligned across these two settings (Medicare Payment Advisory Commission 2014).

**Across all services, volume growth has contributed to an increase in spending**

The growth in service volume has contributed significantly to an increase in spending for fee schedule services (Figure 4-4, p. 112). From 2000 to 2016, payment updates for these services did not keep pace with growth in input prices. Payment updates increased cumulatively by 10 percent—less than the 32 percent cumulative increase in the Medicare Economic Index (MEI), which measures changes in input prices. However, spending per beneficiary

**TABLE  
4-11**

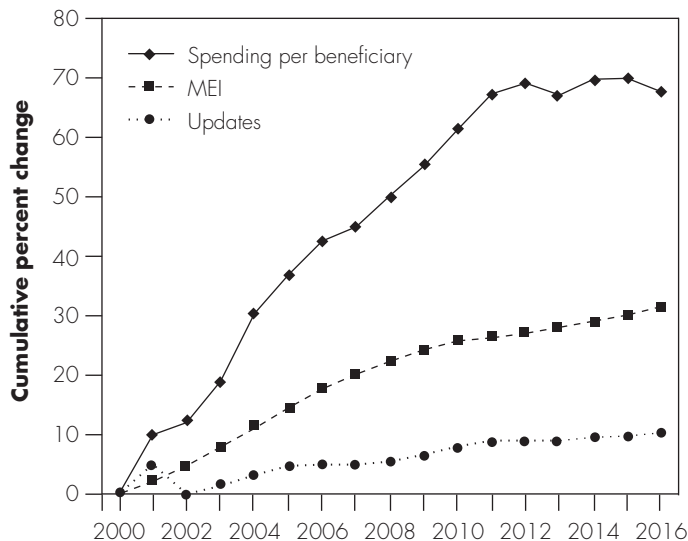
**Cardiovascular imaging services continue to shift from freestanding physicians' offices to HOPDs, 2015-2016**

	Share of services performed in HOPDs, 2016	Per beneficiary change in units of service	
		HOPD	Freestanding office
Echocardiography	44.4%	5.4%	-1.1%
Nuclear cardiology	47.7	0.3	-4.2

Note: HOPD (hospital outpatient department). Echocardiography includes services in ambulatory payment classification (APC) 0269, APC 0270, and APC 0697. Nuclear cardiology includes services in APC 0377 and APC 0398.

Source: MedPAC analysis of outpatient claims and carrier claims for 100 percent of Medicare beneficiaries.



**FIGURE  
4-4****Growth in the volume of clinician services caused fee schedule spending to increase faster than input prices and updates, 2000–2016**

Note: MEI (Medicare Economic Index). The MEI measures the change in clinician input prices. Spending per beneficiary includes only services paid under the fee schedule for physicians and other health professionals and excludes services paid under the clinical laboratory fee schedule.

Source: 2017 annual report of the Boards of Trustees of the Medicare trust funds; Centers for Medicare & Medicaid Services 2017b; Clemens 2014.

for these services grew at a cumulative rate of 68 percent. Volume growth, which accounts for most of the difference between the payment updates and spending growth, likely reflects changes in clinical practice, such as the diffusion of new technologies, as well as changes in the demographic and health status of beneficiaries.<sup>6</sup>

In 2016, per beneficiary spending for fee schedule services decreased slightly, by 1.3 percent. Several factors influenced this decline: the small increase in volume (1.6 percent), the small increase in the fee schedule conversion factor (0.5 percent), a larger penalty for clinicians who did not submit data under the Physician Quality Reporting System (PQRS), a larger penalty for clinicians who did not meet the electronic health record (EHR) meaningful use requirement, smaller incentive payments for clinicians who met the EHR meaningful use requirement, and the expiration of the Primary Care Incentive Payment (PCIP) program in 2015.<sup>7</sup>

## Quality of care

For the past decade, CMS has assessed the quality of Medicare-billing physicians and other health professionals based largely on clinician-reported individual quality measures. Starting in 2007, clinicians began reporting quality measures through the voluntary Physician Quality Reporting Incentive and they qualified for a payment incentive for such reporting. The program was rebranded as the PQRS in 2010 and began imposing a payment penalty for nonreporting in 2015.

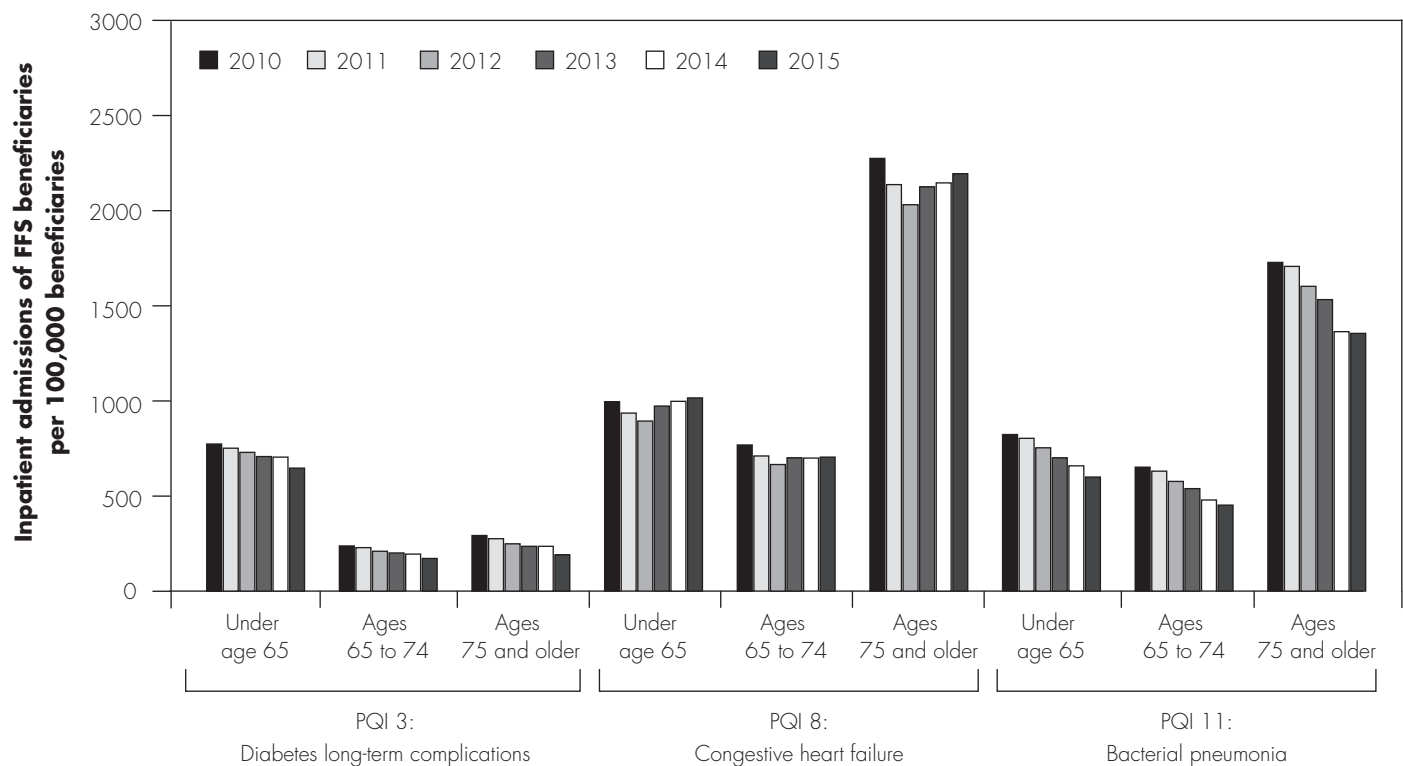
There are currently about 300 measures in the PQRS measure set (and over 600 reporting method combinations). In 2015, CMS began adjusting payments in FFS Medicare based on these clinician-reported measures (plus other claims-calculated measures) through the value-based payment modifier, which will be used through 2018. Starting in 2019, CMS will implement the Merit-based Incentive Payment System (MIPS). MIPS is an individual clinician-level payment adjustment that will adjust Medicare FFS payments based on performance in four areas: quality, resource use, clinical practice improvement activities, and advancing care information (formerly “meaningful use of EHRs”) (Centers for Medicare & Medicaid Services 2016). (See Chapter 15 for a full discussion of MIPS). It generally repurposes many of the measures and processes used in the value-based payment modifier (see text box for the results from the value-based payment modifier, pp. 114–115).

Overall, we do not believe the PQRS measures help the Medicare program assess high-quality clinician services, and we do not believe that they are appropriate for use in a value-based purchasing program. Instead, we review a population-based measure assessing avoidable hospitalizations for ambulatory care-sensitive conditions and rates of low-value care in Medicare.

To assess rates of avoidable hospitalizations for ambulatory care-sensitive conditions, we use the Prevention Quality Indicators (PQIs), a set of population-based measures of potentially avoidable hospital admissions developed by the Agency for Healthcare Research and Quality. The PQIs, which are based on national data, can help gauge the quality of a community’s ambulatory care environment. Lower rates indicate higher quality.

Figure 4-5 presents results for three common conditions among the Medicare population—long-term diabetes complications, congestive heart failure, and bacterial pneumonia. The trends show largely falling rates of



**FIGURE  
4–5****Trends in selected PQIs for inpatient admissions of FFS beneficiaries  
for ambulatory care-sensitive conditions, 2010–2015**

Note: PQI (Prevention Quality Indicator), FFS (fee-for-service). Figures represent the number of hospital admissions for the identified condition for Medicare beneficiaries in each age range per 100,000 beneficiaries. Only FFS beneficiaries with both Part A and Part B are included. Beneficiaries who died during the year are included.

Source: CMS, data on geographic variation. Figures calculated by CMS from the Chronic Conditions Data Warehouse of 100 percent of claims.

avoidable hospitalizations across all three conditions and age categories; the modest increase for heart failure across all age categories may be the result of continuing changes in hospital behavior related to enforcement of the two-midnight rule (a CMS policy instructing auditors to approve inpatient stays only if the duration of the stay covers two midnights).

The Commission plans to continue refining a set of population-based outcome measures, such as hospitalizations for potentially preventable complications (HPCs) and potentially preventable emergency department (ED) visits, that CMS can calculate using claims data.<sup>8</sup>

We also calculated rates of low-value care in Medicare, which is another indicator of quality. Because the current PQRS measure set has few measures assessing low-value care, and few clinicians report these measures, we used a set of 31 claims-based measures to assess low-value

care. We found that low-value care is a significant issue in Medicare: Between 23 percent and 37 percent of beneficiaries received at least one low-value service in 2014 (see text box on low-value care, pp. 116–117).

### Medicare payments and providers' costs

Because physicians and other health professionals do not report their costs to the Medicare program, we use other measures to assess the adequacy of Medicare payments relative to clinicians' costs. The first measure is how Medicare's payments compare with the commercial rates paid by preferred provider organizations (PPOs). The second measure compares physician compensation across specialties and evaluates whether Medicare's payment policies contribute to an income disparity between primary care clinicians and other specialties. The third measure—the MEI—assesses the change in input prices for physicians and other health professionals.

## The first three years of the value-based payment modifier

**T**he Patient Protection and Affordable Care Act of 2010 created a value-based payment modifier (value modifier, or VM) for clinicians participating in Medicare fee-for-service (FFS). Starting with groups of 100 or more clinicians in 2015, and phasing in to apply to all clinicians by 2017, clinicians had their Medicare FFS payments adjusted by a composite VM that assessed the quality and cost of the services they delivered in the two years prior

(e.g., 2013 performance would determine a clinician's value modifier for the purpose of adjusting payment in 2015).

Quality was assessed using six measures that each clinician reported from the set of Physician Quality Reporting System (PQRS) measures, plus up to three claims-calculated measures: hospital admissions for ambulatory care-sensitive conditions (acute), hospital

**TABLE  
4-12**

### Most clinician groups subject to the value-based payment modifier in 2015 either received no adjustment or did not participate

	Payment adjustment	Number of clinician groups (reporting under the same TIN)
Penalty	-1%	322
	-0.5	8
Neutral	0	853
Increase	+4.89	14

Note: TIN (taxpayer identification number). Value modifier applied in 2015 to TINs of 100 clinicians or more. "Neutral" included TINs with insufficient data, TINs that did not elect quality tiering, and TINs that were not subject to the value modifier because they were in an accountable care organization model or the Comprehensive Primary Care Initiative.

Source: Centers for Medicare & Medicaid Services.

**TABLE  
4-13**

### In 2016, 40 percent of clinicians did not participate in the value modifier (receiving a penalty), nearly 60 percent received no adjustment, but a few received large bonuses

	Payment adjustment	Number of clinician groups (reporting under the same TIN)
Penalty	-2%	5,418
	-1	57
Neutral	0	8,208
Increase	+15.92	70
	+31.84	58

Note: TIN (taxpayer identification number). Value modifier applied in 2016 to TINs of 10 clinicians or more. "Neutral" included TINs with insufficient data, TINs that did not elect quality tiering, and TINs that were not subject to the value modifier because they were in an accountable care organization model or the Comprehensive Primary Care Initiative.

Source: Centers for Medicare & Medicaid Services.

(continued next page)

## The first three years of the value-based payment modifier (cont.)

admissions for ambulatory care–sensitive conditions (chronic), and readmissions. Cost was assessed using six measures: the Medicare spending per beneficiary measure, a total per capita cost measure, and per capita cost measures for four chronic conditions.

CMS used a statistical significance threshold to determine whether each clinician or group of clinicians was average, high, or low for both cost and quality. In each year of the program, CMS determined whether each clinician or group of clinicians was eligible for a payment adjustment based on the groupings and the cost and quality composite scores.

For example, clinicians who were average on both cost and quality would not receive a payment adjustment. Those who were high cost and low quality received a 1 percent or 2 percent penalty (depending on the year of the program). Those who were low cost and high

quality could qualify for a positive adjustment (the amount was determined at the end of the year based on the budget-neutrality calculation). The VM was budget neutral. In part because of this budget neutrality, the resulting positive updates were very large, even in the first two years of the program (Table 4-12, Table 4-13).

By 2017, the resulting positive payment increases were so large that 69 practices received an incentive payment of 77 percent of their fee schedule revenue, over 5,000 practices received an incentive payment of 46 percent of their fee schedule revenue, and nearly 7,000 practices received an incentive payment of 15 percent or 31 percent of their fee schedule revenue (Table 4-14). The experience with the value modifier underscores the importance of capping the upward adjustments in any value-based purchasing program that is designed to be budget neutral. ■

**TABLE  
4-14**

**Most clinicians (and clinician groups) still received no payment adjustment in 2017, but a few received very large increases**

	Payment adjustment	Number of clinician groups (reporting under the same TIN)
Penalty	-4%	3,605
	-2	23,368
Neutral	0	445,674
Increase	+15.48	2,618
	+30.95	4,113
	+46.43	5,376
	+77.38	69

Note: TIN (taxpayer identification number). Value modifier applied in 2017 to TINs of two or more, plus solo clinicians. "Neutral" included TINs with insufficient data, TINs that did not elect quality tiering, and TINs that were not subject to the value modifier because they were in an accountable care organization model or the Comprehensive Primary Care Initiative.

Source: Centers for Medicare & Medicaid Services.

### Ratio of Medicare payments to commercial PPO payments

In 2016, Medicare's payment rates for physician and other health professional services (including cost sharing) were 75 percent of commercial rates for PPOs, compared with 78 percent in 2015 and 81 percent in 2010. The ratio in

2016 varied by type of service. For example, Medicare rates were 80 percent of commercial rates for E&M office visits for established patients, but 70 percent of commercial rates for cataract surgery. This analysis uses data on paid claims for PPO members of a large national insurer that covers a wide geographic area across the

## Research shows substantial use of low-value care in fee-for-service Medicare

**L**ow-value care is either a service that has little or no clinical benefit or care in which the risk of harm from the service outweighs its potential benefit (Chan et al. 2013, Kale et al. 2013). In addition to increasing health care spending, low-value care has the potential to harm patients by exposing them to the risks of injury from inappropriate tests or procedures and may lead to a cascade of additional services that contain risks but provide little or no benefit (Keyhani et al. 2013, Korenstein et al. 2012). The “Choosing Wisely” campaign, an initiative of the American Board of Internal Medicine (ABIM) Foundation, identifies services that represent low-value care. In the latest iteration of this ongoing effort, more than 80 specialty societies have identified 520 tests and procedures that are often overused (ABIM Foundation 2017).

A team of researchers developed 31 measures of low-value care drawn from evidence-based lists (such as Choosing Wisely), recommendations by the United States Preventive Services Task Force, and the medical literature, which they applied to Medicare claims data from 2009 to 2012 (Schwartz et al. 2015, Schwartz et al. 2014). It is challenging to reliably identify low-value care with claims data because they may not have enough clinical detail to distinguish appropriate use from inappropriate use. Thus, a key feature of these measures is that they are designed to allow for explicit trade-offs between the sensitivity and specificity of each measure. The authors developed two versions of each measure: a broader one with higher sensitivity (and lower specificity) and a narrower one with lower sensitivity (and higher specificity). Increasing the sensitivity of a measure captures more potentially inappropriate use but is also more likely to misclassify some appropriate use as inappropriate. Increasing a

measure’s specificity leads to less misclassification of appropriate use as inappropriate, at the expense of potentially missing some instances of inappropriate use.

The Commission contracted with the authors of these studies to obtain the measures’ algorithms, which we applied to Medicare claims data from 2012 to 2014. We used two versions of each measure based on the original studies: a broader version (more sensitive, less specific) and a narrower version (less sensitive, more specific). For each version, we calculated the number of low-value services per 100 fee-for-service (FFS) beneficiaries, the share of FFS beneficiaries who received at least one low-value service, and total spending across all FFS beneficiaries for each service.

Our results show substantial use of low-value care in FFS Medicare in 2014. Based on the broader versions of the measures, our analysis found 72 instances of low-value care per 100 beneficiaries, and 37 percent of beneficiaries received at least one low-value service. Medicare spending for these services was \$6.5 billion, or 2.0 percent of FFS Medicare spending for the beneficiaries in our sample. Based on the narrower versions of the measures, our analysis showed 34 instances of low-value care per 100 beneficiaries, and 23 percent of beneficiaries received at least one low-value service. Medicare spending for these services totaled \$2.4 billion, or 0.7 percent of FFS Medicare spending for the beneficiaries in our sample. The differences between the broader and narrower versions of the measures demonstrate that the amount of low-value care detected varies substantially based on the measures’ clinical specificity. Between 2012 and 2014, there was a modest decline in the volume and spending on low-value services.

*(continued next page)*

United States. The payments reflect the insurer’s allowed amount with allowed cost sharing. The data exclude any remaining balance billing and payments made outside of the claims process, such as bonuses or risk-sharing payments.

The ratio of Medicare rates to commercial rates has declined in recent years because commercial rates have risen while Medicare rates have remained relatively stable. The growth of commercial prices could be a consequence of greater consolidation of physician practices. In recent years, an increasing number of physicians have joined

## Research shows substantial use of low-value care in fee-for-service Medicare (cont.)

The measures we used excluded many low-value services (e.g., imaging for pulmonary embolism without moderate or high pretest probability) because it was difficult to distinguish with claims data inappropriate use of these services from appropriate use (Schwartz et al. 2014). Therefore, our analysis likely represents a conservative estimate of the number of low-value services in Medicare. In addition, we did not estimate the downstream cost of low-value services because it is difficult to determine using claims data whether a specific low-value service led directly to a downstream service (e.g., a follow-up test or procedure). Consequently, our spending estimates probably understate actual spending on low-value care.

Among the measures' broader versions, measures with the highest volume in 2014 were imaging for low back pain (12.0 per 100 beneficiaries), prostate-specific antigen (PSA) screening for men age 75 and over (9.0), and colon cancer screening for older adults (8.0). Those with the highest Medicare spending were percutaneous coronary intervention with balloon angioplasty or stent placement for stable coronary disease (\$1.3 billion), spinal injection for low back pain (\$1.3 billion), and stress testing for stable coronary disease (\$1.2 billion).

Among the measures' narrower versions, measures with the highest volume in 2014 were PSA screening for men age 75 and over (5.1 per 100 beneficiaries), screening for carotid artery disease in asymptomatic adults (4.2), and parathyroid hormone measurement for patients with early chronic kidney disease (3.9). Those with the highest Medicare spending were spinal injection for low back pain (\$643 million), vertebroplasty or kyphoplasty for osteoporotic vertebral fractures (\$327 million), and screening for carotid artery disease in asymptomatic adults (\$221 million).

For more details on the volume and spending for individual measures, see the Commission's June 2017 data book ([http://www.medpac.gov/docs/default-source/data-book/jun17\\_databooksec5\\_sec.pdf?sfvrsn=0](http://www.medpac.gov/docs/default-source/data-book/jun17_databooksec5_sec.pdf?sfvrsn=0)).

After grouping the 31 measures into 6 larger clinical categories, we found that imaging and cancer screening measures accounted for 60 percent of the volume of low-value care per 100 beneficiaries among the measures' broader versions in 2014. However, cardiovascular testing and procedures and other surgical procedures constituted over 71 percent of the spending. Among the measures' narrower versions, imaging and diagnostic and preventive testing accounted for 61 percent of the volume of low-value care, while other surgical procedures and imaging made up two-thirds of the spending.

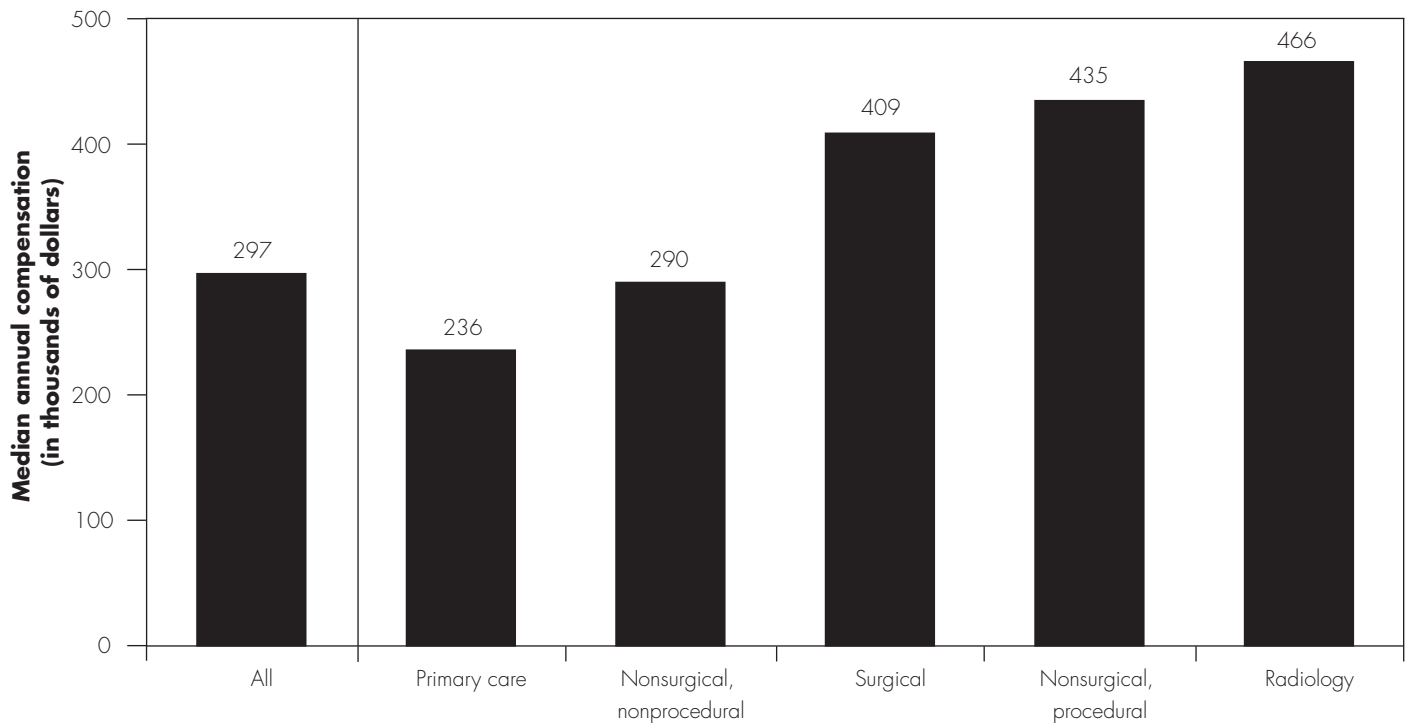
We also examined geographic variation in the use of low-value services, using a model that adjusted for geographic differences in demographic characteristics and comorbidities that could affect the use of low-value services.<sup>9</sup> Even after adjusting for these factors, we found substantial variation in the use of low-value services. For example, the adjusted number of low-value services per 100 beneficiaries was 61 percent higher in the geographic area at the 90th percentile compared with the area at the 10th percentile. Because we adjusted for differences in beneficiaries' demographic characteristics and chronic conditions, the variation in the use of low-value care could reflect factors such as geographic differences in physician practice patterns, entrepreneurial behavior, and beneficiaries' preferences for care. ■

larger groups, hospitals, and health systems. For example, the share of physicians working in practices with more than 50 physicians grew between 2009 and 2014 from 16 percent to 22 percent (Medicare Payment Advisory Commission 2017). Recent studies show that commercial prices for physician services are higher in markets with

larger physician practices and in markets with greater physician-hospital consolidation (Baker et al. 2014, Clemens and Gottlieb 2017, Neprash et al. 2015). Our own research found that independent practices with larger market shares and hospital-owned practices received higher commercial prices for E&M visits than other

**FIGURE  
4–6**

**Disparities in physician compensation are widest when primary care physicians are compared with nonsurgical proceduralists and radiologists, 2016**



Source: MedPAC analysis of data from SullivanCotter's Physician Compensation and Productivity Survey, 2016.

practices in their market (Medicare Payment Advisory Commission 2017). For example, independent practices with a large market share of E&M visits received an average commercial price for an E&M visit that was 41 percent higher than the Medicare rate. By contrast, the average commercial price received by the smallest independent practices for an E&M visit was about equal to Medicare's rate. These findings indicate that the ratio of Medicare rates to commercial rates for physician services can vary by practice size within the same market. There is also evidence that commercial prices for physician services vary widely across markets. In 2011, we reported that average prices paid by commercial insurers were more than 50 percent above Medicare rates in some markets but were below Medicare rates in other markets (Medicare Payment Advisory Commission 2011).

### **Compensation is much higher for certain specialties than for primary care**

The Commission remains concerned that E&M office visits, which make up a large share of the services

provided by primary care clinicians and certain other specialties (e.g., psychiatry, endocrinology, and rheumatology), are underpriced in the fee schedule relative to other services, such as procedures. In addition, the nature of FFS payment allows some specialties to more easily increase the volume of services they provide (and therefore their revenue from Medicare). Such increases are less likely for other specialties, particularly those that spend most of their time providing labor-intensive E&M services. These factors contribute to an income disparity between primary care physicians and certain specialists.

For an analysis of the compensation received from all payers by physicians—the largest subset of practitioners—we examined 2016 data from SullivanCotter's Physician Compensation and Productivity Survey. Median compensation across all specialties was about \$297,000 in 2016. Compensation was much higher for some specialties than others. The specialty groups with the highest median compensation were radiology (\$466,000); the nonsurgical, procedural group (\$435,000); and surgical specialties



## Commission recommendation for a per beneficiary payment for primary care

The Commission has a long-standing concern that evaluation and management (E&M) office visits, which make up a large share of the services provided by primary care clinicians and certain other specialties (e.g., psychiatry, endocrinology, and rheumatology), are underpriced by the Medicare fee schedule for physicians and other health professionals compared with other services such as procedures. The Commission has also become concerned that the fee schedule—with its orientation toward discrete services that have a definite beginning and end—is not well designed to support primary care, which requires ongoing care coordination for a panel of patients. The Commission, in its March 2015 report, recommended that the Congress establish a per beneficiary payment for primary care practitioners to replace the expired Primary Care Incentive Payment (PCIP) program,

which provided a 10 percent bonus payment on fee schedule payments for certain E&M visits provided by primary care clinicians (Medicare Payment Advisory Commission 2015). A monthly per beneficiary payment based on the total amount of PCIP payments in 2015 would have amounted to about \$2.35.

The Commission recommended that the additional payments to primary care practitioners be in the form of a per beneficiary payment to move away from the service-oriented fee-for-service payment approach. Funding for the per beneficiary payment would come from reducing payment rates for all services in the fee schedule other than certain E&M visits provided by any practitioner. This method of funding would be budget neutral and would help rebalance the fee schedule toward primary care clinicians. ■

(\$409,000) (Figure 4-6).<sup>10</sup> Median compensation for radiology was almost double the median compensation for primary care physicians (\$236,000), and median compensation for nonsurgical, procedural physicians was 84 percent higher than that of primary care physicians. Psychiatry—which is in the nonsurgical, nonprocedural group—had median compensation of \$234,000, slightly lower than primary care physicians (data not shown).<sup>11</sup> Our analysis of compensation data from the Medical Group Management Association (MGMA) from prior years showed similar differences between specialties.

Previous Commission work using MGMA data showed that such disparities also existed when compensation was observed on an hourly basis, thus accounting for variations in hours worked per week.<sup>12</sup> In addition, the disparities persist when compensation is simulated as if all services physicians provide were paid under Medicare's fee schedule (Berenson et al. 2010). This finding suggests that the fee schedule is an important source of the disparities in compensation among specialties.

Validation of the fee schedule's RVUs could help correct price inaccuracies and ensure that E&M office visits are not underpriced relative to other services. CMS has a statutory mandate and resources to validate RVUs, and

the Commission has provided CMS with ideas for how to do so (Medicare Payment Advisory Commission 2015). In addition, in 2015, the Commission recommended a per beneficiary payment for primary care that could also help rebalance the fee schedule toward primary care services (see text box on the Commission's recommendation).

### Input costs for physicians and other health professionals are projected to increase from 2018 to 2019

The MEI measures the annual change in the market basket of input prices for physician and other health professional services and is adjusted for economy-wide productivity. As of the fourth quarter of 2017, CMS's forecast is that the MEI will increase by 1.8 percent in 2019. This projection is subject to change.

### How should Medicare payments change in 2019?

The Commission's deliberations on payment adequacy for physicians and other health professionals are informed by beneficiary access to services, volume growth, quality, and input prices for physicians and other health professionals.

We find that, on the basis of these indicators, payments appear adequate.

On measures of access to the services of physicians and other health professionals, the Commission continues to find that beneficiaries' access to care appears generally stable. Overall, Medicare beneficiaries generally have comparable or slightly better access to clinician services than privately insured individuals ages 50 to 64. A slight decline in the number of physicians per beneficiary was offset by an increase in the number of advanced practice registered nurses and physician assistants per beneficiary, and the share of providers accepting assignment and enrolled in Medicare's participating provider program remains high.

In 2016, across all services, volume per beneficiary grew by 1.6 percent. Among broad service categories, growth rates were 1.1 percent for E&M, 1.4 percent for imaging services, 2.8 percent for major procedures, 2.5 percent for other procedures, and 1.7 percent for tests (Table 4-10, p. 110).

As of the fourth quarter of 2017, input prices for physicians and other health professionals were projected to increase by 1.8 percent in 2019. We note that this projection is subject to change. In 2016, compensation was much lower for primary care physicians than for physicians in certain specialties, continuing to raise concerns about fee schedule mispricing and its impact on primary care.

### Update recommendation

In recommending an update for physicians and other health professionals, the Commission balanced the following objectives:

- maintain beneficiary access to physician and other health professional services,

- minimize the burden on the taxpayers and beneficiaries who finance the Medicare program, and
- ensure adequate payments for the efficient provision of services.

In balancing these objectives with the overall findings that payments appear adequate, the Commission recommends an update for 2019 consistent with current law.

## RECOMMENDATION 4

**For calendar year 2019, the Congress should increase the calendar year 2018 payment rates for physician and other health professional services by the amount specified in current law.**

## RATIONALE 4

The Medicare Access and CHIP Reauthorization Act of 2015 established a set of statutory updates for clinicians, including a 0.5 percent update on January 1, 2019. Overall, access to clinician services for Medicare beneficiaries appears stable and comparable with that for privately insured individuals. Other measures of payment adequacy are stable and consistent with prior years. Therefore, the Commission does not see a reason to diverge from the current law update of 0.5 percent for 2019. (Subsequent to the Commission's vote on this update recommendation, the Bipartisan Budget Act of 2018 changed the 2019 update to the fee schedule to 0.25 percent.)

## IMPLICATIONS 4

### Spending

- No change as compared with current law at the time the Commission voted on this recommendation.

### Beneficiary and provider

- The Commission's recommendation of the current law update is unlikely to affect beneficiaries' access to care and providers' willingness and ability to furnish care. ■

## Endnotes

---

- 1 For further information, see the Commission's *Payment Basics: Physician and Other Health Professionals Payment System* at [http://www.medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_17\\_physician\\_final9da411adfa9c665e80adff00009edf9c.pdf?sfvrsn=0](http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_17_physician_final9da411adfa9c665e80adff00009edf9c.pdf?sfvrsn=0).
- 2 CMS is required by statute to ensure that changes to RVUs do not change aggregate fee schedule spending by more than \$20 million. In addition, from 2016 through 2018, CMS was required by statute to meet an annual target for reduced fee schedule spending resulting from adjustments to the prices of misvalued services. The target was 1.0 percent of fee schedule spending in 2016, 0.5 percent of fee schedule spending in 2017, and 0.5 percent of fee schedule spending in 2018. Because CMS did not meet any of these annual targets, the conversion factor in each year was reduced by the difference between the target amount and the reduction in fee schedule spending that resulted from adjustments to the prices of misvalued services, also known as the target recapture amount. In 2018, the target recapture amount was 0.09 percent. The misvalued-services target is scheduled to expire after 2018.
- 3 Services that are less likely to be assigned include osteopath services and chiropractor services (although the assignment rates are still around 90 percent for both service types).
- 4 Under prior law, opt-out agreements were effective for two years, and clinicians had to affirmatively renew them every two years.
- 5 The total payment sums to \$158 instead of \$159 due to rounding. Section 603 of the Bipartisan Budget Act of 2015 prohibits HOPDs that began billing under the outpatient prospective payment system (OPPS) on or after November 2, 2015, and are located off a hospital campus from billing under the OPPS after January 1, 2017. In 2017, CMS paid 50 percent of the OPPS rate for services provided at these off-campus HOPDs (this was a proxy for the facility payment rate under the fee schedule for physicians and other health professionals). On-campus HOPDs, off-campus HOPDs that began billing before November 2, 2015, and dedicated emergency departments are permitted to continue billing under the OPPS.
- 6 The effect of population changes in age and sex on Medicare spending for physician and other health professional services has generally been small in the recent past, and physician spending varies less by age than spending for other services, such as inpatient hospital and post-acute care.
- 7 The penalty for clinicians who did not submit data under the PQRS increased from 1.5 percent of payments in 2015 to 2.0 percent of payments in 2016. The penalty for clinicians who did not meet the EHR meaningful use requirement grew from 1.0 percent of payments in 2015 to 2.0 percent of payments in 2016. Between 2015 and 2016, the total amount of incentive payments for clinicians who met the EHR meaningful use requirement dropped from \$1.4 billion to \$0.9 billion. The PCIP program provided \$686 million to eligible primary care clinicians in 2015, the final year of the program. The penalties and incentive payments under PQRS, the EHR program, and the PCIP program were mandated by statute.
- 8 HPCs are hospital discharges that can be managed or treated in an outpatient setting and may have resulted from the lack of adequate ambulatory care access and coordination. The HPCs are based on the premise that, while not every complication can be averted, comparatively high risk-adjusted ratios of these events can identify opportunities for improvement in an area's ambulatory care systems. The measure includes both inpatient admission and observation stay discharges. The measure specification is developed by the Agency for Healthcare Research and Quality and adapted by the National Committee for Quality Assurance with permission.
- 9 Our model included demographic variables (e.g., age, race, sex, and Medicaid enrollment), clinical variables (e.g., the presence of specific chronic conditions and the total number of conditions), and a dummy variable for each geographic area.
- 10 The nonsurgical, procedural specialties in the analysis are cardiology, dermatology, gastroenterology, and pulmonary medicine.
- 11 In addition to psychiatry, the nonsurgical, nonprocedural group includes emergency medicine, endocrinology, hematology/oncology, nephrology, neurology, physical medicine, rheumatology, and other internal medicine/pediatrics. The primary care specialties in the analysis are family medicine, internal medicine, and general pediatrics.
- 12 To account for differences among specialties in hours worked per week, an earlier analysis based on MGMA data from 2007 included comparisons of hourly compensation. Hourly compensation for nonsurgical, procedural specialties and radiology was more than double the hourly compensation rate for primary care.

## References

---

- ABIM Foundation. 2017. *Choosing Wisely: A special report on the first five years*. Philadelphia, PA: ABIM Foundation.
- Agency for Healthcare Research and Quality, Department of Health and Human Services. 2016. Medical Expenditure Panel Survey (MEPS) web tables. [https://meps.ahrq.gov/mepsweb/data\\_stats/quick\\_tables\\_results.jsp?component=1&subcomponent=0&year=-1&tableSeries=6&searchText=&searchMethod=1&Action=Search](https://meps.ahrq.gov/mepsweb/data_stats/quick_tables_results.jsp?component=1&subcomponent=0&year=-1&tableSeries=6&searchText=&searchMethod=1&Action=Search).
- Baker, L. C., M. K. Bundorf, A. B. Royalty, et al. 2014. Physician practice competition and prices paid by private insurers for office visits. *Journal of the American Medical Association* 312, no. 16 (October 22–29): 1653–1662.
- Berenson, R., S. Zuckerman, K. Stockley, et al. 2010. *What if all physician services were paid under the Medicare fee schedule: An analysis using Medical Group Management Association data*. A study conducted for the Medicare Payment Advisory Commission by staff from the Urban Institute and the Medical Group Management Association Center for Research. Washington, DC: MedPAC.
- Bishop, T. F., M. J. Press, S. Keyhani, et al. 2014. Acceptance of insurance by psychiatrists and the implications for access to mental health care. *JAMA Psychiatry* 71, no. 2 (February): 176–181.
- Boccuti, C., C. Fields, G. Casillas, et al. 2015. *Primary care physicians accepting Medicare: A snapshot*. Data note. Washington, DC: Kaiser Family Foundation. <http://kff.org/medicare/issue-brief/primary-care-physicians-accepting-medicare-a-snapshot/>.
- Boccuti, C., C. Swoope, A. Damico, et al. 2013. *Medicare patients' access to physicians: A synthesis of the evidence*. Issue brief. Menlo Park, CA: The Kaiser Family Foundation.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017a. 2016 CMS statistics. [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/CMS-Statistics-Reference-Booklet/Downloads/2016\\_CMS\\_Stats.pdf](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/CMS-Statistics-Reference-Booklet/Downloads/2016_CMS_Stats.pdf).
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017b. Market basket data. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareProgramRatesStats/MarketBasketData.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. Medicare program; Merit-based Incentive Payment System (MIPS) and Alternative Payment Model (APM) Incentive under the physician fee schedule, and criteria for physician-focused payment models. Final rule. *Federal Register* 81, no. 214 (November 4): 77008–77831.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015. The characteristics and perceptions of the Medicare population: Data from the 2013 Medicare Current Beneficiary Survey. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Data-Tables-Items/2013CNP.html?DLPage=1&DLEntries=10&DLSort=0&DLSortDir=descending>.
- Chan, K. S., E. Chang, N. Nassery, et al. 2013. The state of overuse measurement: A critical review. *Medical Care Research and Review* 70, no. 5 (October): 473–496.
- Clemens, J., and J. Gottlieb. 2017. In the shadow of a giant: Medicare's influence on private physician payments. *Journal of Political Economy* 125, no. 1 (February): 1–39.
- Clemens, K., Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014. Estimated sustainable growth rate and conversion factor, for Medicare payments to physicians in 2015. Fact sheet. <https://www.cms.gov/medicare/medicare-fee-for-service-payment/sustainablegratesconfact/downloads/sgr2015p.pdf>.
- Hing, E., S. L. Decker, and E. Jamoom. 2015. *Acceptance of new patients with public and private insurance by office-based physicians: United States, 2013*. National Center for Health Statistics data brief. Atlanta, GA: Centers for Disease Control and Prevention. <http://www.cdc.gov/nchs/data/databriefs/db195.htm>.
- Hoffman, J. R., and R. J. Cooper. 2012. Overdiagnosis of disease: A modern epidemic. *Archives of Internal Medicine* 172, no. 15 (August 13): 1123–1124.
- Kale, M. S., T. F. Bishop, A. D. Federman, et al. 2013. Trends in the overuse of ambulatory health care services in the United States. *JAMA Internal Medicine* 173, no. 2 (Jan 28): 142–148.
- Keyhani, S., R. Falk, E. A. Howell, et al. 2013. Overuse and systems of care: A systematic review. *Medical Care* 51, no. 6 (June): 503–508.
- Korenstein, D., R. Falk, E. A. Howell, et al. 2012. Overuse of health care services in the United States: An understudied problem. *Archives of Internal Medicine* 172, no. 2 (January 23): 171–178.

Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2011. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

National Center for Health Statistics, Centers for Disease Control and Prevention. 2017. Early release of selected estimates based on data from the January–March 2017 National Health Interview Survey. <https://www.cdc.gov/nchs/nhis/releases/released201709.htm>.

National Center for Health Statistics, Centers for Disease Control and Prevention. 2016. Ambulatory health care data: Survey results and products. Special topics. [https://www.cdc.gov/nchs/ahcd/ahcd\\_products.htm](https://www.cdc.gov/nchs/ahcd/ahcd_products.htm).

Neprash, H. T., M. E. Chernew, A. L. Hicks, et al. 2015. Association of financial integration between physicians and hospitals with commercial health care prices. *JAMA Internal Medicine* 175, no. 12 (December): 1932–1939.

Redberg, R., M. Katz, and D. Grady. 2011. Diagnostic tests: Another frontier for less is more: Or why talking to your patient is a safe and effective method of reassurance. *Archives of Internal Medicine* 171, no. 7 (April 11): 619.

Schwartz, A., B. Landon, A. Elshaug, et al. 2014. Measuring low-value care in Medicare. *JAMA Internal Medicine* 174, no. 7 (July): 1067–1076.

Schwartz, A. L., M. E. Chernew, B. E. Landon, et al. 2015. Changes in low-value services in year 1 of the Medicare Pioneer Accountable Care Organization Program. *JAMA Internal Medicine* 175, no. 11 (November): 1815–1825.

Welch, H. G., K. J. Hayes, and C. Frost. 2012. Repeat testing among Medicare beneficiaries. *Archives of Internal Medicine* 172, no. 22 (December 10): 1745–1751.





C H A P T E R

# 5

---

## **Ambulatory surgical center services**

---

## R E C O M M E N D A T I O N S

- 5-1** The Congress should eliminate the calendar year 2019 update to the Medicare payment rates for ambulatory surgical centers.

COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

.....

- 5-2** The Secretary should require ambulatory surgical centers to report cost data.

COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

# Ambulatory surgical center services

## Chapter summary

Ambulatory surgical centers (ASCs) provide outpatient procedures to patients who do not require an overnight stay after the procedure. In 2016, 3.4 million fee-for-service (FFS) Medicare beneficiaries were treated in the 5,532 ASCs certified to provide services to Medicare beneficiaries. Medicare program and beneficiary spending on ASC services was about \$4.3 billion.

## Assessment of payment adequacy

Our results indicate that beneficiaries' access to ASC services is adequate. Most of the available indicators of payment adequacy for ASC services, discussed below, are positive.

**Beneficiaries' access to care**—Our analysis of facility supply and volume of services indicates that beneficiaries' access to ASC services has generally been adequate.

- **Capacity and supply of providers**—From 2011 to 2015, the number of ASCs grew at an average annual rate of 1.3 percent. In 2016, the number of ASCs increased 1.4 percent. Most new ASCs in 2016 (92 percent) were for-profit facilities.
- **Volume of services**—From 2011 through 2015, the volume of services per beneficiary grew by an average annual rate of 0.7 percent. In 2016, volume decreased by 0.5 percent.

## In this chapter

- Are Medicare payments adequate in 2018?  
.....
- How should Medicare payments change in 2019?  
.....

***Quality of care***—The first three years of ASC-reported quality data show improvements in performance but also identify opportunities for improvement in ASCs’ quality of care and in CMS’s ASC Quality Reporting (ASCQR) Program. Among the 10 quality measures for which data were available in 2015, the 4 adverse event measures reflect consistently low levels of adverse events, and the share of ASCs reporting no adverse events has increased each year since 2013. The data also show room for improvement in the share of ASC staff receiving flu shots and the share of patients surveilled following colonoscopy, but we note that these are process measures, and we prefer to have outcomes-based measures. CMS made improvements to the ASCQR Program for 2018, but the Commission remains concerned about the share of ASCs for which quality data are missing and the lack of claims-based outcome measures that apply to all ASCs. For example, CMS could add measures targeting the frequency of ASC patients receiving subsequent hospital care and rates of surgical site infection.

***Providers’ access to capital***—Because the number of ASCs has continued to increase, access to capital appears to be adequate.

***Medicare payments and providers’ costs***—Medicare payments per FFS beneficiary increased by an average of 3.6 percent per year from 2011 through 2015 and by 3.5 percent in 2016. However, Medicare payment rates are 92 percent higher in hospital outpatient departments than in ASCs. ASCs do not submit data on the cost of services they provide to Medicare beneficiaries. Therefore, we cannot calculate a Medicare margin as we do for other provider types to help assess payment adequacy.

On the basis of these indicators, the Commission concludes that ASCs can continue to provide Medicare beneficiaries with access to ASC services with no update to the payment rates for 2019. In addition, the Commission recommends that the Secretary of Health and Human Services collect cost data from ASCs without further delay. ■

---

## Background

---

An ambulatory surgical center (ASC) is a distinct entity that primarily provides outpatient surgical procedures to patients who do not require an overnight stay after the procedure. In addition to ASCs, hospital outpatient departments (HOPDs) and, in some cases, physicians' offices perform outpatient surgical procedures.

Since 1982, Medicare has covered and paid for surgical procedures provided in ASCs. Medicare covers surgical procedures represented by about 3,500 codes in the Healthcare Common Procedure Coding System (HCPCS) in the ASC payment system. However, ASC volume for services covered under Medicare is concentrated in a relatively small number of HCPCS codes. For example, in 2016, 27 HCPCS codes accounted for 75 percent of the ASC volume for surgical services provided to Medicare beneficiaries. For procedures performed in an ASC, Medicare makes two payments: one to the facility through the ASC payment system and the other to the physician for his or her professional services through the payment system for physicians and other health professionals, also known as the physician fee schedule (PFS). According to surveys, most ASCs have partial or complete physician ownership (Ambulatory Surgery Center Association 2011, Medical Group Management Association 2009). Physicians who perform surgeries in ASCs they own receive a share of the ASC's facility payment in addition to payment for their professional services. To receive payments from Medicare, ASCs must meet Medicare's conditions of coverage, which specify standards for administration of anesthesia, quality evaluation, operating and recovery rooms, medical staff, nursing services, and other aspects of care.

Medicare pays ASCs for a bundle of facility services—such as nursing, recovery care, anesthetics, and supplies—through a system that is primarily linked to the outpatient prospective payment system (OPPS), which Medicare uses to set payment rates for most services provided in HOPDs (a more detailed description of the ASC payment system can be found online at [http://www.medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_17\\_asc\\_finaldba211adfa9c665e80adff00009edf9c.pdf?sfvrsn=0](http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_17_asc_finaldba211adfa9c665e80adff00009edf9c.pdf?sfvrsn=0)). The ASC payment system is also partly linked to the PFS. In 2008, the ASC system underwent substantial revisions (see online Appendix 2C-A from Chapter 2C of our March 2010 report to the Congress, available at [http://www.medpac.gov/docs/default-source/reports/Mar10\\_Ch02C\\_APPENDIX.pdf?sfvrsn=0](http://www.medpac.gov/docs/default-source/reports/Mar10_Ch02C_APPENDIX.pdf?sfvrsn=0)). The

most significant changes included a substantial increase in the number of surgical procedures covered, permission for ASCs to bill separately (that is, outside the ASC payment bundle) for certain ancillary services, and large changes in payment rates for many procedures.

For most covered procedures, the ASC relative weight, which indicates a procedure's resource intensity relative to other procedures, is based on its relative weight under the OPPS. Although the ASC payment system is linked to the OPPS, payment rates for all services covered under both systems are lower in the ASC payment system for two reasons. First, relative weights are lower under the ASC system compared with the OPPS system. CMS makes proportional adjustments to the relative weights from the OPPS to maintain budget neutrality in the ASC system. In 2018, this adjustment has reduced the ASC relative weights by 10.1 percent below the relative weights in the OPPS. Second, for most procedures covered under the ASC system, the payment rate is the product of its relative weight and a conversion factor, set at \$45.58 for 2018, which is lower than the OPPS conversion factor (\$78.64 for 2018).

The ASC conversion factor is lower than the OPPS conversion factor because it started at a lower level in 2008 and has been updated since then at a lower rate than the OPPS conversion factor. CMS set the initial ASC conversion factor in 2008 such that total ASC payments under the revised payment system would equal what they would have been under the previous ASC payment system. The resulting ASC conversion factor for 2008 was lower than the OPPS conversion factor in 2008. In addition, since 2008, CMS has updated the ASC conversion factor based on the consumer price index for all urban consumers (CPI-U), whereas it has used the hospital market basket to update the OPPS conversion factor. The CPI-U has generally been lower than the hospital market basket, so the ASC conversion factor has been updated by smaller percentages than the OPPS conversion factor.

We are concerned that the CPI-U may not reflect ASCs' cost structure (see text box, p. 145). The Commission has recommended that CMS collect cost data from ASCs to identify an alternative price index that would be an appropriate proxy for ASC costs (Medicare Payment Advisory Commission 2010b). However, the ASC industry has opposed the collection of cost data for this purpose, and CMS does not yet collect these data (Ambulatory Surgery Center Association 2012). Recently, CMS has requested comments on whether the Secretary should collect cost data from ASCs to use in determining ASC

payment rates. Representatives of individual ASCs provided comments that generally opposed a policy that would require ASCs to submit formal cost reports, but were willing to complete surveys on the condition that they would not be administratively burdensome (Centers for Medicare & Medicaid Services 2017). The Commission asserts, however, that all other institutional providers submit at least abbreviated versions of cost reports to CMS, and some of these are small entities such as hospices and home health agencies.

CMS uses a different method from the one described above to determine payment rates for procedures that are predominantly performed in physicians' offices and were first covered under the ASC payment system in 2008 or later. Payment for these "office-based" procedures is the lesser of the amount derived from the standard ASC method or the practice expense portion of the PFS rate that applies when the service is provided in a physician's office (the nonfacility practice expense, which covers the equipment, supplies, nonphysician staff, and overhead costs of a service). CMS set this limit on the rate for office-based procedures to prevent migration of these services from physicians' offices to ASCs for financial reasons.<sup>1</sup> The Commission has investigated payment rate differences across multiple ambulatory settings, including ASCs, HOPDs, and physicians' offices (Medicare Payment Advisory Commission 2014, Medicare Payment Advisory Commission 2013a, Medicare Payment Advisory Commission 2012).

The ASC payment system generally parallels the OPPS in terms of which ancillary services are paid separately and which are packaged into the payment of the associated surgical procedure. In 2015, however, the connection between the ASC payment system and the OPPS weakened slightly when CMS implemented comprehensive ambulatory payment classifications (C-APCs) for the OPPS but not for the ASC system. C-APCs largely combine all hospital outpatient services reported on a claim that are covered under Medicare Part B into a single payment, with a few exceptions. CMS chose not to implement C-APCs in the ASC system because the ASC claims processing system does not allow for the type of packaging of ancillary items necessary for creating C-APCs. Therefore, the payment bundle for services that are defined as C-APCs in the OPPS have greater packaging of ancillary items than the ASC payment system.

CMS requested comments on whether ASCs should bill on the institutional claim form (UB-04) rather than the

professional claim form (CMS-1500). Billing on the institutional claim form would allow CMS to implement C-APCs in the ASC payment system. CMS received comments from ASCs that supported this policy (Centers for Medicare & Medicaid Services 2017).<sup>2</sup> However, the ASC Association provided comments that were generally against this policy.

Although we do not have recent ASC cost data that would allow us to quantify cost differences between settings, some evidence suggests that ASCs are a lower cost setting than HOPDs. The Government Accountability Office (GAO) compared ASC cost data from 2004 with HOPD costs and found that costs were, on average, lower in ASCs than in HOPDs (Government Accountability Office 2006).<sup>3</sup> In addition, studies that used data from the National Survey of Ambulatory Surgery found that the average time for ambulatory surgical visits for Medicare patients was 25 percent to 39 percent lower in ASCs than HOPDs, which likely contributes to lower costs in ASCs (Hair et al. 2012, Munnich and Parente 2014). An additional study using data from a facility that has both an ASC and a hospital found that surgeries took 17 percent less time in the ASC (Trentman et al. 2010). Trentman and colleagues and Munnich and Parente estimated less time savings in ASCs than did Hair and colleagues, likely because Trentman and colleagues and Munnich and Parente accounted for differences in health status between patients treated in ASCs and those treated in HOPDs, while Hair and colleagues did not. Beneficiaries who are sicker may require more time to treat. We have found that, on average, beneficiaries receiving surgical services in HOPDs are not as healthy as beneficiaries receiving those services in ASCs, as indicated by risk scores from the CMS hierarchical condition category risk adjustment model.

---

## Are Medicare payments adequate in 2018?

---

To address whether payments for the current year (2018) are adequate to cover the costs of efficient providers and how much payments should change in the coming year (2019), we examine several measures of payment adequacy. We evaluate beneficiaries' access to care by examining the supply of ASC facilities and changes over time in the volume of services provided, providers' access to capital, and changes in ASC revenue from the Medicare program.



**TABLE  
5-1****Number of ASCs grew by 23 percent, 2006–2016**

Type of ASC	2006	2010	2011	2015	2016	Average annual percent change		
						2006–2010	2011–2015	2015–2016
Total	4,490	5,105	5,180	5,453	5,532	2.4%	1.3%	1.4%
New	320	192	197	158	142	N/A	N/A	N/A
Closed or merged	92	111	122	91	63	N/A	N/A	N/A

Note: ASC (ambulatory surgical center), N/A (not applicable). The average annual percentage change data for the “new” and “closed or merged” categories are shown as “N/A” because they are outside the purpose of this table, which is to show the growth in the total number of ASCs.

Source: MedPAC analysis of Provider of Services file from CMS, 2017.

In addition, ASCs began submitting quality data (another measure of payment adequacy) to CMS in October 2012. Data for 10 quality measures for calendar year 2015 are now available. Because data are relatively new and either missing or not reported for many ASCs, the data reported may not be fully representative of the actual quality of care provided in ASCs. Putting these gaps aside, however, reported quality data and claims data suggest areas for quality improvement for certain types of ASCs.

Most of our available indicators of payment adequacy are positive. Beneficiaries have adequate access to care in ASCs, although some groups—such as beneficiaries dually eligible for Medicare and Medicaid, African Americans, and beneficiaries under age 65—are less likely than the average beneficiary to receive care in ASCs than in HOPDs (see text box on the differences in types of patients treated in ASCs and HOPDs, pp. 132–133). Also, the number of ASCs has increased, which indicates that ASCs have adequate access to capital, and Medicare payments to ASCs have continued to grow.

### **Beneficiaries’ access to care: Supply of ASCs and volume of services indicate adequate access**

Increases in the number of facilities and fairly stable volume of services provided to Medicare beneficiaries suggest that beneficiaries have adequate access to care in ASCs. Access to ASCs may be beneficial to patients and physicians because ASCs can offer them greater convenience and efficiency compared with HOPDs, the provider type most similar to ASCs. For patients, ASCs can offer more convenient locations, shorter waiting times, and easier scheduling relative to HOPDs. For physicians, ASCs offer more control over their work environment

and specialized staff. In addition, Medicare’s payment rates and beneficiaries’ cost sharing are lower in ASCs than in HOPDs. However, the fact that most ASCs have some degree of physician ownership raises a concern that providing surgical services in ASCs may lead to more surgical volume than if the same patients were treated in HOPDs.

### **Capacity and supply of providers: Number of ASCs is increasing**

From 2015 through 2016, the number of ASCs increased 1.4 percent to 5,532 (Table 5-1). This annual growth rate was similar to the period 2011 through 2015, but slower than the prior period. From 2006 to 2010, the number of ASCs increased about 2.4 percent per year, compared with 1.3 percent per year from 2011 to 2015. In 2016, the number of new ASCs increased by 142, while 63 ASCs closed or merged with other facilities. Since 2006, the number of new ASCs has outnumbered ASCs that closed or merged, leading to a 23 percent increase in the number of ASCs from 2006 to 2016.

Factors that explain the relatively slower growth of ASCs since 2011:

- To expand their outpatient surgery capacity, many hospitals have acquired and integrated ASCs into the hospital or developed new surgery centers that are part of the hospital, which may limit the market for new freestanding ASCs (Hirst 2010, Jacobson 2014, Kochman 2014, Livingston 2014, Moody 2014, North Carolina Department of Health and Human Services 2011, Sowa 2014, State of Connecticut 2011). Hospitals’ decisions to increase their outpatient surgery capacity may be influenced by the higher

## Differences in types of patients treated in ambulatory surgical centers and hospital outpatient departments

There is evidence that patients treated in ambulatory surgical centers (ASCs) are different in several ways from those in hospital outpatient departments (HOPDs). Our analysis of Medicare claims from 2016 revealed that the following groups represented a smaller share of ASC patients compared with HOPD patients: Medicare beneficiaries who also have Medicaid coverage (dual eligibles), African Americans (who are more likely to be dually eligible), beneficiaries who are eligible for Medicare because of disability (under age 65), and beneficiaries who are age 85 or older (Table 5-2).<sup>4</sup> The smaller share of disabled and older beneficiaries treated in ASCs may reflect the healthier average profile of ASC patients relative to HOPD patients. In addition, the smaller share of African American patients in ASCs relative to HOPDs may be linked to differences in the geographic locations of ASCs and hospitals, the lower rate of supplemental coverage among African Americans, the higher proportion of African Americans who are dually eligible, and the relatively high share of African Americans who use HOPDs or emergency departments (EDs) as their usual source of care (Centers for Medicare & Medicaid Services 2015).

In a separate analysis, we found that patients in HOPDs in 2014 were, on average, more medically complex than patients treated in ASCs, as measured by differences in average patient risk scores. We used risk scores from the CMS–hierarchical condition category (CMS–HCC) risk adjustment model used in Medicare Advantage to measure patient severity. CMS–HCC risk scores predict beneficiaries’ relative costliness based on their age and sex, their diagnoses from the prior year, whether they are dually eligible, and whether they are currently age 65 or older but were originally eligible for Medicare because of disability. The average risk score for HOPD patients across all procedures in 2014 was 1.57 compared with 1.13 for ASC patients. This difference is statistically significant ( $p < 0.05$ ). The lower risk scores of ASC patients are consistent with the findings that ASC patients have shorter surgical visits than HOPD patients (Hair et al. 2012, Munnich and Parente 2014, Trentman et al. 2010).

**TABLE  
5-2**

### Medicare patients treated in ASCs differed from patients treated in HOPDs, 2016

Characteristic	Percent of beneficiaries	
	ASC	HOPD
Medicaid status		
Not dually eligible	87.0%	78.8%
Dually eligible	13.0	21.2
Race/ethnicity		
White	86.6	83.1
African American	6.8	10.1
Other	6.6	6.8
Age		
Under 65	14.0	21.2
65 to 84	80.2	70.2
85 or older	5.9	8.6
Sex		
Male	42.8	44.8
Female	57.2	55.2

Note: ASC (ambulatory surgical center), HOPD (hospital outpatient department). All of the differences between ASC and HOPD beneficiaries are statistically significant ( $p < 0.05$ ). The analysis excludes beneficiaries who received services that are not covered in the ASC payment system. Percentages for the age category in the ASC column do not sum to 100 because of rounding.

Source: MedPAC analysis of physician/supplier and outpatient standard analytic files, 2016.

Beneficiaries who have higher risk scores are likely to be sicker and may require more time and resources to treat. For example, analysis of surgery time for procedures performed in ASCs and HOPDs indicates that surgery time increases as patients’ risk scores increase (Munnich and Parente 2014). Moreover, sicker patients may be referred to HOPDs that have emergency services, inpatient care, and onsite specialists readily available instead of ASCs.

(continued next page)

## Differences in types of patients treated in ambulatory surgical centers and hospital outpatient departments (cont.)

We also compared average patient risk scores for each of the 137 services that made up 90 percent of ASC volume in 2014. For 112 (82 percent) of these services, the average HOPD risk score was higher by a statistically significant amount compared with the average ASC risk score ( $p < 0.05$ ). These 112 services constituted 90 percent of the volume of ASC surgical services in 2014. For the remaining 25 services, the severity of patients in HOPDs was similar to or less than the severity of patients in ASCs.

According to data from Pennsylvania on Medicare and non-Medicare patients, ASCs are less likely than HOPDs to serve Medicaid patients (Pennsylvania Health Care Cost Containment Council 2017). In Pennsylvania in 2016, Medicaid patients accounted for 6.5 percent of ASCs' diagnostic and surgical procedures, compared with 14.0 percent of HOPDs' procedures.<sup>5</sup> Commercially insured and Medicare patients represented a higher share of ASC procedures compared with HOPD procedures (85.7 percent vs. 77.5 percent, respectively). Although Pennsylvania data may not be nationally representative, national estimates from the National Hospital Ambulatory Medical Care Survey (NHAMCS), conducted by the Centers for Disease Control and Prevention, show that ASCs treated a smaller share of Medicaid patients than did HOPDs in 2010. According to the NHAMCS data, ambulatory surgery visits by Medicaid patients accounted for 5.0 percent of total visits to freestanding ASCs, compared with 10.5 percent of total visits to hospital-based surgery centers.

Several factors could be responsible for ASCs treating a smaller share of Medicaid patients (including dually eligible beneficiaries) than HOPDs. A study by Gabel and colleagues suggests that insurance coverage influences a physician's decision to refer a patient to

an ASC or to a hospital (Gabel et al. 2008). This study found that physicians in Pennsylvania were much more likely to refer their commercially insured and Medicare patients than their Medicaid patients to a physician-owned ASC.

The location of ASCs may also lead to a smaller share of Medicaid patients. A study by Strobe and colleagues found that people living in areas with relatively low socioeconomic status are less likely to receive surgical services in ASCs than people living in areas with high socioeconomic status (Strobe et al. 2009b).<sup>6</sup> Further, ASCs are most likely to enter markets that did not previously have an ASC if a market has relatively high per capita income (Suskind et al. 2015).<sup>7</sup>

In addition, many state Medicaid programs do not pay Medicare's cost sharing for dually eligible beneficiaries if the amount Medicare pays for a service (Medicare payment rate minus the cost sharing) is higher than the Medicaid rate for the service (Medicare Payment Advisory Commission 2010a). In states that do not pay the cost sharing for ASC services used by dually eligible beneficiaries, ASCs could be discouraged from treating these patients. Finally, dual-eligible beneficiaries are more likely to report that their usual source of care is an HOPD or ED than are Medicare beneficiaries who have other types of supplemental coverage (Centers for Medicare & Medicaid Services 2015). If a patient's usual source of care is an HOPD or ED, physicians may be more likely to refer the patient to an HOPD for surgery than to another setting. The relatively low rate of ASC use among dual-eligible beneficiaries may partly explain the relatively low rate of ASC use among African Americans, who have a relatively high rate of dual-eligible status (Table 5-2). ■

rates Medicare pays for ambulatory surgical services provided in HOPDs relative to ASCs. In 2018, Medicare's rates are 92 percent higher in HOPDs than in ASCs.

- Physicians are increasingly choosing to be employed by hospitals rather than work in an independent practice (Berenson et al. 2012, Mathews 2012,

Medicare Payment Advisory Commission 2013a, Merritt Hawkins 2014, Physicians Advocacy Institute 2016). These physicians are more likely to provide ambulatory procedures in the hospitals that employ them than in freestanding ASCs.

The number of operating rooms (ORs) in ASCs is also growing. In 2016, there were nearly 16,500 ORs in ASCs,

**TABLE  
5-3****Most ASCs are urban and for profit**

Type of ASC	ASCs that were:		
	Open in 2010	Open in 2016	New in 2016
Urban	92.0%	92.9%	94.4%
Rural	8.0	7.0	5.6
For profit	94.0	93.8	92.3
Nonprofit	3.4	3.5	6.3
Government	2.5	2.8	1.4

Note: ASC (ambulatory surgical center). Totals may not sum to 100 percent because of rounding.

Source: MedPAC analysis of Provider of Services file from CMS, 2017.

or an average of 3.0 per facility. From 2011 through 2015, the total number of ASC ORs increased 0.7 percent per year, a slightly slower rate than the growth in the number of ASCs over the same period (1.3 percent per year). From 2015 to 2016, the number of ORs in ASCs increased by about 0.8 percent. ASCs that entered the market in 2016 were smaller than average. Among this group, 69 percent had just one or two ORs. By contrast, in 2011, 55 percent of all ASCs had one or two ORs.

ASCs are concentrated geographically. In 2016, Maryland had the most ASCs per fee-for-service (FFS) Part B beneficiary (5 ASCs per 10,000 beneficiaries), followed by Georgia and Idaho (approximately 3 ASCs per 10,000 beneficiaries). Vermont, West Virginia, Alabama, and the District of Columbia had the fewest ASCs per beneficiary (fewer than 0.5 ASCs per 10,000 beneficiaries).<sup>8</sup>

Consistent with previous years, most ASCs in 2016 were for profit (about 94 percent) and urban (almost 93 percent) (Table 5-3). The characteristics of ASCs in 2016 are similar to those of ASCs operating in 2010. However, ASCs that were new in 2016 were slightly more likely to be urban (including urban and suburban areas) and nonprofit compared with existing ASCs. Beneficiaries who do not live near an ASC can obtain ambulatory surgical services in HOPDs and, in some cases, physicians' offices. Beneficiaries who live in rural areas can travel to urban areas to receive care in ASCs. In addition, most ASCs are located off a hospital campus (99 percent) (data not shown).

The majority of ASCs that billed Medicare in 2016 specialized in a single clinical area, with gastroenterology

and ophthalmology being the most common. Overall, 61 percent of ASCs in 2016 were single-specialty facilities (Table 5-4).<sup>9</sup> Twenty-two percent of ASCs specialized in gastroenterology and another 21 percent specialized in ophthalmology. By contrast, 39 percent of ASCs were multispecialty facilities, providing services in more than one clinical area. The most common combinations of clinical services offered by multispecialty ASCs were pain management and either neurology or orthopedic services (6 percent of all ASCs) or gastroenterology and ophthalmology services (4 percent of all ASCs). The remaining multispecialty ASCs had more than two clinical specialties. From 2014 to 2016, the proportion of multispecialty ASCs increased by 1 percentage point relative to single-specialty ASCs (data not shown). ASCs specializing in pain management and neurology or orthopedics account for much of the growth in multispecialty ASCs over this period.

Continued growth in the number of ASCs suggests that Medicare's payment rates have been adequate. Other factors have also likely influenced the long-term growth in the number of ASCs:

- Changes in clinical practice and health care technology have expanded the provision of surgical procedures in ambulatory settings. There is potential for this trend to continue as momentum grows for knee and hip arthroplasty (knee and hip replacement) to be done in ambulatory settings. CMS requested comments on whether knee and hip arthroplasty should be covered under the ASC payment system. After receiving comments, CMS indicated that some commenters supported such a policy while others opposed it. CMS did not indicate whether the number of supporters was greater than the number of opponents (or vice versa), nor did CMS indicate who were the supporters or the opponents (Centers for Medicare & Medicaid Services 2017).
- ASCs may offer patients greater convenience than HOPDs, such as the ability to schedule surgery more quickly.
- For most procedures covered under the ASC payment system, beneficiaries' coinsurance is lower in ASCs than in HOPDs.<sup>10</sup>
- Physicians have greater autonomy in ASCs than in HOPDs, which enables them to design customized surgical environments and hire specialized staff.



**TABLE  
5-4****Specialization of ASCs billing Medicare in 2016**

Type of ASC	Number of ASCs	Share of all ASCs
Single specialty	2,876	61%
Gastroenterology	1,025	22
Ophthalmology	1,015	21
Pain management	356	8
Dermatology	180	4
Urology	123	3
Podiatry	90	2
Orthopedics/musculoskeletal	29	<1
Respiratory	20	<1
OB/GYN	15	<1
Cardiology	13	<1
Other	10	<1
Multispecialty	1,855	39
More than 2 specialties	1,403	30
Pain management and either neurology or orthopedics	273	6
Gastroenterology and ophthalmology	179	4
Total	4,731	100

Note: ASC (ambulatory surgical center), OB/GYN (obstetrics and gynecology). A "single-specialty ASC" is defined as one with more than 67 percent of its Medicare claims in one clinical specialty. A "multispecialty ASC" is defined as one with more than 67 percent of its Medicare claims in more than one clinical specialty. ASCs included in this analysis are limited to those in the 50 states and the District of Columbia with a paid Medicare claim in 2016. The percentages for the specific specialties under the "multispecialty" section do not sum to the total because of rounding.

Source: MedPAC analysis of Medicare carrier file claims, 2016.

- Physicians who invest in ASCs and perform surgeries on their patients in those ASCs can increase their revenue by receiving a share of ASC facility payments. The federal anti-self-referral law (also known as the Stark Law) does not apply to ASC services.
- Because physicians are able to perform more procedures in ASCs than in HOPDs in the same amount of time, they can earn more revenue from professional fees.

Even though the number of ASCs increased in 2016, the volume of ASC services per FFS Part B beneficiary decreased slightly in 2016. This decline may be a one-year occurrence, but the Commission will closely monitor growth of ASC services among Medicare beneficiaries.

#### Number of beneficiaries treated and volume of services per beneficiary declined from 2015 to 2016

We found that the number of FFS beneficiaries treated in ASCs and the volume of ASC surgical services per FFS beneficiary declined slightly from 2015 to 2016. Because ASC services are covered under Part B, we limited our analysis to FFS beneficiaries who have Part B coverage. We estimate that the number of FFS beneficiaries who received ASC services grew by an average of 0.6 percent per year from 2011 through 2015 and decreased by 0.4 percent in 2016. The volume of services per FFS beneficiary increased by an average of 0.7 percent per year from 2011 through 2015 and decreased by 0.5 percent in 2016 (Table 5-5, p. 136). On average, the number of services per beneficiary who received services in ASCs increased at an average annual rate of 0.6 percent from 2011 through 2015 and 1.3 percent in 2016 (data not shown). The decrease in volume per beneficiary that occurred in 2016 despite an increase in the number of

**TABLE  
5-5****Volume of ASC services per FFS beneficiary decreased in 2016**

	2011	2012	2013 (actual)	2013* (adjusted)	2014	2015	2016
Volume of services (in millions)	6.7	6.9	6.9	6.3*	6.2	6.3	6.4
Volume per 1,000 FFS beneficiaries	206.1	209.2	210.3	189.6*	187.8	191.2	189.9
Percent change in volume per FFS beneficiary from previous year	1.7%	1.5%	0.5%	N/A	-0.9%	1.8%	-0.5%

Note: ASC (ambulatory surgical center), FFS (fee-for-service), N/A (not applicable). There is a disconnect between amounts in the row "Volume per 1,000 FFS beneficiaries" and "Percent change in volume per FFS beneficiary from previous year." The volume per 1,000 beneficiaries reflects the volume of services that are separately payable in each year. The "percent change in volume" reflects the percentage change over the previous year, assuming that the year in question and the previous year had the same definition of *separately payable*. For example, to arrive at the -0.5 percent change in 2016, we assumed that 2015 and 2016 had the same definition of separately payable. In reality, 2016 had fewer separately payable services than 2015.

\*The adjusted 2013 values reflect adjustments we made to the larger actual values for 2013. The adjusted 2013 values reflect policies established in 2014 that changed the status of many services that had been separately payable in 2013 to packaged with another service in 2014. The purpose is to make the method for counting volume in 2013 consistent with how it is counted in 2014 and subsequent years.

Source: MedPAC analysis of physician/supplier standard analytic files, 2011–2016.

ASCs may have been due to ASC providers using a relatively small number of high-cost pain management services to replace a high number of low-cost pain management services that had been provided in 2015.

Services that have historically contributed the most to overall ASC volume continued to be a large share of the total in 2016. For example, the HCPCS code for cataract removal with intraocular lens insertion (HCPCS 66984) had the highest volume in both 2011 and 2016, accounting for 18.7 percent of the total in both years. Moreover, 19 of the 20 most frequently provided HCPCS codes in 2011 were among the 20 most frequently provided in 2016 (Table 5-6). These services made up about 71 percent of ASC Medicare volume in 2011 and about 70 percent in 2016. A potential concern about the services most frequently provided in ASCs is the extent to which they may be unnecessary or low value, such as spinal injections and other pain management services. CMS could consider policies such as requiring prior authorization or strengthening auditing practices to limit the provision of these services in all settings, not just ASCs.

#### **Outpatient surgical procedures decreased in ASCs and increased in HOPDs in 2016**

From 2011 through 2015, average annual growth in volume per FFS beneficiary of surgical services covered by the ASC payment system was 0.7 percent in ASCs and 1.4 percent in HOPDs. In 2016, volume per FFS beneficiary decreased by 0.5 percent in ASCs and increased by 3.2 percent in HOPDs.

A reason for the higher growth of surgical services in HOPDs relative to ASCs over the 2011 through 2016 period may be that Medicare payment rates have become much higher in HOPDs than in ASCs, which might make it less financially attractive to provide surgical services for Medicare patients in ASCs. For example, in 2018, Medicare payment rates for most surgical services are 92 percent higher in HOPDs than in ASCs. Another reason for the slower growth in ASC volume relative to growth in HOPD volume is that physicians continue to move away from working in private practices toward working for hospitals or medical groups (Merritt Hawkins 2014, Physicians Advocacy Institute 2016). Physicians working for hospitals may be more inclined to perform procedures at the hospitals that employ them than at freestanding ASCs.

#### **Maintaining or expanding access to ASCs**

Maintaining beneficiaries' access to ASCs is beneficial because services provided in this setting are less costly to Medicare and beneficiaries than services delivered in HOPDs.<sup>11</sup> Medicare payment rates for surgical services performed in HOPDs are almost twice as high as the same surgical services provided in ASCs. For example, the payment rate in 2018 for cataract surgery with intraocular lens insertion (the service most frequently provided in ASCs) is \$992 in ASCs compared with \$1,921 in HOPDs. The lower payment rate in ASCs for this service has been financially beneficial to Medicare and beneficiaries. Other recent studies similarly find that ASCs are less costly than HOPDs in the Medicare and non-Medicare context



**TABLE  
5-6**

**The 20 most frequently provided ASC services in 2016 were similar to those provided in 2011**

Surgical service	2011		2016	
	Percent of volume	Rank	Percent of volume	Rank
Cataract surgery w/ IOL insert, 1 stage	18.7%	1	18.7%	1
Upper GI endoscopy, biopsy	8.8	2	8.2	2
Colonoscopy and biopsy	6.3	3	6.8	3
Lesion removal colonoscopy (snare technique)	4.9	4	5.8	4
Inject foramen epidural: lumbar, sacral	4.5	5	4.7	5
Diagnostic colonoscopy	4.3	6	4.4	6
After cataract laser surgery	3.9	7	3.2	7
Injection spine: lumbar, sacral (caudal)	3.9	8	2.1	9
Inject paravertebral: lumbar, sacral	2.5	9	3.2	8
Colorectal screen, high-risk individual	2.0	10	2.0	10
Colorectal screen, not high-risk individual	1.6	11	1.9	11
Cataract surgery, complex	1.5	12	1.5	12
Upper GI endoscopy, diagnosis	1.3	13	1.0	15
Cystoscopy	1.2	14	1.0	17
Lesion removal colonoscopy (hot biopsy forceps)	1.2	15	0.7	22
Revision of upper eyelid	1.0	16	0.9	18
Inject spine, cervical or thoracic	1.0	17	1.0	14
Injection procedure for sacroiliac joint, anesthetic	1.0	18	1.3	13
Upper GI endoscopy, insertion of guide wire	0.8	19	0.8	19
Injection procedure for paravertebral joint, cervical or thoracic	0.8	20	1.0	16
Total	71.2		70.2	

Note: ASC (ambulatory surgical center), IOL (intraocular lens), GI (gastrointestinal).

Source: MedPAC analysis of physician/supplier standard analytic files, 2011 and 2016.

and that the recent price growth at ASCs has been slower than price growth at HOPDs (Carey 2015, Robinson et al. 2015). In 2016, we estimate that beneficiaries' cost sharing was about \$580 million lower for the surgical services they received in ASCs relative to what their cost sharing would have been if those services had been provided in HOPDs.

Medicare program spending and overall beneficiary cost sharing could be reduced if more surgical services were provided in ASCs than HOPDs or if HOPD payment rates were reduced to the level that Medicare sets for ASCs. This issue is pertinent to the ASC sector because among even the most frequently provided services in ASCs, a substantial volume is provided in HOPDs. For example, 443,000 Medicare-covered cataract surgeries with intraocular lens insertion occurred in HOPDs in 2016, which was 27 percent of the total volume for this service.

Concern remains, however, about services provided in ASCs rather than HOPDs because most ASCs have some degree of physician ownership. Studies offer some evidence that physicians who have an ownership stake in an ASC perform a higher volume of certain procedures than physicians who do not (Hollingsworth et al. 2010, Mitchell 2010, Strobe et al. 2009a). Other studies suggest that the presence of an ASC in a market is associated with a higher volume of outpatient surgical procedures (Hollenbeck et al. 2014, Hollingsworth et al. 2011, Koenig and Gu 2013). The most recent study may be the most convincing because it is based on a nationwide sample of Medicare beneficiaries and includes all surgical procedures (Hollenbeck et al. 2014). This study found that introducing ASCs into service areas that previously

**TABLE  
5-7****Quality measures used by CMS in the ASC Quality Reporting Program**

Description of quality measure	First year measure used for payment determination and status
ASC-1: Patient burn	2014
ASC-2: Patient fall	2014
ASC-3: Wrong site, wrong side, wrong patient, wrong procedure, wrong implant	2014
ASC-4: Hospital transfer/admission	2014
ASC-5: Prophylactic intravenous antibiotic timing	2014 (discontinued 2018)
ASC-6: Safe-surgery checklist use	2015 (discontinued 2018)
ASC-7: ASC facility volume data on selected ASC surgical procedures	2015 (discontinued 2018)
ASC-8: Influenza vaccination coverage among health care personnel	2016
ASC-9: Endoscopy/polyp surveillance: Appropriate follow-up interval for normal colonoscopy in average-risk patients	2016
ASC-10: Endoscopy/polyp surveillance: Colonoscopy interval for patients with a history of adenomatous polyps—avoid inappropriate use	2016
ASC-11: Cataracts: Improvement in patient's visual function within 90 days following cataract surgery	Voluntary
ASC-12: Facility seven-day risk standardized hospital visit rate after outpatient colonoscopy	2018
ASC-13: Normothermia outcome: Percentage of patients under anesthesia who are normothermic within 15 minutes of arrival in the post-anesthesia care unit	2020
ASC-14: Unplanned anterior vitrectomy: Percentage of cataract surgery patients who have an unplanned removal of the vitreous	2020
ASC-15: Five patient experience measures from the Consumer Assessment of Healthcare Providers and Systems® survey measures:	
ASC-15a: About facilities and staff	
ASC-15b: Communication about procedure	
ASC-15c: Preparation for discharge and recovery	
ASC-15d: Overall rating of facility	
ASC-15e: Recommendation of facility	Delayed
ASC-16: Toxic anterior segment syndrome (TASS)	Delayed
ASC-17: Hospital visits after orthopedic ASC procedures	2022
ASC-18: Hospital visits after urology ASC procedures	2022

Note: ASC (ambulatory surgical center). ASC-16: Toxic anterior segment syndrome (TASS) has not been finalized by CMS through the regulatory process.

Source: Final rule for outpatient prospective payment system and ambulatory surgical center payment system, 2018.

did not have any resulted in a larger rate of increase in surgical procedures than in areas that already had at least one ASC or did not have any (but could have had HOPDs and doctor's offices as places for ambulatory surgeries). However, this study found a smaller effect of ASCs on

surgical volume than did the earlier studies. Although none of these studies assessed the appropriateness of the additional procedures, they suggest that the presence of ASCs might increase overall surgical volume.

**TABLE  
5-8**

**ASC quality measure levels, 2013-2015**

ASC quality measure	Mean percent among ASCs			Estimated number of events in 2015*
	2013	2014	2015	
ASC-1: Share of patients suffering burns	0.36%	0.43%	0.49%	23,500
ASC-2: Share of patients suffering falls	0.18	0.10	0.14	6,700
ASC-3: Share of patients suffering a "wrong" event	0.07	0.03	0.03	1,400
ASC-4: Share of patients transferred to a hospital	0.51	0.45	0.42	20,200
ASC-5: Share of patients receiving prophylactic intravenous antibiotics at appropriate time	95	96	95	
ASC-6: Share of ASCs using the safe-surgery checklist		99	100	
ASC-8: Share of ASC staff receiving a flu shot		74	75	
ASC-9: Share of average risk patients with appropriate endoscopy/polyp surveillance		77	80	
ASC-10: Share of patients with polyp history with appropriate endoscopy/polyp surveillance		79	79	
ASC-11: Share of patients with vision improvement 90 days after cataract surgery			97	

Note: ASC (ambulatory surgery center).

\*The number of events was estimated using the average reported rate of occurrence and the total number of ASC claims in 2015 (4.8 million). The estimated number of events is not calculated for measures that do not pertain to adverse events.

Source: Medicare Hospital Compare data for ASCs, 2013-2015.

## Quality of care: Quality data demonstrate improvement, but CMS should implement additional measures

ASC-reported quality data show improvement, but opportunities for continued improvement remain both in terms of ASC performance and the measures used by CMS. CMS established the ASC Quality Reporting (ASCQR) Program in 2012 (Centers for Medicare & Medicaid Services 2011). Under this relatively new system, ASCs that do not successfully submit quality data have their payment update reduced by 2 percentage points. Performance on these quality measures does not affect an ASC's payments; ASCs are required only to submit the data to receive a full update. The Commission has recommended a value-based purchasing program for ASCs that would reward high-performing providers (see text box, p. 140).

The quality measures for which ASCs submit data continue to evolve. For 2018, CMS requires ASCs to submit data for eight measures, and an additional measure is voluntary (Table 5-7). For payment determination beginning in 2022, CMS has two claims-based measures (ASC-17 and ASC-18) of beneficiaries' visits to a

hospital subsequent to an ASC orthopedic or urology procedure, respectively. CMS has discontinued three measures in 2018 (ASC-5, ASC-6, and ASC-7) that are "topped out" (meaning full or nearly full compliance with these measures has been reached) and have shown less utility. CMS has delayed the implementation of two other ASC measures (ASC-15 and ASC-16).

## Results from reported ASC quality data

The first three years of ASC-reported quality data show modest increases in performance, but also identify opportunities for potential improvement. Among the 10 quality measures for which data were available in calendar year 2015, performance among the ASCs that reported data appears strong for 7 measures. For the four measures related to adverse events (ASC-1, ASC-2, ASC-3, and ASC-4), the data show consistently low levels of adverse events in each of the three years for which data are available (Table 5-8). In addition to the generally low levels of adverse events reported by ASCs, the data indicate that the share of ASCs reporting zero events for each of these measures has increased over time. For example, the share of ASCs without any patient

## Creating a value-based purchasing program for ambulatory surgical centers

In 2012, the Commission recommended that the Congress authorize and CMS implement a value-based purchasing (VBP) program for ambulatory surgical centers (ASCs). A VBP program would reward high-performing providers (Medicare Payment Advisory Commission 2012).<sup>12</sup>

CMS established a quality reporting program for ASCs in 2012. However, Medicare payments to ASCs are not adjusted based on how ASCs perform on quality measures, only on whether they report the measures. The Commission believes that high-performing ASCs should be rewarded through the payment system.

Consistent with the Commission's overall position on Medicare quality measurement, an ASC VBP program should incorporate measures that are patient oriented, encourage coordination across providers and time, and promote change in the delivery system. The ASC VBP should include outcomes, patient experience, and value measures (a value measure would address services that are costly but of low value). Also, quality measurement should not be burdensome for providers. ASCs can choose to use more granular measures to manage their own quality improvement.

An ASC VBP program should give rewards based on clear, absolute, and prospectively set performance targets (as opposed to “tournament models,” in which providers are scored relative to one another rather than on their absolute performance). The Medicare program should take into account, as necessary, differences in a provider's population, including social risk factors. Because adjusting results for social risk factors can mask disparities in clinical performance, Medicare should account for social risk factors by directly adjusting payment through peer grouping, where benchmarks for achievement are group specific and each provider is compared to its peers, defined as providers that have similar patient populations in terms of social risk factors. In addition, funding for VBP incentive payments should come from existing Medicare spending for ASC services. Initially, funding for the incentive payments should be set at 1 percent to 2 percent of aggregate ASC payments. The size of this pool should be expanded gradually as more measures are developed and ASCs become more familiar with the program. (Our March 2016 report to the Congress provides more detail about our recommendation to CMS about an ASC VBP program (Medicare Payment Advisory Commission 2016)). ■

burns increased from 88 percent to 92 percent from 2013 to 2015, and the share of ASCs without any patient falls increased from 91 percent to 93 percent (data not shown).

Measures of the share of patients receiving on-time antibiotic treatment and the share of ASCs using the safe-surgery checklist (ASC-5 and ASC-6) showed such high compliance levels that CMS discontinued their use beginning in 2018. However, three of the measures (ASC-8, ASC-9, and ASC-10) indicate that ASCs' performance could be improved. For example, ASCs on average indicated that only 75 percent of their staff had flu shots in 2015. Finally, a measure new for 2015, the share of patients with vision improvement after cataract surgery (ASC-11) showed very good results, raising the question of whether this measure was topped out upon introduction.

### ASC reporting and quality measures should continue to be refined

CMS made improvements to the ASCQR Program for 2018, but the Commission believes CMS should continue to improve this reporting program and move toward more CMS-calculated claims-based outcome measures that apply to all ASCs. The Commission commends CMS on deciding to discontinue three process measures in 2018 and adding the two claims-based unplanned hospitalization measures for 2022. However, the Commission has two concerns about the ASCQR Program.

- The relatively high share of missing data adds uncertainty to the interpretation of the data. For example, in 2015, 6 percent of ASCs had missing data for the 4 wrong-event measures, 20 percent had missing data for the flu vaccine measure, and roughly

**TABLE  
5-9****Share of ASC cases with subsequent hospital visits, 2014 and 2016****Subsequent hospital visit within 7 days of discharge from ASC**

Type of ASC	2014		2016	
	Number of ASC cases with subsequent hospital visit	Share of all ASC cases	Number of ASC cases with subsequent hospital visit	Share of all ASC cases
All ASCs	96,740	2.0%	99,021	2.0%
Multispecialty	41,242	2.4	43,047	2.5
Single specialty	55,498	1.8	55,979	1.8
Ophthalmology	16,827	1.2	17,528	1.2
Gastroenterology	25,333	2.1	24,196	2.0
Pain management	7,316	2.4	7,670	2.4
Urology	4,416	4.0	4,841	4.1
Cardiology	259	7.9	372	8.1

Note: ASC (ambulatory surgical center). "Subsequent hospital visit" includes inpatient admissions, observation services, and emergency department visits, but excludes cases related to trauma or mental health services. To determine the number of cases in each row, divide the number of subsequent hospital visits by the share of all ASC cases.

Source: MedPAC analysis of Medicare physician, hospital outpatient, and hospital inpatient claims.

90 percent of ASCs specializing in ophthalmology had missing data for the measure of improvement in patient's visual function within 90 days following cataract surgery.<sup>13</sup> The Commission believes all reported quality data should be publicly available.

- The ASCQR Program does not include enough measures assessing claims-based clinical outcomes that apply to either all ASCs or all of the various specialties for which ASCs submit Medicare claims. For example, among the measures slated for implementation by 2022, six apply to all ASCs (ASC-1, ASC-2, ASC-3, ASC-4, ASC-8, ASC-13). Seven other measures apply to certain ASC specialties (e.g., gastroenterology, ophthalmology, orthopedics, or urology). CMS has not included specialty-specific quality measures that apply to common ASC specialties such as pain management, dermatology, podiatry, cardiology, and several other specialties (Table 5-4, p. 135).

### Hospital visits following discharge from the ASC

Because of the concerns cited above and the potential value of clinical outcome measures that apply to all ASCs, we believe new ASC quality measures should be developed that apply either to all ASCs or to all the common ASC specialties. We have identified two measures that might

allow for better assessment of the quality of care provided in ASCs. The first of these measures is the number of Medicare beneficiaries discharged from ASCs who had a subsequent unplanned hospital visit. We developed a version of this measure by estimating the rate of subsequent hospital visits for the 5.1 million ASC claims in 2016. Although our measure is not risk adjusted, it should be if it were used in the ASCQR Program. We found that in 2016, 2.0 percent (about 99,000 claims) of ASC claims indicated that the patient had a subsequent hospital visit within 7 days after discharge from an ASC (Table 5-9).<sup>14</sup> Across all ASCs, the share of patients with a subsequent hospital visit within seven days did not change from 2014 to 2016. However, the share of subsequent unplanned hospital visits increased slightly during this period for multispecialty ASCs (from 2.4 percent in 2014 to 2.5 percent in 2016), urology ASCs (4.0 percent to 4.1 percent, respectively), and cardiology ASCs (7.9 percent to 8.1 percent, respectively).

The second outcome measure CMS could consider for the ASCQR Program is the rate of surgical site infections (SSIs) occurring at ASCs. CMS could calculate this measure from claims, rather than require ASCs to report. Researchers have found that lapses in infection control were common among a sample of ASCs in three



**TABLE  
5-10****Medicare payments to ASCs grew, 2011–2016**

	2011	2012	2013	2014	2015	2016
Medicare payments (in billions of dollars)	\$3.4	\$3.6	\$3.7	\$3.8	\$4.1	\$4.3
Medicare payments per FFS beneficiary	\$106	\$110	\$113	\$116	\$122	\$126
Percent change per FFS beneficiary from previous year	2.0%	4.2%	2.1%	3.1%	5.2%	3.5%

Note: ASC (ambulatory surgical center), FFS (fee-for-service). “Medicare payments” includes program spending and beneficiary cost sharing for ASC facility services. Payments include spending for new technology intraocular lenses.

Source: MedPAC analysis of data from the Office of the Actuary at CMS and data from physician/supplier standard analytic files.

states (Schaefer et al. 2010). The Hospital Inpatient Quality Reporting Program includes an SSI measure that applies primarily to inpatient procedures. Although CMS has considered an SSI measure for ASCs in the past, it is not currently working to develop one (Centers for Medicare & Medicaid Services 2016, Centers for Medicare & Medicaid Services 2011). In general, an SSI measure could be used to track infection rates for ASCs and identify quality improvement opportunities for ambulatory surgeries conducted in HOPDs and ASCs. In addition, measuring SSI rates could encourage providers to collaborate and better coordinate care for ambulatory surgery patients.

### **Providers’ access to capital: Growth in number of ASCs suggests adequate access**

Owners of ASCs require capital to establish new facilities and upgrade existing ones. The change in the number of ASCs is the best available indicator of ASCs’ ability to obtain capital. The number of ASCs increased in 2016 by 1.4 percent, a rate consistent with the previous four years (Table 5-1, p. 131). However, Medicare accounts for a small share—perhaps 20 percent—of ASCs’ overall revenue, so factors other than Medicare payments may have a larger effect on access to capital for this sector (Medical Group Management Association 2009).

Financial data suggest the industry is growing and profitable. In December 2016, the AmSurg Corporation—which owned and operated the largest number of ASCs in the country—was acquired by Envision Healthcare, which now operates 263 ASCs. A merger of this magnitude requires substantial capital assets. Moreover, in the first six months of 2017, Envision Healthcare had \$576 million in acquisition and capital expenditures, including \$33 million

to acquire controlling interest in four ASCs and \$91 million for new or replacement property. In January 2017, Surgical Care Associates—which owned approximately 200 ASCs in 33 states—was acquired by UnitedHealth Group’s Optum for \$2.3 billion. This acquisition is part of a larger stated effort by the insurer to provide primary care and ambulatory services (Mathews 2017). In addition, large hospital corporations such as Hospital Corporation of America, Tenet Healthcare, and Community Health Systems all stated in 2017 financial reports that they have acquired ASCs or partnered with entities that own ASCs to increase their revenues (Community Health Systems 2017, Morningstar Document Research 2017a, Morningstar Document Research 2017b). Although they represent a small share of total ASCs, hospital-owned facilities appear to be a growing segment of the industry.

Strong financial positions of this magnitude suggest that ASCs are attractive to investors. Securities and Exchange Commission filings from Surgery Partners Inc. (operator of 98 ASCs) indicate revenues in their surgical facility services increased from the first six months of 2016 to the first six months of 2017 by nearly 20 percent (Surgery Partners Inc. 2017). Also, data from the Pennsylvania Health Care Cost Containment Council’s annual analysis of the state’s ASCs show that ASCs in Pennsylvania had an average total margin of 25 percent in 2016 (Pennsylvania Health Care Cost Containment Council 2017).<sup>15</sup>

Although Envision Healthcare, Surgery Partners Inc., and Surgical Care Associates appear to have adequate access to capital, we caution that these companies have ownership in a small share of the more than 5,000 ASCs. Consequently, the experience of these three companies may not represent the entire ASC sector.



## Medicare payments: Payments have steadily increased

In 2016, ASCs received \$4.3 billion in Medicare payments and beneficiaries' cost sharing (Table 5-10). We estimate that spending by the Medicare program was \$3.4 billion and beneficiary cost sharing was \$850 million (data not shown).

Spending per FFS beneficiary increased by an average annual rate of 3.6 percent from 2011 through 2015 and by 3.5 percent in 2016 (Table 5-10). The increase in payments per capita in 2016 reflects a 0.3 percent increase in the ASC conversion factor, a 0.5 percent decrease in per capita volume, a 3.2 percent increase in the average relative weight of ASC services, and a 0.5 percentage point increase from higher use of separately payable drugs. Despite the small update to the conversion factor in 2016 and a decline in volume per beneficiary, spending per FFS beneficiary in 2016 increased at a rate that was similar to the previous four years, indicating that the increase in average relative weights in 2016 was large relative to changes in previous years. This result may have been driven by increased volume for high-cost procedures such as implantation of spinal neurostimulators, which may have resulted in lower volume for relatively low-cost injections for pain management.

---

## How should Medicare payments change in 2019?

---

Our analysis indicates that the number of ASCs has increased, beneficiaries' use of ASCs has been stable, and access to capital has been adequate. In addition, we have identified areas for improvement in ASC quality measurement. Our information for assessing payment adequacy, however, is limited because Medicare does not require ASCs to submit cost data, unlike other types of facilities.

Cost data would enable the Commission to examine the growth of ASCs' costs over time and analyze Medicare payments relative to the costs of efficient providers, which would help inform decisions about the ASC update. Cost data are also needed to examine whether an alternative input price index would be an appropriate proxy for ASC costs. As discussed in the text box on the ASC market basket (p. 145), the Commission has previously expressed concern that the price index CMS uses to update ASC

payments (the CPI-U) likely does not reflect ASCs' cost structure (Medicare Payment Advisory Commission 2010b). CMS has also concluded that it needs data on ASC input costs (Centers for Medicare & Medicaid Services 2012). To date, however, CMS has not required ASCs to submit cost data. However, CMS requested public comment on whether the agency should collect cost data from ASCs for use in determining ASC payment rates. ASC representatives commented that they oppose a requirement for ASCs to submit formal cost reports, but expressed willingness to complete surveys if doing so is not administratively burdensome (Centers for Medicare & Medicaid Services 2017).

We believe it is feasible for ASCs to provide cost information. All other facility providers provide cost data to CMS. Even though ASCs are generally small facilities that may have limited resources for collecting cost data, such businesses typically keep records of their costs for filing taxes and other purposes, and other facility providers that are typically small, such as home health agencies and hospices, furnish cost data to CMS. Moreover, a Pennsylvania state agency is able to collect the cost and revenue data from ASCs in Pennsylvania and is able to estimate the margins for those ASCs. The cost and revenue data are for all ASC patients, not just those that are Medicare beneficiaries (Pennsylvania Health Care Cost Containment Council 2017).

To minimize the burden on CMS and ASCs, CMS should create a streamlined process for ASCs to track and submit a limited amount of cost data. As it did in 1986 and 1994, CMS could annually conduct a survey of a random sample of ASCs, with mandatory response. The Government Accountability Office conducted a similar random sample survey of ASC costs in 2004. CMS could also streamline ASC cost reporting by annually collecting a set of cost variables from all ASCs that is more limited than what is collected through formal cost reports, which would require less time for ASCs to complete. Alternatively, CMS could require ASCs to submit cost data from their existing cost accounting systems, provided the definitions of their reported cost variables are consistent with CMS's definitions. The Commission does not believe that a streamlined cost-collection process would place a large burden on ASCs. After all, individual taxpayers are able to complete and submit lengthy income tax forms. Therefore, the Commission sees no reason why ASCs cannot submit at least minimal cost data.

For the Commission to determine the relationship between Medicare payments and the costs of efficient ASCs, ASCs would optimally submit the following information:

- total costs for the facility;
- Medicare unallowable costs, such as entertainment, promotion, and bad debt;
- the costs of clinical staff who bill Medicare separately, such as anesthesiologists and clinical nurse anesthetists (these costs would be excluded from the facility's costs because these clinicians are paid separately under Medicare);
- total charges across all payers and charges for Medicare patients (CMS could allocate total facility costs to Medicare based on Medicare's proportion of total charges); and
- total Medicare payments.

In addition, CMS would need to collect data on specific cost categories to determine an appropriate input price index for ASCs. For example, CMS would need data on the share of ASCs' costs related to employee compensation, medical supplies, medical equipment, building expenses, and other professional expenses (such as legal, accounting, and billing services). CMS could use this information to examine the cost structure of ASCs and determine whether an existing Medicare price index is an appropriate proxy for ASC costs or an ASC-specific market basket should be developed.

CMS increased the ASC conversion factor by 1.4 percent in 2015, 0.3 percent in 2016, 1.9 percent in 2017, and 1.2 percent in 2018. The update for 2018 is based on a projected 1.7 percent increase in the CPI-U minus a 0.5 percent reduction for multifactor productivity growth, as mandated by the Patient Protection and Affordable Care Act of 2010 (PPACA).<sup>16</sup>

## Recommendations

In recommending an update to the ASC conversion factor for 2019, the Commission balanced the following objectives:

- maintain beneficiaries' access to ASC services;
- pay providers adequately;
- hold down the burden on the beneficiaries and taxpayers who finance Medicare;

- maintain the sustainability of the Medicare program by appropriately restraining spending on ASC services;
- keep providers under financial pressure to constrain costs; and
- require ASCs to submit cost data.

In balancing these goals, the Commission concludes that the ASC update for 2019 should be eliminated and that the Secretary should collect cost data from ASCs.

### RECOMMENDATION 5 - 1

**The Congress should eliminate the calendar year 2019 update to the Medicare payment rates for ambulatory surgical centers.**

### RECOMMENDATION 5 - 2

**The Secretary should require ambulatory surgical centers to report cost data.**

### RATIONALE 5 - 1 AND 5 - 2

On the basis of our payment adequacy indicators and the importance of maintaining financial pressure on providers to constrain costs, we believe that ASC payment rates should not be increased for 2019. That is, the 2019 base payment rate under the ASC payment system should be the same as the base rate in 2018. The indicators of payment adequacy for which we have information are stable: The volume of services per beneficiary declined slightly in 2016, the complexity of services provided increased, and the number of ASCs increased. Also, ASCs appear to have adequate access to capital, and Medicare payments to ASCs have continued to grow. Moreover, even though we do not have cost data and we have reservations about the quality data, the indicators we have suggest that payments have been adequate.

For many years, we have stated that it is vital that ASCs submit cost data to CMS without further delay. Cost data would enable CMS and the Commission to examine the growth of ASCs' costs over time and evaluate Medicare payments relative to the costs of an efficient provider, which would help inform decisions about the ASC payment update. Cost data are also needed to evaluate whether an alternative input price index would be an appropriate proxy for ASC costs.

The Commission asserts that collecting cost data is a reasonable requirement for ASCs. CMS collects cost data

## Revisiting the ambulatory surgical center market basket

CMS uses the consumer price index for all urban consumers (CPI-U) as the market basket to update ambulatory surgical center (ASC) payment rates. Because of our concern that the CPI-U likely does not reflect ASCs' cost structure, the Commission examined in 2010 whether an alternative market basket index would better measure changes in ASCs' input costs (Medicare Payment Advisory Commission 2010b). Using data from a Government Accountability Office (GAO) survey of ASC costs in 2004, we compared the distribution of ASC costs with the distribution of hospital and physician practice costs. We found that ASCs' cost structure is different from that of hospitals and physician offices. ASCs have a much higher share of expenses for medical supplies and drugs than the other two settings, a much smaller share of employee compensation costs than hospitals, and a smaller share of all other costs (such as rent and capital costs) than physician offices. For more detail about our methods and findings, see Chapter 2C of our March 2010 report to the Congress (Medicare Payment Advisory Commission 2010b).

Since our 2010 analysis, CMS has considered whether the hospital market basket or the practice expense component of the Medicare Economic Index (MEI) is a

better proxy for ASC costs than the CPI-U (Centers for Medicare & Medicaid Services 2012).

The ASC cost data from GAO used in our comparative analysis are 14 years old and do not contain information on several types of costs. Therefore, the Commission has recommended several times that the Congress require ASCs to submit new cost data to CMS (Medicare Payment Advisory Commission 2015, Medicare Payment Advisory Commission 2014, Medicare Payment Advisory Commission 2013b, Medicare Payment Advisory Commission 2012, Medicare Payment Advisory Commission 2011b, Medicare Payment Advisory Commission 2010b). In each of the last five years, the Commission recommended eliminating the update to the ASC payment rates, meaning the ASC payment rates would not change from the previous year. CMS should use cost data to examine whether an existing Medicare price index is an appropriate proxy for ASC costs or an ASC-specific market basket should be developed. A new ASC market basket could include the same types of costs that appear in the hospital market basket or MEI but with different cost weights that reflect ASCs' unique cost structure. ■

from all other institutional providers participating in the Medicare program. To date, the ASC industry has asserted that ASCs are small operations that lack the capacity and accounting expertise to enable them to complete cost reports. However, some of the sectors from which CMS collects cost data are predominantly small providers. Moreover, individual taxpayers are able to complete income tax forms of considerable length. Therefore, any ASC should be able to compile and submit a minimum set of cost data. Also, while the majority of the ASC industry consists of freestanding facilities, more corporate interests, such as hospital corporations and other large health care entities, have entered the ASC industry in recent years and have the capacity and expertise to complete cost reports. In light of the industry's concern, CMS could limit the

scope of the cost reporting system in order to minimize administrative burden on ASCs and the program. In addition, to implement this change, CMS should make cost reporting a condition of ASC participation in the Medicare program.

### IMPLICATIONS 5-1 AND 5-2

#### Spending

- The Secretary has the authority to select an update mechanism for ASC payment rates and has decided to use the CPI-U as the basis for updating payments (Centers for Medicare & Medicaid Services 2007). PPACA requires that the update factor be reduced by a multifactor productivity measure. The currently

projected CPI-U increase for 2019 is 2.1 percent, and the forecast of productivity growth for 2019 is 0.8 percent, resulting in a projected update of 1.3 percent to the base payment rates for 2019. Relative to current Medicare law, our recommendation would decrease federal spending by less than \$50 million in the first year and by less than \$1 billion over five years.

#### **Beneficiary and provider**

- Because of the growth in the number of ASCs and the increase in ASCs' revenue from Medicare, we do

not anticipate that this recommendation will diminish beneficiaries' access to ASC services or providers' willingness or ability to provide those services.

- ASCs may incur some minimal administrative costs to track and submit cost data, but we believe cost accounting is standard practice in the ASC industry, and ASCs should be able to draw cost data from that source. ■

## Endnotes

---

- 1 Because CMS updates payment rates in the OPPS and the PFS independently of each other, it is possible for the ASC payment rate for an office-based procedure to be based on the OPPS rate in one year and the PFS rate the next year or vice versa.
- 2 CMS stated that responders said that they currently bill on a UB-04 for commercial payers and would benefit from a consistent claim form across payers, especially for Medicare crossover claims.
- 3 GAO surveyed a random sample of 600 ASCs to obtain cost data from 2004. They received reliable cost data from 290 facilities.
- 4 Because some states (such as Georgia, Idaho, and Maryland) have a disproportionately high number of ASCs per beneficiary, we weighted beneficiaries such that the share in each state who received care in ASCs matched the national percentage. This process prevented idiosyncrasies in states that have high concentrations of ASCs from biasing the results. The analysis excluded beneficiaries who received services that Medicare does not cover in ASCs.
- 5 These data are based on 273 ASCs and 169 hospitals.
- 6 Strobe and colleagues measured areas' socioeconomic status using household income; value of owner-occupied housing; percent of households with dividend or rental income; educational attainment; and percent of residents employed in managerial, professional, and related occupations.
- 7 The study by Suskind and colleagues also found that ASCs are more likely to enter a market that did not previously have an ASC if the outpatient procedures in that market are concentrated among a relatively small number of providers, which implies relatively low competition in that market.
- 8 Whether a state has certificate-of-need (CON) laws for ASCs appears to affect the number of ASCs in the state. Twenty-seven states and the District of Columbia have CON laws for ASCs. Nine of the 10 states with the fewest ASCs per capita have a CON law in place, while only 4 of the 10 states that have the most ASCs per capita have CON laws. Among these four states, Maryland and Georgia have exceptions in their CON requirements that make it easier to establish new ASCs.
- 9 We define *single-specialty* ASCs as those with more than 67 percent of their Medicare claims in one clinical specialty. We define *multispecialty* ASCs as those with more than 67 percent of their Medicare claims in more than one clinical specialty.
- 10 By statute, coinsurance for a service paid under the OPPS cannot exceed the hospital inpatient deductible (\$1,340 in 2018). The ASC payment system does not have the same limitation on coinsurance; for a few services, the ASC coinsurance exceeds the inpatient deductible. In these instances, the ASC coinsurance exceeds the OPPS coinsurance.
- 11 Having services provided in ASCs rather than HOPDs is less costly to beneficiaries despite the ASC cost sharing being higher than HOPD cost sharing for some services. Cost sharing is higher under the ASC payment system for only 84 of 3,456 HCPCS codes that are covered under the ASC payment system.
- 12 The Commission also described its principles for a VBP program for ASCs in a letter to the Congress commenting on the Secretary's report to the Congress on a VBP program for ASCs (Medicare Payment Advisory Commission 2011a).
- 13 ASCQR measure ASC-11 assesses the improvement in a patient's visual function within 90 days following cataract surgery. This measure is voluntary for ASCs, but less than 10 percent of the roughly 1,200 ASCs specializing in ophthalmology voluntarily reported data for this measure. In addition to the voluntary nature of this measure, reporting may also be low for this measure because ASCs with fewer than 240 Medicare cases per year are not required to report their quality data.
- 14 Subsequent hospital visits include emergency department services, outpatient observation services, and inpatient services.
- 15 The margins for ASCs have important differences from the margins in other sectors such as hospitals. In particular, the cost data used to determine margins for most ASCs do not include compensation for physician owners or the taxes paid on that compensation.
- 16 Unlike update factors for other providers, such as the hospital market basket, the CPI-U is an output price index that already accounts for productivity changes (Centers for Medicare & Medicaid Services 2012). Nevertheless, CMS is mandated to subtract multifactor productivity growth from the ASC update factor.



## References

---

- Ambulatory Surgery Center Association. 2012. Letter from William Prentice, Chief Executive Officer, to Marilyn Tavenner, Acting Administrator of the Centers for Medicare & Medicaid Services, regarding CMS–1589–P: Medicare program; proposed changes to the ambulatory surgical center payment system and CY 2013 payment rates. September 4.
- Ambulatory Surgery Center Association. 2011. Benefits of physician ownership. <http://www.ascassociation.org/advancingsurgicalcare/whatisanasc/benefitsofphysicianownership>.
- Berenson, R. A., P. B. Ginsburg, J. B. Christianson, et al. 2012. The growing power of some providers to win steep payment increases from insurers suggests policy remedies may be needed. *Health Affairs* 31, no. 5 (May): 973–981.
- Carey, K. 2015. Price increases were much lower in ambulatory surgery centers than hospital outpatient departments in 2007–12. *Health Affairs* 34, no. 10 (October 1): 1738–1744.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. Medicare program: Hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs. Final rule. *Federal Register* 82, no. 217 (November 13): 52356–52637.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. Medicare program: Hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs; organ procurement organization reporting and communication; transplant outcome measures and documentation requirements; electronic health record (EHR) incentive programs; payment to nonexcepted off-campus provider-based department of a hospital; hospital value-based purchasing (VBP) program; establishment of payment rates under the Medicare physician fee schedule for nonexcepted items and services furnished by an off-campus provider-based department of a hospital. Final rule. *Federal Register* 81, no. 219 (November 14): 79562–79892.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015. The characteristics and perceptions of the Medicare population: Data from the 2013 Medicare Current Beneficiary Survey. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Data-Tables-Items/2013CNP.html?DLPage=1&DLEntries=10&DLSort=0&DLSortDir=descending>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2012. Medicare and Medicaid programs: Hospital outpatient prospective payment and ambulatory surgical center payment systems and quality reporting programs; electronic reporting pilot; inpatient rehabilitation facilities quality reporting program; revision to quality improvement organization regulations. Final rule. *Federal Register* 77, no. 221 (November 15): 68210–68565.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2011. Medicare and Medicaid programs: Hospital outpatient prospective payment; ambulatory surgical center payment; hospital value-based purchasing program; physician self-referral; and patient notification requirements in provider agreements. Final rule. *Federal Register* 76, no. 230 (November 30): 74122–74584.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2007. Medicare program; revised payment system policies for services furnished in ambulatory surgical centers (ASCs) beginning in CY 2008. Final rule. *Federal Register* 72, no. 148 (August 2): 42469–42626.
- Community Health Systems. 2017. Form 10–K annual report to the Securities and Exchange Commission. February 26.
- Gabel, J. R., C. Fahlman, R. Kang, et al. 2008. Where do I send thee? Does physician-ownership affect referral patterns to ambulatory surgery centers? *Health Affairs* 27, no. 3 (May–June): w165–174.
- Government Accountability Office. 2006. *Medicare: Payment for ambulatory surgical centers should be based on the hospital outpatient payment system*. Washington, DC: GAO.
- Hair, B., P. Hussey, and B. Wynn. 2012. A comparison of ambulatory perioperative times in hospitals and freestanding centers. *American Journal of Surgery* 204, no. 1 (July): 23–27.
- Hirst, E. J. 2010. Northwestern Memorial opening new outpatient center. *Chicago Tribune*, October 13.
- Hollenbeck, B. K., R. L. Dunn, A. M. Suskind, et al. 2014. Ambulatory surgery centers and outpatient procedure use among Medicare beneficiaries. *Medical Care* 52, no. 10 (October): 926–931.
- Hollingsworth, J. M., S. L. Krein, Z. Ye, et al. 2011. Opening of ambulatory surgery centers and procedure use in elderly patients: Data from Florida. *Archives of Surgery* 146, no. 2 (February): 187–193.



- Hollingsworth, J. M., Z. Ye, S. A. Strobe, et al. 2010. Physician-ownership of ambulatory surgery centers linked to higher volume of surgeries. *Health Affairs* 29, no. 4 (April): 683–689.
- Jacobson, G. 2014. Tenet CEO Trevor Fetter sees big growth in outpatient centers. *Dallas Morning News*, November 4.
- Kochman, B. 2014. Montefiore Medical Center opens 12-story bedless outpatient center in the Bronx. *New York Daily News*, November 10.
- Koenig, L., and Q. Gu. 2013. Growth of ambulatory surgical centers, surgery volume, and savings to Medicare. *American Journal of Gastroenterology* 108: 10–15.
- Levingston, C. 2014. Premier Health buys Middletown surgery center. *Journal-News*, September 18.
- Mathews, A. W. 2017. UnitedHealth's Optum to acquire Surgical Care Affiliates for \$2.3 billion. *Wall Street Journal*, January 9.
- Mathews, A. W. 2012. Same doctor visit, double the cost: Insurers say rates can surge after hospitals buy private physician practices; Medicare spending rises, too. *Wall Street Journal*, August 27.
- Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2011a. MedPAC comment letter on the Department of Health and Human Services' *Report to the Congress: Medicare Ambulatory Surgical Center Value-Based Purchasing Implementation Plan*, August 30.
- Medicare Payment Advisory Commission. 2011b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2010a. *Report to the Congress: Aligning incentives in Medicare*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2010b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medical Group Management Association. 2009. *Ambulatory surgery center performance survey: 2009 report based on 2008 data*. Washington, DC: MGMA.
- Merritt Hawkins. 2014. *Survey of 20,000 U.S. physicians: 80% of doctors are over-extended or at full-capacity*. Dallas, TX: Merritt Hawkins. [http://www.merrithawkins.com/uploadedFiles/MerrittHawkins/Clients/2014\\_Physicians\\_Foundation\\_Merritt\\_Hawkins\\_Release%282%29.pdf](http://www.merrithawkins.com/uploadedFiles/MerrittHawkins/Clients/2014_Physicians_Foundation_Merritt_Hawkins_Release%282%29.pdf).
- Mitchell, J. M. 2010. Effect of physician ownership of specialty hospitals and ambulatory surgery centers on frequency of use of outpatient orthopedic surgery. *Archives of Surgery* 145, no. 8 (August): 732–738.
- Moody, E. 2014. Beaufort Memorial Hospital becomes full owner of Surgery Center of Beaufort. *The State*, December 2.
- Morningstar Document Research. 2017a. HCA Holdings, for 10–K. February 22.
- Morningstar Document Research. 2017b. Tenet Healthcare Corporation, for 10–K. February 27.
- Munnich, E. L., and S. T. Parente. 2014. Procedures take less time at ambulatory surgery centers, keeping costs down and ability to meet demand up. *Health Affairs* 33, no. 5 (May): 764–769.
- North Carolina Department of Health and Human Services. 2011. Declaratory ruling to Wayne Memorial Hospital, Inc., and Wayne Ambulatory Surgery Center, LLC. November 29. <http://www.ncdhhs.gov/dhsr/declrule/2011/20111129Wayne.pdf>.
- Pennsylvania Health Care Cost Containment Council. 2017. *Financial analysis 2016. Volume two, ambulatory surgery centers*. Harrisburg, PA: PHC4.
- Physicians Advocacy Institute. 2016. Physician practice acquisition study: National and regional employment changes. <http://www.physiciansadvocacyinstitute.org/Portals/0/assets/docs/PAI-Physician-Employment-Study.pdf>.
- Robinson, J. C., T. Brown, and C. Whaley. 2015. Reference-based benefit design changes consumers' choices and employers' payments for ambulatory surgery. *Health Affairs* 34, no. 3 (March 1): 415–422.
- Schaefer, M. K., M. Jhung, M. Dahl, et al. 2010. Infection control assessment of ambulatory surgical centers. *Journal of the American Medical Association* 303, no. 22 (June 9): 2273–2279.

Sowa, T. 2014. Providence Medical Center in Spokane Valley nearly ready for patients. *The Spokesman-Review*, April 12.

State of Connecticut, Department of Public Health, Office of Health Care Access. 2011. Notice of final decision for an application for a certificate of need filed by Hartford Hospital & Constitution Eye Surgery Center, LLC. Change of ownership and control of Constitution Eye Surgery Center, LLC to Hartford Hospital. January 20.

Strope, S. A., S. Daignault, J. M. Hollingsworth, et al. 2009a. Physician ownership of ambulatory surgery centers and practice patterns for urological surgery: Evidence from the state of Florida. *Medical Care* 47, no. 4 (April): 403–410.

Strope, S. A., A. Sarma, Z. Ye, et al. 2009b. Disparities in the use of ambulatory surgical centers: A cross sectional study. *BMC Health Services Research* 9: 121.

Surgery Partners Inc. 2017. Quarterly report (Form 10–Q), period ended June 30. Filing submitted to the Securities and Exchange Commission.

Suskind, A. M., Y. Zhang, R. L. Dunn, et al. 2015. Understanding the diffusion of ambulatory surgery centers. *Surgical Innovation* 22, no. 3 (June): 257–265.

Trentman, T. L., J. T. Mueller, R. J. Gray, et al. 2010. Outpatient surgery performed in an ambulatory surgery center versus a hospital: Comparison of perioperative time intervals. *American Journal of Surgery* 200, no. 1 (July): 64–67.

C H A P T E R

# 6

---

## **Outpatient dialysis services**

---

## R E C O M M E N D A T I O N

- 6** For 2019, the Congress should update the calendar year 2018 Medicare end-stage renal disease prospective payment system base rate by the amount determined under current law.

**COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1**

# Outpatient dialysis services

## Chapter summary

Outpatient dialysis services are used to treat the majority of individuals with end-stage renal disease (ESRD). In 2016, more than 390,000 beneficiaries with ESRD on dialysis were covered under fee-for-service (FFS) Medicare and received dialysis from more than 6,700 dialysis facilities. Since 2011, Medicare has paid for outpatient dialysis services using a prospective payment system (PPS) that is based on a bundle of services. The bundle includes certain dialysis drugs and ESRD-related clinical laboratory tests that were previously paid separately. In 2016, Medicare expenditures for outpatient dialysis services were \$11.4 billion, a 2 percent increase compared with 2015 expenditures.

## Assessment of payment adequacy

Our payment adequacy indicators for outpatient dialysis services are generally positive.

**Beneficiaries' access to care**—Measures of the capacity and supply of providers, beneficiaries' ability to obtain care, and changes in the volume of services suggest payments are adequate.

- **Capacity and supply of providers**—Dialysis facilities appear to have the capacity to meet demand. Between 2015 and 2016, growth in the number

## In this chapter

- Are Medicare payments adequate in 2018?  
.....
- How should Medicare payments change in 2019?  
.....

of dialysis treatment stations grew faster than growth in the number of FFS dialysis beneficiaries.

- ***Volume of services***—Between 2015 and 2016, the number of FFS dialysis beneficiaries grew by 1 percent, while the total number of treatments grew by 3 percent. At the same time, dialysis drug use (including erythropoiesis-stimulating agents (ESAs), which are used in anemia management) continued to decline, but at a slower rate than during the initial years of the dialysis PPS (2011 and 2012). The dialysis PPS created an incentive for providers to be more judicious about their provision of dialysis drugs.

***Quality of care***—We looked at changes in quality indicators between 2011, when the outpatient dialysis PPS was implemented, and 2016. There was a declining trend in unadjusted mortality, hospitalization, and 30-day readmission rates, though emergency department use increased. With regard to anemia management, negative cardiovascular outcomes associated with high ESA use declined, and blood transfusion use, which initially increased under the PPS, has trended down since 2013. Between 2011 and 2016, beneficiaries’ use of home dialysis, which is associated with improved patient satisfaction and quality of life, increased from 9 percent to 11 percent of dialysis beneficiaries. Since 2014, a shortage of dialysis solutions needed for the predominant home method, peritoneal dialysis, has slowed this modality’s growth.

***Providers’ access to capital***—Information from investment analysts suggests that access to capital for dialysis providers continues to be adequate. The number of facilities, particularly for-profit facilities, continues to increase. Since 2011, the two largest dialysis organizations have grown through acquisitions and mergers with mid-sized dialysis organizations and other providers, including physician services organizations.

***Medicare payments and providers’ costs***—Our analysis of Medicare payments and costs is based on 2015 and 2016 claims and cost report data submitted to CMS by freestanding dialysis facilities. During this period, cost per treatment decreased by 0.7 percent, while Medicare payment per treatment decreased by about 0.6 percent. We estimate that the aggregate Medicare margin was 0.5 percent in 2016, and the rate of marginal profit—that is, the rate at which Medicare payments exceed providers’ marginal costs—was 17.2 percent. The 2018 aggregate Medicare margin is projected at 0.4 percent, approximately the same as the 2016 Medicare margin. The Commission’s recommendation is that, for 2019, the Congress should update the 2018 dialysis PPS base rate by the amount determined under current law. ■



## Dialysis treatment choices

**D**ialysis replaces the filtering function of the kidneys when they fail. The two types of dialysis—hemodialysis and peritoneal dialysis (PD)—remove waste products from the bloodstream differently. For each of these two dialysis types, patients may select various protocols.

Most dialysis patients travel to a treatment facility to undergo hemodialysis three times per week, although patients can also undergo hemodialysis at home. Hemodialysis uses an artificial membrane encased in a dialyzer to filter the patient's blood. Because of recent clinical findings, there is increased interest in more frequent hemodialysis, administered five or more times per week while the patient sleeps, and short (two to three hours per treatment) daily dialysis administered during the day. Research also has increased interest in the use of “every-other-day” hemodialysis; reducing the two-day gap in thrice-weekly hemodialysis could be linked to improved outcomes (Foley et al. 2011).

PD, the most common form of home dialysis, uses the lining of the abdomen (peritoneum) as a filter to clear wastes and extra fluid and is usually performed

independently in the patient's home or workplace five to seven days a week. During treatments, a cleansing fluid (dialysate) is infused into the patient's abdomen through a catheter. This infusion process (an exchange) is done either manually (continuous ambulatory peritoneal dialysis) or using a machine (automated peritoneal dialysis).

Each dialysis method has advantages and disadvantages—no one method is best for everyone. As we discuss later in this chapter, people choose a particular dialysis method for many reasons, including quality of life, patients' awareness of different treatment methods and personal preferences, and physician training and recommendations. The use of home dialysis has grown since 2009, a trend that has continued under the dialysis prospective payment system. Some patients switch methods when their conditions or needs change. Although most patients still undergo in-center dialysis, home dialysis remains a viable option for many patients because of advantages such as increased patient satisfaction, better health-related quality of life, and fewer transportation challenges compared with in-center dialysis. ■

## Background

End-stage renal disease (ESRD) is the last stage of chronic kidney disease and is characterized by permanent irreversible kidney failure. Patients with ESRD include those who are treated with dialysis—a process that removes wastes and fluid from the body—and those who have a functioning kidney transplant. Because of the limited number of kidneys available for transplantation and the variation in patients' suitability for transplantation, about 70 percent of ESRD patients undergo maintenance dialysis (see text box on dialysis treatment choices). Patients receive additional items and services related to their dialysis treatments, including dialysis drugs to treat conditions such as anemia and bone disease resulting from the loss of kidney function.<sup>1</sup>

In 2016, about 392,000 ESRD beneficiaries on dialysis were covered under fee-for-service (FFS) Medicare and

received dialysis from nearly 6,750 dialysis facilities.<sup>2</sup> Since 2011, Medicare has been paying facilities using a prospective payment system (PPS) payment bundle that includes dialysis drugs (for which facilities previously received separate payments) and services for which other Medicare providers (such as clinical laboratories) previously received separate payments. In 2016, Medicare Part B expenditures for outpatient dialysis services included in the payment bundle were \$11.4 billion. In addition, Part D payments for dialysis drugs—a calcimimetic and multiple phosphate binders—that are not yet included in the PPS payment bundle totaled nearly \$2.0 billion in 2015 (the most recent data available).

## Characteristics of fee-for-service dialysis beneficiaries, 2016

Although Medicare generally does not provide disease-specific entitlement, the 1972 amendments to the Social Security Act extended Medicare benefits to people with

**TABLE  
6-1****FFS dialysis beneficiaries are disproportionately younger, male, and African American compared with all Medicare FFS beneficiaries, 2016**

	Percent of FFS:	
	Dialysis beneficiaries	All beneficiaries
Age		
Under 45 years	11%	4%
45–64 years	38	13
65–74 years	27	49
75–84 years	18	23
85+ years	6	12
Sex		
Male	56	47
Female	44	53
Race		
White	48	81
African American	36	10
All others	17	9
Residence, by type of county		
Urban	84	80
Micropolitan	10	11
Rural, adjacent to urban	5	5
Rural, not adjacent to urban	2	3
Frontier	1	1

Note: FFS (fee-for-service). Beneficiary location reflects the beneficiary's county of residence in one of four categories (urban, micropolitan, rural adjacent to urban, and rural nonadjacent to urban) based on an aggregation of the urban influence codes. Frontier counties have six or fewer people per square mile. Totals may not sum to 100 percent due to rounding.

Source: Data compiled by MedPAC from enrollment data and claims submitted by dialysis facilities to CMS.

ESRD, including those under age 65. To qualify for the ESRD program, an individual must be fully or currently insured under the Social Security or Railroad Retirement program, entitled to benefits (i.e., meets the required work credits) under the Social Security or Railroad Retirement program, or be the spouse or dependent child of an eligible beneficiary.

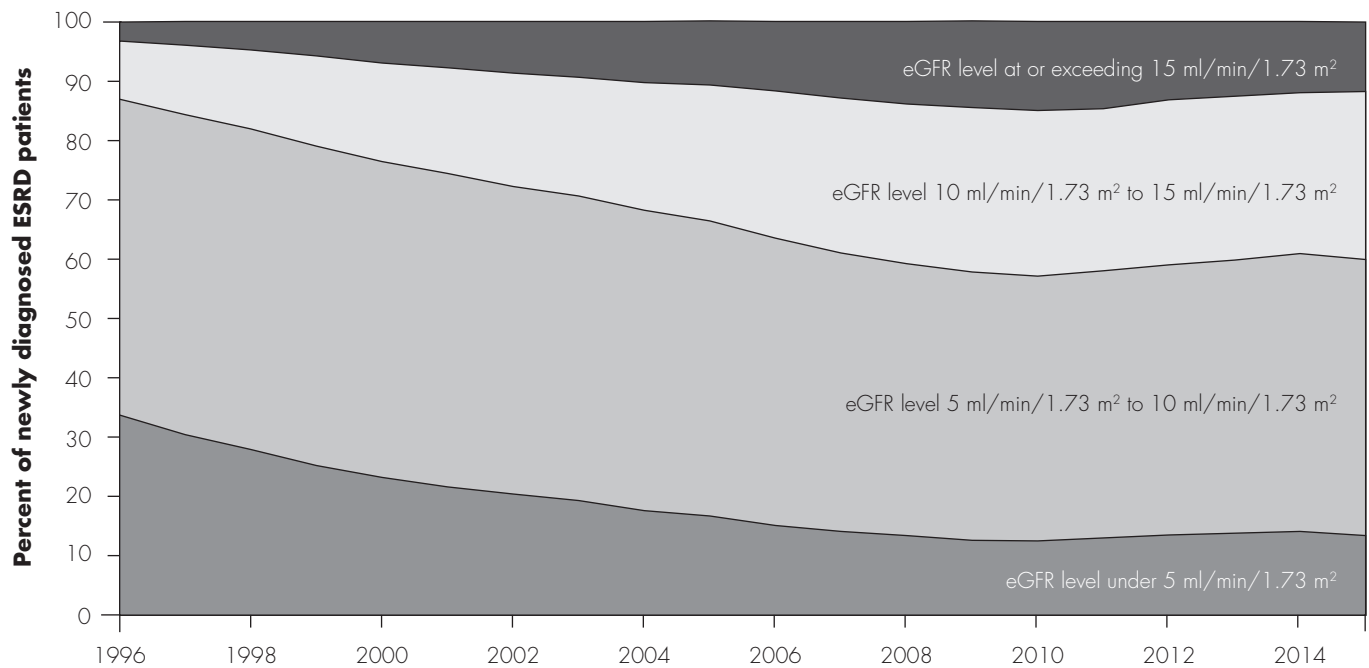
Most dialysis beneficiaries have FFS coverage. The statute prohibits enrollment of individuals with ESRD in

Medicare Advantage (MA) plans. However, beneficiaries who were enrolled in a managed care plan before an ESRD diagnosis can remain in the plan after they are diagnosed. In addition, Medicare permits the enrollment in MA of ESRD beneficiaries with a functioning kidney transplant. In 2016, about 18 percent of ESRD beneficiaries were enrolled in MA plans; by comparison, just over 30 percent of all Medicare beneficiaries were enrolled in MA plans. In 2000, the Commission recommended that the Congress lift the prohibition on ESRD beneficiaries enrolling in MA (Medicare Payment Advisory Commission 2000). The 21st Century Cures Act lifts the prohibition on ESRD beneficiaries enrolling in MA beginning in 2021.

In 2016, most (about 90 percent) FFS dialysis beneficiaries were enrolled in Part D or had other sources of creditable drug coverage. In 2016, 70 percent of FFS dialysis beneficiaries with Part D coverage received the low-income subsidy, and about 10 percent of FFS dialysis beneficiaries in 2016 had either no Part D coverage or coverage less generous than Part D's standard benefit.

Compared with all Medicare FFS beneficiaries, FFS dialysis beneficiaries are disproportionately young, male, and African American (Table 6-1). In 2016, 76 percent of FFS dialysis beneficiaries were less than 75 years old, 56 percent were male, and 36 percent were African American. By comparison, of all FFS Medicare beneficiaries, 66 percent were less than 75 years old, 47 percent were male, and 10 percent were African American. A greater share of dialysis beneficiaries resided in urban areas compared with all FFS beneficiaries (84 percent vs. 80 percent, respectively). FFS dialysis beneficiaries were more likely to be dually eligible for Medicaid and Medicare, compared with all Medicare FFS beneficiaries (48 percent vs. 18 percent, respectively; data not shown).

Between 2005 and 2015 (most recent data available), the adjusted rate (or incidence) of new ESRD cases (which includes patients who initiate dialysis or receive a kidney transplant and have any type of health insurance) decreased by 1 percent per year, from 393 per million people to 362 per million people (United States Renal Data System 2017).<sup>3</sup> Since peaking in 2006, the adjusted rate declined or remained the same across all races and ethnicities (White, African American, Asian American, Native American, and Hispanic) and all age groups (United States Renal Data System 2017).<sup>4</sup> In 2016, we estimate that approximately 83,000 FFS dialysis

**FIGURE  
6-1****Dialysis has been initiated with higher levels of residual kidney function since 1996**

Note: eGFR (estimated glomerular filtration rate). "Higher levels of residual kidney function" refers to patients with an eGFR (a measure of residual kidney function) above 10 milliliters per minute per 1.73 square meters. (Lower values of this measure suggest reduced residual kidney function.) Population includes only newly diagnosed patients with CMS Form 2728.

Source: MedPAC analysis of Medicare's medical evidence form (Form 2728) submitted by dialysis providers to CMS.

beneficiaries were new to dialysis, and nearly half (45 percent) were under age 65 and thus entitled to Medicare based on ESRD (with or without disability).<sup>5</sup>

**Trend in starting dialysis earlier in the course of chronic kidney disease**

Data from the mid-1990s through 2010 suggest a trend toward initiating dialysis earlier in the course of chronic kidney disease (CKD). The proportion of new dialysis patients with higher levels of residual kidney function steadily increased between 1996 and 2010, from 13 percent to 44 percent (Figure 6-1). Higher levels of residual kidney function refers to patients with an estimated glomerular filtration (eGFR) rate (a measure of residual kidney function) above 10 milliliters per minute per 1.73 square meters (lower values of this measure suggest comparatively less residual kidney function). While the share of patients initiating dialysis earlier in the

course of CKD has decreased modestly (to 40 percent) between 2011 and 2015, the share remains three times higher than in 1996. Researchers have questioned this early initiation of dialysis in those with late-stage CKD, concluding that it is not associated with improved survival or clinical outcomes (Cooper et al. 2010, Evans et al. 2011, Kazmi et al. 2005, Stel et al. 2009, Traynor et al. 2002). For example, Cooper and researchers found that survival is similar between patients for whom dialysis is initiated early (with an eGFR equal to 10.0 to 14.0 ml per minute) and those for whom dialysis is electively delayed (with an eGFR equal to 5.0 to 7.0 ml per minute) and conclude that dialysis can be delayed for some patients until the eGFR drops below 7.0 ml per minute or until more traditional clinical indicators for the initiation of dialysis are present (Cooper et al. 2010). In the spring of 2018, the Commission intends to further explore clinical and nonclinical factors important to the optimal timing of dialysis initiation.

**TABLE  
6-2****Payment adjustment factors for the dialysis PPS**

Payment adjuster	Value of payment adjuster
Age	
18–44 years	1.257
45–59 years	1.068
60–69 years	1.070
70–79 years	1.000
80+ years	1.109
Body surface area (per 0.1 m <sup>2</sup> )	1.032
Underweight (body mass index < 18.5 kg/m <sup>2</sup> )	1.017
Time since onset of dialysis (< 4 months)	1.327
Comorbidities	
Pericarditis	1.040
Gastrointestinal tract bleeding	1.082
Hereditary hemolytic/sickle cell anemia	1.192
Myelodysplastic syndrome	1.095
Facility low-volume status	1.239
Facility rural status	1.008

Note: PPS (prospective payment system). Payment adjustment factors are for ages 18 and older. The base payment rate is also adjusted for local input prices on a facility-level basis.

Source: Centers for Medicare & Medicaid Services 2015.

Better primary care management of the risk factors for CKD—particularly hypertension and diabetes, which together are the primary cause of roughly 7 of 10 new ESRD cases—can help prevent or delay the illness’s onset (United States Renal Data System 2017). For example, private payers are testing interventions in which primary care practitioners identify persons with early stages of CKD and implement interventions that are intended to prevent or slow its progression. The Commission has long argued that primary care services are undervalued in Medicare’s fee schedule and has made recommendations to support primary care, which in turn could support better management of kidney disease risk factors.

### **Since 2011, Medicare pays for dialysis services under the dialysis PPS**

To treat ESRD, dialysis beneficiaries receive care from two principal providers: (1) the clinicians (typically nephrologists) who prescribe and manage the provision of dialysis and establish the beneficiary’s plan of care and (2) facilities that provide dialysis treatments in a dialysis center or that support and supervise the care of

beneficiaries on home dialysis. Medicare uses different methods to pay for ESRD clinician and facility services. Clinicians receive a monthly capitated payment established in the Part B physician fee schedule for outpatient dialysis-related management services, which varies based on the number of visits per month, the beneficiary’s age, and whether the beneficiary receives dialysis in a facility or at home. While our work in this report focuses on Medicare’s payments to facilities, it is important to recognize that facilities and clinicians collaborate to care for dialysis beneficiaries. One acknowledgment of the need for collaboration is Medicare’s Comprehensive ESRD Care Initiative, a shared savings program that began in 2015, involving facilities and nephrologists.

To improve provider efficiency, in 2011, Medicare began a PPS for outpatient dialysis services that expanded the prospective payment bundle to include dialysis drugs, laboratory tests, and other ESRD items and services that were previously billable separately. In addition, effective in 2012, outpatient dialysis payments are linked to the quality of care that dialysis facilities provide. These

## Significant changes to the outpatient dialysis PPS

Since its implementation in 2011, the dialysis prospective payment system (PPS) has undergone two significant changes. First, effective 2014, the base payment rate was rebased to account for the decline in dialysis drug use under the dialysis PPS. CMS set the 2014 base payment at \$239.02, based on statutory and regulatory changes. The Commission's March 2014 report to the Congress provides more information about the rebasing of the dialysis base payment rate (available at [http://medpac.gov/docs/default-source/reports/mar14\\_ch06.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/reports/mar14_ch06.pdf?sfvrsn=0)).

Second, beginning in 2016, CMS uses recalibrated and redefined patient-level and facility-level payment adjustments to calculate each patient's adjusted

payment per treatment. These adjusters are applied to the base payment rate to account for factors that may affect treatment costs. More information about these payment changes can be found in the Commission's March 2016 report to the Congress (available at <http://medpac.gov/docs/default-source/reports/chapter-6-outpatient-dialysis-services-march-2016-report.pdf?sfvrsn=0>). The Commission's methodological concerns about these patient-level and facility-level refinements can be found in our comment letter to CMS (available at <http://medpac.gov/docs/default-source/comment-letters/medpac-comment-on-cms-s-proposed-rule-on-the-end-stage-renal-disease-prospective-payment-system-and-.pdf?sfvrsn=0>). ■

changes, mandated by the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA), were based on the Commission's recommendation to modernize the outpatient dialysis payment system (Medicare Payment Advisory Commission 2001). We contended that Medicare could provide incentives for the efficient delivery of quality care by broadening the then-current payment bundle (to include commonly furnished drugs and services that providers formerly billed separately) and by linking payment to quality. The PPS is designed to create incentives for facilities to provide services more efficiently by reducing previous incentives inherent in the former payment method to overuse drugs.

Under the outpatient dialysis PPS, the unit of payment is a single dialysis treatment. For adult dialysis beneficiaries (18 years or older), the base payment rate does not differ by type of dialysis (i.e., hemodialysis versus peritoneal dialysis).<sup>6</sup> Table 6-2 shows the PPS payment adjusters: patient-level characteristics (age, body measurement characteristics, onset of dialysis, and selected acute and chronic comorbidities) and facility-level factors (low treatment volume, rural location, and local input prices) applied to the base payment rate in 2017. Medicare pays facilities furnishing dialysis treatments in the facility or in a patient's home for up to three treatments per week, unless there is documented medical necessity for

additional treatments, which includes medical justification in the medical record. In addition, the ESRD Quality Incentive Program held facilities responsible for the quality of care they provide; in 2017, the program used eight clinical measures and three reporting measures. Up to 2 percent of a facility's payment is linked to these quality measures. The Commission's *Payment Basics* provides more information about Medicare's method of paying for outpatient dialysis services (available at [http://www.medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_17\\_dialysis\\_finald8a311adfa9c665e80adff00009edf9c.pdf?sfvrsn=0](http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_17_dialysis_finald8a311adfa9c665e80adff00009edf9c.pdf?sfvrsn=0)).

Since it was implemented in 2011, the outpatient dialysis PPS has undergone two significant changes—rebased of the base payment rate in 2014 and recalibrating and redefining the payment adjusters in 2016. A text box on the dialysis PPS summarizes these changes.

---

### Are Medicare payments adequate in 2018?

---

To address whether payments for 2018 are adequate to cover the costs that efficient providers incur and how much providers' costs should change in the update year (2019),



**TABLE  
6-3****Increasing number and capacity of freestanding, for-profit, and large dialysis organizations**

	2016				Average annual percent change			
	Total number of FFS treatments (in millions)	Total number of facilities	Total number of stations	Mean number of stations	Number of facilities		Number of stations	
					2011–2015	2015–2016	2011–2015	2015–2016
All	46.4	6,745	117,200	17	3%	4%	3%	3%
<b>Percent of total</b>								
Freestanding	94%	94%	95%	18	4	5	4	4
Hospital based	6	6	5	14	–6	–1	–6	–3
Urban	86	82	85	18	4	5	3	4
Micropolitan	10	11	10	16	1	2	2	2
Rural, adjacent to urban	3	5	4	13	2	2	2	2
Rural, not adjacent to urban	1	3	2	11	2	4	3	3
Frontier	0.2	0.5	0.3	10	2	0	2	0
For profit	90	88	88	17	4	5	4	4
Nonprofit	10	12	12	17	–2	–0.4	–2	–1
Two largest dialysis organizations	75	72	73	18	6	5	5	4
All others	25	28	27	17	–2	2	–2	2

Note: FFS (fee-for-service). Provider location reflects the provider's county of residence in one of four categories (urban, micropolitan, rural adjacent to urban, and rural nonadjacent to urban) based on an aggregation of the urban influence codes. Frontier counties have six or fewer people per square mile. Totals may not sum to 100 percent due to rounding.

Source: Compiled by MedPAC from the Dialysis Compare database from CMS and claims submitted by dialysis facilities to CMS.

we examine several indicators of payment adequacy. We assess beneficiaries' access to care by examining the capacity of dialysis facilities and changes over time in the volume of services provided. We also examine quality of care, providers' access to capital, and the relationship between Medicare's payments and facilities' costs. Most of our payment adequacy indicators for dialysis services are positive:

- Provider capacity is sufficient.
- Some quality measures show improvement, while others suggest additional potential for improvement.
- Provider access to capital is sufficient.

- The 2016 Medicare outpatient dialysis margin is estimated at 0.5 percent, and the rate of marginal profit is 17.2 percent.

### **Beneficiaries' access to care: Indicators continue to be favorable**

Our analysis of access indicators—including the capacity of providers to meet beneficiary demand and changes in the volume of services—shows that beneficiaries' access to care remains favorable.

### **Capacity has kept pace with patient demand**

Growth in the number of dialysis facilities and treatment stations alongside growth in dialysis beneficiaries



suggests that between 2011 and 2015, provider capacity kept up with demand for care. During that period, the number of facilities increased annually by 3 percent; facilities' capacity to provide care—as measured by dialysis treatment stations—also grew 3 percent annually (Table 6-3). Between 2011 and 2015, the number of FFS dialysis beneficiaries grew 2 percent annually (data not shown). In the same period, capacity at facilities that were freestanding and for profit each grew by 4 percent annually while capacity at facilities that were hospital based and nonprofit decreased annually (–6 percent and –2 percent, respectively). Between 2011 and 2015, capacity at urban facilities grew at 3 percent per year while capacity at rural facilities (data not shown) grew at 2 percent per year. Total dialysis capacity between 2015 and 2016 grew at rates similar to rates in 2011 to 2015.

### **Providers of outpatient dialysis services**

In 2016, there were roughly 6,750 dialysis facilities in the United States that furnished about 46.4 million treatments to FFS beneficiaries. Medicare FFS accounted for nearly 65 percent of all treatments furnished in 2016.<sup>7</sup> According to CMS facility survey data, since the late 1980s, for-profit, freestanding facilities have provided the majority of dialysis treatments. In 2016, freestanding facilities furnished 94 percent of FFS treatments, and for-profit facilities furnished about 90 percent (Table 6-3). In 2016, the capacity of facilities located in urban and rural areas was generally consistent with where FFS dialysis beneficiaries lived.

Two large dialysis organizations (LDOs) dominate the dialysis industry. In 2016, these two LDOs accounted for about 72 percent of all facilities and 75 percent of all Medicare treatments. In addition to operating most dialysis facilities, the two LDOs are each vertically integrated. Both organizations operate an ESRD-related laboratory, a pharmacy, and one or more centers that provide vascular access services; they provide ESRD-related disease management services; and they operate dialysis facilities internationally. Both organizations have, in recent years, acquired physician and hospital groups. One LDO manufactures and distributes renal-related pharmaceutical products (e.g., phosphate binders), is the leading supplier of dialysis products (such as hemodialysis machines and dialyzers) to other dialysis companies, and operates a Phase I–IV drug and device clinical development company that focuses on the clinical development of new renal therapies.

### **Type of facilities that closed and their effect on beneficiaries' access to care**

Each year, we assess the type of facilities that closed and whether certain groups of Medicare dialysis beneficiaries are disproportionately affected by facility closures. Using facilities' claims submitted to CMS and CMS's Dialysis Compare database and Provider of Service file, we compared the characteristics of beneficiaries treated by facilities that closed in 2015 with the beneficiaries of facilities that provided dialysis in 2015 and 2016, the most current years for which complete data are available.

Between 2015 and 2016, the number of dialysis treatment stations—a measure of providers' capacity—increased by 3 percent. There was a net increase in the number of facilities that were freestanding, for profit, and located in both urban and rural areas. Compared with facilities that treated beneficiaries in both years, facilities that closed in 2015 (about 40 facilities) were more likely to be hospital based, nonprofit, and smaller (as measured by the number of dialysis treatment stations), which is consistent with long-term trends in supply of dialysis providers (Table 6-3).

According to our analysis, few dialysis beneficiaries (roughly 2,000 individuals) were affected by facility closures in 2015. Our analysis found that beneficiary groups who were disproportionately affected included beneficiaries who were White and older. These findings are consistent with last year's analysis that compared the characteristics of beneficiaries treated by facilities that closed in 2014 with the beneficiaries of facilities that provided dialysis in 2014 and 2015 (Medicare Payment Advisory Commission 2017).

### **Volume of services**

To assess changes in the volume of dialysis services, we examined recent trends in the number of dialysis treatments provided to beneficiaries and in the use of injectable drugs administered during dialysis.

#### **Trends in number of dialysis treatments provided**

Between 2015 and 2016, the annual growth of total dialysis treatments (3 percent) was greater than the annual growth of FFS dialysis beneficiaries (1 percent), and the non-annualized number of dialysis treatments per beneficiary increased from 116 treatments to 118 treatments (Table 6-4, p. 162).<sup>8</sup> This one-year change is consistent with the most recent five-year trend in the average annual growth of total treatments (3 percent per year) and beneficiaries (2 percent per year), and reverses

**TABLE  
6-4****Annual growth in the number of FFS beneficiaries and treatments, 2011–2016**

	2011	2012	2013	2014	2015	2016
Percent annual growth in the number of beneficiaries	2%	2%	2%	2%	1%	1%
Percent annual growth in the number of total treatments	3	3	2	2	0.4	3
Number of non-annualized treatments per beneficiary	115	117	117	117	116	118

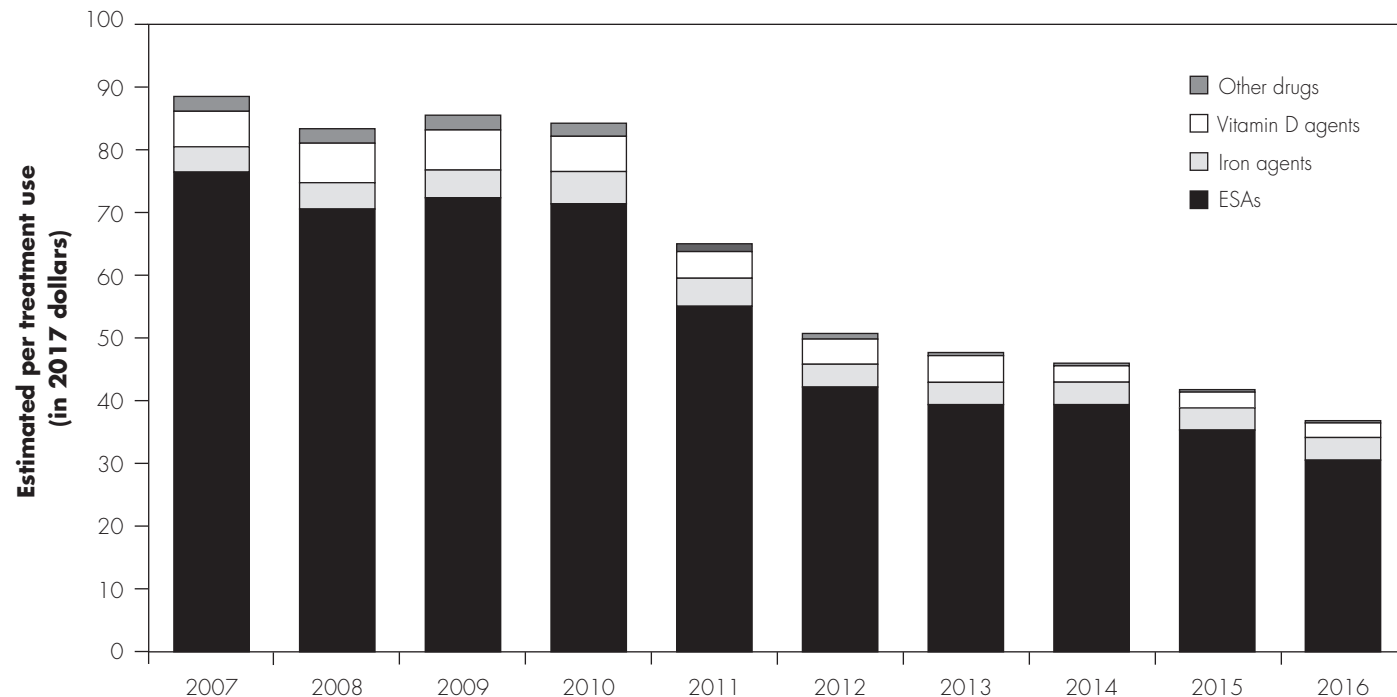
Note: FFS (fee-for-service). The growth rates reported reflect the percentage change between that year and the prior year.

Source: MedPAC analysis of Medicare claims submitted by dialysis facilities to CMS.

the change between 2014 and 2015, in which treatment growth was less than the annual growth in beneficiaries.

**Use of most dialysis drugs has declined under the outpatient dialysis PPS** Because CMS based the bundled payment rate in the dialysis PPS on a per treatment basis and 2007 use data, we examined changes between 2007

and 2016 (the most current year for which complete data are available) in the use per treatment of the leading dialysis drugs and aggregated them into four therapeutic classes—erythropoiesis-stimulating agents (ESAs), iron agents, vitamin D agents, and antibiotics.<sup>9</sup> The dialysis PPS increased the incentive for providers to be more

**FIGURE  
6-2****Use of dialysis drugs has declined under the PPS**

Note: PPS (prospective payment system), ESA (erythropoietin-stimulating agent). Dollars per treatment are calculated by multiplying drug units reported on claims by the 2017 average sales price. Drugs included are epoetin alfa, epoetin beta, darbepoetin (ESAs); iron sucrose, sodium ferric gluconate, ferumoxytol, ferric carboxymaltose (iron agents); calcitriol, doxercalciferol, paricalcitol (vitamin D agents); daptomycin, vancomycin, alteplase, levocarnitine (all other drugs).

Source: MedPAC analysis of 100 percent claims submitted by dialysis facilities to CMS.

**TABLE  
6-5****Use of dialysis drugs per treatment has declined under the outpatient dialysis PPS**

Dialysis drug	Mean units per treatment*			Aggregate percent change	
	2010	2015	2016	2010-2015	2015-2016
ESAs					
Epoetin alfa	5,214	2,197	1,383	-58%	-37%
Darbepoetin alfa	1.26	1.36	2.14	8	58
Epoetin beta**	N/A	1.35	3.02	N/A	124
Iron agents					
Sodium ferric gluconate	0.15	0.12	0.13	-21	9
Iron sucrose	16.0	12.8	13.0	-20	2
Ferumoxylol	0.8	0.009	0.009	-99	4
Ferric carboxymaltose	N/A	0.0003	0.0003	N/A	24
Vitamin D agents					
Paricalcitol	2.3	0.3	0.3	-86	1
Doxercalciferol	0.9	1.7	1.5	95	-12
Calcitriol	0.13	0.05	0.03	-65	-37
Antibiotics					
Daptomycin	0.22	0.13	0.11	-40	-11
Vancomycin	0.02	0.01	0.02	-38	8
Other drugs					
Levocarnitine	0.010	0.002	0.001	-80	-26
Alteplase	0.020	0.003	0.002	-87	-3

Note: PPS (prospective payment system), ESA (erythropoiesis-stimulating agent), N/A (not available). Individual units per treatment are rounded; the aggregate percentage change is calculated using unrounded units per treatment.

\*Each drug is reported using its own drug units.

\*\*Epoetin beta was introduced to the U.S. market in 2015.

Source: MedPAC analysis of claims submitted by dialysis facilities to CMS.

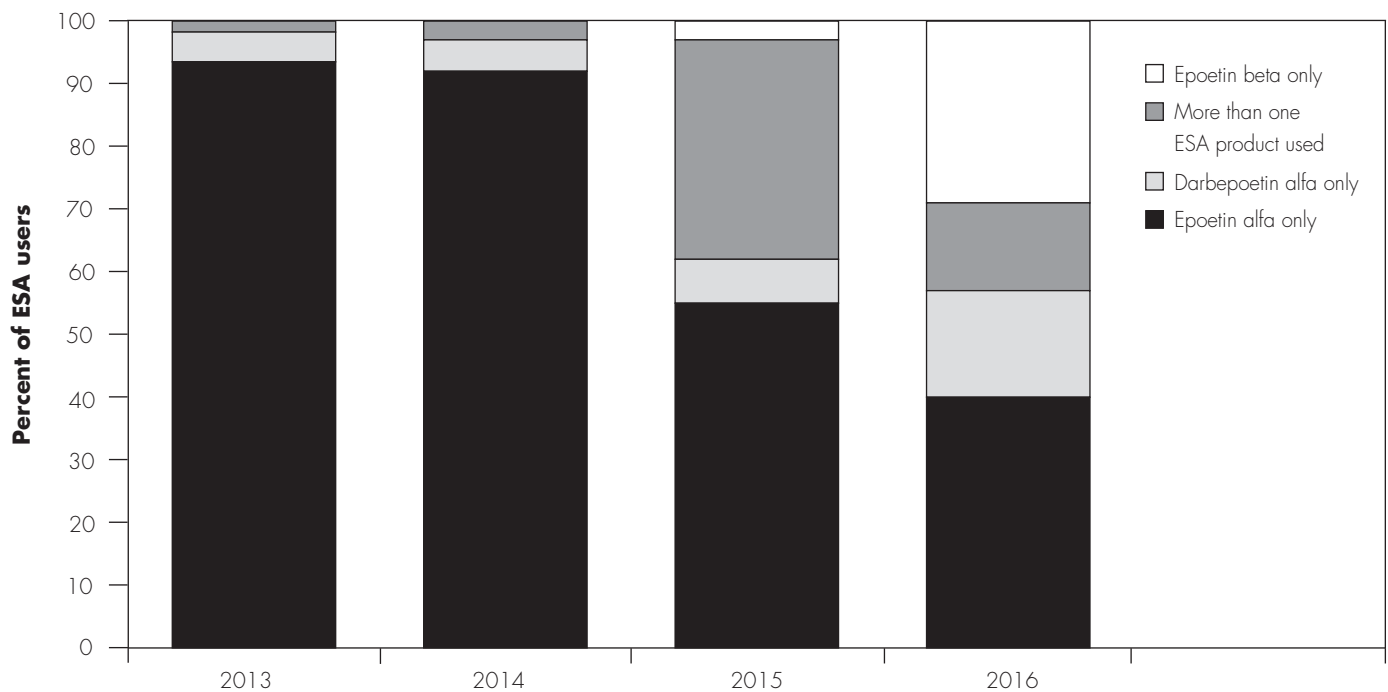
judicious in providing dialysis drugs since those are included in the payment bundle. Under the prior payment method, dialysis drugs were paid according to the number of units of the drug administered; in other words, the more units of a drug provided, the higher the Medicare payment.

As shown in Figure 6-2, most of the decline in the per treatment use of dialysis drugs, which is estimated by multiplying drug units per treatment reported on CMS claims by each drug's 2017 average sales price (i.e., holding price constant), occurred in the early years of the PPS (implemented in 2011). For example, between 2010 and 2012, use per treatment across all therapeutic classes declined by 22 percent per year. Most of this decline was due to declining ESA use; between 2010 and 2012, the per treatment use of ESAs declined in aggregate by 23 percent per year. For ESAs, some of this decline may also

have stemmed from clinical evidence showing that higher doses of these drugs led to increased risk of morbidity and mortality, which resulted in the Food and Drug Administration (FDA) changing the ESA label in 2011.

Between 2015 and 2016, holding price constant, the use of dialysis drugs overall declined by nearly 12 percent, which is comparable with the annual decline between 2010 and 2015 in drug use per treatment. Between 2015 and 2016, drug use declined for three of the four therapeutic classes (ESAs, vitamin D agents, and antibiotics) and increased only for iron agents (Figure 6-2). As shown in Table 6-5, per treatment drug use increased between 2015 and 2016 for:

- each of the iron agents,
- two of the ESAs—darbepoetin alfa and epoetin beta,

**FIGURE  
6-3****Shift in the use of ESAs among dialysis beneficiaries, 2013–2016**

Note: ESA (erythropoietin-stimulating agent). Epoetin beta became available in the United States in 2015.

Source: MedPAC analysis of Medicare claims submitted by dialysis facilities to CMS.

- one of the vitamin D agents—paricalcitol, and
- one of the antibiotics—vancomycin.

Some of the changes in drug use within the ESA and vitamin D therapeutic classes reflect increased competition and shifts in drug use within each class. Our analysis of ESA utilization since 2013 suggests that dialysis facilities and nephrologists have been switching beneficiaries from epoetin alfa to darbepoetin alfa or epoetin beta. In at least one situation, switching was an explicit goal: One of the LDOs announced its intent to have more than 70 percent of the company’s ESA patients (110,000 patients) switched to epoetin beta (from epoetin alfa) by the end of the first quarter of 2016 (Reuters 2016). Several sources suggest that this LDO reduced its total ESA costs due to switching beneficiaries to epoetin beta (Reuters 2016, Seeking Alpha 2016). Our analysis of this company’s cost

reports submitted to CMS independently confirms these accounts, showing that its ESA cost per treatment declined between 2015 and 2016.

Our analysis of ESA utilization since 2013 shows that, among the beneficiaries who had at least one claim for an ESA in a given year, the share receiving only epoetin alfa between 2013 and 2016 declined from 94 percent to just over 40 percent (Figure 6-3). During the same period, the share receiving only darbepoetin alfa grew from 5 percent to 17 percent. Epoetin beta has also gained market share among dialysis beneficiaries since it entered the market in 2015, with nearly 30 percent of those receiving ESAs using the product by 2016. In our 2016 report to the Congress, we discussed the increased competition between the two principal vitamin D agents and the change in prescribing patterns of these two products (Medicare Payment Advisory Commission 2016b).

Notwithstanding these shifts within the ESA class between 2013 and 2016, the share of beneficiaries who received at least one ESA remained constant at about 90 percent in each year. While the share of beneficiaries prescribed ESAs has remained constant, overall use of ESAs declined by 8 percent per year during this period because of a reduction in the dose per beneficiary who received either epoetin alfa or darbepoetin alfa between 2013 and 2016.

## Quality of care

Our analysis focuses on changes in quality indicators—including mortality and morbidity, process measures that assess dialysis adequacy and anemia management, and treatment utilization (home dialysis and kidney transplantation rates)—between 2011, the first year of the outpatient dialysis PPS, and 2016. Our analysis, except where indicated, is based on the Commission’s analysis of Medicare FFS enrollment and claims data between 2011 and 2016, CMS’s monthly monitoring data (Centers for Medicare & Medicaid Services 2017a), and data from the U.S. Renal Data System.

From 2011 to 2016, unadjusted mortality, hospitalization, and readmission rates declined while unadjusted emergency department (ED) use rose. During this period, use of home dialysis, which is associated with improved patient satisfaction and quality of life, increased. However, home dialysis growth slowed between 2014 and 2016, partly because of a shortage of the solutions needed for the predominant home method, peritoneal dialysis (PD). The negative cardiovascular outcomes associated with high ESA use generally declined, and blood transfusion use, which initially increased under the PPS, declined between 2013 and 2016.

In assessing quality, we also examine the multiple factors that affect access to kidney transplantation. This procedure is widely regarded as a better ESRD treatment option than dialysis in terms of patients’ clinical and quality of life outcomes and Medicare spending, and demand far outstrips supply. We also discuss CMS’s new payment model—the Comprehensive ESRD Care (CEC) Initiative—that aims to improve the health outcomes of dialysis beneficiaries while lowering the total Medicare Part A and Part B per capita spending on these beneficiaries. Last, we discuss CMS’s two quality measurement systems, the ESRD Quality Incentive Program (QIP) and the dialysis star ratings system.

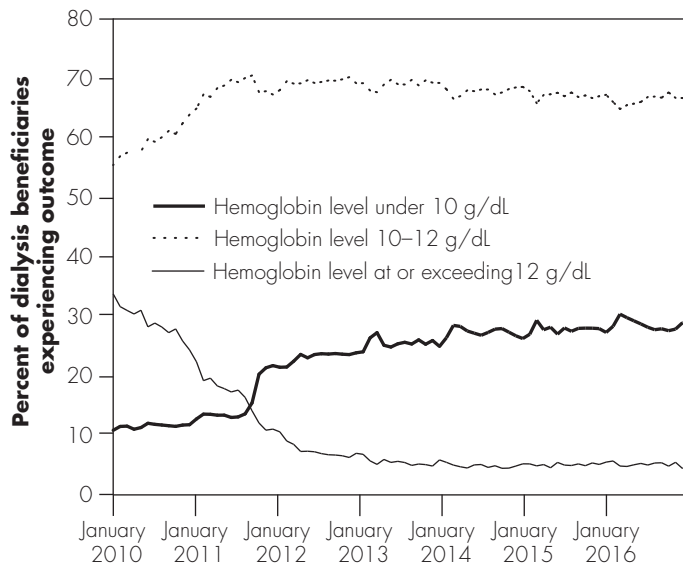
## Quality under the PPS

Between 2011 and 2016, through the Commission’s analysis of claims data, mean all-cause hospital stays per beneficiary declined from 1.7 admissions per beneficiary to 1.5 admissions per beneficiary, respectively. This finding is consistent with the trend of declining inpatient admissions for all Medicare FFS beneficiaries during this period. In addition, between 2011 and 2015 (the most recent year data are available), U.S. Renal Data System data show that hospital admission rates also fell for ESRD-related complications and comorbidities (cardiovascular, infection, and vascular access events) (United States Renal Data System 2017).<sup>10</sup> Between 2011 and 2016, 30-day readmission rates also declined, from 23 percent to 21 percent, respectively, and unadjusted annual rates of mortality declined from 16 percent of dialysis beneficiaries to 15 percent. During that period, the proportion of dialysis beneficiaries who used the ED increased from an average of 10.4 percent per month to 11.8 percent per month.

Beneficiaries’ fluid management is related to factors such as the adequacy of the dialysis procedure and dietary management. According to the Commission’s analysis, between 2011 and 2016, from 96 percent to 98 percent of hemodialysis beneficiaries and 88 percent to 93 percent of PD beneficiaries received adequate dialysis, defined as having enough waste removed from their blood. Between 2011 and 2016, the share of dialysis beneficiaries diagnosed with dehydration declined slightly while the share of beneficiaries diagnosed with fluid overload increased slightly (Centers for Medicare & Medicaid Services 2017a).

Process and health outcome measures reflect the change in anemia management under the PPS. Anemia is measured by a blood test to check the level of hemoglobin, the protein that carries oxygen in red blood cells. According to the Commission’s analysis, compared with 2010 (the year before the start of the dialysis PPS), median hemoglobin levels fell under the dialysis PPS to 10.5 g/dL in 2016 (from 11.4 g/dL in 2010). Figure 6-4 (p. 166) shows that the proportion of dialysis beneficiaries with higher hemoglobin levels declined, and the proportion with lower hemoglobin levels increased (which is generally associated with lower ESA use).<sup>11</sup> Compared with 2010, the proportion of beneficiaries receiving a blood transfusion increased during the initial years of the PPS to 3.4 percent per month in 2012 (from 2.7 percent per month



**FIGURE  
6-4****Changes in hemoglobin  
levels, 2011–2016**

Note: Data are compiled on a monthly basis by CMS.

Source: MedPAC analysis of Medicare claims submitted by dialysis facilities.

in 2010) (Centers for Medicare & Medicaid Services 2017a). However, between 2013 and 2016, the rate of blood transfusions declined from 3.1 percent to 2.3 percent of beneficiaries per month, respectively.<sup>12</sup> The cumulative share of beneficiaries experiencing negative cardiovascular outcomes—stroke, acute myocardial infarction, and heart failure—associated with earlier higher ESA use (before 2011) generally declined (Centers for Medicare & Medicaid Services 2017a). Two recently published studies found similar effects of the new outpatient dialysis PPS and the change in the FDA’s ESA label on the outcomes of anemia management (Chertow et al. 2016, Wang et al. 2016).

As discussed in our June 2014 report, clinical process measures may exacerbate the incentives in FFS to overprovide and overuse services (Medicare Payment Advisory Commission 2014b). (For example, before 2011, targeting higher hemoglobin levels was associated with higher ESA use among dialysis beneficiaries.) In addition, some clinical process measures may be only weakly correlated with better health outcomes. A given hemoglobin level may reflect adequate anemia

management for one patient, whereas the same level may lead to a different response in a different patient. Focusing on clinical outcomes, such as rates of stroke, is a better indicator of anemia management in the dialysis population. The Commission has stated that Medicare should transition over the next decade to a quality-measurement system that uses a small number of population-based outcome measures (Medicare Payment Advisory Commission 2014b).

According to separate analyses by CMS and the Commission, between 2011 and 2016, the share of beneficiaries dialyzing at home steadily increased from a monthly average of 8.9 percent to 10.8 percent (Centers for Medicare & Medicaid Services 2017a). While we are encouraged by this modest increase, differences by race persist: African Americans are less likely to use home methods. According to the Commission’s analysis, African Americans account for 26 percent of home dialysis beneficiaries though they comprise about 36 percent of all dialysis beneficiaries. Other researchers have also found that, compared with White dialysis patients, African Americans and other racial/ethnic groups (including Hispanics and Asians) use home dialysis at lower rates (Mehrotra et al. 2016).

There are many factors that have been identified by researchers that affect the use of home dialysis, including clinical (patient’s other health problems) and nonclinical (e.g., physician training) factors. The text box provides a summary of the clinical and nonclinical factors. We also discuss the various Medicare policies that may affect the payment of home dialysis services.

Since 2014, one nonclinical factor—the availability of solutions needed to perform peritoneal dialysis—may have affected the growth in home dialysis. Beginning around September 2014, the growth in PD, the predominant home method, may have slowed because of a shortage of solutions needed to perform this type of dialysis. Between 2014 and 2016, the total number of home dialysis patients increased by 3 percent per year; by contrast, between 2012 and 2014, the total number of home patients increased by 7 percent per year. The supply shortage resulted from the product’s leading manufacturer (Baxter) experiencing increased PD demand and limited manufacturing capacity (Baxter 2014, Neumann 2014). Because of the shortage, beginning in August 2014, the manufacturer gave each dialysis provider an allocation for how many new patients could be started on PD based on the provider’s history



## Clinical and nonclinical factors affect the use of home dialysis

There is no best dialysis method for all patients. Each method—in-center hemodialysis, home hemodialysis, and home peritoneal dialysis—offers advantages and disadvantages. United States Renal Data System data for 2015 (the most current year available) show that 88 percent of dialysis patients used in-center hemodialysis, 10 percent used peritoneal dialysis, and 2 percent used home hemodialysis. General consensus suggests that established provider infrastructure would support a home dialysis population of at least 20 percent in the United States (Burkart et al. 2017). In this text box, we explore some of the factors that affect the use of home dialysis. Whether a patient is treated with home dialysis is affected by clinical factors (e.g., patients' other health problems) and nonclinical factors (e.g., physician training). This summary is based on a review of the published literature and discussion by a panel, convened by Commission staff, of clinicians who treat home dialysis patients and a patient representative (details of which can be found at [http://medpac.gov/docs/default-source/reports/mar13\\_ch06\\_appendix.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/reports/mar13_ch06_appendix.pdf?sfvrsn=0)). Medicare's policies may play a role in this determination, but the nonpayment policy factors likely carry more weight in the decision for many patients.

### Clinical and nonclinical factors affect the use of home dialysis

Many factors—patient's health and social circumstances, care before the start of dialysis, where

the patient lives, physician preferences—influence the selection of one type of treatment over another. This brief summary is not a comprehensive list of the clinical and nonclinical factors that affect whether a patient uses home dialysis, but it provides some context before discussing the various Medicare policies that may affect the coverage and payment of home dialysis services.

**Patients' characteristics.** Patients' characteristics influence the choice of dialysis method. Among newly diagnosed patients, Lin and colleagues found that being older, male, or African American decreased the likelihood of home dialysis. Patients living in more affluent areas, areas with a lower share of people who are unemployed, and rural areas were more likely to use home dialysis (Lin et al. 2017). These researchers also reported lower home dialysis use among patients with comorbidities—including diabetes, coronary artery disease, heart failure, and peripheral vascular disease—and institutionalized patients. Heaf reported that about one-fifth of dialysis patients are not suitable for peritoneal dialysis because of abdominal problems, physical disabilities, or psychological problems (such as dementia) (Heaf 2004).

**Social circumstances.** Social circumstances also influence the choice of dialysis method. Patients, sometimes with the help of a caretaker, must be willing and able to conduct their own dialysis. For peritoneal dialysis, this includes maintaining the sterility of a

*(continued next page)*

of growth during the first six months of 2014 (Seaborg 2015). Although steps have been taken to increase the supply of PD solutions, a shortage of solutions exists for one (automated peritoneal dialysis) of the two PD types in 2017 (Baxter 2016, Food and Drug Administration 2017).<sup>13</sup>

### Access to kidney transplantation

Kidney transplantation is widely regarded as a better ESRD treatment option than dialysis in terms of patients' clinical and quality of life outcomes. In addition,

transplantation results in lower Medicare spending; in 2015, average Medicare spending for patients who had a functioning kidney transplant or received a kidney transplant was less than half the spending for dialysis patients (\$36,389 vs. \$93,064, respectively) (United States Renal Data System 2017). However, demand for kidney transplantation exceeds supply. Factors that affect access to kidney transplantation besides donation rates include the clinical allocation process; patients' health literacy, clinical characteristics, and preferences; the availability of education for patients; clinician referral for transplant

## Clinical and nonclinical factors affect the use of home dialysis (cont.)

catheter and conducting nighttime treatments that fill the patient's abdomen with approximately two liters of fluid. Both types of home dialysis usually require patients to operate a medical device in their home and monitor certain clinical signs during or after treatment. A patient's home needs to support the proper functioning of this device, which may include a stable electric current, a water purification process, or a place to store large quantities of dialysis supplies (e.g., peritoneal dialysate). Some patients feel comfortable with the process of home dialysis, others prefer not to have medical equipment in their home, and some prefer the social aspect of in-center treatment. Even patients and caregivers who are comfortable with the process can become "burned out" on home dialysis and frequently switch to in-center hemodialysis.

**Prior nephrology care.** Patients' nephrology care before dialysis may influence the dialysis treatment patients receive. Recent research has found that nephrology care before end-stage renal disease (ESRD) increased the use of home dialysis (Gillespie et al. 2015, Lin et al. 2017). Likewise, an earlier Commission analysis showed that 2.3 percent of patients who saw a nephrologist when starting dialysis treatment chose peritoneal dialysis compared with 5.8 percent of patients who saw a nephrologist more than 12 months before the start of dialysis (Medicare Payment Advisory Commission 2004).

**Nephrology training.** Nephrologist training of home dialysis modalities varies widely across academic medical centers and contributes to a population of nephrologists that includes both champions for the use of home dialysis and those who are not comfortable prescribing and monitoring home dialysis for any patients. Most physicians believe that peritoneal dialysis is underused in the United States (Mendelssohn et al. 2001). Initiatives by professional societies to provide home dialysis-specific education for physicians have the potential to increase home dialysis use (Burkart et al. 2017, Lin et al. 2017).

**Providers' incentive to furnish in-center dialysis.** Historically, economics influenced the use of home

dialysis versus in-center care. The rapid growth in the number of dialysis facilities throughout the 1990s and 2000s created an incentive to direct patients to treatment in centers so that facilities would operate at capacity. Rubin and colleagues concluded that financial incentives may encourage clinicians to choose hemodialysis because, once substantial investment in a facility has been made, the marginal costs of treating an additional patient are likely lower for a new hemodialysis patient than for a new peritoneal dialysis patient (Rubin et al. 2004).

**Dialysis facilities' staff experience.** The education and experience of dialysis facilities' staff may affect patients' knowledge and perception of home dialysis. According to Golper and colleagues, inexperienced staff might present negative views about home dialysis, which could be minimized by educating all clinical providers about home dialysis (Golper et al. 2011).

**Other factors.** As noted earlier in the chapter (see p. 166), since 2014, manufacturers have not produced enough dialysate, the solution used in peritoneal dialysis, to meet demand, which has limited recent growth in the use of peritoneal dialysis. Finally, according to Burkart and colleagues, delays to obtain the initial certification of new dialysis facilities is a barrier to developing home dialysis programs (Burkart et al. 2017).

### Medicare policies that affect the payment of home dialysis services

Recently published research concluded that the dialysis prospective payment system (PPS) was associated with an overall increase in the use of home dialysis. In this section, we also discuss other Medicare policies that affect the payment of home dialysis services, including the add-on payment to the base dialysis payment rate for providing home dialysis training services and payment for physicians caring for dialysis beneficiaries.

**Dialysis facility payment for dialysis treatment bundle.** Medicare pays dialysis facilities the same amount whether a patient uses in-center hemodialysis or home

*(continued next page)*

## Clinical and nonclinical factors affect the use of home dialysis (cont.)

dialysis. When CMS established the dialysis PPS in 2011, the agency stated that its decision to set a single payment rate for adults regardless of the dialysis type would give dialysis providers the incentive to encourage the use of home dialysis. Lin and colleagues concluded that the dialysis PPS was associated with a large increase in home dialysis use among newly diagnosed patients starting dialysis between 2006 and 2013 (Lin et al. 2017). The researchers reported an absolute increase in home dialysis use of 5.8 percent among the Medicare population.<sup>14</sup>

The increase in home dialysis use is partly associated with the inclusion of dialysis drugs in the PPS's payment bundle. The profitability of dialysis drugs before the PPS (when Medicare paid facilities based on the number of units of each drug administered to a beneficiary) may have given some providers an incentive to furnish in-center dialysis instead of home dialysis because in-center patients on average use more dialysis drugs per treatment than home dialysis patients.

According to the Government Accountability Office (GAO), the dialysis PPS likely gives facilities financial incentives to provide home dialysis. However, these incentives may have a limited impact in the short term because expanding the provision of in-center hemodialysis at a facility increases that facility's Medicare margin more than if the facility expanded the provision of home dialysis (Government Accountability Office 2015). Based on 2012 Medicare cost reports, GAO found an additional patient-year of in-center hemodialysis increased the margin by 0.15 percentage point while an additional patient-year of peritoneal dialysis increased the margin by 0.08 percentage point. An additional patient-year of home hemodialysis had no statistically significant effect on the margin (Government Accountability Office 2015).

**Dialysis facility add-on payment for training a home dialysis patient.** For beneficiaries who transition to home dialysis after at least 120 days of in-center hemodialysis, Medicare pays an additional amount for each treatment to cover the cost of training the patient to conduct dialysis. The number of training add-on

payments is capped at 15 for peritoneal dialysis and 25 for home hemodialysis. CMS computes the training add-on payment adjustment by using the national average hourly wage for nurses from the Bureau of Labor Statistics. The payment accounts for nursing time for each training treatment that is furnished and is adjusted by the geographic area wage index.

Lin and colleagues found that the training add-on adjustment was not associated with additional increases in home dialysis use. Specifically, the researchers reported that, although home dialysis use grew under the training add-on, it was not associated with any increases beyond what was predicted under the PPS (Lin et al. 2017).

Some stakeholders have raised concerns about the adequacy of training payments (Centers for Medicare & Medicaid Services 2016, Centers for Medicare & Medicaid Services 2013). In response to public comments, CMS increased the training add-on payment rate in a budget-neutral manner in 2014 and 2017. The increased rate in 2017 (from \$50.16 per treatment to \$95.57 per training treatment) reflects an updated national mean wage for registered nurses and a modified assumption that the number of training hours provided is equal to the treatment time. In our comment letter to CMS about this change in payment, the Commission suggested that CMS first collect reliable data on the cost of providing home dialysis training and then reassess the need to adjust the training add-on payment amount (Medicare Payment Advisory Commission 2016a). GAO noted that CMS lacks reliable data on the cost of training and lacks consistent data on the staff time required to provide home dialysis training (Government Accountability Office 2015).

During the first 120 days of dialysis, Medicare pays an additional amount for each treatment for all patients (i.e., both in-center and home patients) to cover clinical and educational costs, which can be higher for a new dialysis patient. For patients who are trained to conduct home dialysis during this period, Medicare makes no additional training payment.

*(continued next page)*

## Clinical and nonclinical factors affect the use of home dialysis (cont.)

### **Physician payment for managing dialysis treatment.**

Medicare pays nephrologists a monthly amount for each beneficiary to manage dialysis treatment, which may include monitoring clinical data, adjusting medications, or determining whether dialysis treatment is adequate. For in-center patients, the monthly amount varies by the number of visits a physician or clinical assistants make to a beneficiary—one visit, two to three visits, or four or more visits—and most patients receive four visits per month (Government Accountability Office 2015). For home patients, only one face-to-face visit is required per month. For adult home patients (ages 20 years or older), the monthly payment rate is set to be comparable with the rate for two to three in-center visits, an amount that is roughly \$50 less than the rate for four in-center visits.

GAO concluded that Medicare's monthly physician payment policy may give physicians a disincentive for prescribing home dialysis. Using 2013 Medicare fee schedule data, GAO found that the payment rate for managing adult home patients was lower than the average payment and maximum payment for managing adult in-center patients (Government Accountability Office 2015).

**Kidney disease education benefit.** Medicare pays for up to six sessions of kidney disease education (KDE) per beneficiary, which is designed to inform Medicare beneficiaries with Stage IV chronic kidney disease (CKD) (the stage before ESRD) about their

treatment options for managing the disease and related comorbidities. As noted later in the chapter (see p. 171), KDE has been provided to relatively few beneficiaries, about 3,500 in 2016. For context, about 83,000 fee-for-service Medicare beneficiaries were new to dialysis in 2016. Physicians, physician assistants, nurse practitioners, clinical nurse specialists, and certain providers in rural areas can bill for providing KDE. Facilities are not allowed to bill for the service, although many provide their own educational information about treatment options.

### **Paying for more than three treatments per week.**

Currently, Medicare's payment rate is based on a regimen of three dialysis treatments per week. The Medicare Benefit Policy Manual states that (1) the usual pattern of hemodialysis consists of three treatments weekly, and these treatments are covered routinely; (2) peritoneal dialysis sessions are covered routinely at the same frequency as hemodialysis; and (3) Medicare's administrative contractors shall consider requiring medical justification in instances that exceed this frequency. The agency has also stated that the choice of dialysis modalities requiring more than three treatments per week—including short frequent hemodialysis and every-other-day hemodialysis—does not constitute medical justification. Currently, several Medicare administrative contractors have each issued local coverage determinations on the conditions that would constitute medical justification. ■

evaluation at a transplant center; and transplant center policies.

Between 2011 and 2016, according to the United Network for Organ Sharing (UNOS), the number of kidney transplants increased by 3 percent per year to 19,060 (Table 6-6) (United Network for Organ Sharing 2017). In 2016, African Americans were less likely than White patients to receive kidney transplants despite their fourfold greater likelihood of developing ESRD; however, between 2011 and 2016, the number of African

Americans receiving a transplant grew by 4 percent per year (from 4,306 individuals to 5,137 individuals). According to Ephraim and colleagues, the lower rates of kidney transplantation for African Americans compared with other groups are associated with multiple factors, including immunological incompatibility with deceased donor kidneys; lower rates of referral for transplantation; lower rates of cadaver kidney donation; and lack of knowledge and suboptimal discussions about kidney transplantation among recipients, their families, and health care providers (Ephraim et al. 2012).



A new kidney allocation system implemented in 2014 by UNOS led to a narrowing of the disparities in national kidney transplant rates among Whites, African Americans, and Hispanics on the transplant waitlist, according to a new analysis (Melanson et al. 2017). Under the new system, the starting point for calculating waiting time was changed from the date the patient was put on the waiting list to the earliest of either that date or the date the patient started regular dialysis treatments. The new system led to a substantial increase in the kidney transplant rate for African Americans and Hispanics in the months following implementation and a decrease in the rate of kidney transplantation for Whites. Before the new system, the average monthly transplantation rate was significantly higher among Whites (1.07 percent) compared with African Americans or Hispanics (0.80 percent and 0.79 percent, respectively). After implementation, the monthly rates changed significantly for all groups: 0.95 percent for Whites, 0.96 percent for African Americans, and 0.91 percent for Hispanics (Melanson et al. 2017).

Education efforts directed at patients can be effective in encouraging them to make an informed decision about their treatment, including home dialysis, in-center dialysis, kidney transplantation, and conservative care. For example, a recent review of educational interventions found a strong association between patient-targeted dialysis modality education and choosing and receiving PD (Devoe et al. 2016). An augmented nurse care management program that targeted persons with late-stage chronic kidney disease resulted in a statistically significant reduction in the number of hospitalizations during the intervention period and, for those who required renal replacement therapy, higher use of peritoneal dialysis or a preemptive kidney transplant (Fishbane et al. 2017).

In 2010, to help inform beneficiaries diagnosed with Stage IV CKD (the disease stage before ESRD) about their treatment options and managing the disease and related comorbidities, MIPPA established Medicare payment for up to six sessions of kidney disease education (KDE) per beneficiary. Since its implementation, relatively few beneficiaries have been provided KDE services. About 3,500 beneficiaries were provided such services in both 2015 and 2016 compared with about 2,900 beneficiaries in 2013 and about 4,200 beneficiaries in 2011 and in 2012. Medicare KDE spending in both 2015 and 2016 was about \$500,000.<sup>15</sup>

According to the Government Accountability Office, payment limitations on the providers who can furnish

**TABLE**  
**6-6**

**Between 2011 and 2016,  
the number of kidney transplants  
increased, and African Americans  
and Hispanics accounted for  
an increasing share**

	2011	2016
Total transplants	16,816	19,060
Share of live donors	34%	30%
Share of:		
Whites	52	46
African Americans	26	27
Hispanics	15	18
Asians	6	6
Others	2	2

Note: Totals may not sum to 100 percent due to rounding.

Source: United Network for Organ Sharing 2017.

KDE services and the beneficiaries who are eligible might constrain the service’s use (Government Accountability Office 2015). MIPPA specified the categories of providers who can furnish KDE services—physicians, physician assistants, nurse practitioners, clinical nurse specialists, and certain providers of services located in rural areas.<sup>16</sup> MIPPA also specified that beneficiaries with Stage IV CKD are eligible for the benefit. Some stakeholders contend that other categories of beneficiaries, including those with Stage V CKD (i.e., ESRD) but who have not started dialysis as well as individuals who have already initiated hemodialysis, might also benefit from Medicare KDE coverage.

### The Comprehensive ESRD Care Initiative

The relatively high resource use by dialysis beneficiaries, particularly rates of hospital admissions and hospital readmissions, suggests that further improvements in quality are needed and that some dialysis beneficiaries might benefit from better care coordination. Under the authority of the Center for Medicare & Medicaid Innovation, the first round of the CEC Initiative began October 1, 2015, and is testing whether a new payment model implemented in FFS Medicare can improve the outcomes of dialysis beneficiaries as well as lower their Medicare per capita

**TABLE  
6-7****2016 financial results of ESCOs****2016 financial results for the 13 ESCOs**

	<b>Dollars (in millions)</b>	<b>Percent of benchmark</b>
Benchmark	\$1,415	100.0%
Actual spending	1,340	94.7
Savings	75	5.3
Paid to ESCOs	51	3.6
Returned to CMS	<u>0.0</u>	<u>0.0</u>
Net savings	24	1.7

Note: ESRD (end-stage renal disease), ESCO (ESRD Seamless Care Organization). Net savings result from actual spending plus the amount paid to ESCOs being below the benchmark and thus never leaving the U.S. Treasury.

Source: Centers for Medicare & Medicaid Services 2017b.

spending. The second round of the CEC Initiative began on January 1, 2017.

Under this five-year initiative, ESRD Seamless Care Organizations (ESCOs), which are accountable care organization–like models specific to the dialysis population, consist of at least one dialysis facility and one nephrologist and are held accountable for the clinical and financial (Part A and Part B) outcomes of prospectively matched dialysis beneficiaries. Of the 13 ESCOs participating in the first round, 12 are operated by Dialysis Clinic Inc., DaVita, and Fresenius, which CMS designated as large because each organization operates more than 200 dialysis facilities, and 1 ESCO is operated by Rogosin Institute, which CMS designated as small because the company operates fewer than 200 dialysis facilities. For the first performance year, the CEC model has approximately 16,000 beneficiaries associated with the 13 ESCOs.

In the first round of the CEC Initiative, Dialysis Clinic Inc., DaVita, and Fresenius—the ESCOs that CMS considers large—were held to two-sided risk-based payment, while Rogosin Institute, a small dialysis organization, was held to one-sided risk-based payment. (Under two-sided risk, the provider is at financial risk if specified goals are not achieved but is rewarded if the goals are met. Under one-sided risk, the provider is not penalized financially if goals are not met.) The initial agreement period lasts for three years; thereafter, CMS and

the ESCOs have the option of extending the agreement for an additional two years based on the ESCOs' performance.

In payment year one (PY1) of the CEC Initiative, all 13 ESCOs produced savings relative to their benchmarks, with 12 ESCOs producing enough savings to earn shared savings payments (Centers for Medicare & Medicaid Services 2017b). The earned shared savings payments ranged from \$1 million to \$12 million, and totaled \$51 million. Quality in PY1 (October 2015 to December 2016) was essentially pay for reporting; thus, all the ESCOs received a 100 percent score for quality. In total, the demonstration saved 1.7 percent relative to a spending benchmark. See Table 6-7 for a summary of financial results from 2016.

In the second round of the CEC Initiative, there are 24 new ESCOs for a total of 37 ESCOs. The second round includes three new small dialysis organizations—Northwest Kidney Centers, Atlantic Dialysis, and Centers for Dialysis Care—that are each sponsoring one ESCO. In addition, Dialysis Clinic Inc. and Fresenius, organizations that CMS considers to be large, expanded their presence in the second round. CMS awarded Fresenius an additional 18 ESCOs, giving the company a total of 24; it awarded Dialysis Clinic Inc. an additional 3 ESCOs, giving the company a total of 6. In Round 2, DaVita, an organization that CMS considers large, and the Rogosin Institute, a smaller dialysis organization, are continuing with the same number of ESCOs they sponsored in Round 1 (three ESCOs and one ESCO, respectively). For the second



payment year, CMS added an optional two-sided risk payment option (in addition to a one-sided payment track) for small dialysis organizations.

The Commission has said that, if structured properly, a shared savings program—in this case, for ESRD providers—could present an opportunity to correct some of the undesirable incentives inherent in FFS payment and reward providers who are doing their part to control costs and improve quality.

In addition to the CEC Initiative, dialysis beneficiaries in selected geographic areas also have access to ESRD special needs plans (SNPs). Between November 2016 and October 2017, enrollment in and the number of ESRD SNPs rose modestly. As of October 2017, about 4,600 dialysis beneficiaries were enrolled in 15 SNPs operated by 6 managed care organizations in 9 states (Arizona, California, Colorado, Illinois, Nevada, New Jersey, New York, North Carolina, and Texas). By comparison, as of November 2016, about 3,500 dialysis beneficiaries were enrolled in 10 SNPs operated by 4 managed care organizations in 6 states (Arizona, California, Colorado, Nevada, North Carolina, and Texas). While the CEC Initiative and ESRD SNPs enroll only dialysis beneficiaries, other accountable care organization models, such as those participating in the Medicare Shared Savings Program, might provide opportunities for beneficiaries with earlier stages of kidney disease to receive better care coordination, particularly in the management of kidney disease risk factors.

### **The ESRD QIP and the dialysis star ratings system**

CMS measures quality for each dialysis facility using two measurement systems: the ESRD QIP, which was mandated by MIPPA and implemented in 2012, and the dialysis star ratings system, which CMS established through a subregulatory process in 2015. In its comment letter to CMS, the Commission questioned why CMS finds a second quality system necessary for dialysis facilities (Medicare Payment Advisory Commission 2014a). We also raised concerns that beneficiaries and their families might be confused if a facility's star and QIP scores diverge, which could occur because the measurement systems use different methods and measures to calculate a facility's performance score.

### **Providers' access to capital: Growth trends suggest access is adequate**

Providers need access to capital to improve their equipment and open new facilities so they can

accommodate the growing number of patients requiring dialysis. The two LDOs, as well as other renal companies, appear to have had adequate access to capital in 2017. For example, in 2017:

- DaVita completed its acquisition of Renal Ventures, gaining 31 dialysis facilities and divesting 7 facilities (as required by the Federal Trade Commission) (DaVita 2017b). In addition, DaVita acquired Purity Dialysis, which operates 10 facilities in Wisconsin (DaVita 2017a). The company also formalized a new business, DaVita Health Solutions, that provides care to high-risk clinically complex patients (with five or more chronic conditions) by means of home and outpatient-based care programs with the aim of improving care coordination and patient access to care. DaVita also acquired two physician practices, Park Avenue Medical Inc. and Winter Park Health Center Inc., each of which is located in Orlando, Florida. Internationally, DaVita acquired 53 dialysis facilities from a Polish dialysis provider (Zumoff 2017).
- Fresenius signed an agreement to acquire NxStage Medical Inc., a manufacturer of home dialysis equipment, for approximately \$2 billion (Fresenius Medical Care 2017). The company acquired two hospital-based dialysis facilities in Texas (*Nephrology News & Issues* 2017a). Internationally, Fresenius acquired a majority stake in Cura Group, which operates 19 private day hospitals in Australia (*Nephrology News & Issues* 2017b).
- As measured by the total number of facilities, each of the three midsized chains, U.S. Renal Associates, DCI, and American Renal Associates, grew by 26 percent, 3 percent, and 10 percent, respectively, while DaVita and Fresenius each grew by 6 percent since 2016 (Neumann 2017).

Providers' access to capital can be affected by factors such as nongovernment and government investigations and legal claims. In January 2017, the U.S. Attorney's Office in Boston subpoenaed several dialysis organizations (including American Renal Associates, DaVita, and Fresenius) regarding arrangements in which their charitable donations fund dialysis treatment through a premium assistance program operated by the American Kidney Fund.<sup>17</sup> One organization stated that the subpoena is "...requesting information related to the company's payments and other interactions with the American Kidney Fund and any efforts to educate patients qualified

or enrolled in Medicare or Medicaid about enrollment in ACA [Affordable Care Act]-compliant individual marketplace plans...” (American Renal Associates Holdings 2017). Before the federal subpoena, CMS issued an interim final rule in December 2016 that would have implemented new requirements for dialysis facilities that make payments of premiums for individual market health plans (either directly or through a third party).<sup>18</sup> In January 2017, the federal court for the Eastern District of Texas issued a temporary restraining order that prevented the implementation of the interim final rule.

In addition to the federal subpoena, shareholders have filed suit against one LDO concerning the alleged practice of directing patients with government-subsidized health insurance into private plans, and a large private payer filed a lawsuit in U.S. District Court alleging that a mid-sized publicly traded dialysis organization switched patients from Medicare and Medicaid coverage to plans operated by the commercial payer (Mathews 2016).

In public financial filings, the two LDOs reported positive (“solid”) financial performance related to their dialysis business for 2017, including strong organic volume and revenue growth—that is, growth achieved apart from mergers and acquisitions. Since 2010, the two LDOs have grown through large acquisitions and mergers of other dialysis facilities and other health care organizations. For example, during this period, both large dialysis organizations acquired mid-sized for-profit organizations: DaVita acquired DSI Renal and Renal Ventures, and Fresenius acquired Liberty Dialysis. In addition, both organizations acquired large physician services organizations: DaVita purchased HealthCare Partners, which was at the time an operator of medical groups and networks in several states, and Fresenius became a majority shareholder in Sound Physicians and acquired Cogent Healthcare.

In general, current growth trends among dialysis providers suggest that the dialysis industry is attractive to for-profit providers.

### **Medicare payments and providers’ costs**

Each year, we examine the relationship between Medicare’s payments and providers’ costs as part of our assessment of payment adequacy. To make this assessment, we reviewed Medicare expenditures for outpatient dialysis services in 2016 and examined trends in spending under the PPS. We also reviewed evidence regarding providers’ costs under the PPS.

### **Medicare payments for outpatient dialysis services**

In 2016, Medicare spending for outpatient dialysis services increased to \$11.4 billion, an increase of 2 percent compared with 2015. Per capita spending increased by 0.5 percent, from about \$28,850 to about \$29,000. The increase in per capita spending reflects two factors: (1) a small statutory update (of 0.15 percent) to the base dialysis payment rate in 2016 and (2) an increase (by about 2 percent) in the number of non-annualized dialysis treatments per beneficiary between 2015 and 2016.

### **Part D spending for dialysis drugs**

Under the dialysis PPS, the use of dialysis drugs included in the PPS payment bundle declined. By contrast during this period, the use (as measured by Medicare spending) of Part D dialysis drugs that are not yet included in the PPS payment bundle increased. In 2015 (the most recent year data are available), Part D spending for two categories of dialysis drugs (calcimimetics and phosphate binders) totaled nearly \$2.0 billion, an increase of 23 percent per year compared with 2011. During this period, on a per treatment basis, Part D spending for dialysis drugs increased by 21 percent per year.<sup>19</sup> In addition, between 2011 and 2015, Part D spending for dialysis drugs grew more rapidly than spending for all other Part D drugs prescribed to dialysis beneficiaries (23 percent per year vs. 9 percent per year, respectively). In 2015, Part D spending for dialysis drugs constituted about 60 percent of dialysis beneficiaries’ gross Part D spending. Medicare spending for Part D dialysis drugs is not included in the Commission’s analysis of Medicare’s payments and costs for dialysis facilities.

The Secretary intended that the dialysis PPS payment bundle, beginning in 2014, include Part D dialysis drugs. The Stephen Beck, Jr., Achieving a Better Life Experience Act of 2014 delayed bundling these drugs until 2025. However, if an injectable equivalent (or form of administration other than an oral form) of the oral-only drug is approved by the FDA before 2025, CMS will include both the oral and non-oral versions in the PPS payment bundle (Centers for Medicare & Medicaid Services 2015).

In February 2017, the FDA approved etelcalcetide, the first calcimimetic intravenous product that is a counterpart to oral cinacalcet (paid for under Part D in 2017). Effective January 1, 2018, CMS pays for both the oral and intravenous calcimimetic under the dialysis PPS, using a transitional drug add-on payment adjustment (TDAPA)

until sufficient claims data (at least two years' worth) for rate-setting analysis are available (Additionally, Part D plans will no longer pay for oral cinacalcet for dialysis beneficiaries beginning January 1, 2018). According to CMS, these products qualify for a TDAPA because the base dialysis payment rate has not yet accounted for their costs. Under the TDAPA, CMS will pay providers separately for these drugs, using payment methodologies under Section 1847A of the Social Security Act, which includes average sales price and wholesale acquisition cost. Once sufficient claims data are available, CMS will conduct a rate-setting analysis and modify the dialysis PPS base rate, if appropriate, to account for the new products in the dialysis payment bundle.

Including dialysis drugs covered under Part D in the dialysis PPS bundle may lead to better management of drug therapy and improve beneficiaries' access to these medications since some beneficiaries lack Part D coverage or have coverage less generous than the Part D standard benefit. The efficiency of dialysis care may improve after calcimimetics are included in the dialysis PPS payment bundle. For example, based on results of a multicenter, prospective, randomized placebo-controlled trial, some clinicians concluded that the routine use of cinacalcet may not be warranted (Palmer et al. 2013).<sup>20</sup> Between 2014 and 2015, Part D spending for cinacalcet increased by 23 percent to nearly \$700 million. Giving the Secretary the flexibility to rebase the payment bundle after oral-only dialysis drugs are included in the dialysis PPS payment bundle might lead to savings for beneficiaries and taxpayers.

In addition, including the multiple oral-only phosphate binders in the dialysis PPS bundle might increase price competition among the available products. (These products are not yet included in the dialysis PPS bundle.) According to researchers, the choice of which phosphate binder to prescribe is dependent on "physician preference, cost, reimbursement issues, tolerability, side effects, patient adherence, and other factors" (Nguyen et al. 2016). Palmer and colleagues (2016), in a recent meta-analysis of phosphate binders in patients with CKD, found no significant differences in all-cause mortality between any single agent versus placebo and concluded that "the failure of any agent to reduce mortality versus placebo suggests that a less aggressive approach to phosphate-lowering treatment may be entirely appropriate in all patients pending the availability of new evidence" (Palmer et al. 2016). Between 2014 and 2015, Part D spending for

phosphate binders increased by nearly 30 percent to \$1.3 billion.

### **Providers' costs for outpatient dialysis services under the outpatient dialysis PPS**

To assess the appropriateness of costs for dialysis services paid for under the dialysis PPS, we examine whether aggregate dialysis facility costs reflect costs that efficient providers would incur in furnishing high-quality care. For this analysis, we use 2015 and 2016 cost reports submitted to CMS by freestanding dialysis facilities. For those years, we look at the growth in the cost per treatment and how total treatment volume affects that cost.

**Cost growth under the PPS** Between 2015 and 2016, the cost per treatment declined by 0.7 percent, from about \$244 per treatment to \$243 per treatment. During this period, the cost per treatment for ESAs and other dialysis-related drugs declined by 9 percent and 25 percent, respectively. These cost categories accounted for 11 percent and about 2 percent, respectively, of the total cost of treatment in 2016. The cost per treatment decline for ESAs and other injectable drugs somewhat offset increases in the other major cost categories:

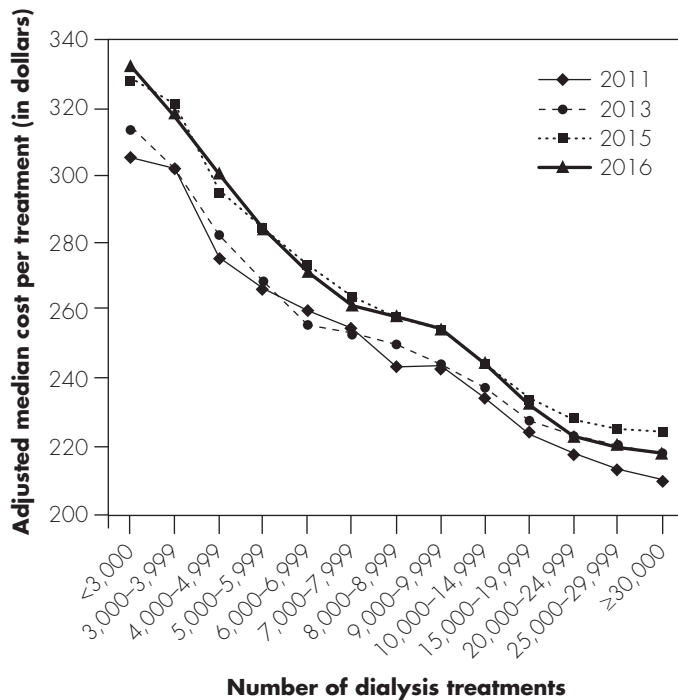
- Labor costs, which accounted for about 33 percent of the cost per treatment, increased by 4 percent.
- Administrative and general expenses and capital costs, which accounted for 25 percent and 17 percent of the cost per treatment, respectively, increased by 1 percent and 3 percent, respectively.
- Supply costs, which accounted for about 11 percent of the cost per treatment, increased by 1 percent.

Variation in cost growth across freestanding dialysis facilities shows that some facilities were able to hold their cost growth well below that of others. For example, between 2015 and 2016, per treatment costs decreased by 6.6 percent for facilities in the 25th percentile of cost growth and increased by 3.7 percent for facilities in the 75th percentile.

Whether the variation in costs among facilities is due to differences in the accuracy of the data that facilities report is unknown. In 2015 and 2016, we found substantial variation in the level of selected cost categories reported by the five largest dialysis organizations. For example, the cost per treatment for administrative and general services and for capital services each differed by roughly

**FIGURE  
6-5**

**Higher volume dialysis  
facilities have lower cost per  
treatment, 2011–2016**



Note: Cost per treatment is adjusted to remove differences in the cost of labor. Dialysis treatments include those paid for by all sources (not just Medicare-paid treatments).

Source: MedPAC analysis of cost reports submitted by freestanding dialysis facilities to CMS and the end-stage renal disease wage index files.

\$25 among these organizations. We anticipate that CMS’s audit of a representative sample of ESRD cost reports will examine the accuracy of facilities’ cost reports.

**Cost per treatment is correlated with facility service volume** Cost per treatment is correlated with the total number of treatments a facility provides. For this analysis, we adjusted the cost per treatment to remove differences in the cost of labor across areas and included all treatments regardless of payer. Our analysis showed, in each year from 2011 through 2016, a statistically significant relationship between total treatments and cost per treatment (correlation coefficient equaled  $-0.5$ ) (Figure 6-5). That is, the greater the facility’s service volume, the lower its costs per treatment. Facilities that qualified for increased Medicare payment due to low volume had substantially higher cost per treatment for

capital and administrative and general services compared with all other facilities.

**Medicare margin for freestanding facilities in 2016**

The Commission assesses current payments and costs for dialysis services for freestanding dialysis facilities by comparing Medicare’s payments with facilities’ Medicare-allowable costs. The latest and most complete data available on payments and costs are from 2016. We estimate that the aggregate Medicare margin in 2016 was 0.5 percent (Table 6-8).<sup>21</sup> Margins decidedly varied by treatment volume; facilities in the lowest volume quintile had margins at or below  $-17.1$  percent, and facilities in the top volume quintile had margins of 6.7 percent or higher.

Urban facilities had higher margins than rural facilities (1.3 percent and  $-4.9$  percent, respectively). Much of the difference in margins between urban and rural facilities is accounted for by differences in total treatment volume. Urban dialysis facilities are larger on average than rural facilities with respect to number of treatment stations and total treatments provided. In 2016, urban facilities averaged 12,240 treatments, while rural facilities averaged 7,695 treatments (data not shown).

Another factor we consider when evaluating the adequacy of payments is whether providers have any financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries. If we approximate marginal cost as total Medicare cost minus fixed building and equipment cost, then marginal profit is:

$$\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and equipment costs})) / \text{Medicare payments}$$

This formula gives a lower bound on the marginal profit because we ignore any potential labor costs that are fixed.



**TABLE  
6-8****Medicare margins in 2016 varied by type of freestanding dialysis facility**

<b>Provider type</b>	<b>Medicare margin</b>	<b>Percent of freestanding dialysis facilities</b>	<b>Percent of freestanding dialysis facility treatments</b>
All	0.5%	100%	100%
Urban	1.3	82	88
Rural	-4.9	18	12
Treatment volume (quintile)			
Lowest	-17.1	20	7
Second	-7.9	20	12
Third	-2.6	20	17
Fourth	1.9	20	24
Highest	6.7	20	39

Note: Totals may not sum to 100 percent due to rounding.

Source: Compiled by MedPAC from cost reports and outpatient claims submitted by facilities to CMS and the Dialysis Compare database.

For dialysis facilities, we find that excluding capital costs lowers the cost per treatment by nearly \$40 and that Medicare payments exceed marginal costs by 17.2 percent, suggesting facilities with available capacity have an incentive to treat Medicare beneficiaries. This margin is a positive indicator of patient access.

### Projecting the Medicare margin for 2018

The aggregate Medicare margin for 2018 is projected to be 0.4 percent, approximately the same as the 2016 margin (0.5 percent). This projection considers providers' historical cost growth and the following policy changes that went into effect between 2016 (the year of our most recent margin estimates) and 2018, including the following:<sup>22</sup>

- The Protecting Access to Medicare Act of 2014 (PAMA) sets the update to the dialysis base payment rate in 2017 and 2018 to account for the reduced drug utilization under the dialysis PPS. This rebasing adjustment reduced the statutory update (based on the ESRD market basket offset by a productivity adjustment) by 1.25 percent in 2017 and 1.0 percent in 2018. The net payment update was 0.55 percent in 2017 and is 0.30 percent in 2018.

- For 2017 and 2018, payments were reduced by 0.13 percent and 0.14 percent, respectively, due to the ESRD QIP.
- Other regulatory changes implemented by CMS are expected to result in increased payments by about 0.2 percent in 2017 and 2018.
- The sequester, which is now fully reflected in Medicare's payments to providers, reduced Medicare payments to providers by 2 percent beginning April 2013.

### How should Medicare payments change in 2019?

PAMA sets the update to the outpatient dialysis payment base rate equal to the ESRD market basket index, less an adjustment for productivity (currently estimated at 0.7 percent). Based on CMS's latest forecast of changes in the ESRD market basket costs for calendar year 2019 (2.1 percent), the update to the 2019 payment rate would be 1.4 percent. In addition to this statutory provision, the ESRD QIP is expected to decrease total payments by 0.15 percent in 2019.

## Update recommendation

The evidence on payment adequacy suggests that outpatient dialysis payments are adequate. It appears that facilities have become more efficient under the PPS, as measured by declining use of most injectable dialysis drugs.

### RECOMMENDATION 6

**For 2019, the Congress should update the calendar year 2018 Medicare end-stage renal disease prospective payment system base rate by the amount determined under current law.**

### RATIONALE 6

Most of our indicators of payment adequacy are positive, including beneficiaries' access to care, the supply and capacity of providers, volume of services, quality of care, and access to capital. Providers have become more efficient in the use of dialysis drugs under the PPS. The

Medicare margin was 0.5 percent in 2016 and is projected to be 0.4 percent in 2018. The 17.2 percent marginal profit is a positive indicator of beneficiary access.

### IMPLICATIONS 6

#### Spending

- In 2019, the statute sets the payment update at the market basket, net of the productivity adjustment. The Commission's recommendation would have no effect on federal program spending relative to the statutory update.

#### Beneficiary and provider

- We do not anticipate any negative effects on beneficiary access to care. This recommendation is expected to have a minimal effect on reasonably efficient providers' willingness and ability to care for Medicare beneficiaries. ■



## Endnotes

---

- 1 The term *dialysis drugs* refers to the medications used to treat ESRD.
- 2 In this chapter, the term *beneficiaries* refers to individuals covered by Medicare, and *patients* refers to all individuals who have ESRD.
- 3 Incidence data are adjusted for age, sex, and primary ESRD diagnosis.
- 4 Age groups are 21 years and younger, 22 to 44 years, 45 to 64 years, 65 to 74 years, and 75 years and older.
- 5 For individuals entitled to Medicare based on ESRD, Medicare coverage does not begin until the fourth month after the start of dialysis, unless the individual had a kidney transplant or began training for self-care, including dialyzing at home.
- 6 For pediatric dialysis beneficiaries (less than 18 years of age), the base rate is adjusted for age and type of dialysis.
- 7 This share is based on the Commission's analysis of Medicare and total treatments reported by freestanding facilities on cost reports submitted to CMS.
- 8 By *non-annualized*, we mean that treatments per beneficiary may not represent an entire year of treatment. Beneficiaries may not have an entire year of treatment data because they are new to dialysis during the year, receive a transplant during the year, and so forth.
- 9 These drug classes accounted for nearly all dialysis drug spending (about 97 percent) in 2010, the year before the start of the new payment method.
- 10 Between 2011 and 2015, adjusted hospitalization rates (per patient-year) for hemodialysis patients fell from 0.54 to 0.46 admissions for cardiovascular events, from 0.49 to 0.44 for infection events, and from 0.19 to 0.11 admissions for vascular access events. Adjusted admission rates (per patient-year) for PD patients also declined for these ESRD-related complications and comorbidities during this period (United States Renal Data System 2017).
- 11 According to the FDA, (1) in controlled trials, patients with chronic kidney disease experienced greater risks of death, serious adverse cardiovascular reactions, and stroke when administered ESAs to target a hemoglobin level of greater than 11 g/dL; (2) no clinical trial has identified a hemoglobin target level, ESA dose, or dosing strategy that does not increase these risks; and (3) providers should use the lowest ESA dose sufficient to reduce the need for red blood cell transfusions.
- 12 Blood transfusions are of concern to patients because they (1) carry a small risk of transmitting blood-borne infections to the patient, (2) may cause some patients to develop a reaction, and (3) are costly and inconvenient for patients. Blood transfusions are of particular concern for patients seeking kidney transplantation because they increase a patient's alloantigen sensitization, which can require a patient to wait to receive a transplant.
- 13 To alleviate the shortage, Baxter (1) received FDA approval to import PD solutions from Ireland, (2) bought PD solutions from Fresenius to distribute to its customers (Seaborg 2015), and (3) announced additional manufacturing capacity in 2015 (Baxter 2014). In addition, Fresenius's PD manufacturing facility is on schedule to be operational in 2017, and the company announced in November 2015 its partnership with a Swiss manufacturer to develop a portfolio of peritoneal technologies (Fresenius Medical Care 2015, Zumoff 2015).
- 14 The researchers found statistically similar increases in home dialysis use in the newly diagnosed Medicare and non-Medicare populations, indicating significant spill-over effects on non-Medicare patients (Lin et al. 2017).
- 15 This analysis used 100 percent of 2011 through 2015 carrier and outpatient claims submitted for KDE services.
- 16 MIPPA does not permit other providers (such as registered nurses, social workers, and dieticians) or dialysis facilities to bill for KDE services. In 2014, KDE services were most frequently provided by nephrologists, nurse practitioners, or physician assistants in an office setting.
- 17 The American Kidney Fund is a leading nonprofit organization that provides needs-based financial assistance to dialysis patients. The organization provides financial assistance to patients to help pay patients' treatment-related expenses, including health insurance premiums, transportation to and from treatment, medical supplies, and prescription drugs. In 2016, the American Kidney Fund provided nearly \$290 million in direct patient aid.
- 18 In December 2016, CMS issued an interim final rule, which was to have gone into effect on January 13, 2017, that would have modified conditions for coverage for dialysis facilities that make payments of premiums for individual market health plans, directly or through a third-party organization. The interim final rule would have required dialysis facilities to inform insurers of individual market plans when they make

- premium payments and to gain assurance that the health plans would accept such payment for the entire plan year. Under the rule, dialysis facilities would not have been able to make payments to plans that chose not to accept such payments. The interim final rule was promulgated without any prior opportunity for notice and comment on a proposed rule.
- 19 Part D spending per dialysis treatment is calculated by dividing total Part D spending for dialysis drugs by the total number of Part B dialysis treatments furnished by dialysis facilities to Medicare beneficiaries with and without Part D.
- 20 The Evaluation of Cinacalcet Hydrochloride Therapy to Lower Cardiovascular Events trial, a multicenter, prospective, randomized, placebo-controlled trial, found that cinacalcet did not significantly reduce the risk of death or major cardiovascular events in patients with moderate to severe secondary hyperparathyroidism undergoing dialysis (Chertow et al. 2012).
- 21 Based on the Commission’s analysis of cost reports submitted by freestanding dialysis facilities to CMS, the all-payer margin was roughly 25 percent in 2016.
- 22 Because utilization data are not yet available, the projection does not reflect the impact on providers’ payments and costs when Medicare, on January 1, 2018, began paying dialysis facilities for both the oral and intravenous calcimimetic under the dialysis PPS using a TDAPA. Once data become available, this factor will be considered in the Commission’s assessment of payment adequacy.

## References

---

- American Renal Associates Holdings. 2017. Quarterly report (Form 10–Q) for the period ended June 30, 2017. Filing submitted to the Securities and Exchange Commission. <http://ir.americanrenal.com/sec-filings>.
- Baxter. 2016. PD supply. <http://www.homebybaxter.com/how/pdsupplyupdate.html>.
- Baxter. 2014. Letter from Richard Marritt, Region Head and General Manager, U.S. and Canada. July 28. [http://www.homebybaxter.com/Documents/USMP%20MG2%2014-0093i\\_Customer%20Letter%20\(Update\)\\_FINAL.pdf](http://www.homebybaxter.com/Documents/USMP%20MG2%2014-0093i_Customer%20Letter%20(Update)_FINAL.pdf).
- Burkart, J., M. Schreiber, J. L. Hymes, et al. 2017. Peritoneal dialysis growth in the U.S. encounters unexpected hurdles. *Nephrology News & Issues*, February 23.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017a. ESRD prospective payment system (ESRD PPS) overview of claims-based monitoring program. Q2 2017 Public Use File. <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ESRDpayment/ESRD-Claims-Based-Monitoring.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017b. Medicare Comprehensive End Stage Renal Disease Care Model performance year 1 (Oct 2015–Dec 2016) results. <https://innovation.cms.gov/Files/x/cec-fncl-py1.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. Medicare program; end-stage renal disease prospective payment system, coverage and payment for renal dialysis services furnished to individuals with acute kidney injury, End-Stage Renal Disease Quality Incentive Program, durable medical equipment, prosthetics, orthotics and supplies competitive bidding program bid surety bonds, state licensure and appeals process for breach of contract actions, durable medical equipment, prosthetics, orthotics and supplies competitive bidding program and fee schedule adjustments, access to care issues for durable medical equipment; and the comprehensive end-stage renal disease care model. Final rule. *Federal Register* 81, no. 214 (November 4): 77834–77969.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015. Medicare program; end-stage renal disease prospective payment system, and Quality Incentive Program. Final rule. *Federal Register* 80, no. 215 (November 16): 68967–69077.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2013. Medicare program: End-stage renal disease prospective payment system; Quality Incentive Program; and durable medical equipment, prosthetics, orthotics, and supplies. Final rule. *Federal Register* 78, no. 231 (December 2): 72155–72253.
- Chertow, G. M., G. A. Block, R. Correa-Rotter, et al. 2012. Effect of cinacalcet on cardiovascular disease in patients undergoing dialysis. *New England Journal of Medicine* 367, no. 26 (December 27): 2482–2494.
- Chertow, G. M., J. Liu, K. L. Monda, et al. 2016. Epoetin alfa and outcomes in dialysis amid regulatory and payment reform. *Journal of the American Society of Nephrology* 27, no. 10 (October): 3129–3138.
- Cooper, B. A., P. Branley, L. Bulfone, et al. 2010. A randomized, controlled trial of early versus late initiation of dialysis. *New England Journal of Medicine* 363, no. 7 (August 12): 609–619.
- DaVita. 2017a. DaVita acquires Purity Dialysis. Press release. May 8. <http://pressreleases.davita.com/2017-05-08-DaVita-Acquires-Purity-Dialysis>.
- DaVita. 2017b. DaVita completes acquisition of Renal Ventures. Press release. May 2. <http://pressreleases.davita.com/2017-05-02-DaVita-Completes-Acquisition-of-Renal-Ventures>.
- Devoe, D. J., B. Wong, M. T. James, et al. 2016. Patient education and peritoneal dialysis modality selection: A systematic review and meta-analysis. *American Journal of Kidney Diseases* 68, no. 3 (September): 422–433.
- Ephraim, P. L., N. R. Powe, H. Rabb, et al. 2012. The Providing Resources to Enhance African American Patients' Readiness to Make Decisions about Kidney Disease (PREPARED) study: Protocol of a randomized controlled trial. *BMC Nephrology* 13: 135.
- Evans, M., G. Tettamanti, O. Nyren, et al. 2011. No survival benefit from early-start dialysis in a population-based, inception cohort study of Swedish patients with chronic kidney disease. *Journal of Internal Medicine* 269, no. 3 (March): 289–298.
- Fishbane, S., S. Agoritsas, A. Bellucci, et al. 2017. Augmented nurse care management in CKD Stages 4 to 5: A randomized trial. *American Journal of Kidney Diseases* 70, no. 4 (October): 498–505.

Foley, R. N., D. T. Gilbertson, T. Murray, et al. 2011. Long interdialytic interval and mortality among patients receiving hemodialysis. *New England Journal of Medicine* 365, no. 12 (September 22): 1099–1107.

Food and Drug Administration. 2017. FDA drug shortages. [https://www.accessdata.fda.gov/scripts/drugshortages/dsp\\_ActiveIngredientDetails.cfm?AI=Peritoneal%20Dialysis%20Solutions&st=c&tab=tabs-1](https://www.accessdata.fda.gov/scripts/drugshortages/dsp_ActiveIngredientDetails.cfm?AI=Peritoneal%20Dialysis%20Solutions&st=c&tab=tabs-1).

Fresenius Medical Care. 2017. Fresenius Medical Care to acquire NxStage Medical, Inc. to strengthen its vertically integrated dialysis business. Press release. August 7. <https://www.freseniusmedicalcare.com/en/news/details/title/fresenius-medical-care-to-acquire-nxstage-medical-inc-to-strengthen-its-vertically-integrated-dialysis-business/>.

Fresenius Medical Care. 2015. Fresenius Medical Care's Knoxville manufacturing plant on schedule to help ease nationwide shortage of peritoneal dialysis solution. Press release. November 5. <http://newsroom.fmcna.com/wordpress/2015/11/05/fresenius-medical-cares-knoxville-manufacturing-plant-on-schedule-to-help-ease-nationwide-shortage-of-peritoneal-dialysis-solution/>.

Gillespie, B. W., H. Morgenstern, E. Hedgeman, et al. 2015. Nephrology care prior to end-stage renal disease and outcomes among new ESRD patients in the USA. *Clinical Kidney Journal* 8, no. 6 (December): 772–780.

Golper, T. A., A. B. Saxena, B. Piraino, et al. 2011. Systematic barriers to the effective delivery of home dialysis in the United States: A report from the Public Policy/Advocacy Committee of the North American Chapter of the International Society for Peritoneal Dialysis. *American Journal of Kidney Diseases* 58, no. 6 (December): 879–885.

Government Accountability Office. 2015. *End-stage renal disease: Medicare payment refinements could promote increased use of home dialysis*. Washington, DC: GAO.

Heaf, J. 2004. Underutilization of peritoneal dialysis. *Journal of the American Medical Association* 291, no. 6 (February 11): 740–742.

Kazmi, W. H., D. T. Gilbertson, G. T. Obrador, et al. 2005. Effect of comorbidity on the increased mortality associated with early initiation of dialysis. *American Journal of Kidney Diseases* 46, no. 5 (November): 887–896.

Lin, E., X. S. Cheng, K. K. Chin, et al. 2017. Home dialysis in the prospective payment system era. *Journal of the American Society of Nephrology* 28, no. 10 (October): 2993–3004.

Mathews, A. W. 2016. UnitedHealth sues American Renal Associates, alleging fraud. *Wall Street Journal*, July 1.

Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2016a. Comment letter on CMS's proposed rule on the ESRD prospective payment system, July 29.

Medicare Payment Advisory Commission. 2016b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2014a. Comment letter to CMS on the end-stage renal disease prospective payment system and Quality Incentive Program proposed rule, August 15.

Medicare Payment Advisory Commission. 2014b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2004. *Report to the Congress: New approaches in Medicare*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2001. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2000. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Mehrotra, R., M. Soohoo, M. B. Rivara, et al. 2016. Racial and ethnic disparities in use of and outcomes with home dialysis in the United States. *Journal of the American Society of Nephrology* 27, no. 7 (July): 2123–2134.

Melanson, T. A., J. M. Hockenberry, L. Plantinga, et al. 2017. New kidney allocation system associated with increased rates of transplants among Black and Hispanic patients. *Health Affairs* 36, no. 6 (June 1): 1078–1085.

Mendelssohn, D. C., S. R. Mullaney, B. Jung, et al. 2001. What do American nephrologists think about dialysis modality selection? *American Journal of Kidney Diseases* 37, no. 1 (January): 22–29.

*Nephrology News & Issues*. 2017a. Fresenius Kidney Care acquires two dialysis centers in Texas. *Nephrology News & Issues*, September 27.

*Nephrology News & Issues*. 2017b. Fresenius Medical Care to buy majority stake in outpatient treatment chain in Australia. *Nephrology News & Issues*, February 3.

- Neumann, M. 2017. The largest dialysis providers in 2017: More jump on integrated care bandwagon. *Nephrology News & Issues*, July 17.
- Neumann, M. 2014. Baxter, FMC sign supply agreement; ISPD ‘deeply concerned’ about PD fluid shortage. *Nephrology News & Issues*, September 3.
- Nguyen, T., T. Pham, and T. Huynh. 2016. Phosphate binder choices used in ESRD patients. *Nephrology News & Issues*, July.
- Palmer, S. C., S. Gardner, M. Tonelli, et al. 2016. Phosphate-binding agents in adults with CKD: A network meta-analysis of randomized trials. *American Journal of Kidney Diseases* 68, no. 5 (November): 691–702.
- Palmer, S. C., I. Nistor, J. C. Craig, et al. 2013. Cinacalcet in patients with chronic kidney disease: A cumulative meta-analysis of randomized controlled trials. *PLoS Medicine* 10, no. 4. <https://doi.org/10.1371/journal.pmed.1001436>.
- Reuters. 2016. FMC aims for 110,000 U.S. patients to be on Mircera in first-quarter. February 24. <http://www.reuters.com/article/us-fresenius-medi-results-mircera-idUSKCN0VX11F>.
- Rubin, H. R., N. E. Fink, L. C. Plantinga, et al. 2004. Patient ratings of dialysis care with peritoneal dialysis vs hemodialysis. *Journal of the American Medical Association* 291, no. 6 (February 11): 697–703.
- Seaborg, E. 2015. Peritoneal dialysis fluid shortage disrupted growth of popular therapy. *Kidney News*, March.
- Seeking Alpha. 2016. Fresenius Medical Care AG & Co. KGaA (FMS) Rice Powell on Q4 2015 results—Earnings call transcript. February 24. <https://seekingalpha.com/article/3926506-fresenius-medical-care-ag-and-co-kgaa-fms-rice-powell-q4-2015-results-earnings-call>.
- Stel, V. S., F. W. Dekker, D. Ansell, et al. 2009. Residual renal function at the start of dialysis and clinical outcomes. *Nephrology Dialysis Transplantation* 24, no. 10 (October): 3175–3182.
- Traynor, J. P., K. Simpson, C. C. Geddes, et al. 2002. Early initiation of dialysis fails to prolong survival in patients with end-stage renal failure. *Journal of the American Society of Nephrology* 13, no. 8 (August): 2125–2132.
- United Network for Organ Sharing. 2017. National data. <https://optn.transplant.hrsa.gov/data/view-data-reports/national-data/>.
- United States Renal Data System, National Institute of Diabetes and Digestive and Kidney Diseases. 2017. *USRDS 2017 annual data report*. Bethesda, MD: NIDDK.
- Wang, C., R. Kane, M. Levenson, et al. 2016. Association between changes in CMS reimbursement policy and drug labels for erythrocyte-stimulating agents with outcomes for older patients undergoing hemodialysis covered by fee-for-service Medicare. *JAMA Internal Medicine* (October 24): E1–E8.
- Zumoff, R. 2017. DaVita acquires Polish dialysis provider. *Nephrology News & Issues*, May 26.
- Zumoff, R. 2015. Fresenius partners with Swiss device maker to build new peritoneal dialysis machines. *Nephrology News & Issues*, November 3.





C H A P T E R

# 7

---

**Post-acute care:  
Increasing the equity of  
Medicare's payments  
within each setting**

---

## R E C O M M E N D A T I O N

- 7** The Congress should direct the Secretary to begin to base Medicare payments to post-acute care (PAC) providers on a blend of each sector's setting-specific relative weights and the unified PAC prospective payment system's relative weights in fiscal year 2019.

**COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2**

# Post-acute care: Increasing the equity of Medicare's payments within each setting

## Chapter summary

Post-acute care (PAC) providers offer important recuperation and rehabilitation services to Medicare beneficiaries after an acute care hospital stay. PAC providers include skilled nursing facilities (SNFs), home health agencies (HHAs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs). In 2016, fee-for-service (FFS) Medicare program spending on PAC services totaled \$60 billion.

Each year, in addition to evaluating the adequacy of Medicare FFS payments, the Commission considers whether revisions to the payment systems are needed to better align program payments with the costs of treating patients with different care needs. Aligning payments and costs for all conditions increases the equity of the program's payments by minimizing the financial incentives to treat some beneficiaries over others. For years, the Commission has raised concerns that the PAC prospective payment systems (PPSs) encourage some providers to favor treating some types of patients over others (thereby impairing access for some beneficiaries), furnish therapy services unrelated to a patient's condition, engage in certain questionable coding practices, extend the length of stay so that a full payment (rather than short-stay outlier payment) is made, or engage in some combination of these strategies. The Commission has urged CMS to revise the payments systems to correct these shortcomings.

## In this chapter

- Shortcomings of current PAC PPSs and challenges in improving Medicare's payments for PAC
- The Commission's work on a unified payment system for PAC
- An approach to redistribute Medicare's payments for different conditions treated within each PAC setting

In addition, the Commission has recommended either no update or lowering the level of payments in each PAC setting to more closely align them with the cost of care. But concern about the wide variation in financial performance across providers has constrained these recommendations. The Commission's update recommendations this year again signal that Medicare's aggregate payments are too high relative to the costs to treat beneficiaries.

PAC presents particular challenges in establishing accurate and equitable payments because it is not always clear whether the beneficiary requires PAC and, if so, which setting is best suited to the patient's care needs or how much care would yield the best outcome. The lack of uniform assessment tools makes it difficult to compare beneficiaries, cost of services, and outcomes of care across settings.

In 2016, in response to a congressional mandate, the Commission recommended design features of a unified payment system to be used in the four PAC settings. The Commission found that a unified PAC PPS could use readily available data to pay for a stay based on a patient's characteristics, not the site of service or the amount of therapy furnished. The design would correct current distortions in the SNF and HHA PPSs that encourage providers to furnish services of questionable value and that advantage providers that avoid medically complex patients. In June 2017, the Commission recommended that the new payment system begin to be implemented in 2021 so that inequities in the current payment systems can start to be corrected as soon as possible.

Before implementing a unified PAC PPS, CMS could begin to redistribute payments within each PAC setting by blending the current setting-specific relative weights with the unified PAC PPS relative weights. Because the resulting payments would be more closely aligned with the cost of care across all conditions, the equity of the program's payments would increase. Under this blend, each PAC setting's total payments would be kept at the recommended level while payments would be redistributed within each setting based on a provider's mix of patients, costs, and therapy practices. Blending unified PAC PPS and setting-specific relative weights before the implementation of a unified payment system would give providers even more time to adjust their practices and costs to the incentives of the new system. With closer alignment of payments and costs and the redistribution of payments across providers, policymakers could then consider establishing a level of payment that more accurately reflects the costs of care. When the PAC PPS is implemented, the relative weights of that design would be exclusively used in establishing payments for providers in the four PAC settings.

To increase the equity of payments within each setting, the Commission recommends that the Congress direct the Secretary to begin blending the relative weights of the setting-specific payment systems and the unified PAC PPS in 2019 (i.e., before the implementation of the unified PAC PPS). The recommendation would redistribute payments across patients' conditions within each setting, but would not affect the level of spending in each PAC setting.

The recommendation to blend the relative weights in no way detracts from the Commission's concurrent recommendations to revise the SNF and HHA payment systems. Because the PAC PPS is on a longer implementation timetable, Medicare must continue to improve its setting-specific payment systems. To address the persistently high level of payments in the PAC settings, the Commission has setting-specific recommendations to lower payments in the case of HHAs and IRFs and to provide no updates to the payments for SNFs and LTCHs. The blending recommendation to redistribute payments within a setting should not interfere with the consideration of the setting's payment level either in the aggregate or for individual PAC settings. ■





---

## Shortcomings of current PAC PPSs and challenges in improving Medicare's payments for PAC

---

For years, the Commission has raised concerns about the design shortcomings of the individual post-acute care (PAC) payment system designs. The designs encourage providers to favor treating some types of patients over others, furnish therapy services unrelated to a patient's condition, engage in certain questionable coding practices, extend the length of stay so that a full payment (rather than a short-stay outlier payment) is made, or engage in some combination of these strategies. Specifically, the skilled nursing facility (SNF) prospective payment system (PPS) favors treating rehabilitation over medically complex patients, encourages providers to furnish therapy unrelated to a patient's condition, and poorly targets payments for patients requiring high-cost nontherapy ancillary services (such as expensive antibiotics). The home health agency (HHA) PPS also encourages agencies to provide therapy services, provide enough visits to avoid short-stay payments, and—in select states with value-based purchasing in place—code frailty to increase payments. The inpatient rehabilitation facility (IRF) PPS appears to encourage some providers to admit certain types of patients and code clinical conditions and impairments in a way that raises payments relative to the cost of care. The long-term care hospital (LTCH) PPS encourages providers to extend the duration of stays to qualify for full payment, rather than a lesser short-stay payment. Partly reflecting differences in providers' practices, the financial performance of providers differs widely. For example, in 2016, a more than 10 percentage point difference in Medicare margins existed between for-profit and nonprofit SNFs and a 20 percentage point difference existed between for-profit and nonprofit IRFs.

Distortions encouraged by the payment systems have resulted in practice patterns that do not reflect efficient care. In contrast to traditional FFS, there is some evidence that Medicare Advantage plans and providers participating in alternative payment models (such as accountable care organizations and bundled payment initiatives) refer fewer patients to PAC, use lower cost PAC settings, and, in the case of SNFs, have shorter and less therapy-intensive stays—without appearing to harm patient outcomes (Colla et al. 2016, Dummit et al. 2016, Huckfeldt et al. 2017, McWilliams et al. 2016, Winblad et al. 2017).

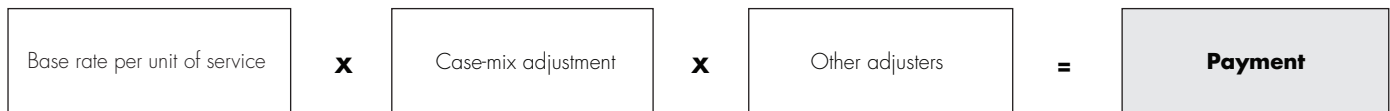
The biases of the payment systems have led the Commission to recommend changes to the PPS designs that increase the equity of payments across conditions so providers are not advantaged by admitting certain patients over others. The Commission recommended redesigns of the SNF (in 2008) and HHA payment systems (in 2011) that would base payments on patient characteristics such as diagnoses, comorbidities, and impairments, not the amount of therapy provided (Medicare Payment Advisory Commission 2011, Medicare Payment Advisory Commission 2008). The proposed changes would generally increase payments for medically complex care and decrease payments for rehabilitation care that is unrelated to a patient's characteristics. For IRFs, in 2016, the Commission recommended changes to the outlier policies as a short-term fix to better align payments with the costs of the highest acuity patients and recommended that the Secretary improve program integrity through reviewing medical records in conjunction with IRF patient assessment data and through reassessing the inter-rater reliability across IRFs to discern the accuracy of recorded patient acuity (Medicare Payment Advisory Commission 2016b).

Another persistent theme of the Commission's discussions is the level of Medicare payments to PAC providers. For most of the past 10 years, Medicare payments have been 10 percent or more above the costs to treat beneficiaries. Since 2008, the Commission has recommended either no updates to payments or a reduction in payment levels. Yet, given the wide variation in financial performance across providers, the Commission has, at times, been constrained in making recommendations that would even more closely align payments to the cost of care. The Commission's update recommendations this year again signal that Medicare continues to pay too much for PAC.

In addition to providers' financial incentives created by the PPS's current designs, specific concerns about PAC have framed the Commission's discussions of the need to reform the way Medicare pays for this care. There are few evidence-based guidelines for PAC, so it is not always clear when PAC is needed, where care is best provided, how much care is required, or when more care is likely to result in better outcomes. PAC placement decisions often reflect nonclinical factors, such as local practice patterns, PAC availability in a market, the proximity to a beneficiary's home, patient and family preferences, and financial relationships between the referring hospital

**FIGURE  
7-1**

**Simplified design of a prospective payment system**



and the PAC provider—but not necessarily where the patient would receive the best care. Given these factors, it is not surprising that per capita Medicare spending varies more for PAC than for any other service (Medicare Payment Advisory Commission 2017b). Across the four PAC settings, Medicare requires providers to use different patient assessment tools, which undermines the program’s ability to compare on a risk-adjusted basis the patients admitted, the cost of care, and the outcomes patients achieve. Finally, though similar beneficiaries can be treated in the four settings, Medicare uses separate payment systems for each that can result in considerably different payments for comparable conditions. These factors led the Congress to include mandated studies of a unified payment system in the Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT).

### **The Commission’s work on a unified payment system for PAC**

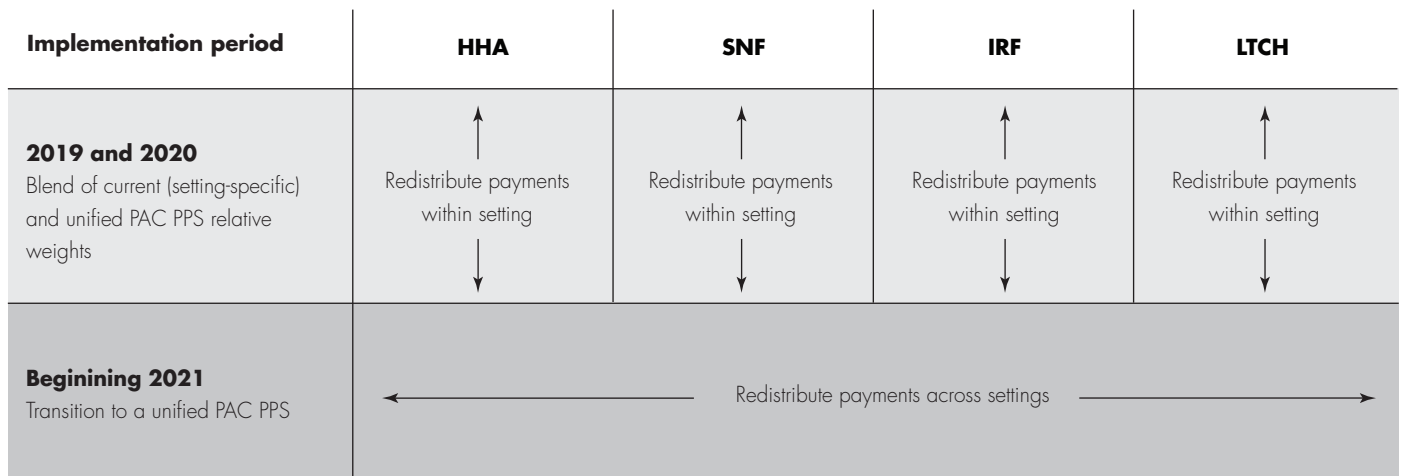
In response to IMPACT’s mandate, in June 2016, the Commission recommended features of a unified payment system and estimated the effects of moving to such a system (Medicare Payment Advisory Commission 2016a). After concluding that readily available data could accurately predict the cost of most types of conditions, the Commission evaluated a design using 8.9 million PAC stays in 2013 (see text box on the Commission’s work on the design of a PAC PPS, pp. 197–198).

Consistent with Medicare’s FFS PPSs (Figure 7-1), the Commission’s design would effectively establish a base rate that is adjusted up or down based on the patient’s care needs (the case-mix adjuster). The case-mix adjuster is a relative weight that, when multiplied by the base

rate, lowers or raises the payment to reflect the stay’s relative costliness. Other broad adjusters (such as a disproportionate share adjustment for stays treated by providers with a high share of low-income patients) could be considered for all stays if there is empirical justification for them. A PPS often includes outlier policies that adjust payments for stays with exceptionally low or high costs.

The design for the unified payment system uses a uniform unit of service and a common risk adjustment method that includes patient and stay characteristics (e.g., the patient’s primary reason for treatment and comorbidities). Payments would reflect the average cost of stays across the four settings based on characteristics of the patient and the stay, not the setting.<sup>1</sup> The Commission’s analyses concluded that two outlier policies were needed—one for unusually short stays and another for unusually high-cost stays. Because the design could be implemented relatively quickly and would correct existing biases and shortcomings of the PPSs, the Commission concluded that a unified PAC PPS could be implemented sooner than contemplated by IMPACT. In June 2017, the Commission recommended that a unified PAC PPS be implemented beginning in 2021 (Medicare Payment Advisory Commission 2017a).

The Commission evaluated the impact of the design and focused on over 30 different patient groups, including 22 clinical groups, 3 definitions of patient severity, and various demographic groups. The equity in payments across clinical conditions and the providers that treat them would increase because the relative profitability across conditions would be narrower compared with current payments (Medicare Payment Advisory Commission 2016a). The relative profitability becomes more uniform because the unified PAC PPS design would decrease payments for rehabilitation care unrelated to a patient’s characteristics and increase payments for medically

**FIGURE  
7-2****Blending unified PAC PPS relative weights with current payment system weights would redistribute payments within each setting**

Note: PAC (post-acute care), PPS (prospective payment system), HHA (home health agency), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital).

complex patients. As a result, providers would have less incentive to admit certain patients over others. The shift in payments and increases in payment equity are consistent with the rationale for the Commission's recommendations to revise the individual PAC PPSs.

### **An approach to redistribute Medicare's payments for different conditions treated within each PAC setting**

A unified PAC PPS would correct disparities in payments across settings and patient conditions by eliminating key shortcomings in the individual PPS designs and narrowing the relative profitability across conditions. Compared with the current payment systems, the unified PAC PPS increases the relative weights for medically complex care and lowers them for rehabilitation care that is unrelated to a patient's condition. With more closely aligned payments and costs for all conditions, the design would help ensure access for all beneficiaries. The Commission recommended that a unified PAC PPS be phased in beginning in 2021, with a three-year transition period during which payments would be calculated using a blend of unified PAC PPS and setting-specific base

rates. Although a transition would give providers time to adjust their costs and mix of patients, it would extend the inequities of the existing PAC payment systems and delay the much needed (and long overdue) redistribution of payments across case types.

One way to accelerate the redistribution of payments for different conditions treated at an individual PAC setting would be to base payments partly on the relative weights (the case-mix adjuster) established by the unified PAC PPS. Aggregate payments to each setting would remain consistent with the Commission's update recommendation for each setting, but payments for each PAC setting would be redistributed based in part on the relative weights of the unified PAC PPS (Figure 7-2). Shifts in payments across a setting's providers would reflect a provider's mix of patients, how a provider's costs compared with the average, and a provider's coding and therapy practices. The redistribution would dampen the incentive to prefer to treat certain conditions over others. By basing at least part of the payment on the unified PAC PPS's relative weights, payments would begin to be redistributed in the direction intended under the unified PAC PPS.

A simple example illustrates how the redistribution of payments for an individual PAC setting occurs when a blend of the relative weights is used to establish payments.

**TABLE  
7-1**

**An example of two conditions to illustrate how changes in relative weights under a unified PAC PPS would redistribute payments across conditions within a setting**

	Current PPS (Setting specific)	Unified PAC PPS	Blend
<b>Relative weights</b>			
Orthopedic medical	1.2	0.9	1.1
Medically complex	0.8	1.1	0.9
<b>Payments (base rate = \$6,000)</b>			
Orthopedic medical	\$7,200 (6,000 × 1.2)	\$5,400 (6,000 × 0.9)	\$6,600 (6,000 × 1.1)
Medically complex	\$4,800 (6,000 × 0.8)	\$6,600 (6,000 × 1.1)	\$5,400 (6,000 × 0.9)
<b>Total payments to the provider</b>	<b>\$12,000</b>	<b>\$12,000</b>	<b>\$12,000</b>

Note: PAC (post-acute care), PPS (prospective payment system). The example uses a blend of 67 percent current PPS weights and 33 percent unified PAC PPS weights.

Consider a provider that treats two patients, one with an orthopedic medical condition (such as nonsurgical medical treatment for hip fracture) and another requiring medically complex care (Table 7-1). Under the unified PAC PPS, the relative weight for orthopedic medical conditions would decline and the relative weight for medically complex conditions would increase. In this example, the relative weight for the orthopedic medical case decreases from 1.2 to 0.9 (and the resulting payment

decreases from \$7,200 to \$5,400). The relative weight for the medically complex case increases from 0.8 to 1.1, resulting in payments increasing from \$4,800 to \$6,600. Though the total payments to the provider remain the same (\$12,000), payments across the two types of conditions are redistributed. Before the implementation of the unified PAC PPS, a blend of the unified PAC PPS and setting-specific relative weights would begin to shift payments across conditions.

**TABLE  
7-2**

**Blending current PPS and PAC PPS relative weights and base payments for PAC providers before and during the transition to a unified prospective payment system**

Year	Relative weights		Base payments	
	Current PPS (Setting specific)	Unified PAC PPS	Current PPS (Setting specific)	Unified PAC PPS
2019	67%	33%	100%	0%
2020	33	67	100	0
2021	0	100	67	33
2022	0	100	33	67
2023	0	100	0	100

Note: PPS (prospective payment system), PAC (post-acute care).

Source: MedPAC analysis.



Per the Commission's recommendation, the unifying of payments *across* settings would not begin until 2021, with the start of a three-year transition to a PAC PPS. At that point, payments begin to be redistributed across settings using a blend of the setting-specific base payment and the unified PAC PPS base payment.

Before the unified PAC PPS is fully implemented, CMS could use a blend of the unified PAC PPS *relative weights* and setting-specific *relative weights* to calculate payments, while keeping total payments to each setting at the recommended level (Table 7-2). Over time, the blend would shift from having the setting-specific relative weights "count more" than the unified PAC PPS relative weights in 2019 to having the relative weights of the unified PAC PPS count more in 2020. But within each setting, aggregate payments would remain at the recommended level. CMS would apply a budget-neutrality factor to keep payments within a setting at the recommended level, which would prevent payments from shifting between the settings before the PAC PPS is implemented. Starting in 2021, the relative weights would be based entirely on the unified PAC PPS weights and the three-year transition to the unified PAC PPS would begin using the new system's base rates.

During the transition to a fully implemented PAC PPS (2021 to 2023), the base payment would be a blend of the setting-specific *base rate* and the unified PAC PPS *base rate* (and using the unified PAC PPS relative weights). In the early years, each setting's base rate would count more and the unified PAC PPS base rates would count less. In the later years, the unified PAC PPS base rates would count more until they are used exclusively to pay PAC providers. For example, in the first year of the transition, the payment for a stay treated in an IRF would be a blend of the IRF base rate times the unified PAC PPS relative weight and the PAC PPS base rate times the unified PAC PPS relative weight. Using the PAC PPS base rate to establish payments would result in the redistributions *across* settings, with larger shifts occurring as the "weight" of the PAC PPS base rate increases until it is used exclusively to establish payments in each PAC setting.

We estimated the effects of blended relative weights for the years before the implementation of the unified PAC PPS (2019 and 2020) using a 67:33 blend of current setting-specific relative weights and unified PAC PPS relative weights in 2019 and a 33:67 blend in 2020, while keeping payments at the current level of spending. We did not model any provider responses to the proposed changes.

Within each setting, aggregate payments remain the same, but payments would be redistributed considerably across patient conditions. The broad effects on different conditions would be similar across the four settings and illustrate the findings previously reported (Medicare Payment Advisory Commission 2017a, Medicare Payment Advisory Commission 2016a). Payments within each setting would increase for patients who are medically complex, including those who are chronically critically ill; patients with the highest level of severity; patients with comorbidities that involve multiple body systems; and patients who require severe wound care or ventilator care. For conditions that typically involve the provision of therapy services unrelated to a patient's condition, payments would decrease for the majority of stays. The redistribution in payments is likely to make providers less reluctant to admit medically complex patients, thereby increasing those beneficiaries' access to PAC.

For each PAC setting, the magnitude of the effects by condition would vary because the new system's relative weights are based on the average cost of stays across the four settings, and these differ from each setting's relative weights. In addition, the volume of a condition can be low for an individual PAC setting, so the effects for a particular condition will be driven by the costs of the stays in the other PAC settings. Further, the incentives of the current PPSs and the provider behavior they have encouraged differ by setting. Thus, for example, the effects for conditions that may involve the overprovision of therapy services are likely to vary by setting. In contrast, the effects are far more uniform for medically complex conditions.

The effects of redistributed payments on providers within a setting are relevant to the update discussion. Across providers, average payments would be redistributed based on the mix of patients a provider treats, how a provider's costs compare with the average, and whether the provider typically furnishes rehabilitation therapy that is unrelated to their patients' conditions (and not based on the provider's characteristics, *per se*). Across each setting's providers, the effects would be consistent by ownership (for profit vs. nonprofit) and type (hospital based vs. freestanding). Average payments would increase for nonprofit providers and hospital-based providers and decrease for for-profit facilities and freestanding providers (Table 7-3, p. 196). To be clear, these changes in payments reflect the mix of patients treated by these providers and their therapy practices, not the provider characteristics themselves. The redistributions would have the effect of

**TABLE  
7-3****Estimated change in payments in 2019 and 2020 using a blend of unified PAC PPS and current (setting-specific) relative weights**

Reporting category	Share of facilities	Percent change from 2017 payments			
		HHA (69% of stays)	SNF (26% of stays)	IRF (4% of stays)	LTCH (2% of stays)
2019 (67% setting-specific relative weights : 33% unified PAC PPS relative weights)					
All stays	100%	0%	0%	0%	0%
For profit	75	-0.7	-1.6	-0.9	-0.4
Nonprofit	25	2.3	6.0	0.9	2.1
Hospital based	11	4.1	28.0	1.0	N/A
Freestanding	89	-0.4	-1.0	-1.1	N/A
Urban	84	-0.4	0.0	0.2	0.1
Rural	16	2.0	-0.1	-2.1	-1.8
2020 (33% setting-specific relative weights : 67% unified PAC PPS relative weights)					
All stays	100%	0%	0%	0%	0%
For profit	75	-1.4	-3.2	-1.9	-0.8
Nonprofit	25	4.7	11.8	2.0	4.4
Hospital based	11	8.2	55	2.1	N/A
Freestanding	89	-0.8	-2.0	-2.3	N/A
Urban	84	-0.7	0.0	0.4	0.2
Rural	16	4.0	-0.2	-4.4	-3.8

Note: PAC (post-acute care), PPS (prospective payment system), HHA (home health agency), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital), N/A (not applicable). All LTCHs are considered freestanding. The analysis does not consider any provider responses to the proposed policy.

Source: MedPAC analysis based on impacts of a unified PAC PPS estimated by the Urban Institute for MedPAC (Wissoker 2017).

raising payments to low-margin providers and lowering payments to high-margin providers.

Blending the unified PAC PPS and setting-specific relative weights has three benefits. First, it would start to correct the inequities of the current PPSs, which create financial incentives for providers to favor treating certain conditions over others because the relative profitability of different conditions would narrow. Second, it would give providers even more time to adjust their practices to payments based on patient characteristics rather than the amount of rehabilitation services furnished or coding practices. Providers would have a financial incentive to change their therapy practices and align their costs with the blended payment even sooner than the full implementation of the unified PAC PPS because the changes encouraged by

blended payments would be consistent with those that will be required to be successful under the new payment system. During the blending period, providers and CMS could learn important lessons applicable to the unified PAC PPS's implementation. Last, because payments would be redistributed across conditions and the providers that treat them, policymakers would be less constrained in reducing payments to a level more closely aligned with the costs of care.

One way to accomplish the blending of the relative weights (in 2019 and 2020) would be for CMS to calculate the payment for each stay two ways—under the current setting-specific PPS, using those relative weights, and under the unified PAC PPS, using that design's relative weights—and blend the two, using a mix of the two that



## Design of a PAC PPS and the development of PAC PPS relative weights

The Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014 required the Commission to use data from CMS's Post-Acute Care Payment Reform Demonstration (PAC-PRD) to evaluate and recommend features of a unified PAC prospective payment system (PPS) and to estimate the impacts of moving from setting-specific PPSs to a unified payment system (see MedPAC's June 2016 report to the Congress, available at <http://medpac.gov/docs/default-source/reports/chapter-3-mandated-report-developing-a-unified-payment-system-for-post-acute-care-june-2016-report-.pdf?sfvrsn=0>). Because participation in the PAC-PRD was voluntary and its sample of providers and stays was small and not representative, the Commission took a two-part approach to complete this work. First, we tested the feasibility of basing payments for stays (defined as a stay for patients treated in skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals and as a home health episode for care furnished by home health agencies) on patient and stay characteristics using the PAC-PRD data. Payments would be based on the predicted costs of stays. The factors used to predict the actual cost of stays included beneficiary characteristics (e.g., age, disability); the primary reason for treatment; comorbidities; cognitive status; patient impairments (e.g., difficulty swallowing, bowel incontinence); measures of patient severity; and

the use of special treatments (e.g., ventilator care). The actual costs of stays were estimated using Medicare cost reports and claims data and include all Medicare-allowed costs, using patient and stay characteristics.

The models accurately predicted the actual cost of stays for most of the many patient groups we examined. Models using only readily available administrative data were almost as accurate as models that used the unique data collected by the PAC-PRD. The Commission concluded that a PAC PPS design for a uniform unit of service (a stay) and using a common set of case-mix adjusters was feasible and administrative data could be used to establish accurate payments.

The second phase of the work estimated the impacts of moving to a PAC PPS. To complete this work, we used 8.9 million stays (including those for beneficiaries admitted from the community) for home health agencies, skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals in 2013, the most recent year of data when the work was undertaken. The models predicting the actual cost of stays in 2013 were refined and re-estimated using routinely and uniformly collected information across the four settings. The factors used to predict the costs and their relative importance (the coefficients) were

*(continued next page)*

changes over time. In the early years of the blending, the current payments would have less weight each year, and the “new” payments would have more weight until the new payments made up 100 percent of the payment. For example, in a two-year transition, the setting-specific weights (and payment) could make up two-thirds of the payment for a stay in the first year and one-third of the payment in the second year. Since payments to LTCHs, HHAs, and IRFs are based on a discharge or episode, implementing this change would be relatively straightforward. Because the SNF payments are required to be per diem, the Secretary would need to convert the stay-based unified PAC PPS payment to a per diem payment.

The blending of payments under the current and “new” set of relative weights (and running parallel payment systems) is common practice when changes to a PPS are phased in. The statutory language for each setting's PPS varies in specificity and the latitude the Secretary has regarding case-mix adjusters. To circumnavigate any ambiguities regarding this authority, the Commission's recommendation is directed to the Congress. That said, the Commission acknowledges that CMS may require additional resources to implement this approach. However, it is important to maintain momentum toward a unified PAC PPS to improve equity of payment and access for medically complex beneficiaries. Blending relative

## Design of a PAC PPS and the development of PAC PPS relative weights (cont.)

published in 2016 and can be found at <http://medpac.gov/docs/default-source/contractor-reports/designing-a-unified-prospective-payment-system-for-postacute-care.pdf?sfvrsn=0>. These factors could be used to establish the relative weights in a unified PAC PPS. The actual costs of stays were estimated using Medicare cost reports and claims data and include all Medicare-allowed costs, using patient and stay characteristics. The models predicting the costs of 2013 PAC stays were accurate for most of the more than 40 patient groups we examined.

The following year, the Commission conducted additional work to consider a time frame for implementing a unified PAC PPS, a transition to the new payment system, and the level of payments. For

this research, the actual costs and payments for the same 8.9 million PAC stays from 2013 were updated to reflect changes in costs and payments between 2013 to 2017 (see MedPAC's June 2017 Report to the Congress (available at [http://medpac.gov/docs/default-source/contractor-reports/jun17\\_transitionpacpps\\_contractor.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/contractor-reports/jun17_transitionpacpps_contractor.pdf?sfvrsn=0)) and the supporting contractor report by researchers at the Urban Institute (available at [http://medpac.gov/docs/default-source/reports/jun17\\_ch1.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/reports/jun17_ch1.pdf?sfvrsn=0))). Based on this investigation, the Commission recommended that a PAC PPS be implemented sooner than contemplated in the IMPACT Act, include a three-year transition, and lower the aggregate level of PAC payments by 5 percent. ■

weights would begin the process of rebalancing payments within the individual PAC settings.

### RECOMMENDATION 7

**The Congress should direct the Secretary to begin to base Medicare payments to post-acute care (PAC) providers on a blend of each sector's setting-specific relative weights and the unified PAC prospective payment system's relative weights in fiscal year 2019.**

### RATIONALE 7

This recommendation calls for the Secretary to begin to redistribute payments within each setting by using a blend of the relative weights of a unified PAC PPS and each sector's setting-specific relative weights in 2019. One example of the blending would be to phase in the PAC PPS relative weights over two years (2019 and 2020). In 2021, when the Commission has recommended that the implementation of the PAC PPS begin, the relative weights of the unified PAC PPS would be used entirely to establish payments.

Within each setting, using a blend of the setting-specific relative weights and the unified PAC PPS relative weights would redistribute payments across conditions, with

payments increasing for medically complex stays and decreasing for stays that currently receive rehabilitation therapy that is unrelated to a patient's clinical condition. The blending would begin to correct the known biases of the HHA and SNF payment systems. The redistribution of payments will narrow the differences in relative profitability across patients with different care needs and, based on a provider's mix of stays and therapy practices, redistribute payments across providers. Redistributed payments would encourage providers to begin making the changes needed to be successful under a unified PAC PPS. It would also give providers and CMS valuable experience that would inform the implementation of the PAC PPS. In addition, redistributing payments across different provider types based on the mix of patients they treat would enable policymakers to lower PAC payments to more closely align with the costs of care.

The recommendation to blend the relative weights in no way detracts from the Commission's concurrent recommendations to revise the SNF and HHA PPSs. Since the PAC PPS is on a longer implementation timetable, CMS should continue to improve the accuracy and the equity of the setting-specific payment systems. When CMS implements the revised SNF and HHA PPSs, those

new relative weights would be used in the blending with the PAC PPS weights to establish payments for each setting. Because the directional effects of the PAC PPS and the setting-specific redesigns are the same, revising the SNF and HHA PPSs would complement the implementation of the PAC PPS by beginning to redistribute payments across conditions.

To address the persistently high level of payments, the Commission has setting-specific recommendations to lower payments in the case of HHAs and IRFs and to provide no updates to payment rates for SNFs and long-term care hospitals. The blending recommendation, which redistributes payments *within* a setting, should not interfere with the consideration of the *level* of payments. Across PAC, program payments need to be lowered.

## IMPLICATIONS 7

### Spending

- Relative to current law, this recommendation would not change program spending.

### Beneficiary and provider

- This recommendation would begin to correct the known imbalances of the current PPSs that create incentives for providers to favor treating some beneficiaries over others. Basing payments on a blend of the unified PAC PPS relative weights and setting-specific relative weights would generally raise payments for beneficiaries with medically complex care needs. As a result, access for these beneficiaries should increase.
- Within each PAC setting, in aggregate, the recommendation would reduce the disparities in Medicare financial performance across provider types. Providers would have less incentive to admit certain types of patients and avoid others.
- The impacts on individual providers will vary based on their mix of patients, their relative costs, and their current practice patterns. These shifts reflect the mixes of patients and their practices, not their ownership or provider type per se. The recommendation would not eliminate all of the differences in Medicare margins across providers because providers' costs vary widely. ■

## Endnotes

---

- 1 Payments to HHAs would be adjusted to reflect the considerably lower costs of this setting.

## References

---

- Colla, C. H., V. A. Lewis, L. S. Kao, et al. 2016. Association between Medicare accountable care organization implementation and spending among clinically vulnerable beneficiaries. *JAMA Internal Medicine* 176, no. 8 (August 1): 1167–1175.
- Dummit, L. A., D. Kahvecioglu, G. Marrufo, et al. 2016. Association between hospital participation in a Medicare bundled payment initiative and payments and quality outcomes for lower extremity joint replacement episodes. *Journal of the American Medical Association* 316, no. 12 (September 27): 1267–1278.
- Huckfeldt, P. J., J. J. Escarce, B. Rabideau, et al. 2017. Less intense postacute care, better outcomes for enrollees in Medicare Advantage than those in fee-for-service. *Health Affairs* 36, no. 1 (January 1): 91–100.
- McWilliams, J. M., L. A. Hatfield, M. E. Chernew, et al. 2016. Early performance of accountable care organizations in Medicare. *New England Journal of Medicine* 374, no. 24 (June 16): 2357–2366.
- Medicare Payment Advisory Commission. 2017a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2017b. *Report to the Congress: Regional variation in Medicare Part A, Part B, and Part D spending and service use*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2011. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2008. *Report to the Congress: Reforming the delivery system*. Washington, DC: MedPAC.
- Winblad, U., V. Mor, J. P. McHugh, et al. 2017. ACO-affiliated hospitals reduced rehospitalizations from skilled nursing facilities faster than other hospitals. *Health Affairs* 36, no. 1 (January 1): 67–73.
- Wissoker, D. 2017. *Modeling the transition to a unified post-acute prospective payment system*. Washington, DC: Urban Institute.





CHAPTER

# 8

---

## **Skilled nursing facility services**

---

## R E C O M M E N D A T I O N

**8**

The Congress should:

- eliminate the market basket update for skilled nursing facilities for fiscal years 2019 and 2020;
- direct the Secretary to implement a redesigned prospective payment system (PPS) in fiscal year 2019 for skilled nursing facilities; and
- direct the Secretary to report to the Congress on the impacts of the revised PPS and make any additional adjustments to payments needed to more closely align payments with costs in fiscal year 2021.

**COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1**

# Skilled nursing facility services

## Chapter summary

Skilled nursing facilities (SNFs) provide short-term skilled nursing and rehabilitation services to beneficiaries after a stay in an acute care hospital. In 2016, about 15,000 SNFs furnished 2.3 million Medicare-covered stays to 1.6 million fee-for-service (FFS) beneficiaries. Medicare FFS spending on SNF services was \$29.1 billion in 2016, about 1 percent less than in 2015. Just over 4 percent of beneficiaries used SNF services.

## Assessment of payment adequacy

To examine the adequacy of Medicare's payments, we analyze beneficiaries' access to care (including the supply of providers and volume of services), quality of care, provider access to capital, and Medicare payments in relation to providers' costs to treat Medicare FFS beneficiaries. Key measures indicate Medicare payments to SNFs are adequate.

**Beneficiaries' access to care**—Access to SNF services remains adequate for most beneficiaries.

- **Capacity and supply of providers**—The number of SNFs participating in the Medicare program has been stable. The vast majority (89 percent) of beneficiaries live in a county with three or more SNFs or swing bed facilities (rural hospitals with beds that can serve as either SNF beds or acute care beds), and less than 1 percent live in a county without one.

## In this chapter

- Are Medicare payments adequate in 2018?
- How should Medicare payments change in 2019?
- Medicaid trends

Between 2015 and 2016, the median occupancy declined slightly but remained high (85 percent).

- ***Volume of services***—Medicare-covered admissions per FFS beneficiary decreased between 2015 and 2016, consistent with decreases in inpatient hospital admissions (a three-day inpatient stay is required for Medicare coverage of SNF services under FFS). Lengths of stay also declined. Both contributed to fewer covered days in 2016 compared with 2015.

***Quality of care***—Between 2015 and 2016, SNF quality measures had mixed performance. The community discharge rate increased (improved), while the rates of hospital readmissions (during a SNF stay and within 30 days after discharge) increased slightly (got worse). However, since 2011, both readmission rates have improved. Measures of changes in patients' functional status have remained essentially constant.

***Providers' access to capital***—Because most SNFs are part of nursing homes, we examine nursing homes' access to capital. Access to capital was adequate in 2017 and is expected to remain so in 2018. Lending wariness reflects broad changes in post-acute care, not the adequacy of Medicare's payments. Medicare is regarded as a preferred payer of SNF services.

***Medicare payments and providers' costs***—In 2016, the average Medicare margin for freestanding SNFs was 11.4 percent—the 17th year in a row that the average was above 10 percent. Margins varied greatly across facilities, reflecting differences in costs and shortcomings in the SNF prospective payment system (PPS) that favor treating rehabilitation patients over medically complex patients. The marginal profit, a measure of the relative attractiveness of treating Medicare beneficiaries, was at least 19.6 percent for freestanding facilities.

Last year, the Commission recommended that payment rates remain the same for two years while the Secretary undertakes revising the payment system. For the year following, it recommended that the Secretary evaluate the need to make additional adjustments to payments to align them with providers' costs. The circumstances of the SNF PPS remain unchanged: The system still needs to be revised to base payments on patient characteristics, while the level of Medicare's payments remains high relative to the cost of treating FFS beneficiaries. In 2017, CMS proposed changes to the SNF PPS that it plans to implement in fiscal year 2019. These changes are consistent with the Commission's recommended SNF redesign: It bases payments on patient characteristics and better targets payments for nontherapy ancillary services (such as drugs). Several factors indicate that the aggregate level of Medicare's payments remains too high. First, Medicare margins have historically

been above 10 percent; the marginal profit in 2016 was high, suggesting that facilities with available beds have an incentive to admit Medicare patients. Medicare Advantage (managed care) payment rates to SNFs are considerably lower than the program's FFS payments, even though the differences between beneficiaries enrolled in Medicare Advantage and FFS who used SNF services were small. Costs varied widely for reasons unrelated to case mix and wages. Many SNFs (970, or 8 percent of the facilities included in the analysis) were able to keep their costs relatively low while maintaining relatively high quality.

On the basis of these factors, the Commission recommends that the Congress (1) eliminate the update for SNFs in 2019 and 2020, (2) direct the Secretary to implement a revised PPS in 2019, and (3) direct the Secretary, in 2021, to evaluate the need to make further adjustments to payments to bring them in alignment with costs. The recommendation regarding the level of payments to SNFs is made in the context of the Commission's recommendation (discussed in the post-acute care (PAC) chapter (Chapter 7)) to establish SNF payments using a blend of the unified PAC PPS and current SNF PPS relative weights beginning in fiscal year 2019. A blend of the relative weights would redistribute payments within the SNF setting by increasing payments for medically complex patients and lowering payments for patients who receive rehabilitation therapy unrelated to their care needs. The recommendation would narrow the differences in financial performance across providers based on their mix of patients and would enable the Commission to recommend, and policymakers to implement, an aggregate level of payments that would better align payments with the cost of care.

## **Medicaid trends**

As required by the Patient Protection and Affordable Care Act of 2010, we report on Medicaid use, spending, and non-Medicare (private-payer and Medicaid) margins. Medicaid finances mostly long-term care services provided in nursing homes, but also covers copayments for low-income Medicare beneficiaries (known as dual-eligible beneficiaries) who stay more than 20 days in a SNF. The number of Medicaid-certified facilities has declined slightly since 2015, less than 0.5 percent, but remains close to 15,000. CMS reports total FFS spending on nursing home services declined 3.2 percent between 2015 and 2016 and estimates a smaller decline (–1.6 percent) between 2016 and 2017. In 2016, the average total margin—reflecting all payers (including managed care, Medicaid, Medicare, and private insurers) and all lines of business (such as hospice, ancillary services, home health care, and investment income)—was 0.7 percent, down from 2015 (1.6 percent). The average non-Medicare margin (which includes all payers and all lines of business except Medicare FFS SNF services) was –2.3 percent, also lower than in 2015 (–2.1 percent). ■





---

## Background

---

Skilled nursing facilities (SNFs) provide short-term skilled nursing care and rehabilitation services, such as physical and occupational therapy and speech–language pathology services. Examples of SNF patients include those recovering from surgical procedures such as hip and knee replacements or from medical conditions such as stroke and pneumonia. In 2016, almost 1.6 million fee-for-service (FFS) beneficiaries (4.3 percent of Part A FFS users) used SNF services at least once; program spending on SNF services was \$29.1 billion (about 8 percent of FFS spending) (Boards of Trustees 2017, Office of the Actuary 2017b). Medicare’s median payment per day was \$470 and its median payment per stay was \$18,321.<sup>1</sup> In 2015, about one-fifth of hospitalized beneficiaries were discharged to SNFs.

Medicare covers up to 100 days of SNF care after a medically necessary inpatient hospital stay of at least 3 days.<sup>2</sup> For beneficiaries who qualify for a covered stay, Medicare pays 100 percent of the payment for the first 20 days of care. Beginning with day 21, beneficiaries are responsible for copayments. For 2018, the copayment is \$167.50 per day.

The term *skilled nursing facility* refers to a provider that meets Medicare requirements for Part A coverage.<sup>3</sup> Most SNFs (more than 90 percent) are dually certified as SNFs and nursing homes (which typically provide less intensive, long-term care services). Thus, a facility that provides skilled care often also provides long-term care services that Medicare does not cover. Medicaid pays for the majority of nursing facility days. In 2016, CMS finalized rules overhauling the requirements nursing homes must meet to participate in the Medicare and Medicaid programs (Centers for Medicare & Medicaid Services 2016). The rules included changes to infection control, patient’s rights, staff training and competencies, care planning, arbitration agreements, and order writing by dietitians and therapists. The required changes will be phased in over three years, with the first phase implemented on November 28, 2016. The second phase was implemented in late November 2017.<sup>4</sup>

Like all post-acute care (PAC) providers (e.g., home health agencies, rehabilitation facilities), the SNF industry is under increasing pressure to improve care coordination and patient outcomes. Medicare’s hospital readmission

policy and value-based purchasing program, bundled payments, and accountable care organizations (ACOs) encourage SNFs to avoid readmissions so they are attractive partners with referring hospitals. Managed care organizations and private insurers are also looking for high-quality, low-cost SNFs to include in their referral networks. In addition, in fiscal year 2019, SNFs will face their own financial incentive to lower readmissions when the SNF value-based purchasing policy begins to affect program payments to SNFs.

The mix of facilities where beneficiaries receive skilled nursing care has shifted over time toward freestanding and for-profit facilities. In 2016, almost all facilities (96 percent) were freestanding and accounted for almost all revenue (97 percent, Table 8-1, p. 210). Hospital-based SNFs made up a small share of facilities, stays, and spending (5 percent or less). For-profit facilities accounted for 70 percent of SNFs and 74 percent of revenues.

Medicare-covered FFS SNF days typically account for a small share of a facility’s total patient days but a disproportionately larger share of the facility’s revenues. In freestanding facilities in 2016, Medicare FFS beneficiary stays constituted 11 percent of total facility days but accounted for 20 percent of facility revenue, a decline from 2010 when FFS Medicare accounted for 23 percent of facility revenue (data not shown).

The most common hospital conditions of patients referred to SNFs for post-acute care are septicemia, joint replacement, heart failure and shock, hip and femur procedures (except major joint replacement), kidney and urinary tract infections, renal failure, and pneumonia. Compared with other beneficiaries, SNF users are older, more frail, and disproportionately female, disabled, living in an institution, and dually eligible for Medicare and Medicaid (Medicare Payment Advisory Commission 2013).

### SNF prospective payment system and its shortcomings

Medicare uses a prospective payment system (PPS) to pay SNFs for each day of service.<sup>5</sup> Information gathered from a standardized patient assessment instrument—the Minimum Data Set—is used to classify patients into case-mix categories, called resource utilization groups (RUGs). RUGs differ depending on the services SNFs provide to a patient (such as the amount and type of rehabilitation therapy and the use of respiratory therapy and specialized feeding); the patient’s clinical condition (such as whether

**TABLE  
8-1****Freestanding SNFs and for-profit SNFs accounted for the majority of facilities, Medicare stays, and Medicare spending, 2016**

Type of SNF	Facilities	Medicare-covered stays	Medicare spending
Total number	15,080	2,310,753	\$26.4 billion
Freestanding	96%	95%	97%
Hospital based	4	5	3
Urban	72	83	85
Rural	28	17	15
For profit	70	71	74
Nonprofit	23	24	21
Government	6	4	4

Note: SNF (skilled nursing facility). Totals may not sum to 100 percent due to rounding and missing values. The spending amount included here is slightly lower than that reported by the Office of the Actuary, and the count of SNFs is slightly lower than what is reported in CMS's Survey and Certification Providing Data Quickly system.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files for 2016.

the patient has pneumonia); and the patient's need for assistance in performing activities of daily living (ADLs). Medicare's payment system for SNF services is described in the Commission's *Payment Basics*, available on the Commission's website.<sup>6</sup> Although the payment system is referred to as "prospective," two features undermine how prospective it is: The system makes payments for each day of care (rather than a set payment for the entire stay), and it bases payments partly on the minutes of rehabilitation therapy furnished to a patient. Both features result in providers having some control over how much Medicare will pay them for their services.

Almost since its inception, the SNF PPS has been criticized for encouraging the provision of excessive rehabilitation therapy services and not accurately targeting payments for nontherapy ancillary (NTA) services such as drugs (Government Accountability Office 2002, Government Accountability Office 1999, White et al. 2002). Over time, the accuracy of Medicare's payments has steadily eroded: Payments for NTA services are unrelated to the cost of SNF care, and therapy payments have become less and less proportional to the costs of therapy services.<sup>7</sup> As a result, the PPS continues to advantage providers that furnish therapy services unrelated to a patient's condition and avoid patients with high NTA costs (Medicare Payment Advisory Commission and The Urban Institute 2015). The Office of Inspector General

(OIG) of the Department of Health and Human Services also found that the difference between payments for and costs of therapy services increased as the amount of therapy provided per day increased (Office of Inspector General 2015).

In 2008, the Commission recommended revising the PPS to base therapy payments on patient characteristics (not service provision), remove payments for NTA services from the nursing component, establish a separate component within the PPS that adjusts payments for NTA services, and implement an outlier payment policy (Medicare Payment Advisory Commission 2008). Each year since then, the Commission has urged CMS to move forward with the much-needed reform. Beginning in 2012, the Commission has recommended revising and rebasing the SNF PPS to address both the distribution and level of payments (Medicare Payment Advisory Commission 2012). The Commission's recommended revisions to the PPS would more closely align payments with patient characteristics and result in considerable redistribution of payments (Medicare Payment Advisory Commission and The Urban Institute 2015).

Under the recommended design, payments would increase substantially for facilities with relatively low shares of intensive therapy, facilities with relatively high NTA costs per day, and facilities with high shares of clinically complex

and special care days (we refer to these days collectively as “medically complex”).<sup>8</sup> Payments would decrease for facilities with high shares of intensive therapy and facilities with low NTA costs per day.<sup>9</sup> Based on the mix of patients and therapy practices, payments would increase for hospital-based facilities and nonprofit facilities and would decrease for freestanding facilities and for-profit facilities. The effects on individual facilities would depend on their mix of patients and current therapy practices.

Based on its work examining SNFs’ billing practices and its analysis of therapy costs and payments, OIG has recommended that CMS evaluate the extent to which therapy payments should be reduced; change the method for paying for therapy; adjust Medicare payments based on patient characteristics (not the amount of therapy furnished); and strengthen the oversight of SNF billing (Office of Inspector General 2015). CMS has concurred with these recommendations and proposed an alternative to the current PPS design (Centers for Medicare & Medicaid Services 2017b). OIG has work under way to examine the documentation at selected SNFs to see whether, for each day, patients are assigned to the appropriate case-mix group (Office of Inspector General 2016).

### **CMS’s revisions of the SNF PPS**

CMS’s work on alternative designs for the SNF PPS began 13 years ago in response to a legislative requirement (the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000) to conduct research on potential refinements of the SNF PPS (Liu et al. 2007, Maxwell et al. 2003, Urban Institute 2004). In the spring of 2017, CMS issued an advance notice of proposed rulemaking (ANPRM) and sought comments on a redesign of the SNF PPS (Centers for Medicare & Medicaid Services 2017b). Based on work conducted since 2014, CMS has proposed basing payments for therapy services on patient characteristics (function and cognitive impairment) and establishing separate components for NTA services (such as drugs) and for speech–language pathology services. Payments for routine services (mostly nursing care) would be based on a patient’s ability to perform ADLs, the use of extensive services (such as ventilator or tracheostomy care), and the presence of specific clinical conditions. CMS also proposed adjusting payments for physical and occupational therapy and NTA services by day of the stay (such that payments decline throughout the stay). To gather stakeholder input, CMS held four expert panels and extended the comment period

on the ANPRM.<sup>10</sup> The ANPRM states that CMS plans to implement the changes in fiscal year 2019.

The design is consistent with the design recommended by the Commission in 2008, and the estimated impacts would be similar. The design would redistribute payments from rehabilitation patients (especially those assigned to the highest rehabilitation case-mix groups) to medical patients, patients with high NTA costs, and patients requiring extensive services or wound care. Reflecting the mix of patients, payments would shift from freestanding to hospital-based providers and from for-profit to nonprofit providers (Centers for Medicare & Medicaid Services 2017b).

---

## **Are Medicare payments adequate in 2018?**

---

To examine the adequacy of Medicare’s FFS payments, we analyze beneficiaries’ access to care (including the supply of providers and volume of services), quality of care, providers’ access to capital, Medicare FFS payments in relation to costs to treat Medicare beneficiaries, and changes in payments and costs. We also compare the performance of SNFs that have relatively high and low Medicare margins and compare relatively efficient SNFs with other SNFs.

### **Beneficiaries’ access to care: Access is stable for most beneficiaries**

We do not have direct measures of access, in part because the need for SNF care, as opposed to a different PAC service or none at all, is not well defined. Instead, we consider the supply and capacity of providers and evaluate changes in service volume.

### **Capacity and supply of providers: Supply remains stable**

The number of SNFs participating in the Medicare program in 2017 was stable at 15,348. There was a handful of new facilities (83, the majority of which were for profit) and a smaller number of terminations (51, most of which were at their own initiative) (Centers for Medicare & Medicaid Services 2017a). The SNF industry is highly fragmented and characterized by independent providers and local and regional chains. Of the 50 largest operators, most are privately held. Single operators make up about 40 percent of the industry, small (often regional or religious)

**TABLE  
8-2****SNF admissions and days declined in 2016**

Volume measure	2012	2014	2015	2016	Percent change 2015-2016
Covered admissions per 1,000 FFS beneficiaries	69.0	68.6	68.9	66.4	-3.6%
Covered days per 1,000 FFS beneficiaries	1,893	1,849	1,824	1,706	-6.5
Covered days per admission	27.4	27.0	26.5	25.7	-3.0

Note: SNF (skilled nursing facility), FFS (fee-for-service). "FFS beneficiaries" includes users and non-users of SNF services. Data include 50 states and the District of Columbia.

Source: Centers for Medicare & Medicaid Services 2017d.

operators make up about one-quarter of facilities, with the remaining third run by large chains (Ritchie and Johnson 2017). The share of hospitals with financial links to SNFs has slowly increased as alternative payment models encourage hospitals to lower spending and improve clinical outcomes for services furnished in post-acute care. In 2015, 18 percent of hospitals had a financial link to a SNF, up from 11 percent in 2005 (Fowler et al. 2017). One study found that the integration of hospitals and SNFs increases Medicare payments (by extending the lengths of the SNF stays and, at the same time, lowering the hospital length of stay) but also lowers rehospitalization rates (Konetzka et al. 2016).

In 2016, 89 percent of beneficiaries lived in counties with three or more SNFs or swing bed facilities (rural hospitals with beds that can serve as either SNF beds or acute care beds). Less than 1 percent of beneficiaries lived in a county without a SNF or swing bed facility, and another 11 percent lived in counties with one or two SNFs or swing bed facilities.

Between 2015 and 2016, median occupancy rates for freestanding SNFs declined slightly (from 86 percent to 85 percent) but remained high. The lower occupancy rates reflect the shorter stays and lower admissions. Occupancy rates at hospital-based facilities were slightly lower but remained steady at 81 percent. There is wide variation in occupancy rates: One-quarter of freestanding facilities had occupancy rates at or below 74 percent while another quarter had rates 92 percent or higher. This variation indicates that some markets have the capacity to accommodate more admissions while other markets do not. The median occupancy rate for freestanding SNFs in rural areas was lower than average (81 percent), and facilities

located in areas with small populations (fewer than 2,500 people) had lower median occupancy rates (78 percent).

**Between 2015 and 2016, SNF admissions decreased and stays shortened**

In 2016, 4.2 percent of FFS beneficiaries used SNF services, a slight decline from 2015 (4.4 percent of beneficiaries). Between 2015 and 2016, SNF admissions per FFS beneficiary decreased 3.6 percent (Table 8-2) (Centers for Medicare & Medicaid Services 2017d). We examine service use for only FFS beneficiaries because the CMS data on users, days, and admissions do not include service use by beneficiaries enrolled in Medicare Advantage (MA) plans. Covered days per 1,000 FFS beneficiaries declined even more (-6.5 percent). The combination of decreased SNF admissions and even larger declines in days resulted in shorter stays on average (25.7 days in 2016). The decline in SNF admissions per capita is consistent with the 2.8 percent decrease in hospital admissions (see Chapter 3) per capita (a hospital admission within the past 30 days is required for Medicare coverage of a SNF stay under FFS).

The change in SNF use reflects several trends, including a growing presence of alternative payment models such as ACOs and bundled payments. To lower spending and financial risk, these models may have lowered the number of beneficiaries referred to SNF care and the amount of care beneficiaries receive, which could reflect more appropriate use for beneficiaries with lower care needs. There is some evidence that providers participating in alternative payment models refer fewer patients to PAC (including SNF) and that their SNF use includes shorter and less therapy-intensive stays (Colla et al. 2016, Dummit et al. 2016, McWilliams et al. 2017). Likewise, as SNFs expand their



MA business, there are similar pressures to lower SNF use (both users and days). One study of differences in PAC use between MA and FFS enrollees reported that MA enrollees had shorter stays for beneficiaries recovering from joint replacement, stroke, or heart failure—between 1.7 and 3.5 days, depending on the condition, after adjusting for severity (Huckfeldt et al. 2017).<sup>11</sup>

### **Service mix reflects biases in PPS design**

Between 2002 and 2016, the share of days classified into rehabilitation case-mix groups in freestanding facilities increased from 78 percent to 94 percent; medically complex days make up the other 6 percent of days.<sup>12</sup> During the same period, the share of intensive therapy days (days assigned to the ultra-high and very high groups) as a share of total days rose from 27 percent to 83 percent. The share of days assigned to the highest rehabilitation case-mix groups (the ultra-high group) increased from 7 percent to 58 percent.

Facilities differed in the amount of intensive therapy they provided, though the differences by provider type and ownership have narrowed over time. In 2016, there was an 18 percentage point difference between freestanding and hospital-based facilities in intensive therapy days (83 percent in freestanding facilities, 65 percent in hospital-based facilities) compared with a 34 percentage point difference between the two in 2010 (71 percent in freestanding, 37 percent in hospital-based SNFs). Differences by ownership exhibit similar but less remarkable trends. In 2016, a 3 percentage point difference in intensive therapy days existed between for-profit and nonprofit facilities (84 percent in for-profits, 81 percent in nonprofits), compared with an 11 percentage point difference between the two in 2010 (72 percent in for profit SNFs, 61 percent in nonprofits). We analyzed what effect, if any, inpatient rehabilitation facilities (IRFs) in the same county had on the share of intensive therapy days, but our findings were inclusive. Counties with more IRF beds per 1,000 FFS enrollees had smaller shares of intensive therapy days (suggesting a relationship), but counties without an IRF had the smallest share. Citing work showing that intensive therapy is associated with more functional improvement for certain beneficiaries, CMS concluded that the variation in the amount of therapy provided warranted the monitoring of patient outcomes (Centers for Medicare & Medicaid Services 2017c).

Changes in the frailty of beneficiaries at admission to a SNF do not explain the increases in therapy. The average SNF user in 2016 had slightly less ability to perform

ADLs (a 4 percent lower modified Barthel score), had a slightly higher (2 percent) risk score (indicating more comorbidities), and was the same age (78 years old) as the average SNF user in 2012.<sup>13</sup> Over the same period, for the 10 individual ADLs we examined, the shares of SNF users requiring the most help decreased for 7 activities, remained the same for 2 activities, and increased for 1 activity.<sup>14</sup> Similarly, OIG found that SNFs had increased their billing for the highest levels of therapy even though beneficiary characteristics—including age and reasons for and severity levels of the preceding hospital stay—remained unchanged (Office of Inspector General 2015). A study examining whether additional therapy improved patient outcomes (in this case, the likelihood of being discharged home) focused on beneficiaries, between 2000 and 2009, who were recovering from hip fracture (Jung et al. 2016). It found that patients with more therapy were more likely to be discharged home, but the benefit of additional therapy decreased as the amount of therapy increased, and there was no additional benefit for patients in the highest case-mix groups. Since the study period, among the rehabilitation case-mix groups, the highest therapy group (the ultra-high group) has grown the most (while the share of days assigned to other therapy groups has declined), raising the question of the value of these additional therapy services.

In 2017, the Department of Justice continued its enforcement of the False Claims Act, investigating fraud and abuse in SNFs' therapy billings (Department of Justice 2017). Since 2013, there have been 12 settlements of cases involving the provision of medically unnecessary therapy services and other issues related to billing and documentation requirements to maximize reimbursement (Department of Justice 2017, Department of Justice 2016a, Department of Justice 2016b, Department of Justice 2016c, Rolf Gottman Lang 2017).

The share of medically complex days (those assigned to the clinically complex or special care case-mix groups) continues to be low (6 percent). Because rehabilitation days remain highly profitable, the PPS encourages providers to furnish enough therapy to convert medically complex days to rehabilitation days. That said, our analysis found that most SNFs (96 percent) admit patients assigned to medically complex case-mix groups, and the presence of a long-term care hospital (LTCH) in the county had no clear effect on the share of medically complex days in SNFs. Hospital-based units were disproportionately represented in the group of SNFs with the highest shares (defined as the top quartile) of medically complex

## Measures of skilled nursing facility quality

To assess skilled nursing facility (SNF) quality, the Commission examines risk-adjusted rates of readmission to the hospital, discharge back to the community, and change in functional status during the SNF stay.<sup>15</sup>

The community discharge measure counts (in the numerator) beneficiaries discharged to a community setting (including assisted living). The numerator and denominator exclude beneficiaries discharged to an inpatient setting (e.g., an acute care hospital or nursing home) within 1 day of the SNF discharge, beneficiaries who die within 1 day of the SNF discharge, and beneficiaries who are readmitted to an acute care hospital within 30 days of admission to the SNF (Kramer et al. 2015). Nursing home residents who are beneficiaries admitted to a hospital and discharged to the community are included in the numerator, though this is an unlikely trajectory for them. Although the risk of hospital admission is high for nursing home residents, the risk adjustment accounts for differences in patient health status. Residents admitted to the hospital and discharged back to a nursing home are not counted as community discharges. The risk adjustment method (and the comorbidities included) is sufficiently robust that including an indicator for whether the beneficiary is discharged to a nursing home does not improve the accuracy of the models.<sup>16</sup>

The readmission measures count patients whose primary diagnosis for rehospitalization was considered

potentially avoidable—that is, the condition typically can be managed in the SNF setting. The potentially avoidable conditions include congestive heart failure, electrolyte imbalance/dehydration, respiratory infection, septicemia, urinary tract or kidney infection, hypoglycemia and diabetic complications, anticoagulant complications, fractures and musculoskeletal injuries, acute delirium, adverse drug reactions, cellulitis/wound infection, pressure ulcers, and blood pressure management. The count of readmissions excludes those that were likely to have been planned (e.g., inpatient chemotherapy or radiation therapy) and readmissions that signal a premature discharge from the hospital. The denominator includes beneficiaries who were readmitted for other causes or not readmitted. We separately measure readmissions that occur during the Medicare-covered SNF stay and those that occur within 30 days of discharge from the SNF.

The observed readmission and community discharge rates were risk adjusted for medical comorbidity, cognitive comorbidity, mental health comorbidity, function, and clinical conditions (e.g., surgical wounds and shortness of breath). The rates reported are the average risk-adjusted readmission rates for all facilities with 25 or more stays (20 stays for the postdischarge readmission measure). Demographics (including race, gender, and age categories except younger than age 65 years) were not important in explaining differences in readmission and community discharge rates after

*(continued next page)*

admissions. While making up 4 percent of facilities, hospital-based SNFs made up 9 percent of the SNFs with the highest shares (the top quartile) of medically complex admissions. Had the provision of therapy been ignored in making case-mix group assignments, the share of medically complex cases would have declined slightly between 2013 and 2016.<sup>17</sup>

Though access does not appear to be an issue in general, industry representatives and patient advocates report that some providers are reluctant to admit patients with high NTA costs (such as the need for expensive antibiotics).

The Commission's recommended design would increase payments for medically complex patients and improve the targeting of payments for patients who require high-cost NTA services. Likewise, the design proposed by CMS would increase payments for nonrehabilitation patients (by an estimated 45 percent) and for patients with high NTA costs (by an estimated 19 percent) (Centers for Medicare & Medicaid Services 2017b). In addition, providers may avoid patients who are likely to require long stays and exhaust their Medicare benefits because a facility's daily payments decline if the patient becomes eligible for Medicaid or if the stay results in bad debt.



## Measures of skilled nursing facility quality (cont.)

controlling for beneficiaries' comorbidities, mental illness, and functional status (Kramer et al. 2014).

Two risk-adjusted measures of functional change gauge the share of a facility's stays during which patients' function improves (the rate of improvement in one, two, or three mobility measures—bed mobility, transfer, and ambulation) and the share of stays during which patients' functioning does not decline (including stays with improvement and stays with no change), given the prognosis of the facility's patients. Change is measured by comparing initial and discharge assessments. For patients who go on to use long-term nursing home care, the assessment closest to the end of Medicare coverage is used, as long as it is within 30 days of the end of the SNF stay. Although the initial assessment often occurs toward the end of the first week of the stay, the Minimum Data Set information pertains to the number of times over the past week that assistance was provided, rather than the recorded functional status at a single point in time. Therefore, measurement error due to the reliance on an assessment conducted at the end of the first week of the stay is

unlikely and would not affect our ability to examine quality trends over time, unless there were changes from year to year in when initial assessments were conducted.

The initial assessment conducted during each stay is used to assign the patient to 1 of 22 case-mix groups using 3 measures of mobility—bed mobility, transfer, and ambulation (Kramer et al. 2014). This classification system acts as a form of risk adjustment, differentiating patients based on their expected ability to perform the three mobility-related activities of daily living (ADLs). A patient's prognosis is measured using the patient's ability to eat and dress because these two ADLs encompass cognitive functioning and other dimensions of physical functioning that facilitate rehabilitation.

Risk-adjusted rates compare a facility's observed rates with its expected rates ((actual rate / expected rate) × the national average rate) based on the mix of patients across functional outcome groups. Each facility-level measure combines the functional-status information for the three mobility measures. ■

### Quality of care: Some measures improved while others remained the same

The Commission tracks three broad categories of SNF quality indicators: risk-adjusted rates of discharge to the community, hospital readmission, and change in functional status during the SNF stay (see text box on measures of SNF quality). We use these measures because they reflect the goals of most beneficiaries: to return home, avoid a rehospitalization, and improve or maintain function. The readmission rate during the SNF stay measures how well the SNF detects, monitors, and furnishes care to prevent rehospitalizations. The postdischarge measure indicates how well facilities prepare beneficiaries and their caregivers for safe and appropriate transitions to the next health care setting (or home). While quality has improved since 2011, the changes between 2015 and 2016 showed mixed progress. The average rate of discharge to the community improved, the average rates of readmission were slightly worse, and the two measures of functional change were essentially unchanged.

### Rates of community discharge rate and readmissions show mixed progress

Over the past six years, SNF outcome-based measures (risk-adjusted rates of community discharge and readmissions to hospitals) have generally improved, but with mixed progress (Table 8-3, p. 216). The risk-adjusted rates of discharge to the community steadily improved. In 2016, the average rate was 39.5 percent, up from 33.2 percent in 2011. The risk-adjusted rates of potentially avoidable readmissions during the SNF stay have improved since 2011, declining from 12.4 percent to 10.8 percent in 2016, but the rate increased slightly from 2015. The increase may be a by-product of fewer readmissions being spread over an even smaller number of SNF stays (hence the slight uptick in the rate).

The risk-adjusted rates of potentially avoidable readmissions during the 30 days after discharge from the SNF exhibited the same trend—overall improvement since 2011 but a slight worsening between 2015 and 2016.<sup>18</sup> In 2016, 5.8 percent of discharges from the SNF

**TABLE  
8-3****Mean risk-adjusted rates of community discharge and potentially avoidable readmissions, 2011–2016**

Measure	2011	2013	2015	2016
Discharged to the community	33.2%	37.5%	38.7%	39.5%
Potentially avoidable readmissions:				
During SNF stay	12.4	11.1	10.4	10.8
During 30 days after discharge from SNF	5.9	5.5	5.0	5.8

Note: SNF (skilled nursing facility). Higher rates of discharge to the community indicate better quality. Higher readmission rates indicate worse quality. Rates are the mean of facility rates calculated for all facilities with 25 or more stays, except the rate of potentially avoidable readmissions during the 30 days after discharge, which is reported for all facilities with 20 or more stays.

Source: Analysis of fiscal year 2011 through fiscal year 2016 Minimum Data Set and hospital claims data.

were readmitted to a hospital within 30 days. The low correlation between the 30-day postdischarge and during-stay readmission rates (0.15, which was statistically significant given the sample sizes) confirms that the readmission measures capture different dimensions of quality.

The general trend of lower readmission rates during the SNF stay since 2011 in part reflects the increased attention from hospitals to avoid readmission penalties by partnering with SNFs that have low readmission rates. Some hospitals have established preferred provider networks with higher quality SNFs, hoping to lower their own readmission rates in exchange for increased referrals to SNFs. One study found that hospitals with a network of preferred SNFs had lower readmission rates from their partnering SNFs (McHugh et al. 2017). Another study found that, while all hospitals had lowered their readmission rates between 2007 and 2013, those affiliated with ACOs were quicker to lower them (Winblad et al. 2017). Because the ACO-affiliated hospitals were at greater financial risk, they may have had more effective discharge planning and information sharing with the SNFs they used. In addition to partnering with hospitals, many SNFs want to secure volume from MA plans and ACOs by demonstrating improvements in their readmission rates.

The American Health Care Association (AHCA) has a goal for its member SNFs to lower their 30-day all-cause, all-patient readmission rate. The association claims that, as of March 2017, 22 percent of members had achieved a 30 percent reduction in readmissions or achieved a rehospitalization rate below 10 percent (across all patients, not just Medicare) (American Health

Care Association 2017). With these improvements, their members' average readmission rate in early 2017 was almost at the national average (17.0 percent compared with 16.8 percent for nonmembers nationally). In addition to lowering readmissions, the AHCA Quality Initiative aims to improve staff turnover rates, customer satisfaction, unintended health care outcomes, functional outcomes, and discharges to the community.

As part of the Protecting Access to Medicare Act of 2014, the Congress enacted a SNF value-based purchasing policy that uses one measure—readmissions. Public reporting of readmission rates began in October 2017. A value-based purchasing program will adjust a facility's payments based on its readmission rate starting in October 2018, beginning with an all-cause rate and moving to a potentially preventable rate as soon as practicable. The Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT) established a SNF quality reporting program that requires SNFs to report several quality measures.<sup>19</sup> Providers that do not submit the necessary data to calculate the required quality measures will have their market basket update reduced by 2 percentage points.

**No improvement in managing patients' functional status**

Most SNF beneficiaries receive rehabilitation therapy, and the amount of therapy furnished to them has steadily increased over time. Yet patients vary considerably in their expected improvement during the SNF stay. Some patients are likely to improve in several ADLs during their SNF stay, while others with chronic and degenerative diseases may expect, at best, to maintain their function. We measure SNF performance on both aspects of patient

**TABLE  
8-4****Mean risk-adjusted functional outcomes in SNFs  
showed little change between 2011 and 2016**

Composite measure	2011	2013	2015	2016
Rate of improvement in one or more mobility ADLs	43.6%	43.8%	43.6%	43.6%
Rate of no decline in mobility	87.2	87.2	87.1	87.1

Note: SNF (skilled nursing facility), ADL (activity of daily living). The three mobility ADLs include bed mobility, transfer, and ambulation. The rate of mobility improvement refers to the average rates of improvement in bed mobility, transfer, and ambulation, weighted by the number of stays included in each measure. Stays with improvement in one, two, or three of these ADLs are counted in the improvement measure. The rate of stays with no decline in mobility is the share of stays with no decline in any of the three mobility ADLs. Rates are the mean of facility rates and are calculated for all facilities with 25 or more stays.

Source: Analysis of fiscal year 2011 through fiscal year 2016 Minimum Data Set data.

function on a risk-adjusted basis (see text box on SNF quality measures, pp. 214–215).

The average risk-adjusted rates of functional change—rate of improvement in one, two, or three mobility ADLs (bed mobility, transfer, and ambulation) and the rate of no decline in mobility—were essentially unchanged between 2011 and 2016 (Table 8-4). These risk-adjusted rates consider the likelihood that a patient’s functionality will change, given the functional ability at admission. So even though the amount of therapy furnished over this time period increased, the average functional status of beneficiaries did not improve. However, functional levels were maintained despite shorter SNF stays.

**Large variation in quality measures indicates considerable room for improvement**

Considerable variation exists across the industry in the quality measures we track. We found one-quarter of facilities in 2016 had risk-adjusted community discharge rates at or below 31.4 percent, whereas the best performing quarter of facilities had rates of 48.5 percent or higher (Table 8-5, p. 218). Some of this variation will reflect differences in the mix of short-stay patients and long-term residents. Some facilities have large shares of short-stay SNF patients who would expect to be discharged back to the community, while others have large shares of long-stay residents who are not expected to be discharged back to the community. Similar variation was seen in readmissions during the SNF stay: The worst performing quartile had rates at or above 13.5 percent, whereas the best quartile had rates at or below 7.7 percent. Finally, rates of readmission in the 30 days after discharge from the SNF varied most—a twofold difference between the 25th percentile and the 75th percentile. The amount of variation

across and within the groups suggests considerable room for improvement, all else being equal. There was less variation in the mobility measures, particularly the measure detecting no decline in mobility. The relatively high and fairly uniform rates indicate that most SNFs are able to prevent declines for most beneficiaries. Comparing the best and worst (the 10th and 90th percentiles), there is a 24 percent difference in rates (77.5 percent compared with 95.8 percent, respectively), indicating room for improvement (data not shown).

Over the past six years, nonprofit SNFs and hospital-based SNFs have had higher rates of community discharges and fewer readmissions (that is, better rates) during the SNF stay. The readmission rates for hospital-based SNFs and freestanding SNFs during the 30 days after discharge from the SNF were similar, with hospital-based facilities having higher rates in some years and lower rates in others.

Medicare is increasingly focused on measuring the value of the care it purchases. In 2018, CMS will implement a value-based purchasing program that will affect payments, beginning with an all-cause all-condition readmission measure, and using 2017 as the performance period. In addition, last year, CMS expanded the number of short-stay quality measures reported in Nursing Home Compare, a Medicare website that displays comparative information about SNFs and nursing homes to help beneficiaries select a provider. Until recently, 8 of the 11 quality measures focused on long-stay care. Of the three short-stay measures (the share of residents with pressure sores that are new or worsened, the share of residents who self-report moderate or severe pain, and the share of residents who newly received antipsychotic medication), none captures the main goals of SNF care. To correct this shortcoming,

**TABLE  
8-5****SNF quality measures varied considerably across SNFs, 2016**

Quality measure	Risk-adjusted rates			
	Mean	25th percentile	75th percentile	Ratio of 75th to 25th percentile
Discharged to the community	39.5%	31.4%	48.5%	1.5
Average mobility improvement across the three mobility ADLs during SNF stay	43.6	36.0	51.5	1.4
No decline in mobility during SNF stay	87.1	82.7	92.5	1.1
Potentially avoidable readmissions during SNF stay	10.8	7.7	13.5	1.8
Potentially avoidable readmissions within 30 days after discharge from SNF	5.8	3.7	7.6	2.1

Note: SNF (skilled nursing facility), ADL (activity of daily living). Higher rates of discharge to community indicate better quality. Higher readmission rates indicate worse quality. "Mobility improvement" is the average of the rates of improvement in bed mobility, transfer, and ambulation, weighted by the number of stays included in each measure. "No decline in mobility" is the share of stays with no decline in any of the three mobility ADLs. Rates are the average of facility rates and calculated for all facilities with 25 or more stays, except the rates of potentially avoidable readmissions during the 30 days after discharge, which are reported for all facilities with 20 or more stays.

Source: Analysis of fiscal year 2016 Minimum Data Set and hospital claims data.

CMS added four measures to the Nursing Home Compare website and to its star rating methodology: rates of discharge to the community, emergency room visits, rehospitalization within the first 30 days of admission to a SNF, and improvement in function. Though the measure definitions differ from those used by the Commission, they capture key dimensions of care for short-stay patients.<sup>20</sup>

### Providers' access to capital in 2017

The vast majority of SNFs operate within nursing homes; therefore, in assessing SNFs' access to capital, we look at the availability of capital for nursing homes. Although Medicare makes up the minority share of almost all facilities' revenues, many operators see Medicare as their best payer.

Access to capital was adequate in 2017 and is expected to remain so in 2018. Some lending wariness reflects broad changes in post-acute care—the uncertainty accompanying the transition away from utilization-driven FFS and toward value-based care—not the adequacy of Medicare's payments. Medicare is regarded as a preferred payer of SNF services.

Market analysts report that capital in 2017 has been generally available, but some lenders may be cautious for several reasons. First, there is downward pressure

on SNF volume as bundled payments, increased MA enrollment, and ACOs shorten stays or eliminate them entirely (with beneficiaries discharged home, with or without home health care). Analysts note that the transition from FFS to alternative payment models (including ACOs, bundled payment, and value-based purchasing) will require many SNFs to change their practices and enhance their capabilities to achieve and report good outcomes. Another factor is the lower revenues they receive per day for MA enrollees. Some uncertainty has also been raised by CMS as it considers whether to remove certain procedures (including total knee replacements and total and partial hip replacements) from the inpatient-only list (a list of procedures that must be performed in an inpatient setting), which would lower the demand for SNF services (Fitch Ratings 2017). Finally, the Department of Justice's investigations into therapy billing practices will require some providers to change their current therapy practices. As evidence of this sector's wariness, some real estate investment trusts (REITs) with large SNF holdings have moved those holdings into separate REITs or have sold a portion of their SNF assets (Ritchie and Johnson 2017). In 2017, Kindred Healthcare completed the sale of its SNFs and now relies on preferred provider relationships with SNFs in each of its integrated markets (Kindred Healthcare 2017). In late 2017, Genesis sought relief from its creditors while it restructured its businesses (Brubaker 2017).



Despite these reservations, buyer demand for SNFs remains strong. During 2017, some companies (including REITs) added SNFs to their portfolios, knowing that the aging demographics and relatively lower price position (compared with IRFs and LTCHs) will continue to fuel demand for these services (Irving Levin Associates Inc. 2017a, Monroe 2017). One analyst noted that a smaller, regional strategy was more likely to be successful than a national one because these operators have a better understanding of the markets and referral patterns that enable them to be more adaptive to local conditions (Berklan 2017). Yet, uncertainty for some small operators has resulted in some market consolidation (Connole 2017). Some companies see the fragmentation of the industry as an opportunity to acquire underperforming properties (Ensign Group 2017, Genesis HealthCare 2017).

Reflecting the demand for SNF properties, the average price per bed has steadily increased for five consecutive years, increasing 15 percent in 2016 (on top of a 12 percent increase the prior year). In 2016, over one-quarter (29 percent) of facilities sold for \$125,000 or more per bed, compared with 19 percent in 2015 (Irving Levin Associates Inc. 2017b). Some properties sold for more than \$150,000 per bed, underscoring the prospect that a facility in the right market with the right patient mix can be successful. One analyst noted that, as competition for Medicare business increases, buyers are less interested in the lower end of the market (Irving Levin Associates Inc. 2017a).

As the nursing home industry becomes increasingly bifurcated—into providers with the capabilities to furnish skilled nursing care and successfully participate in alternative payment models versus providers without those capabilities—buyers will seek SNFs that already treat the high-acuity Medicare patients or facilities that can be renovated to meet this demand. In conducting their due diligence on potential borrowers, lenders review the quality of the potential borrower’s management team; cash flow and amount of debt; operating trends (volume, occupancy, payer mix, and patient mix); quality of care; ability to carry out strategic plans to shift payer or service mix; and the specificity of the facility’s plans to meet performance goals. Lenders continue to focus on facilities with high Medicare and private-payer mixes, facilities furnishing PAC as opposed to long-term care, and those with the potential to expand their share of PAC patients.

The Department of Housing and Urban Development (HUD) continues to be an important lending source.

In fiscal year 2017, HUD financed 310 projects, with the insured amount totaling \$3.4 billion, a 20 percent increase from 2016 (Department of Housing and Urban Development 2017). Lending increased because both the number and size of the loans increased. Refinancing, rather than new construction or renovation, continues to make up most of HUD loans. Despite this growth, HUD plays a smaller lending role than it has previously because low-cost borrowing and widely available capital sources have made it only one of many alternative lenders (Swett 2015).

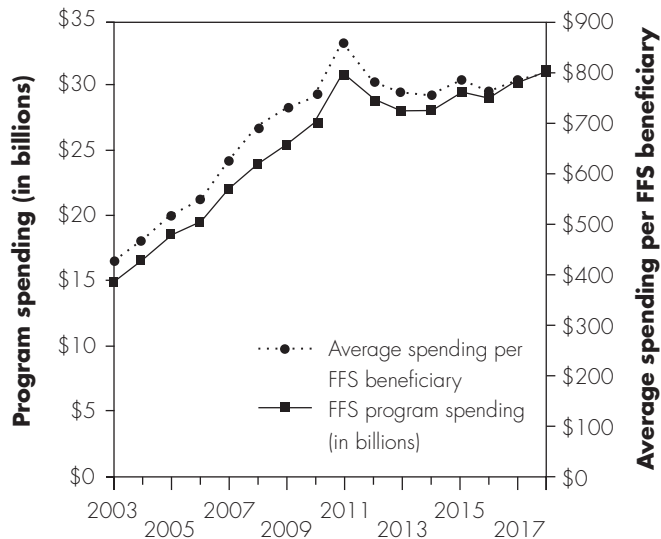
As payment reforms shift risk from payer to provider, providers use a variety of strategies to increase their revenue and improve their value. Revenue strategies include developing specialty services (such as rehabilitation centers) to attract Medicare patients, expanding service lines (such as home health and hospice), increasing their managed care business (including MA), aligning with ACOs and hospitals for referrals, and diversifying geographically. To increase their quality, some SNFs have increased staff training, improved their physical plants, increased physician presence, and developed cardiac and pulmonary capabilities (DiversiCare 2017, Genesis HealthCare 2017). Many SNFs have developed the data and analytics necessary to participate in alternative payment models and be successful partners with referring hospitals.

### **Medicare payments and providers’ costs: Medicare margins remained high in 2016**

In 2016, the aggregate Medicare margin for freestanding SNFs was 11.4 percent. Margins for individual facilities continue to be highly variable, depending on the facility’s share of intensive therapy days, size, and cost per day. The variations in Medicare margins and costs per day were not attributable to differences in patient demographics: High-margin facilities had higher case-mix indexes and higher shares of dual-eligible and minority beneficiaries. Differences by ownership were considerable, with for-profit facilities having much higher Medicare margins than nonprofit facilities. The 970 freestanding facilities defined as relatively efficient consistently had relatively low costs while furnishing higher quality care. Some MA plans’ payment rates were considerably lower than Medicare’s FFS payment rates, and the disparity is unlikely to be explained by differences in patient mix. These facts strongly suggest that SNFs can provide high-quality care at lower payment rates.

**FIGURE 8-1**

**After declining in 2016, program spending on SNF services is estimated to increase in 2017 and 2018**



Note: SNF (skilled nursing facility), FFS (fee-for-service). Fiscal year spending is shown. Data for 2017 and 2018 are estimates.

Source: Office of the Actuary 2017b.

### Trends in FFS spending and cost growth

In fiscal year 2016, Medicare FFS spending for SNF services was \$29.1 billion, about 1 percent lower than in 2015 (Figure 8-1) (Office of the Actuary 2017b). Before 2012, the average increase in program spending was over 9 percent a year. In 2011, program spending was unusually high because the rates for the new case-mix classification system included an adjustment that was too large for the mix of therapy modalities assumed in setting the rates. The industry took advantage of the new policies by quickly shifting its mix of modalities, and spending increased by over 13 percent in 2011. To correct for the excessive payment, CMS revised the adjustment downward in 2012, and total payments declined between 2012 and 2014. Since 2014, the growth in spending has averaged almost 3 percent a year. The Office of the Actuary estimates FFS spending increased over 3 percent in fiscal year 2017 and expects spending to increase at a faster rate (over 4 percent) in fiscal year 2018, to \$31.4 billion. On a per FFS beneficiary basis, average spending in 2016 (\$765) was about 2 percent lower than in 2015.

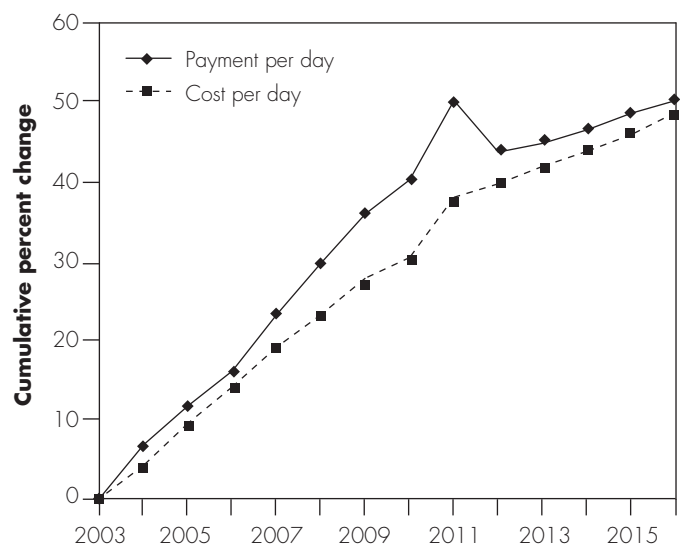
From 2003 to 2016, the cumulative increase in payments per day was slightly higher than the cumulative increase in cost per day (Figure 8-2). Payments per day incorporate

both annual updates to the per diem rates and changes in case mix. During this period, costs per day rose 49 percent while payments grew 50 percent. Every year since 2004, costs have increased faster than the year's update except for 2012. That year, Medicare lowered its rates by 11 percent to correct for the previous year's overpayments, and providers kept their cost growth low. Between 2003 and 2011, the increases in Medicare payments per day were much higher than the updates, followed by two years of modest growth in payments per day and one year (between 2011 and 2012) in which they declined. Since 2014, Medicare payments per day have again been higher than the updates.

Since 2012, costs have grown more quickly for nonprofit SNFs than for-profit SNFs. Cumulatively, costs grew 13.7 percent for nonprofit facilities compared with 9.5 percent for for-profit SNFs. The differences in growth were larger for routine and administrative costs compared with ancillary costs. During this same period, routine costs increased 13.6 percent for nonprofit SNFs, but almost half that (7.7 percent) of for-profit SNFs. In addition to higher cost growth, nonprofit facilities also had standardized cost per day (adjusted for differences in wages and case mix)

**FIGURE 8-2**

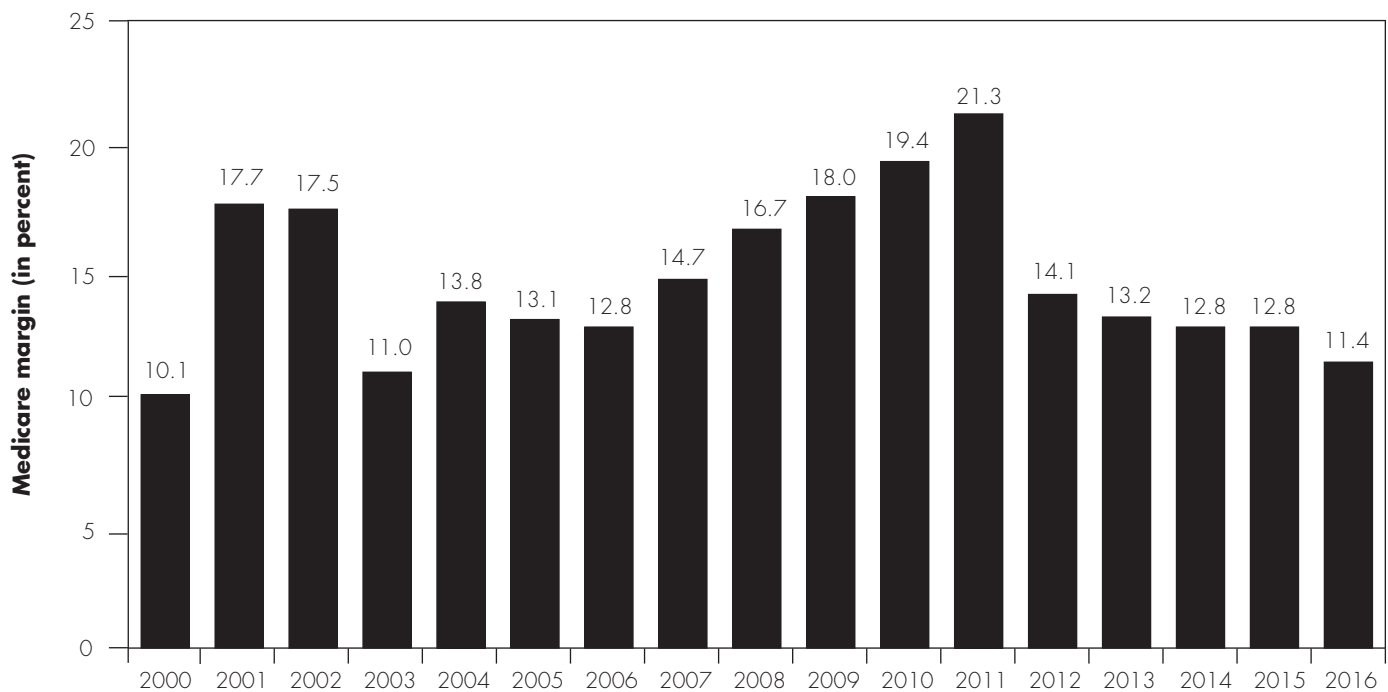
**Cumulative growth in Medicare cost and payments per SNF day, 2003–2016**



Note: SNF (skilled nursing facility). Data reported are for freestanding SNFs. Changes in payments reflect annual updates and changes in case mix.

Source: MedPAC analysis of freestanding SNF Medicare cost reports from 2003–2016.



**FIGURE  
8-3****Aggregate freestanding SNF Medicare margins have been above 10 percent since 2000**

Note: SNF (skilled nursing facility). Medicare margin is calculated as the sum of Medicare payments minus the sum of Medicare's costs, divided by Medicare payments.

Source: MedPAC analysis of freestanding SNF cost reports, 2000–2016.

that was about 10 percent higher than the cost per day in for-profit facilities.

### **SNF Medicare margins remain high**

The Medicare margin is a key measure of the adequacy of the program's payments because it compares Medicare's FFS payments with providers' costs to treat FFS beneficiaries. An all-payer total margin, in contrast, reflects the financial performance of the entire facility across all lines of business (such as ancillary and therapy services, hospice, and home health care) and all payers (including Medicaid, private insurers, and managed care) and is presented as context for the Commission's update recommendation.

In 2016, the aggregate Medicare margin for freestanding SNFs was 11.4 percent, the 17th consecutive year of Medicare margins above 10 percent (Figure 8-3). In aggregate, SNFs maintained their substantial margins despite productivity adjustments that lower market basket updates and despite the federal budget sequester that began

lowering payments in April 2013 by 2 percent per year. The Medicare margin declined 1.4 percentage points from 2015 because CMS made a forecast error correction in 2016 (–0.6 percent), and cost growth outpaced the increase in payments. Between 2015 and 2016, payments per day increased 1.6 percent compared with a 2.8 percent increase in costs per day. Shorter lengths of stay may have also contributed to the decrease in the Medicare margin since the days at the end of the stay are likely to be lower cost compared with days early in the stay. As stays shorten, early days make up a larger share of total days. A small increase (from 82 percent to 83 percent) in the share of days assigned to the highest payment case-mix groups (the ultra-high and very high groups) contributed to the increase in payments per day that grew faster than the update for 2016 (1.2 percent).

In 2016, hospital-based facilities (3 percent of program spending on SNFs) continued to have extremely negative Medicare margins (–67 percent), in part because of

**TABLE  
8-6****Variation in freestanding SNF  
Medicare margins reflects the mix  
of cases and cost per day, 2016**

Provider group	Medicare margin
All providers	11.4%
For profit	14.0
Nonprofit	2.3
Rural	9.8
Urban	11.7
Frontier	1.4
25th percentile of Medicare margins	0.7
75th percentile of Medicare margins	20.2
Intensive therapy: High share of days	13.2
Intensive therapy: Low share of days	4.3
Medically complex: High share of days	9.6
Medically complex: Low share of days	12.4
Small (20–50 beds)	–0.9
Large (100–199 beds)	12.9
Standardized cost per day: High	0.7
Standardized cost per day: Low	24.1
Standardized cost per discharge: High	9.3
Standardized cost per discharge: Low	13.3
Facility volume: High	13.7
Facility volume: Low	1.0

Note: SNF (skilled nursing facility). The margins are aggregates for the facilities included in the group. “Low” is defined as facilities in the lowest 25th percentile; “high” is defined as facilities in the highest 25th percentile. “Frontier” refers to SNFs located in counties with six or fewer people per square mile. “Standardized cost” refers to Medicare costs adjusted for differences in area wages and the case mix (using the nursing component’s relative weights) of Medicare beneficiaries. Facility volume includes all facility days.

Source: MedPAC analysis of 2016 freestanding SNF Medicare cost reports.

the higher cost per day reported by hospitals. Previous analysis by the Commission found that routine costs in hospital-based SNFs were higher, reflecting more staffing, higher skilled staffing, and shorter stays (over which to allocate costs) (Medicare Payment Advisory Commission 2007). However, hospital administrators consider their SNF units in the context of the hospital’s overall financial performance and mission. Hospitals with SNFs can lower their inpatient lengths of stay by transferring patients to

their SNF beds, thus making inpatient beds available to treat additional inpatient admissions. As a result, hospital-based SNFs can contribute to the bottom-line financial performance of hospitals: In fact, hospitals with SNFs had lower inpatient costs per case and higher inpatient Medicare margins than hospitals without SNFs.

**Marginal profit: A measure of the attractiveness of Medicare patients**

Another factor we consider when evaluating the adequacy of payments is whether providers have any financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries. If we approximate marginal cost as total Medicare cost minus fixed building and equipment cost, then marginal profit is:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

This comparison is a lower bound on the marginal profit because we ignore any potential labor costs that are fixed. For providers with available data, the marginal profit in 2016 was at least 19.6 percent. Because Medicare payments far exceed facilities’ marginal costs, facilities with available beds have an incentive to admit Medicare patients, also signifying a positive indicator of patient access.

**High and widely varying SNF Medicare margins indicate PPS reforms are still needed**

The persistently high Medicare margins and their wide variation indicate that the PPS needs to be revised and rebased so that payments more closely match patient characteristics, not the services provided to them. In 2016, one-quarter of freestanding SNFs had Medicare margins of 20.2 percent or higher, while another quarter of freestanding SNFs had margins of 0.7 percent or lower

(Table 8-6). One-quarter of SNFs (slightly more than last year) had negative Medicare margins (data not shown).

Over the past 10 years, for-profit facilities' Medicare margins have averaged about 10 percentage points higher than nonprofit facilities' margins, which continued to be true in 2016 (Table 8-6). Nonprofit facilities had an average Medicare margin of 2.3 percent, while the average for-profit margin was 14.0 percent. The disparity reflects differences in facilities' mix of patients, costs, size, and service provision. Nonprofit facilities tend to have higher costs per day (about 10 percent higher) and, since 2011, have had higher cost growth compared with for-profit facilities. The higher costs for nonprofit facilities are partly due to their smaller size. In 2015, the median nonprofit facility had 85 beds compared with 103 beds for the median for-profit facility (data not shown); therefore, the nonprofits may not be able to achieve the same economies of scale as larger facilities. As for revenues, nonprofits had somewhat lower shares of the more profitable ultra-high and very high therapy days compared with for-profit facilities (81 percent compared with 84 percent, respectively) and shorter stays, both lowering revenue.

The mix of days played a key role in shaping Medicare margins. In 2016, facilities with high shares of intensive-therapy days had Medicare margins that averaged almost 9 percentage points higher than facilities with low shares of these days (13.2 percent compared with 4.3 percent, respectively; Table 8-6). Despite the payment increases for medically complex cases in October 2010, facilities with high shares of medically complex patients had Medicare margins that were almost 3 percentage points lower than facilities with low shares of medically complex days.

Lower cost SNFs and larger and higher volume SNFs had higher Medicare margins than higher cost and smaller SNFs.<sup>21</sup> The Medicare margin for facilities with the lowest cost per day (the bottom quartile of cost per day) was 24.1 percent, while the margin for facilities with the highest cost per day (the top quartile of cost per day) was 0.7 percent (Table 8-6). The differences in Medicare margins for these various reporting groups increased slightly from 2015.

High-margin freestanding SNFs (those in the top quartile of the distribution of Medicare margins) appear to pursue both cost and revenue strategies (Table 8-7, p. 224). Compared with lower margin SNFs (those in the bottom quartile), high-margin SNFs had considerably lower daily total, routine, and ancillary costs. Economies of scale play a role; high-margin SNFs were larger on average than

lower margin facilities. Compared with lower margin SNFs, high-margin facilities had larger shares of dual-eligible beneficiaries, minority beneficiaries, and Medicaid days. It is possible that, given their larger Medicaid mix (and the lower payments typically made by Medicaid), these facilities keep their costs lower, which contributes to their higher Medicare margins.

On the revenue side, high-margin SNFs had revenues per day that were 16 percent higher, driven in part by having larger shares of intensive therapy days, and, to a lesser extent, smaller shares of medically complex days. The differences in financial performance based on a provider's case mix illustrate the need to revise the PPS. Under a revised payment system based on patient and stay characteristics, relative profitability would be more uniform across different types of cases, so providers would be much less financially advantaged by their mix of cases and therapy practices.

Even after CMS expanded the number of medically complex case-mix groups and shifted spending away from therapy care, the PPS continues to result in higher Medicare margins for facilities providing higher amounts of intensive therapy. A PPS design based on patient characteristics (such as the one recommended by the Commission and the design proposed by CMS) would redistribute Medicare spending to SNFs according to their mix of patients, not the amount of therapy provided.

Ownership of low-margin and high-margin facilities did not mirror the industry mix. Although for-profit facilities made up almost three-quarters of all freestanding SNFs in 2016, they constituted a smaller share (57 percent) of the low-margin facilities and a higher share (88 percent) of the high-margin group. Similarly, high-margin SNFs were disproportionately urban, accounting for 80 percent of this group (Table 8-7, p. 224).

### **Many SNFs had relatively low costs and achieved relatively high quality**

The Commission is required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 to consider the costs associated with efficient providers. The Commission follows two principles when selecting a set of efficient providers. First, the providers must do relatively well on both cost and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric in any of three consecutive years preceding the year under evaluation. The Commission's approach is to develop a

**TABLE  
8-7****Cost and revenue differences explain variation in Medicare margins for freestanding SNFs in 2016**

Characteristic	SNFs in the top margin quartile	SNFs in the bottom margin quartile	Ratio of SNFs in the top margin quartile to SNFs in the bottom margin quartile
<b>Cost measures</b>			
Standardized cost per day	\$266	\$387	0.69
Standardized ancillary cost per day	\$117	\$162	0.72
Standardized routine cost per day	\$151	\$217	0.70
Standardized cost per discharge	\$11,190	\$14,246	0.79
Average daily census (patients)	88	66	1.33
Average length of stay (days)	42	36	1.17
<b>Revenue measures</b>			
Medicare payment per day	\$510	\$441	1.16
Medicare payment per discharge	\$22,472	\$15,940	1.41
Share of days in intensive therapy	87%	79%	1.10
Share of medically complex days	3%	4%	0.75
Medicare share of facility revenue	24%	14%	1.71
<b>Patient characteristics</b>			
Case-mix index	1.41	1.32	1.07
Share dual-eligible beneficiaries	39%	27%	1.44
Share minority beneficiaries	14%	5%	2.8
Share very old beneficiaries	28%	33%	0.85
Medicaid share of days	65%	56%	1.16
<b>Facility mix</b>			
Share for profit	88%	57%	N/A
Share urban	80%	69%	N/A

Note: SNF (skilled nursing facility), N/A (not applicable). Values shown are medians for the quartile. Top margin quartile SNFs (n=3,263) were in the top 25 percent of the distribution of Medicare margins. Bottom margin quartile SNFs (n=3,262) were in the bottom 25 percent of the distribution of Medicare margins. "Standardized cost" refers to Medicare costs adjusted for differences in area wages and the case mix (using the nursing component's relative weights) of Medicare beneficiaries. "Intensive therapy" days are days classified in ultra-high and very high rehabilitation case-mix groups. "Medically complex" includes days assigned to clinically complex and special care case-mix groups. "Very old beneficiaries" are 85 years and older.

Source: MedPAC analysis of freestanding 2016 SNF cost reports.

set of criteria and then examine how many providers meet them. It does not establish a set share (for example, 10 percent) of providers to be considered efficient and then define criteria to meet that pool size.

To identify efficient SNFs, we examined the financial performance of freestanding SNFs with consistent cost and quality performance on two measures (see text box on identifying efficient providers). To measure costs, we looked at costs per day that were adjusted for differences

in area wages and case mix. To assess quality, we examined risk-adjusted rates of community discharge and potentially avoidable readmissions that occurred during the SNF stay. To be included in the relatively efficient group, a SNF had to be in the best third of the distribution of at least one measure and not in the bottom third on any measure for three consecutive years. We also required that SNFs not be part of CMS's Special Focus Facility Initiative for any portion of time covered by the definition (2013 through 2015).<sup>22</sup> This criterion excluded seven

## Identifying relatively efficient skilled nursing facilities

**W**e defined relatively efficient skilled nursing facilities (SNFs) as those with relatively low costs per day and good quality care for three years in a row, 2013 through 2015. The cost per day was calculated using cost report data and was adjusted for differences in case mix (using the nursing component relative weights) and wages. Quality measures were risk-adjusted rates of community discharge and potentially avoidable readmissions during the SNF stay. Only facilities with at least 25 stays were included in the quality measures.

The method we used to assess performance attempts to limit drawing incorrect conclusions about performance

based on poor data. Using three years to categorize SNFs as efficient (rather than just one year) avoids categorizing providers based on random variation or on one “unusual” year. In addition, by first assigning a SNF to a group and then examining the group’s performance in the next year, we avoided having a facility’s poor data affect both its own categorization and the assessment of the group’s performance. Thus, a SNF’s erroneous data could result in its inaccurate assignment to a group, but because the group’s performance is assessed with data from later years, these “bad” data would not directly affect the assessment of the group’s performance. ■

facilities from the pool of efficient providers. Having applied the cost, quality, and special-focus exclusions, we found that 8 percent (970 of the 11,545 facilities that had all of the data items required for this analysis) provided relatively low-cost, high-quality care—37 fewer facilities than last year. Of the 970, two-thirds were identified as efficient last year.

Our analyses found that SNFs can have relatively low costs and provide relatively good quality care (Table 8-8, p. 226). Compared with other SNFs in 2016, relatively efficient SNFs had community discharge rates that were 26 percent higher and readmission rates that were 17 percent lower. Standardized costs per day were 8 percent lower than for other SNFs.

We did not find significant differences between relatively efficient and other SNFs in terms of occupancy rates, but efficient SNFs had a higher daily census (99 compared with 80, respectively). Efficient facilities had more complex case mixes (driven in part by higher therapy intensity) but shorter stays. In terms of case-mix, efficient providers had higher shares of the most intensive therapy days but the same shares of medically complex days. The higher therapy intensity raised their daily Medicare payments relative to all SNFs, indicating that, in addition to controlling their costs, efficient providers pursued

revenue strategies to maximize their Medicare payments. The median Medicare margin for efficient SNFs was 18.2 percent, and their total margin (for all payers and all lines of business) was 2.5 percent. Relatively efficient facilities were more likely to be urban and for profit. Efficient SNFs were located in 45 states plus the District of Columbia and included one in a frontier location.

### **FFS payments for SNF care are considerably higher than MA payments for three publicly traded nursing home companies**

Another indicator that Medicare’s payments under the SNF PPS are too high is the comparison of FFS and MA payments, which are per person rather than per service payments. (We use “MA” as shorthand for all managed care payments since MA makes up the majority of rates reported as “managed care payments.”) We compared Medicare FFS and MA payments at three nursing home companies where such information was publicly available. For these companies, Medicare’s FFS payments averaged 21 percent higher than MA rates (Table 8-9, p. 227). We do not know whether the lower average daily payment reflects differences in service intensity (for example, fewer intensive-therapy days), lower payments for the same service, or some combination. We also do not know how these rates compare with those paid to smaller chains and independent facilities. It is possible that smaller companies



**TABLE  
8-8****Financial performance of relatively efficient SNFs is a combination of lower cost per day and higher revenues per day**

Performance in 2016	Type of SNF		Ratio of relatively efficient to other SNFs
	Relatively efficient	Other SNFs	
Community discharge rate	49.1%	39.1%	1.26
Readmission rate	8.9%	10.7%	0.83
Standardized cost per day	\$291	\$315	0.92
Standardized cost per discharge	\$9,187	\$12,211	0.75
Medicare revenue per day	\$512	\$466	1.10
Medicare margin	18.2%	10.6%	1.71
Total margin	2.5%	1.1%	2.40
Facility case-mix index	1.43	1.36	1.05
Medicare average length of stay	32 days	39 days	0.82
Occupancy rate	87%	85%	1.03
Average daily census	99	80	1.24
Share ultra-high therapy days	65%	54%	1.19
Share medically complex days	4%	4%	1.0
Medicaid share of facility days	56%	61%	0.91
Share urban	83%	68%	N/A
Share for profit	79%	69%	N/A
Share nonprofit	14%	21%	N/A

Note: SNF (skilled nursing facility), N/A (not applicable). The number of freestanding facilities included in the analysis was 11,545. SNFs were identified as “relatively efficient” based on their cost per day and two quality measures (community discharge and readmission rates) between 2013 and 2015. Relatively efficient SNFs were those in the best third of the distribution for one measure and not in the worst third for any measure in each of three years and were not a facility under “special focus” by CMS. Costs per day and per discharge were standardized for differences in case mix (using the nursing component relative weights) and wages. Quality measures were rates of risk-adjusted community discharge and readmission during the SNF stay for patients with potentially avoidable conditions. Quality measures were calculated for all facilities with at least 25 stays. “Ultra-high therapy days” include days assigned to ultra-high case-mix groups. “Medically complex days” includes days assigned to clinically complex and special care case-mix groups. Table shows the medians for the measure.

Source: MedPAC analysis of quality measures and Medicare cost report data for 2013–2016.

have less leverage and do not negotiate similarly low rates. However, similar differences in payments were reported by the National Investment Center for Seniors Housing & Care. It found that, for 1,433 SNF properties included in its sample, MA daily payments were 15 percent lower than Medicare FFS payments and that the MA revenue per day was at its lowest rate since July 2012 (National Investment Center for Seniors Housing & Care 2017a).

We compared the patient characteristics of beneficiaries enrolled in FFS and MA plans in 2016 and found small differences that are unlikely to explain the lower payments

typically made by MA plans.<sup>23</sup> Compared with FFS beneficiaries, MA enrollees were slightly older (less than a year), had slightly higher Barthel scores (less than two points, indicating slightly more independence), and had slightly lower (5 percent lower) risk scores (indicating fewer comorbidities). The considerably lower MA payments indicate that some facilities accept much lower payments to treat MA enrollees who are not much different in terms of case mix from FFS beneficiaries. Some publicly traded firms report seeking managed care patients as a business strategy, indicating that the MA rates are attractive.



**TABLE  
8-9****Comparison of Medicare fee-for-service and managed care daily payments in 2017 to three companies**

Company	Medicare payment		Ratio of FFS to MA payment
	FFS	Managed care (MA)	
Diversicare	\$453	\$392	1.16
Ensign Group	597	449	1.33
Genesis HealthCare	531	463	1.15

Note: MA (Medicare Advantage), FFS (fee-for-service). MA makes up the majority of managed care payments. The Genesis rate is reported as "insurance," which includes managed care but excludes Medicaid managed care and private pay.

Source: Third quarter 10-Q 2017 reports available at each company's website.

**Total margins remained the same in 2016 as in 2013**

The average total margin for freestanding SNFs in 2016 remained positive (0.7 percent) but lower than the total margin in 2015 (1.6 percent). A total margin reflects the costs and payments for services to all patients (public and private, including managed care) across all lines of business (for example, long-term care, hospice, home health care, and ancillary services) and nonpatient sources of revenue sources (such as investment income). Total margins reflect state policies regarding the level of Medicaid payments, managed care payments (including Medicare Advantage), and the ease of entry into a market (e.g., whether there is a requirement for a certificate of need). As enrollment in MA increases, the lower revenues from MA will lower total margins.

Because Medicaid payments are lower than Medicare FFS payments, some representatives in the industry argue that high Medicare payments are needed to subsidize losses on Medicaid residents. Such a policy is ill advised for several reasons (see text box on not subsidizing other payments, p. 228).

**Payments and costs for 2018**

In assessing the payment update for 2018, the Commission considers the relationship between SNF costs and Medicare payments in 2016. To estimate costs for 2017 and 2018, we assumed cost growth equal to the market basket and no behavioral changes. We included Medicare's share (based on the Medicare share of nursing facility revenues) of the estimated cost of the nursing home

regulation included in the final rule for these regulations (Centers for Medicare & Medicaid Services 2016). To estimate 2018 payments, we began with reported 2016 payments and increased them by the market basket net of the productivity adjustment for 2017 (as required by the Patient Protection and Affordable Care Act of 2010). We assumed payments in 2018 would increase by 1.0 percent, as required the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). We also reduced 2018 payments by the portion of the value-based purchasing (VBP) withhold that will be retained as program savings.<sup>24</sup> The projected Medicare margin for 2018 is 9 percent. The level is expected to be lower than the margin in 2016 due to the market basket update being offset by the productivity adjustment in 2017, the MACRA-mandated update in 2018, and the program savings from VBP.

**How should Medicare payments change in 2019?**

In considering how payments should change for 2019, we note that financial circumstances of SNFs remain largely the same since the Commission made its recommendation last year to eliminate the market basket increases for 2018 and 2019 while the Secretary revises the SNF PPS. The recommendation also stated that, in 2020, the Secretary should evaluate the need for additional adjustments to more closely align payments and costs.

## Medicare's skilled nursing facility payments should not subsidize payments from Medicaid or other payers

Medicare payments, which are financed by taxpayer contributions to the Part A Trust Fund, effectively subsidize payments from other payers, most notably Medicaid. High Medicare payments may also subsidize payments from private payers. Industry representatives contend that this supplementation should continue. The Commission believes such cross-subsidization is not advisable for several reasons. First, this strategy results in poorly targeted subsidies. Facilities with high shares of Medicare beneficiary days would receive the most in subsidies from higher Medicare payments, while facilities with low shares of Medicare beneficiary days—presumably the facilities with the greatest financial need—would receive the smallest subsidies. Shares of Medicare and Medicaid days vary widely across facilities (Table 8-10). As a result, the impact of the Medicare subsidy would vary considerably across facilities, putting more dollars into facilities with high

Medicare use (and low Medicaid use), which are likely to have higher Medicare margins than other facilities.

In addition, Medicare's subsidy does not discriminate among states with relatively high and low Medicaid payments. If Medicare raises or maintains its high payment levels, states could be encouraged to further reduce their Medicaid payments and, in turn, create pressure to raise Medicare rates even more. Higher Medicare payments could also further encourage providers to select patients based on payer source or to rehospitalize dual-eligible patients to qualify them for a Medicare-covered, higher payment stay. Finally, Medicare's high payments represent a subsidy from trust fund dollars (and taxpayer support) to the low payments made by states and private payers. If the Congress wishes to help certain nursing facilities (such as those with high Medicaid shares), it would be more efficient to do so through a separate, targeted policy. ■

**TABLE  
8-10**

### Medicare and Medicaid shares vary widely across freestanding skilled nursing facilities, 2016

Payer	Percentile of facility days				
	10th	25th	Median	75th	90th
Medicare share	5%	7%	11%	17%	26%
Medicaid share	0	40	61	73	81

Source: MedPAC analysis of skilled nursing facility Medicare cost reports, 2016.

Since last year, CMS has proposed revising the SNF PPS in fiscal year 2019 in a way that is generally consistent with the Commission's recommended design. The revisions will redistribute payments toward medically complex patients (and away from stays that receive rehabilitation therapy unrelated to their characteristics) and better target payments for NTA services. The Commission supports the implementation of a revised PPS in fiscal year

2019 to correct the distortions and inequities of the current design.

Regarding the level of payments, aggregate Medicare margins for SNFs have been above 10 percent since 2000. In 2016, the marginal profit was 19.6 percent, indicating facilities with an available bed have an incentive to admit Medicare patients. Further, the variation in

Medicare margins is not related to differences in patient characteristics and location since cost differences remain after adjusting for differences in wages, case mix, and beneficiary demographics. Rather, differences in financial performance reflect, in part, the amount of therapy furnished to patients, differences in costs per day, and cost control. Relatively efficient SNFs, with relatively low costs and high quality, have Medicare margins of 18 percent. FFS payments were considerably higher than the MA payments made to some SNFs, suggesting some facilities are willing to accept much lower rates than FFS payments to treat Medicare beneficiaries. These factors show that the PPS continues to exert too little pressure on providers. The industry has shown it is nimble at responding to the level of Medicare's payments. Even in years when CMS lowered payments, providers tempered their practices so that aggregate payments increased.

### RECOMMENDATION 8

#### The Congress should:

- **eliminate the market basket update for skilled nursing facilities for fiscal years 2019 and 2020;**
- **direct the Secretary to implement a redesigned prospective payment system (PPS) in fiscal year 2019 for skilled nursing facilities; and**
- **direct the Secretary to report to the Congress on the impacts of the revised PPS and make any additional adjustments to payments needed to more closely align payments with costs in fiscal year 2021.**

### RATIONALE 8

This recommendation calls for the Congress to lower the level of payments and for the Secretary to proceed with the revisions to the SNF PPS. To lower the level of payments, rates would not be increased for 2019 and 2020 while CMS implements its plans for a revised PPS. By comparison, current law calls for market basket increases net of productivity adjustments each year (a 2.0 percent increase in fiscal year 2019 and a 2.1 percent increase in fiscal year 2020). With the current Medicare margin at over 11 percent and the projected Medicare margin in 2018 at 9 percent, Medicare payments appear more than adequate to accommodate SNF cost growth without updates.

As discussed in Chapter 7, before implementing a unified PAC PPS in 2021, the Commission recommends that the Congress direct the Secretary to establish SNF payments using a blend of the unified PAC PPS and current SNF

PPS relative weights. The recommendation to blend relative weights does not affect the *level* of payments to a setting but the *distribution* of those payments across conditions. A blend of the relative weights would redistribute payments within the SNF setting by increasing payments for medically complex patients and lowering payments for patients who receive rehabilitation therapy unrelated to their care needs. Based on their mix of patients and current therapy practices, the blend would have the effect of raising payments to nonprofit and hospital-based SNFs and lowering payments to for-profit and freestanding SNFs. The blended weights would narrow the relative profitability across types of stays, which would improve access for medically complex patients. Narrower differences in profitability would also mean there would be fewer financial incentives for providers to engage in patient selection. The redistribution across providers enables the Commission to recommend, and policymakers to implement, a level of payments that would better align payments with the cost of care.

The SNF update recommendation also would require the Secretary to proceed with plans to revise the SNF PPS. Like a unified PAC PPS, revisions to the SNF PPS will increase the equity in payments for different types of stays, increasing payments for medically complex stays and decreasing payments for stays that include intensive therapy unrelated to a patient's care needs. While the redesign would narrow the disparities in financial performance that result from the mix of cases facilities treat and therapy practices, it would not, and should not, address disparities that result from providers' inefficiencies. The Commission first recommended a revised design in 2008 and since then has continued to develop and communicate alternative design features that redirect payments toward medically complex care. The Commission has grown increasingly frustrated with the lack of statutory and regulatory actions to lower the level of payments and implement a revised payment system.

The recommendation to blend the relative weights of the unified PAC PPS with the relative weights of each PAC setting's current PPS (discussed in Chapter 7) does not diminish the need for the Secretary to proceed with plans to revise the SNF PPS. Until action is taken to blend the relative weights and implement the unified PAC PPS, CMS must proceed with its plans to revise the SNF PPS to correct the current distortions that encourage providers to furnish therapy service for financial gain and to selectively admit certain patients and avoid medically

**TABLE  
8-11****The number of nursing homes treating Medicaid enrollees declined slightly from 2016 to 2017**

	2010	2012	2014	2015	2016	2017	Percent change	
							2015-2016	2016-2017
Number of facilities	15,127	15,083	15,062	15,052	15,039	14,978	-0.001%	-0.4%

Source: Certification and Survey Provider Enhanced Reporting on CMS's Survey and Certification Providing Data Quickly system, 2010-2017.

complex patients. Because the PAC PPS is on a longer implementation timetable, CMS should continue to improve the accuracy and the equity of SNF payments. When CMS implements the revised SNF PPS, those new relative weights would be used in the blending with the PAC PPS weights to establish payments to SNFs.

Because the directional impacts of the PAC PPS and the setting-specific redesigns are the same, revising the SNF PPS would complement the implementation of the PAC PPS by beginning to redistribute payments across conditions. Further, the redesigned SNF PPS and the unified PAC PPS establish similar incentives for providers, so the blending of the relative weights would give providers more time to adjust their practices and gain valuable experience with the types of changes necessary to succeed under a unified PAC PPS. Because the SNF redesign is estimated to redistribute payments in ways directionally similar to a unified PAC PPS, the impacts of the blended relative weights on payments by clinical condition would be less since the “starting point” for payments would already include some redistribution achieved by the redesigned SNF PPS.

The Commission is focused on ensuring beneficiaries' access to SNF care. The recommendations to revise the SNF PPS and blend the unified PAC PPS weights with the SNF relative weights are aimed at increasing the equity of Medicare's payments so that beneficiaries have equal access to SNF services regardless of their care needs. The Commission will continue to monitor beneficiary access, quality of care, and financial performance and may consider future recommendations based on industry performance.

**IMPLICATIONS 8****Spending**

- Relative to current law, this recommendation would lower program spending by between \$750 million and \$2 billion for fiscal year 2019 and by greater than \$10 billion over five years. Savings occur because current law requires market basket increases for 2019 and 2020. (These spending implications do not reflect changes in SNF policy mandated by the Bipartisan Budget Act of 2018.)

**Beneficiary and provider**

- The recommended changes will increase access to services for beneficiaries who are disadvantaged by the design of the current payment system, such as medically complex patients. By raising payments for medically complex cases, providers will be more likely to admit and treat beneficiaries with such care needs compared with the selective admissions that some providers currently engage in.
- Given the current level of payments, we do not expect the recommendation to affect providers' willingness or ability to care for Medicare beneficiaries. Aggregate provider payments would be lower than under current law, but the recommendation would reduce the disparities in Medicare margins across providers. The recommendation has the effect of increasing payments to hospital-based and nonprofit SNFs and lowering them to for-profit and freestanding SNFs based on their mix of patients. Effects on individual providers would be a function of their mix of patients, current practices, and cost structures. The recommendation would not eliminate all differences in Medicare margins across providers because cost differences could remain.



## Medicaid trends

Section 2801 of the Patient Protection and Affordable Care Act of 2010 requires the Commission to examine spending, use, and financial performance trends in the Medicaid program for providers with a significant portion of revenues or services associated with the Medicaid program. We report nursing home spending trends for Medicaid and financial performance for non-Medicare payers. Medicaid revenues and costs are not reported in the Medicare cost reports. In a joint publication with the Medicaid and CHIP Payment Access Commission, we report on characteristics, service use, and spending for dual-eligible beneficiaries (Medicare Payment Advisory Commission and the Medicaid and CHIP Payment and Access Commission 2018).

Medicaid covers nursing home (long-term care) and skilled nursing care provided in nursing facilities. Medicaid also pays for long-term care services that Medicare does not cover. For beneficiaries who are dually eligible for Medicaid and Medicare, Medicaid pays the Medicare copayments required of beneficiaries beginning on day 21 of a SNF stay.

## Count of Medicaid-certified nursing homes

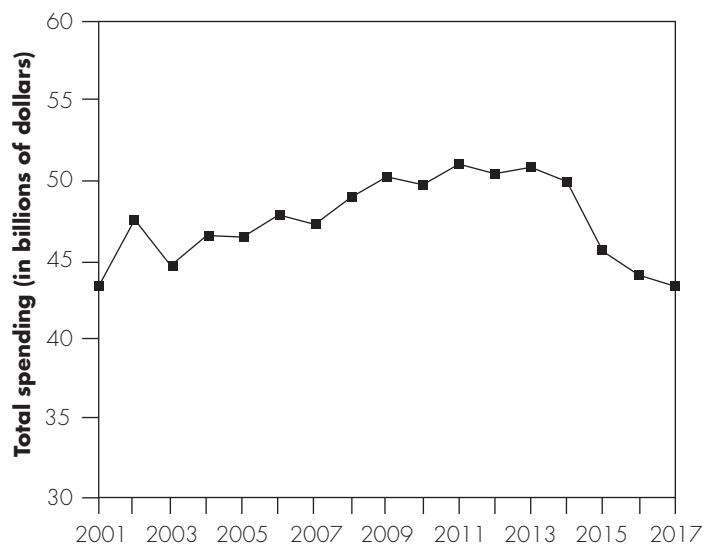
The number of nursing facilities certified as Medicaid providers has stayed relatively stable, with a small decline between 2016 and 2017 (Table 8-11). The decline may reflect the expansion in some states of home- and community-based services (HCBS), which allow beneficiaries to remain in their homes rather than an institution. State HCBS waivers and federal initiatives have accelerated the trend toward HCBS. In fiscal year 2017, 47 states expanded the number of beneficiaries served by HCBS, an increase from 46 states in fiscal years 2015 and 2016 and 42 states in fiscal year 2014 (Gifford et al. 2017). This number will continue to increase in 2018, with all 50 states and the District of Columbia expanding the number of beneficiaries served by HCBS.

## Spending

Spending on Medicaid-funded nursing home services (combined state and federal funds) totaled \$44 billion in 2016 (Office of the Actuary 2017a) (Figure 8-4). CMS estimates that FFS Medicaid spending on nursing home services decreased by 1.6 percent between 2016 and 2017 and that spending will increase by 0.69 percent in 2018. This trend of lower spending is in part due to an increased

**FIGURE 8-4**

**Total Medicaid fee-for-service spending on nursing home services, 2001–2017**



Note: Spending does not include any managed care organization spending on nursing homes.

Source: Total spending data are from CMS, Office of the Actuary (2017a).

use of managed care organizations, whose spending is not included in these data. Year-to-year changes in spending have been variable, increasing in some years and decreasing in others, with overall spending in 2017 down to the same level that it was in 2001. The large decreases in spending beginning in 2015 reflect increased enrollment in managed care.

Analysis of Medicaid rate-setting trends found that 15 states restricted (froze or reduced) rates paid to nursing homes in 2017, while 36 states and the District of Columbia increased rates (Gifford et al. 2017). More states increased rates to nursing homes than in 2016 (only 32 states raised rates in 2016), and only 1 of the 15 states restricting rates reduced rates paid to providers. Furthermore, the National Investment Center for Seniors Housing & Care reported that Medicaid revenue per day reached its highest point in five years (National Investment Center for Seniors Housing & Care 2017b). Rates will likely shift in 2018; however, only 28 states and the District of Columbia have indicated that they will increase nursing home rates. Twenty-two states plan to restrict

**TABLE  
8-12**

**Over the past nine years, non-Medicare margins have been negative, but total margins remained positive in freestanding SNFs**

Type of margin	2008	2010	2012	2013	2014	2015	2016
Total margin	2.2%	3.6%	1.8%	1.9%	1.9%	1.6%	0.7%
Non-Medicare margin	-2.4	-1.5	-2.0	-1.9	-1.5	-2.1	-2.3

Note: SNF (skilled nursing facility). "Total margin" includes the revenues and costs associated with all payers and all lines of business. "Non-Medicare margin" includes the revenues and costs associated with Medicaid and private payers for all lines of business.

Source: MedPAC analysis of Medicare freestanding SNF cost reports for 2008 to 2016.

rates, and two of these states plan to cut them. One state was undecided as to whether it would restrict or reduce rates.

States continue to use provider taxes to raise federal matching funds. In fiscal year 2017, 44 states and the District of Columbia levied provider taxes on nursing homes to increase federal matching funds, and all plan to continue to do so in fiscal year 2018.<sup>25</sup> The augmented federal funding may be split with the nursing homes.

### **Non-Medicare and total margins in nursing homes**

Total margins reflect all payers (including Medicare, Medicaid, private insurers, and managed care) across all

lines of business (for example, nursing home care, hospice care, ancillary services, home health care, and investment income). In 2016, total margins were positive (0.7 percent) (Table 8-12). The median total margin was 1.0 percent, with margins at the 25th and 75th percentiles ranging from -4.9 percent to 5.9 percent, respectively (data not shown). Total margins have declined since 2012, reflecting the impact of reductions to Medicare payments mandated by the Patient Protection and Affordable Care Act of 2010 and the growing share of managed care payments that are lower than Medicare's FFS payments. Non-Medicare margins reflect the profitability of all services except Medicare FFS SNF services. The aggregate non-Medicare margin in 2016 was -2.3 percent, a decline from 2015 (Table 8-12). ■



## Endnotes

---

- 1 Throughout this chapter, “beneficiary” refers to an individual whose SNF stay coverage (Part A) is paid for by Medicare. Some beneficiaries who no longer qualify for Medicare coverage remain in the facility to receive long-term care services, which are not covered by Medicare. During long-term care stays, beneficiaries may receive care such as physician services, outpatient therapy services, and prescription drugs that are paid for separately under the Part B and Part D benefits. Services furnished outside the Part A–covered stay are not paid under the SNF prospective payment system and are not considered in this chapter. Except where specifically noted, this chapter examines FFS Medicare spending and service use and excludes services and spending for SNF services furnished to beneficiaries enrolled in Medicare Advantage plans. Some beneficiaries also qualify for Medicaid and are referred to as “dual-eligible beneficiaries.”
- 2 Coverage for another 100 days does not begin until a beneficiary has not had hospital care or skilled care in a SNF for 60 consecutive days. Observation days and emergency room stays do not count toward the three-day hospital stay requirement.
- 3 For services to be covered, the SNF must meet Medicare’s requirements of participation and agree to accept Medicare’s payment rates. Medicare’s requirements relate to many aspects of staffing and care delivery, such as requiring a registered nurse in the facility for 8 consecutive hours per day and licensed nurse coverage 24 hours a day, providing physical and occupational therapy services and speech–language pathology services as delineated in each patient’s plan of care, and providing or arranging for physician services 24 hours a day in case of an emergency.
- 4 CMS estimated that the regulations will raise the average provider’s costs by \$62,900 in the first year and by \$55,000 in subsequent years. Some industry representatives contend these are underestimates.
- 5 The program pays separately for some services, including certain chemotherapy drugs; certain customized prosthetics; certain ambulance services; Part B dialysis; emergency services; and certain outpatient services provided in a hospital (such as computed tomography, MRI, radiation therapy, and cardiac catheterizations).
- 6 The *SNF Payment Basics* is available at [http://medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_17\\_snf\\_finalb4a411adfa9c665e80adff00009edf9c.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_17_snf_finalb4a411adfa9c665e80adff00009edf9c.pdf?sfvrsn=0).
- 7 Payments for NTA services are included in the nursing component, even though NTA costs vary much more than nursing care costs and are not correlated with them.
- 8 There are two broad categories of medically complex case-mix groups: clinically complex and special care. Clinically complex groups are used to classify patients who have burns, surgical wounds, hemiplegia, or pneumonia or who receive chemotherapy, oxygen therapy, intravenous medications, or transfusions while in a SNF. Special care groups include patients who are comatose; have quadriplegia, chronic obstructive pulmonary disease, septicemia, diabetes requiring daily injections, fever with specific other conditions, cerebral palsy, multiple sclerosis, Parkinson’s disease, respiratory failure, a feeding tube, pressure ulcers of specific sizes, or foot infections; receive radiation therapy or dialysis while a resident; or require parenteral or intravenous feedings or respiratory therapy for seven days.
- 9 Intensive therapy days are those classified in the ultra-high and very high rehabilitation case-mix groups. Rehabilitation groups are based on minutes of rehabilitation provided per week. “Ultra-high rehabilitation” includes patients who receive more than 720 minutes per week; “very high rehabilitation” includes patients who receive 500–719 minutes per week.
- 10 Summaries of the technical expert panels are available at <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/SNFPSP/therapyresearch.html>.
- 11 It can be hard to draw conclusions about differences in service use among beneficiaries enrolled in FFS and MA because MA plans are required to submit patient assessment data at day 15 of a beneficiary stay, but beneficiaries may have been discharged before then. In contrast, assessments are submitted for all FFS users on or about day 5 of the stay. It is not possible to determine the possible bias in the information submitted given the differences in the reporting requirements. In addition, there could be differences in the beneficiaries who elect to enroll in MA.
- 12 See endnote 8 for the definition of *medically complex*.
- 13 A modified Barthel score is a composite measure of a person’s ability to perform nine activities of daily living, including bladder and urinary incontinence, transfer, walk in the facility corridor, self-feed, toilet, bathe, perform oral hygiene, and dress.
- 14 The share of SNF users requiring the most assistance dropped for bladder control, transfer, self-feeding, toileting, dressing,

- performing personal hygiene, and bed mobility; remained the same for walking in the corridor and always being incontinent; and increased for help with bathing.
- 15 CMS reports similar measures in Nursing Home Compare, but the measures are defined and calculated differently, and therefore the rates are not directly comparable to those reported by the Commission.
  - 16 Separate models (with their own covariates) are used to estimate expected community discharge rates for different discharge destinations (e.g., discharged home with home health care, discharged home without home health care, and discharged to a nursing home).
  - 17 The SNF PPS case-mix classification system considers the number of therapy minutes furnished during a week. We examined the case-mix assignments when all rehabilitation therapy is ignored. Cases were assigned to the nontherapy case-mix groups, including extensive services, special care, clinically complex, behavior and cognitive performance, and reduced physical function.
  - 18 The readmission rates of patients during their SNF stay and in the period after discharge cannot simply be added to get a combined rate because, in the combined measure, a stay is counted only once, even if the patient was readmitted during the SNF stay and in the post-stay period. In contrast, each relevant stay is counted separately in each measure.
  - 19 The quality measures include the following: the share of patients with pressure ulcers that worsened; the share of patients experiencing one or more falls with major injury; the share of patients with an admission and discharge functional assessment and a care plan that addresses function; the rate of discharge to community (including no deaths or unplanned rehospitalizations within the 30 days after discharge); the rate of potentially preventable hospital readmissions following discharge from the SNF; and Medicare spending per beneficiary. SNFs must submit all data necessary to calculate quality measures on at least 80 percent of the patient assessments submitted. Such requirements are not needed for claims-based measures (community discharge, readmissions, and resource use).
  - 20 The measure of improvement in function measures the share of short-stay patients whose independence in transfer, bed mobility, and ambulation increased. The readmission rate includes readmissions that occur within 30 days of admission (not during the entire SNF stay). The community discharge rate includes patients who were discharged home and were not readmitted to the SNF or to a hospital and did not die during the stay or within 30 days of discharge; it excludes long-stay residents of a nursing home before the SNF stay.
  - 21 We use the nursing component (as opposed to the payment weight of the case-mix group) to avoid distorting the measure of patient complexity by the amount of therapy furnished, which could be unrelated to patient care needs. We used the indexes adjusted for CMS's policy decisions to shift payments toward certain case-mix groups and away from others (White 2012). Because the nursing weights for intensive therapy are relatively high, a facility can have both a high case-mix index and a moderate or low share of medically complex patients.
  - 22 The Special Focus Facility Initiative is a program to stimulate improvements in the quality of care at nursing homes with a history of serious quality problems. The initiative targets homes with a pattern over three years of more frequent and more serious problems (including harm or injury to residents) detected in their annual facility surveys. Facilities that improve and maintain those improvements can "graduate" from the program. Providers that do not improve face civil monetary penalties (fines) and eventual termination from Medicare and Medicaid.
  - 23 We compared the assessments conducted at the beginning of stays (the "day 5" assessment). MA plans are not required to submit these assessments, and we cannot determine what share of plans submits them or the possible bias in the assessments that are submitted.
  - 24 The VBP program will withhold 2 percent of payments. Of the withheld amount, 60 percent will be returned to providers as incentive payments and 40 percent will be retained as program savings.
  - 25 A provider tax works as follows: A state taxes all nursing homes and uses the collected amount to help finance the state's share of Medicaid funds. The provider tax increases the state's contribution, which, in turn, raises the federal matching funds. The augmented federal funds more than cover the cost of the provider tax revenue, which is returned to providers. The provider tax is limited to 6 percent of net patient revenues.

## References

---

- American Health Care Association. 2017. AHCA Quality Initiative progress (as of September 27, 2017). [https://www.ahcancal.org/quality\\_improvement/qualityinitiative/Documents/AHCA%20Quality%20Initiative%20Progress.pdf](https://www.ahcancal.org/quality_improvement/qualityinitiative/Documents/AHCA%20Quality%20Initiative%20Progress.pdf).
- Berklan, J. 2017. Sabra CEO: National providers ‘can’t do it anymore.’ *McKnight’s Long Term Care News*, September 28. [www.McKnights.com](http://www.McKnights.com).
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2017. *2017 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Brubaker, H. 2017. Genesis Healthcare takes \$532 million write-down, warns of possible bankruptcy. *Philadelphia Inquirer*, November 8.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017a. Certification and Survey Provider Enhanced Reporting (CASPER) on CMS’s survey and certification providing data quickly (PDQ) system. <https://pdq.cms.hhs.gov/main.jsp>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017b. Medicare program: Prospective payment system and consolidated billing for skilled nursing facilities: Revisions to case-mix methodology. Advance notice of proposed rulemaking with comment. *Federal Register* 82, no. 85 (May 4): 20980–21012.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017c. Medicare program; prospective payment system and consolidated billing for skilled nursing facilities proposed rule for FY 2018, SNF value-based purchasing program, SNF quality reporting program, survey team composition, and proposal to correct the performance period for the NHSN HCP influenza vaccination immunization reporting measure in the ESRD QIP for PY 2020. Proposed rule. *Federal Register* 82, no. 85 (May 4): 21014–21100.
- Centers for Medicare & Medicaid Services, Office of Information Products and Data Analytics, Department of Health and Human Services. 2017d. Personal communication with Maria Diacogiannis, October 26.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017e. Temporary enforcement delays for certain Phase 2 F-tags and changes to Nursing Home Compare. Memo from David Wright, Center for Clinical Standards and Quality/Survey & Certification Group. November 24.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. Medicare and Medicaid programs; reform of requirements for long-term care facilities. Final rule. *Federal Register* 81, no. 192 (October 4): 68688–68872.
- Colla, C. H., V. A. Lewis, L. S. Kao, et al. 2016. Association between Medicare accountable care organization implementation and spending among clinically vulnerable beneficiaries. *JAMA Internal Medicine* 176, no. 8 (August 1): 1167–1175.
- Connole, P. 2017. Healthy prices keep finance players busy. *Provider Long Term and Post-Acute Care*. September.
- Department of Housing and Urban Development. 2017. Personal communication with Jennifer Buhlman from the Office of Healthcare Programs, Section 232.
- Department of Justice. 2017. Genesis Healthcare Inc. agrees to pay federal government \$53.6 million to resolve False Claims Act allegations relating to the provision of medically unnecessary rehabilitation therapy and hospice services. News release. June 16. <https://www.justice.gov/opa/pr/genesis-healthcare-inc-agrees-pay-federal-government-536-million-resolve-false-claims-act>.
- Department of Justice. 2016a. Life Care Centers of America, Inc., agrees to pay \$145 million to resolve False Claims Act allegations relating to the provision of medically unnecessary rehabilitation therapy services. News release. October 24. <https://www.justice.gov/opa/pr/life-care-centers-america-inc-agrees-pay-145-million-resolve-false-claims-act-allegations>.
- Department of Justice. 2016b. North American Health Care Inc. to pay \$28.5 million to settle claims for medically unnecessary rehabilitation therapy services. News release. September 19. <https://www.justice.gov/opa/pr/north-american-health-care-inc-pay-285-million-settle-claims-medically-unnecessary>.
- Department of Justice. 2016c. Nursing home operator and director of long term care to pay \$2.5 million to settle false claims for rehabilitation therapy. News release. October 13. <https://www.justice.gov/usao-ma/pr/nursing-home-operator-and-director-long-term-care-pay-25-million-settle-false-claims>.
- DiversiCare. 2017. 2016 annual report. [http://files.shareholder.com/downloads/ABEA-4N6H3A/5565016076x0x942891/C1D1F438-C984-4AB9-B507-1531EC7F7D36/DVCR-2016\\_Annual\\_Report.pdf](http://files.shareholder.com/downloads/ABEA-4N6H3A/5565016076x0x942891/C1D1F438-C984-4AB9-B507-1531EC7F7D36/DVCR-2016_Annual_Report.pdf).
- Dummit, L. A., D. Kahvecioglu, G. Marrufo, et al. 2016. Association between hospital participation in a Medicare bundled payment initiative and payments and quality outcomes for lower extremity joint replacement episodes. *Journal of the American Medical Association* 316, no. 12 (September 27): 1267–1278.

Ensign Group. 2017. Quarterly report (Form 10-Q), second quarter. Filing submitted to the Securities and Exchange Commission. <http://www.ensigngroup.net/>.

Fitch Ratings. 2017. Post-acute healthcare shaken by regulatory announcements despite ACA inaction. <https://www.fitchratings.com/site/pr/1028449>.

Fowler, A. C., D. C. Grabowski, R. J. Gambrel, et al. 2017. Corporate investors increased common ownership in hospitals and the postacute care and hospice sectors. *Health Affairs* 36, no. 9 (September 1): 1547–1555.

Genesis HealthCare. 2017. 2016 annual report. <http://www.geneshcc.com>.

Gifford, K., E. Ellis, B. C. Edwards, et al. 2017. *Medicaid moving ahead in uncertain times: Results from a 50-state Medicaid budget survey for state fiscal years 2017 and 2018*. Prepared by staff from Health Management Associates and the Kaiser Commission on Medicaid and the Uninsured/Kaiser Family Foundation. Menlo Park, CA: Kaiser Family Foundation.

Government Accountability Office. 2002. *Skilled nursing facilities: Providers have responded to Medicare payment system by changing practices*. GAO-02-841. Washington, DC: GAO.

Government Accountability Office. 1999. *Skilled nursing facilities: Medicare payments need to better account for nontherapy ancillary cost variation*. GAO/HEHS-99-185. Washington, DC: GAO.

Huckfeldt, P. J., J. J. Escarce, B. Rabideau, et al. 2017. Less intense postacute care, better outcomes for enrollees in Medicare Advantage than those in fee-for-service. *Health Affairs* 36, no. 1 (January 1): 91–100.

Irving Levin Associates Inc. 2017a. *Health care mergers & acquisitions in the 21st century*. Norwalk, CT: Irving Levin Associates Inc.

Irving Levin Associates Inc. 2017b. *The senior care acquisition report: 22nd edition*. Norwalk, CT: Irving Levin Associates Inc.

Jung, H. Y., A. N. Trivedi, D. C. Grabowski, et al. 2016. Does more therapy in skilled nursing facilities lead to better outcomes in patients with hip fracture? *Physical Therapy* 96, no. 1 (January): 81–89.

Kindred Healthcare. 2017. Shaping the future of care for an aging America. Bank of America Merrill Lynch presentation. May 17. <http://investors.kindredhealthcare.com/static-files/50e5151c-3ab1-493b-aca9-7f9007aa6702>.

Konetzka, R. T., E. A. Stuart, and R. M. Werner. 2016. The effect of integration of hospitals and post-acute care providers on Medicare payment and patient outcomes. <https://ssrn.com/abstract=2805172>.

Kramer, A., R. Fish, and M. Lin. 2014. *Potentially avoidable readmission and functional outcome quality measure development and 2012 rates for SNFs*. Report prepared for the Medicare Payment Advisory Commission. Washington, DC: MedPAC.

Kramer, A., M. Lin, R. Fish, et al. 2015. *Refinement of community discharge, potentially avoidable readmission, and functional outcome SNF quality measures, for fiscal years 2011, 2012, and 2013*. Report prepared for the Medicare Payment Advisory Commission. Washington, DC: MedPAC.

Liu, K., B. Garrett, D. A. Wissoker, et al. 2007. *Final report to CMS: Options for improving Medicare payment for skilled nursing facilities*. Report submitted by the Urban Institute to the Centers for Medicare & Medicaid Services. Washington, DC: The Urban Institute.

Maxwell, S., J. Wiener, and K. Liu. 2003. *A review of issues in the development and implementation of the skilled nursing facility prospective payment system*. Report to the Centers for Medicare & Medicaid Services. Contract no. 500-00-0025/TO#2. Baltimore, MD: CMS.

McHugh, J. P., A. Foster, V. Mor, et al. 2017. Reducing hospital readmissions through preferred networks of skilled nursing facilities. *Health Affairs* 36, no. 9 (September 1): 1591–1598.

McWilliams, J. M., L. G. Gilstrap, D. G. Stevenson, et al. 2017. Changes in postacute care in the Medicare Shared Savings Program. *JAMA Internal Medicine* 177, no. 4 (April 1): 518–526.

Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2008. *Report to the Congress: Reforming the delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2007. *Report to the Congress: Promoting greater efficiency in Medicare*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission and the Medicaid and CHIP Payment and Access Commission. 2018. *Data book: Beneficiaries dually eligible for Medicare and Medicaid*. Washington, DC: MedPAC/MACPAC.



Medicare Payment Advisory Commission and The Urban Institute. 2015. *The need to reform Medicare's payments to SNFs is as strong as ever*. Washington, DC: MedPAC/Urban Institute.

Monroe, S. 2017. The stratification of the skilled nursing facility market. *Senior Care Investor*, March 16.

National Investment Center for Seniors Housing & Care. 2017a. *Skilled nursing data report: Key occupancy & revenue trends (data through June 2017)*. Annapolis, MD: National Investment Center for Seniors Housing & Care. [http://info.nic.org/skilled\\_data\\_report\\_pr](http://info.nic.org/skilled_data_report_pr).

National Investment Center for Seniors Housing & Care. 2017b. Skilled nursing property occupancy down in Q2. Press release. September 14. <http://www.nic.org/news-press/skilled-nursing-property-occupancy-q2>.

Office of Inspector General, Department of Health and Human Services. 2016. *OIG work plan FY 2017*. Washington, DC: OIG.

Office of Inspector General, Department of Health and Human Services. 2015. *The Medicare payment system for skilled nursing facilities needs to be reevaluated*. Report no. OEI-02-13-00610. Washington, DC: OIG.

Office of the Actuary, Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017a. Personal communication of author with Christopher Truffer, October 26.

Office of the Actuary, Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017b. Personal communication of author with James Hardesty, October 16.

Ritchie, W., and D. Johnson. 2017. Skilled nursing facilities and REITs: A symbiotic relationship facing significant disruption. *Cain Brothers' Comments*, April 28.

Rolf Gottman Lang. 2017. SNF chain hit with \$347 million fraud judgment: List of RUG upcoding cases grows. <https://www.rolflaw.com/list-of-snf-rugs-cases-grows/>.

Swett, B. 2015. HUD rankings for the 2015 fiscal year. *Senior Care Investor*, November.

Topor, E. 2017. Consulate Health Care clobbered with \$347M fraud judgment. *Bloomberg BNA*, March 3.

Urban Institute. 2004. *Classifying Medicare SNF patients: Initial findings from three approaches*. Report to the Centers for Medicare & Medicaid Services. Contract no. 500-00-0025. Baltimore, MD: CMS.

White, A. 2012. *Differences in resident case-mix between Medicare and non-Medicare nursing home residents*. Report prepared by staff from Abt Associates for the Medicare Payment Advisory Commission. Washington, DC: MedPAC.

White, C., S. D. Pizer, and A. J. White. 2002. Assessing the RUG-III resident classification system for skilled nursing facilities. *Health Care Financing Review* 24, no. 2 (Winter): 7-15.

Winblad, U., V. Mor, J. P. McHugh, et al. 2017. ACO-affiliated hospitals reduced rehospitalizations from skilled nursing facilities faster than other hospitals. *Health Affairs* 36, no. 1 (January 1): 67-73.





C H A P T E R

# 9

---

## **Home health care services**

---

## R E C O M M E N D A T I O N

- 9** The Congress should reduce Medicare payments to home health agencies by 5 percent in calendar year (CY) 2019 and implement a two-year rebasing of the payment system beginning in CY 2020. The Congress should direct the Secretary to revise the prospective payment system to eliminate the use of therapy visits as a factor in payment determinations, concurrent with rebasing.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

# Home health care services

## Chapter summary

Home health agencies (HHAs) provide services to beneficiaries who are homebound and need skilled nursing or therapy. In 2016, about 3.4 million Medicare beneficiaries received care, and the program spent about \$18.1 billion on home health care services. In that year, over 12,200 agencies participated in Medicare.

## Assessment of payment adequacy

The indicators of payment adequacy for home health care are generally positive.

**Beneficiaries' access to care**—Access to home health care is generally adequate: Over 99 percent of beneficiaries lived in a ZIP code where a Medicare home health agency operated in 2016, and 86 percent lived in a ZIP code with five or more agencies.

- **Capacity and supply of providers**—In 2016, the number of agencies fell slightly by 1.2 percent after a long period of growth. From 2004 to 2015, the number of agencies increased by over 60 percent. The decline in 2016 was concentrated in areas that experienced sharp increases in supply in prior years.
- **Volume of services**—In 2016, the volume of 60-day episodes decreased by 0.7 percent. The total number of users increased slightly, while the

## In this chapter

- Are Medicare payments adequate in 2018?  
.....
- How should Medicare payments change in 2019?  
.....

average number of episodes per home health user declined by 0.9 percent. From 2002 to 2015, home health utilization increased substantially, with the number of episodes rising by over 60 percent and the episodes per home health user climbing from 1.6 to 1.9 episodes. Episodes not preceded by a hospitalization accounted for most of the growth in this period, and these episodes increased from about half to two-thirds of total episodes since 2001.

***Quality of care***—In 2016, performance improved on some quality measures. The share of beneficiaries reporting improvement in walking and transferring increased significantly, though this data may require closer scrutiny; the share of beneficiaries hospitalized or using emergency care during their home health stay was unchanged.

***Providers' access to capital***—Access to capital is a less important indicator of Medicare payment adequacy for home health care because this sector is less capital intensive than other health care sectors. The major publicly traded for-profit home health companies had sufficient access to capital markets for their credit needs. Several capacity acquisitions and expansion of capacity by publicly traded home health care firms indicate adequate access to capital.

***Medicare payments and providers' costs***—In 2016, Medicare spending for home health care was mostly unchanged, with an increase of about 0.1 percent. However, between 2002 and 2016, spending increased by over 80 percent. For more than a decade, payments under the home health prospective payment system (PPS) have consistently and substantially exceeded costs. In 2016, Medicare margins for freestanding agencies averaged 15.5 percent, largely consistent with the 16.4 percent average for these margins between 2001 and 2015. Also in 2016, freestanding HHAs' marginal profit—that is, the rate at which Medicare payments exceed providers' marginal cost—was 17.4 percent, suggesting a significant financial incentive for HHAs to increase their volume of Medicare patients. The projected margin for 2018 is 14.4 percent. Two factors have contributed to payments exceeding costs: Agencies have reduced episode costs by lowering the number of visits provided, and cost growth has been lower than the annual payment updates for home health care.

Freestanding HHAs' high margins have led the Commission to recommend a 5 percent reduction in the home health PPS base payment rate for 2019 and a two-year rebasing beginning in 2020. The historical overpayments Medicare has made need to be addressed. These two actions should help to better align payments with actual costs, ensuring better value for beneficiaries and the taxpayer without impeding access. The recommendation regarding the level of payments to HHAs is made in the context of the Commission's recommendation (discussed in the post-

acute care (PAC) chapter (Chapter 7)) to establish HHA payments using a blend of the unified PAC PPS and current HHA PPS relative weights beginning in calendar year 2019. A blend of the relative weights would redistribute payments within the HHA setting by increasing payments for medically complex patients and lowering payments for patients who receive rehabilitation therapy unrelated to their care needs. The recommendation would narrow the differences in financial performance across providers based on their mix of patients and would enable the Commission to recommend, and policymakers to implement, an aggregate level of payments that would better align payments with the cost of care.

We also recommend, as we have for the last six years, that Medicare eliminate the use of the number of therapy visits as a payment factor in the home health PPS concurrent with rebasing. A review of utilization trends and further research by the Commission and others suggest that this aspect of the PPS creates financial incentives that distract agencies from focusing on patient characteristics when setting plans of care. Eliminating the number of therapy visits as a payment factor would base home health payment solely on patient characteristics and result in a more patient-focused approach to payment. (Subsequent to the Commission's vote on this recommendation, the Bipartisan Budget Act of 2018 eliminated the number of therapy visits as a payment factor in the home health PPS, beginning in 2020.) ■





---

## Background

---

Medicare home health care consists of skilled nursing, physical therapy, occupational therapy, speech therapy, aide services, and medical social work provided to beneficiaries in their homes. To be eligible for Medicare's home health benefit, beneficiaries must need part-time (fewer than eight hours per day) or intermittent skilled care to treat their illnesses or injuries and must be unable to leave their homes without considerable effort. In contrast to coverage for skilled nursing facility services, Medicare does not require a preceding hospital stay to qualify for home health care. Also, unlike for most services, Medicare does not require copayments or a deductible for home health services. In 2016, about 3.4 million Medicare beneficiaries received home care, and the program spent \$18.1 billion on home health services. Medicare spending for home health care more than doubled between 2001 and 2016, and this care currently accounts for about 4.6 percent of fee-for-service (FFS) spending.

Medicare requires that a physician certify a patient's eligibility for home health care and that a patient receiving services be under the care of a physician. In 2011, Medicare implemented a requirement that a beneficiary have a face-to-face encounter with the physician ordering home health care. The encounter must take place in the 90 days preceding or 30 days following the initiation of home health care. Contacts through nonphysician practitioners or authorized telehealth services may be used to satisfy the requirement.

Medicare pays for home health care in 60-day episodes. Payments for an episode are adjusted for patient severity based on patients' clinical and functional characteristics and the number of therapy visits provided. If beneficiaries need additional covered home health services at the end of the initial 60-day episode, another episode commences and Medicare pays for an additional episode. Episodes delivered to beneficiaries in rural areas received a 3 percent payment increase through 2017. (An overview of the home health prospective payment system (PPS) is available at [http://www.medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_17\\_hha\\_final.pdf?sfvrsn=0](http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_17_hha_final.pdf?sfvrsn=0).) Coverage for additional episodes generally has the same requirements as the initial episode (i.e., the beneficiary must be homebound and need skilled care). In 2016, Medicare proposed major changes to the case-mix system and unit

of payment for the home health PPS (see text box on revisions to the home health PPS, p. 248).

### **Use and growth of the home health benefit has varied substantially with changes in coverage and payment policy**

The home health benefit has changed substantially since the 1980s. Implementation of the inpatient hospital PPS in 1983 led to increased use of home health services as hospital lengths of stay decreased. Medicare tightened coverage of some services, but the courts overturned these curbs in 1988. After this change, the number of home health agencies (HHAs), users, and services expanded rapidly in the early 1990s. Between 1990 and 1995, the number of annual users rose by 75 percent, and the number of visits more than tripled to about 250 million a year. Spending increased more than fourfold between 1990 and 1995, from \$3.7 billion to \$15.4 billion. As the rates of use and the duration of home health spells grew, there was concern that the benefit was serving more as a long-term care benefit (Government Accountability Office 1996). Further, many of the services provided were believed to be improper. For example, in one analysis of 1995 to 1996 data, the Office of Inspector General found that about 40 percent of the services in a sample of Medicare claims did not meet Medicare requirements for reimbursement, mostly because services did not meet Medicare's standards for a reasonable and necessary service, patients did not meet the homebound coverage requirement, or the medical record did not document that a billed service was provided (Office of Inspector General 1997).

The trends of the early 1990s prompted increased program integrity actions, refinements of coverage standards, temporary spending caps through an interim payment system (IPS), and replacement of the cost-based payment system with a PPS in 2000.<sup>1</sup> Between 1997 and 2000, the number of beneficiaries using home health services fell by about 1 million, and the number of visits fell by 66 percent (Table 9-1, p. 246). The mix of services changed from predominantly aide services in 1997 to predominantly nursing visits in 2000, and therapy visits increased between 1997 and 2016 from 10 percent of visits to 39 percent. Between 1997 and 2000, total spending for home health services declined by 52 percent. The reduction in payments had a swift effect on the supply of agencies, and by 2000, the number of agencies had fallen by 31 percent. However, after this period, the PPS was implemented, and service use and agency supply rebounded at a rapid pace. Between 2001 and 2015, the number of home health

**TABLE  
9-1****Changes in supply and utilization of home health care, 1997-2016**

	1997	2000	2015	2016	Percent change		
					1997-2000	2000-2015	2015-2016
Agencies	10,917	7,528	12,346	12,204	-31%	64%	-1%
Total spending (in billions)	\$17.7	\$8.5	\$18.1	\$18.1	-52	113	0.1
Users (in millions)	3.6	2.5	3.5	3.5	-31	38	0.1
Number of visits (in millions)	258.2	90.6	115.1	114.4	-66	27	-1
Visit type (percent of total)							
Skilled nursing	41%	49%	52%	51%	20	5	-2
Home health aide	48	31	10	10	-37	-66	-9
Therapy	10	19	37	39	101	94	5
Medical social services	1	1	1	1	1	-28	<-0.1
Number of visits per user	73	37	33	33	-49	-10	-1
Percent of FFS beneficiaries who used home health services	10.5%	7.4%	9.1%	9.0%	-30	24	-1

Note: FFS (fee-for-service). Medicare did not pay on a per episode basis before October 2000. Yearly figures presented in the table are rounded, but figures in the percent change columns were calculated using unrounded data.

Source: Home health standard analytical file 2016; *Health Care Financing Review*, Medicare and Medicaid Statistical Supplement 2002.

episodes rose from 3.9 million to 6.6 million (data not shown). The number of agencies in 2016 was 12,204, higher than the level of supply during the 1990s. Almost all the new agencies since implementation of the PPS have been for-profit providers (data not shown).

The steep declines in services under the IPS did not appear to adversely affect the quality of care that beneficiaries received; one analysis found that patient satisfaction with home health services was mostly unchanged in that period (McCall et al. 2004, McCall et al. 2003). In 2004, the

**TABLE  
9-2****Medicare visits per episode before and after implementation of PPS**

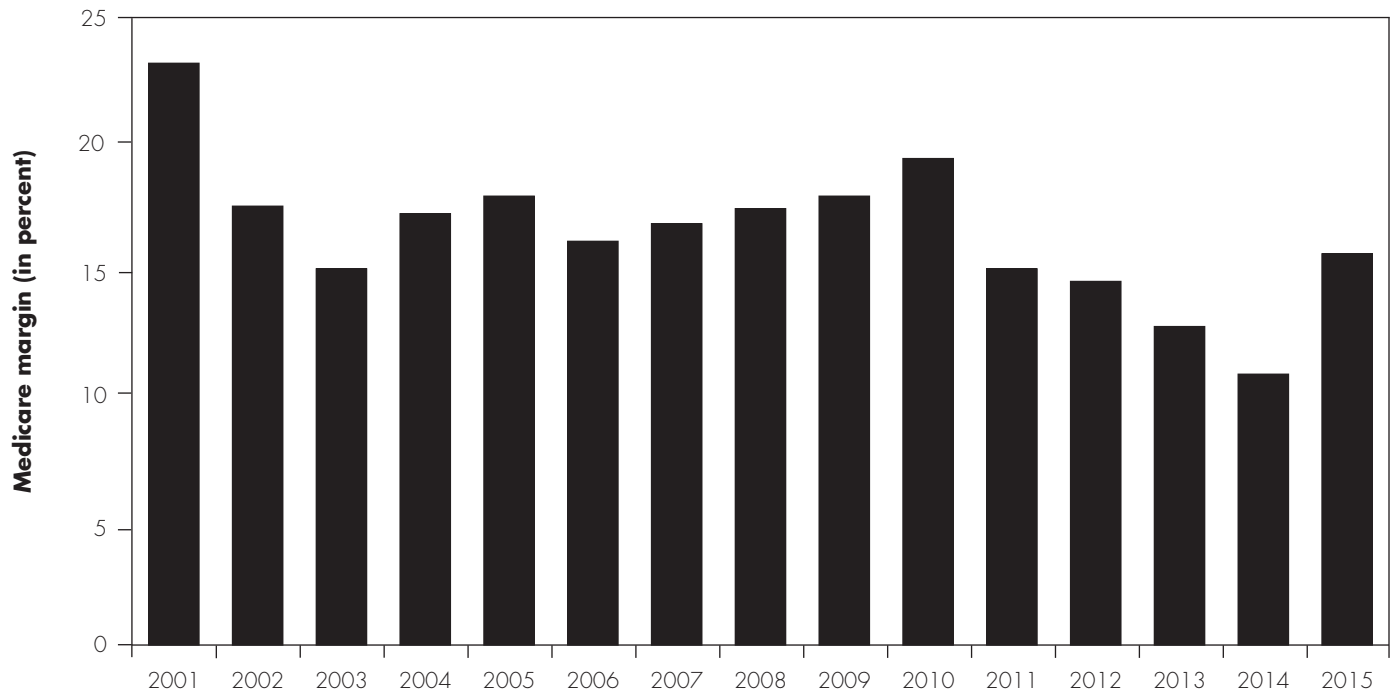
Type of visit	Visits per episode				Percent change in:		
	1998	2001	2015	2016	1998-2001	2001-2015	2015-2016
Skilled nursing	14.1	10.5	9.6	9.4	-25%	-9%	-2%
Therapy (physical, occupational, and speech-language pathology)	3.8	5.2	7.1	7.5	39	36	5
Home health aide	13.4	5.5	2.0	1.8	-59	-64	-9
Medical social services	0.3	0.2	0.1	0.1	-36	-52	<-0.1
Total	31.6	21.4	18.8	18.8	-32	-12	0.1

Note: PPS (prospective payment system). The PPS was implemented in October 2000. Data exclude low-utilization episodes. Yearly figures presented in the table are rounded, but figures in the percent change columns were calculated using unrounded data.

Source: Home health standard analytic file.

**FIGURE  
9-1**

**Medicare margins of freestanding home health agencies have remained high since 2001**



Source: Medicare cost reports.

Commission also concluded that the quality of care did not decline between use of the IPS and the implementation of the PPS (Medicare Payment Advisory Commission 2004). The similarity in quality of care under the IPS and the PPS suggests that the payment reductions in the Balanced Budget Act of 1997 led agencies to reduce costs and utilization without a measurable difference in the quality of patient care.

### **Medicare has always overpaid for home health services under the PPS**

Payments for home health care have substantially exceeded costs since Medicare established the PPS. In 2001, the first year of the PPS, average Medicare margins for freestanding HHAs equaled 23 percent (Figure 9-1). Freestanding providers accounted for about 90 percent of the episodes provided in 2016. The high margins in the first year suggest that the PPS established a base rate well in excess of costs. The base rate assumed that the average number of visits per episode between 1998 and 2001 would decline

about 15 percent, while the actual decline was about 32 percent (Table 9-2). In addition, agencies have been able to hold the rate of episode cost growth below 1 percent in many years, lower than the rate of inflation assumed in the home health payment update. Consequently, HHAs were able to garner extremely high average payments relative to the cost of services provided. Since 2001, agencies have been able to reduce visits further, and between 2001 and 2015, freestanding HHA margins have averaged 16.4 percent (Figure 9-1). Furthermore, some evidence exists that these margins, based on unaudited cost reports, may be low. A CMS audit of 2011 cost reports found that a sample of 98 agencies overstated their costs by 8 percent; with this adjustment, margins for freestanding HHAs in 2011 would have been in excess of 20 percent.

### **Patient Protection and Affordable Care Act of 2010 reductions have not significantly lowered payment for home health services**

In 2010, the Commission recommended that Medicare lower home health payments to make them more

## Revisions to the home health prospective payment system proposed by CMS

In the 2018 home health payment rule, CMS proposed implementing major revisions to the prospective payment system in 2019. Though CMS did not finalize these revisions, they are important because they would significantly restructure the payment system's incentives.

The new system, referred to as the home health groupings model (HHGM), would eliminate the use of the number of therapy visits as a payment factor in the system, consistent with the Commission's past recommendations. As noted by the Commission and others, the inclusion of the number of therapy visits provided can encourage additional utilization, and the therapy visit elimination would resolve this payment system vulnerability.

The HHGM would pay for services on the basis of diagnosis, functional status, and the incidence of prior home health or inpatient services. Episodes with prior home health services would be paid lower rates, reflecting the lower average service use of these visits. Conversely, episodes with a hospitalization in the prior 15 days would receive higher payments, reflecting that patients coming from an inpatient setting typically use more resources. Payments would also be increased for beneficiaries with selected comorbidities (such as heart disease, stroke, cancer, infectious diseases, and other commonly occurring comorbidities).

In 2017, CMS proposed to change the unit of payment for home health care from 60-day episodes to 30-day episodes. The shorter length was proposed because it better matches patterns of care and so would improve the accuracy of CMS's case-mix model. CMS found that for about 25 percent of current episodes, patients are discharged by the 30th day, so they do not have services in the 31st through 60th day of the current

60-day episode. CMS also found that visit frequency decreased with time, with a lower average number of visits in the second 30 days of an episode compared with the first 30 days. CMS concluded that using a 30-day episode, particularly one that factored in whether that episode immediately followed an initial 30-day period, helped to improve the accuracy of the case-mix model.

CMS currently makes a full 60-day payment for the 28 percent of episodes that are 30 days or shorter, so CMS's proposed rule included a budgetary adjustment that would remove the spending associated with the second 30-day period. CMS estimated that this adjustment, along with some behavioral changes by home health agencies (HHAs), would reduce spending by about 4.4 percent. In general, the proposal would shift funds from episodes with therapy visits to those with fewer or no therapy visits and from for-profit to nonprofit providers. In the November 2018 final rule, CMS withdrew the HHGM proposal, noting that it needed to review comments from the public.

In our September 2017 comment letter, the Commission supported several aspects of the proposed changes and called for caution on others. The elimination of the therapy thresholds would have been consistent with our long-standing recommendation. In addition, the 4.4 percent reduction would have helped to address the high payments Medicare makes for home health care, but we were concerned that a shorter unit of payment could lead HHAs to extend services beyond the 30-day episode to increase payment. We also commented that allowing higher payments for posthospital patients, though consistent with resource use patterns, could encourage HHAs to favor hospitalization during an episode of home health care. ■

consistent with costs, a process referred to as payment rebasing. The Patient Protection and Affordable Care Act of 2010 (PPACA) included several reductions intended to address home health care's high Medicare payments, including rebasing the payment system. However, these policies will not likely achieve the Commission's goal of making payments more consistent with actual costs.

PPACA offset the annual rebasing adjustment by the payment update for each year from 2014 through 2017. CMS set the rebasing reduction to the maximum amount permitted under the PPACA formula, which was equal to 3.5 percent of the 2010 base rate, or an annual reduction of \$81 per 60-day episode. However, the size of the base rate has increased since 2010, so this reduction averaged



about 2.75 percent in each year from 2014 through 2017. In addition, over this period, the payment update has offset these reductions, resulting in a cumulative net payment reduction of 3 percent. This modest decrease is smaller than the payment reductions the industry has weathered in the past; since the implementation of the PPS in 2000, Medicare margins for freestanding HHAs have never been less than 10 percent.

PPACA required the Commission to assess the impact of these payment changes on quality of care and beneficiary access (Medicare Payment Advisory Commission 2014). To meet this mandate, the Commission examined the historical relationship between changes in payment and changes in quality and access for the 2001 through 2012 period. The volume of episodes grew substantially in this period, even in years that Medicare reduced home health payments. From 2001 through 2010, episode volume for urban, rural, for-profit, and nonprofit providers grew on a per beneficiary basis. These increases in utilization occurred in years in which the average episode payment decreased as well as in years in which the average episode payment increased, suggesting that PPACA's modest payment reduction has not had a negative effect on access. Utilization decreased slightly in 2011 and 2012, but these declines coincided with policy changes intended to address potential overuse, such as the face-to-face visit requirement and antifraud efforts in several high-use areas. The slowdown also coincided with an economy-wide slowdown in health spending and utilization.

The Commission examined three quality measures to assess the relationship between past payment reductions and quality, and the results suggest that payment changes during this period did not have a significant effect. During the 2001 to 2012 period, HHAs' overall rate of unexpected hospitalization during the home health episode—an indicator of poor quality—remained steady at about 28 percent, while average payment per episode increased in most years.<sup>2</sup> This finding suggests that hospitalization was not sensitive to changes in payments—that is, higher payments to HHAs did not lead to fewer hospitalizations, and conversely, lower payments did not lead to higher hospitalization rates. Performance on two functional measures of quality—the share of patients demonstrating improvement in walking and the share of patients demonstrating improvement in transferring—generally increased during this period. These improvements in quality occurred in years in which the average payment per episode fell as well as in years in which the average payment per

episode increased, suggesting that changes in payment have little direct relationship to rates of functional improvement.

The Commission will continue to review access to care and quality as data for additional years become available. However, experience suggests that the small PPACA rebasing reductions will not change average episode payments significantly. Freestanding HHA margins are likely to remain high under the current rebasing policy, and quality of care and beneficiary access to care are unlikely to be negatively affected.

### **Ensuring appropriate use of home health care is challenging**

Policymakers have long struggled to define the role of the home health benefit in Medicare (Benjamin 1993). From the outset, there was a concern that setting a narrow policy could result in beneficiaries using other, more expensive services, while a policy that was too broad could lead to wasteful or ineffective use of the home health benefit (Feder and Lambrew 1996). Medicare relies on the skilled care and homebound requirements as primary determinants of home health eligibility, but these broad coverage criteria permit beneficiaries to receive services in the home even though they are capable of leaving home for medical care, which most home health beneficiaries do (Wolff et al. 2008). Medicare does not provide any incentives for beneficiaries or providers to consider alternatives to home health care, such as outpatient services. Beneficiaries who meet program coverage requirements can receive an unlimited number of home health episodes and face no cost sharing. In addition, the program relies on agencies and physicians to follow program requirements for determining beneficiary needs, but evidence from prior years suggests that they do not consistently follow Medicare's standards (Cheh et al. 2007, Office of Inspector General 2001). Concerns about ensuring the appropriate use of home health episodes not preceded by a hospitalization, which have increased faster than those preceded by a hospitalization or post-acute care (PAC) stay, led the Commission to recommend a copayment for these episodes (Medicare Payment Advisory Commission 2011).

Even when enforced, the standards permit a broad range of services. For example, the skilled care requirement mandates that a beneficiary need therapy or nursing care to be eligible for the home health benefit. The intent of the skilled services requirement is that the home health benefit serve a clear medical purpose and not be an unskilled, personal-care benefit. However, Medicare's coverage

**TABLE  
9-3****Number of participating home health agencies declined  
in 2016 but remained high relative to earlier years**

	2004	2008	2012	2015	2016	Percent change	
						2004-2015	2015-2016
Active agencies	7,651	9,787	12,311	12,346	12,204	61%	-1.2%
Number of agencies per 10,000 FFS beneficiaries	2.1	2.8	3.3	3.3	3.2	55	-2.1

Note: FFS (fee-for-service). "Active agencies" includes all agencies operating during a year, including agencies that closed or opened at some point during the year.

Source: CMS's Provider of Service file and 2017 annual report of the Boards of Trustees of the Medicare trust funds.

standards do not require that skilled visits compose the majority of the home health services a patient receives. For example, in about 6 percent of episodes in 2014, most services provided were visits from an unskilled home health aide. These episodes raise questions about whether Medicare's broad standards for coverage are adequate to ensure that skilled care remains the focus of the home health benefit.

**Fraud and abuse are continuing challenges  
in home health care**

In 2010, the Commission made a recommendation to curb wasteful and fraudulent home health services (Medicare Payment Advisory Commission 2010). This recommendation calls on the Health and Human Services Secretary to use the department's authorities under current law to examine providers with aberrant patterns of utilization for possible fraud and abuse. PPACA permits Medicare to implement temporary moratoriums on the enrollment of new agencies in areas believed to have a high incidence of fraud. In 2017, Medicare implemented statewide moratoriums for home health agencies in Florida, Illinois, Michigan, and Texas, expanding previously established local moratoriums in these states. There have also been numerous criminal prosecutions for home health fraud, most notably in Miami and Detroit. However, the Commission observes that many areas continue to have aberrant patterns of utilization. For example, even though Miami has been an area of concentrated effort by CMS and law enforcement agencies, this area still has a utilization rate well in excess of other parts of the country. The persistence of aberrant utilization patterns suggests that continued, or perhaps even expanded, efforts by all enforcement agencies are

needed to address the scope of fraud in many areas. In addition, Medicare has other regulatory powers, such as requiring HHAs to hold surety bonds, but has not exercised this authority.<sup>3</sup>

**Are Medicare payments adequate in  
2018?**

The Commission reviews several indicators to determine the level at which payments will be adequate to cover the costs of an efficient provider in 2018. We assess beneficiary access to care by examining the supply of home health providers and annual changes in the volume of services. The review also examines quality of care, access to capital, and the relationship between Medicare's payments and providers' costs. Overall, the Medicare payment adequacy indicators for HHAs are positive.

**Beneficiaries' access to care: Almost all  
beneficiaries live in an area served by home  
health care**

Supply and volume indicators show that almost all beneficiaries have access to home health services. In 2016, over 99 percent of beneficiaries lived in a ZIP code served by at least one HHA, 97.5 percent lived in a ZIP code served by two or more HHAs, and 86 percent lived in a ZIP code served by five or more agencies. These findings are consistent with our prior reviews of access.<sup>4</sup>

Though these indicators are positive, access to care is difficult to measure for home health care because the service has broadly defined standards. The capacity and capabilities of agencies vary, and agencies have discretion



**TABLE  
9-4****Fee-for-service home health care services have increased significantly since 2002**

	2002	2011	2013	2014	2015	2016	Percent change	
							2002–2015	2015–2016
Home health users (in millions)	2.5	3.4	3.4	3.4	3.5	3.4	37%	<0.1%
Share of beneficiaries using home health care	7.2%	9.4%	9.2%	9.0%	9.1%	9.0%	26	<–1
Episodes (in millions):	4.1	6.8	6.7	6.6	6.6	6.5	61	<–1
Per home health user	1.6	2.0	1.9	1.9	1.9	1.9	17	<–1
Per FFS beneficiary	0.12	0.19	0.18	0.17	0.17	0.17	48	–2
Payments (in billions)	\$9.6	\$18.4	\$17.9	\$17.7	\$18.1	\$18.1	87	<1
Per home health user	3,803	5,347	5,169	5,156	5,225	5,223	37	<–0.1
Per home health episode	2,645	2,916	2,899	2,908	2,965	2,988	12	<1

Note: FFS (fee-for-service). Percent change is calculated on numbers that have not been rounded; payment per episode excludes low-utilization payment adjustment cases.

Source: MedPAC analysis of home health standard analytical file.

in the patients they choose to serve. Also, because home health care services are not delivered in a facility, the number of agencies in a market is not a complete indicator of the availability of care. The size of agencies in an area is also important in determining market capacity. Agencies can also adjust their service areas and staffing as market conditions change. However, even with these caveats, the indicators for provider supply and the volume of services are generally positive.

### Supply of providers: Agency supply surpasses previous peak

Since 2004, the number of HHAs in Medicare has increased by over 4,500 agencies, reaching 12,204 agencies in 2016 (Table 9-3). The number of agencies declined slightly in 2016 relative to the prior year, but even with this decline, the number of agencies nationwide is now higher than the previous peak in the 1990s when supply exceeded 10,900 agencies (data not shown).

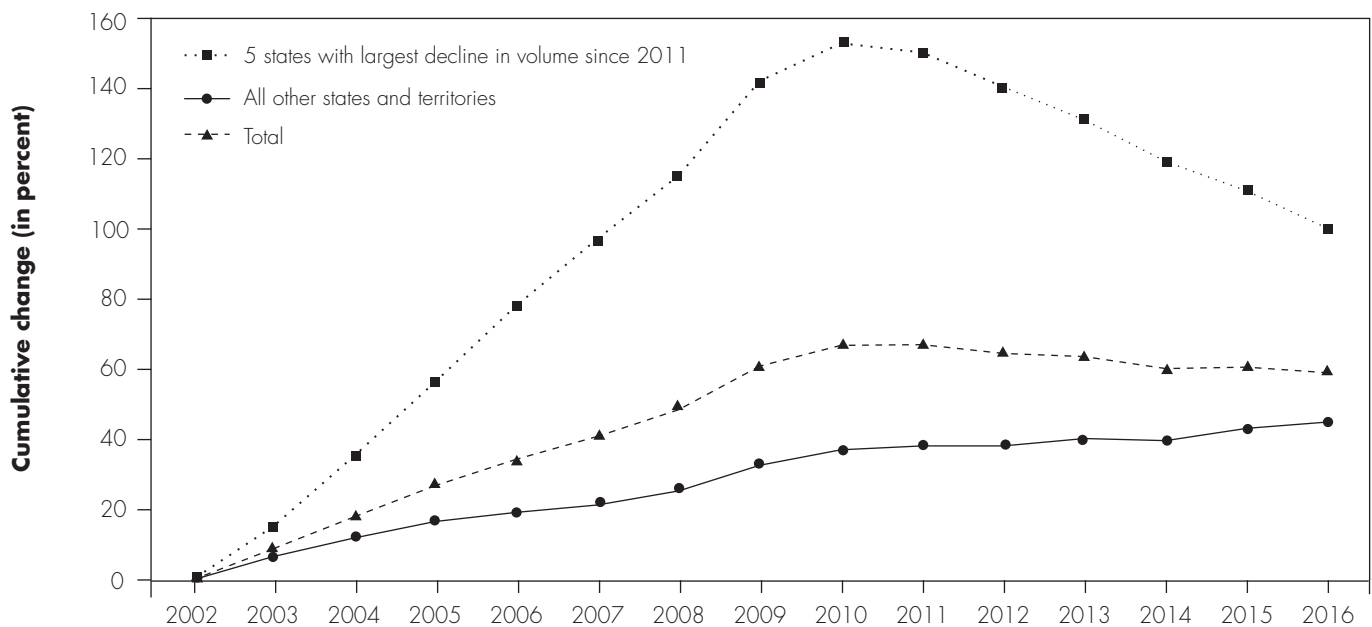
The slight decline in 2016 was concentrated in Texas and Florida, states that experienced higher than average increases in supply in prior years. These states have been targeted by a myriad of antifraud measures, including criminal investigations and moratoriums on the entry of new agencies in the two states. The number of agencies exiting the program has increased in recent years in these states, and moratoriums have stopped the entry of new

agencies. Even with declines in these states, however, their supply of agencies is more than three times the supply of agencies that were available there in 2001, with supply exceeding 3,600 agencies in 2016.

From 2004 to 2016, the number of agencies per 10,000 FFS beneficiaries rose 52 percent, from 2.1 to 3.2 (Table 9-3). Most of the new agencies were for profit. However, supply varies significantly among states. In 2016, Texas averaged 4.3 agencies per 10,000 beneficiaries, while New Jersey averaged less than 1 agency per 10,000 beneficiaries. The extreme variation demonstrates that the number of providers is a limited measure of capacity because agencies can vary in size. Also, because home health care is not provided in a medical facility, agencies can adjust their service areas as local conditions change. Even the number of employees may not be an effective metric because agencies can use contract staff to meet their patients' needs.

### Episode volume declined slightly in 2016

Episode volume in 2016 did not change significantly, with a small decrease of 0.7 percent in 2016, or about 50,000 episodes (Table 9-4). This decline is part of a trend that began in 2012, but this period of decline was preceded by a period of rapid growth (Figure 9-2, p. 252). Between 2002 and 2011, total episodes increased by 67 percent

**FIGURE  
9-2****Cumulative change in home health episode volume since 2002 for groups of states**

Note: The five states with the largest decline in volume since 2011 include Florida, Illinois, Louisiana, Tennessee, and Texas.

Source: MedPAC analysis of home health standard analytic file from CMS.

from 4.1 million episodes to 6.8 million episodes. The decline since 2011 has been concentrated in a few states, with five states (Florida, Illinois, Louisiana, Tennessee, and Texas) accounting for most of the decline in episodes. However, utilization in these five states had more than doubled in the 2002 to 2011 period, higher than in most other areas (Figure 9-2).

Changes in average payment per full episode (defined as comprising more than four visits) underscore the limited impact of the PPACA rebasing policy that was implemented in 2014.<sup>5</sup> Average payment per episode increased in the first three years of rebasing (data for 2017 were not available at the time of publication), and the average payment per episode in 2016, the third year of rebasing, was 3.1 percent higher than the average payment per episode in 2013, before rebasing was implemented (Table 9-4, p. 251). The episode volume growth is even more remarkable since Medicare implemented additional payment reductions during this period, such as reductions for changes in coding practices. As the Commission has noted in the past, agencies have been successful in

increasing payment through higher reported case-mix severity without incurring the higher costs that higher severity should incur.

The decline in home health utilization since 2011 reflects changes in both the demand for home health services and the supply of agencies. The number of hospital discharges, a common source of referrals, has declined since 2009, reducing some of the demand for post-acute care services. The period has also seen relatively low growth in economy-wide health care spending. In addition, several actions have been taken to curb fraud, waste, and abuse in Medicare home health care. CMS has implemented moratoriums on new agencies in several areas that have seen rapid growth in supply and utilization, including Illinois, Florida, and Texas.

The decline in episode volume since 2011 has not been uniform across the country. Since 2011, Florida, Illinois, Louisiana, Tennessee, and Texas (the five states with the fastest growing episode volume before 2011) have seen a decline of about 20 percent compared with an increase in

**TABLE  
9-5****Home health episodes not preceded by hospitalization or PAC stay increased at a higher rate than other episodes**

	Episodes			Cumulative percent change	
	2001	2011	2016	2001-2011	2011-2016
Number of episodes preceded by a hospitalization or PAC stay (in millions)	1.9	2.2	2.2	14.8%	2.4%
Number of episodes not preceded by a hospitalization or PAC stay (in millions)	2.1	4.6	4.4	127.4	-7.7
Share of episodes not preceded by a hospitalization or PAC stay	53%	67%	66%	26	-3.3
Total (in millions)	3.9	6.8	6.6	74.0	-4.6

Note: PAC (post-acute care). "Episodes preceded by a hospitalization or PAC stay" indicates the episode occurred fewer than 15 days after a stay in a hospital (including in a long-term care hospital), skilled nursing facility, or inpatient rehabilitation facility. "Episodes not preceded by a hospitalization or PAC stay" indicates that there was no hospitalization or PAC stay in the 15 days before the episode began. Numbers may not sum to totals due to rounding.

Source: 2016 home health standard analytical file, Medicare Provider and Analysis Review file 2016, and 2016 skilled nursing facility standard analytical file.

volume of 30.1 percent in California. The remaining 44 states have seen 2.1 percent growth. This variation across states emphasizes that many areas continue to see growth despite the overall drop in episode volume since 2011. The volume decrease in areas that have been targeted by program integrity efforts suggests that these efforts can address excessive or unwarranted services, and the expansion of these efforts to other areas with excessive growth rates would be beneficial.

### **Home health care periods of service have increased in length and shifted in focus to episodes that are not preceded by a hospitalization**

Between 2002 and 2016, the average number of episodes per user increased by 17 percent, rising from 1.6 to 1.9 episodes per user (Table 9-4, p. 251). The increase indicates that beneficiaries receive home health care for longer periods of time than previously and suggests that, for some beneficiaries, home health care serves more as a long-term care benefit. These concerns are similar to those in the mid-1990s that led to major program integrity activities and payment reductions. The increase in episodes coincides with Medicare's PPS incentives that encourage additional volume: The unit of payment per episode encourages more service (more episodes per beneficiary), and the PPS design makes higher payments

for the third and later episodes in a consecutive spell of home health episodes.

The rise in the average number of episodes per home health user coincides with a relative shift away from using home health care as a PAC service (Table 9-4 (p. 251) and Table 9-5). Between 2001 and 2011, episodes not preceded by a hospitalization or PAC stay increased by about 127 percent, while between 2011 to 2016, volume dropped by 7.7 percent. In contrast, from 2001 to 2011, episodes preceded by a prior PAC stay or hospitalization increased by almost 15 percent and have continued to increase slightly (2.4 percent from 2011 to 2016) in recent years. However, this increase has not significantly changed the share of episodes not preceded by inpatient or institutional PAC, and these episodes account for 66 percent of episodes in 2016—about the same level as 2011.

### **Episodes that qualify for additional payment based on therapy services account for an increasing share of volume**

Since the 2001 implementation of the home health PPS, Medicare has used the number of therapy visits as a factor in payment, and, not surprisingly, episodes that qualify for these payments have increased faster than those that do not. Under the current PPS, additional therapy visits

**TABLE  
9-6**

**Almost all of the top 25 counties with the highest rates of beneficiaries using home health in 2016 were rural**

State	County	Share of FFS beneficiaries using home health services	Episodes per user	Episodes per 100 FFS beneficiaries
National average		9.0%	1.9	17
TX	Duval	36.3	4.6	167.2
TX	Brooks	31.5	3.7	117.2
TX	Jim Hogg	26.4	4.1	107.9
TX	Jim Wells	25.5	4.1	104.7
TX	Starr	23.2	3.9	89.5
LA	East Carroll	23.0	4.2	95.5
OK	Choctaw	22.9	4.1	94.7
TX	Zapata	22.6	4.1	93.1
TX	Willacy	22.2	3.4	76.4
TX	Foard	22.0	4.0	88.3
TX	Wilbarger	20.1	3.8	76.6
OK	Greer	20.1	3.7	73.7
TX	Webb*	19.9	3.9	76.8
TX	Baylor	19.7	3.3	65.5
KY	Cumberland	19.5	3.7	71.3
OK	Atoka	19.3	3.6	70.3
OK	Coal	19.3	2.9	56.1
TX	Culberson	19.0	3.1	58.3
MS	Holmes	18.8	3.0	56.8
TX	Falls*	18.8	3.2	60.0
MS	Sharkey	18.6	3.2	59.7
LA	Evangeline	18.4	3.3	60.3
OK	Haskell	18.3	4.0	72.3
LA	St. Helena*	18.0	3.7	66.8
MS	Yazoo*	18.0	2.8	51.0

Note: FFS (fee-for-service).

\*Urban county; all others rural.

Source: MedPAC analysis of the 2016 home health standard analytical file and the 2015 Medicare denominator file.

increase payments once six or more visits are provided in an episode, and the share of these episodes increased between 2008 and 2016 from 37 percent to 48 percent. In past work, the Commission has found that agencies that provide more therapy episodes tend to be more profitable. The higher profitability and rapid growth in the number of these episodes suggest that financial incentives are causing agencies to favor therapy services when possible. In 2017, the Commission recommended that Medicare eliminate the use of the number of therapy visits provided in an

episode as a payment factor (Medicare Payment Advisory Commission 2017).

### **Rural add-on payments disproportionately benefit areas that do not have low utilization**

An add-on payment of 3 percent for each home health care episode provided to beneficiaries in rural areas expired in 2017. The intent of the add-on was presumably to bolster access, but the high level of utilization in many rural areas resulted in poor targeting of Medicare's per episode

**TABLE  
9-7****Average home health agency performance on select quality measures**

	2013	2014	2015	2016
Share of beneficiaries that:				
Used emergency department care	11.7%	11.8%	12.2%	12.2%
Had to be admitted to the hospital	15.6	15.2	15.5	16.2
Share of an agency's beneficiaries with improvement in:				
Walking	58%	58%	58%	69%
Transferring	53	53	53	65

Note: All data are for fee-for-service beneficiaries only and are risk adjusted for differences in patient condition among home health patients.

Source: MedPAC analysis of data provided by the University of Colorado.

add-on, with most payments made in areas with higher than average utilization. For example, 79 percent of the episodes that received the add-on payments in 2016 were in rural counties with utilization higher than the median for all counties. Rural counties in the lowest fifth of utilization accounted for just 5 percent of the episodes that received the rural add-on payment.

In its June 2012 report to the Congress, the Commission noted that Medicare should target rural payment adjustments to those areas that have access challenges (Medicare Payment Advisory Commission 2012). The large share of payments made to rural areas with above-average utilization does nothing to improve access to care in those areas and raises payments in these markets that appear to be more than adequately served by HHAs. Some of the counties with aberrant patterns of utilization suggestive of fraud and abuse are rural; for example, all but 4 of the 25 top-use counties in 2016 were rural areas (Table 9-6). Higher payments in areas without access problems can encourage the entry or expanded operations of agencies that seek to exploit Medicare's financial incentives. More targeted approaches that limit rural add-on payments to areas with access problems should be pursued.

### **Quality of care: Quality measures generally held steady or improved**

Medicare reports several quality measures on its Home Health Compare website, from which we obtained recent trend data (Table 9-7). In 2016, the share of patients who improved in walking and in transferring from the bed to a chair increased, while the share hospitalized increased

slightly, and the share receiving emergency care did not change significantly.<sup>6</sup>

Like most categories of providers, the performance of HHAs varied significantly on their quality measures. For example, regarding the share of patients demonstrating improvement in walking in 2016, the values ranged from 54 percent for the agency at the 25th percentile of the distribution to 77 percent for the agency at the 75th percentile (data not shown). This broad variation indicates that opportunities exist for improving performance, particularly for low-performing agencies.

However, the annual data indicating improved quality should be viewed with caution:

- An HHA's functional data are driven by agency assessment practices, which could reflect the incentive to show improved agency performance to attract patient referrals or seek financial reward for better performance. HHAs self-report these data, and some measures are difficult to independently verify.
- Functional improvement data are collected only for beneficiaries who do not have their home health care stays terminated by a hospitalization, which means that beneficiaries included in the measure are probably healthier and more likely to have positive outcomes.
- The risk adjustment models for these measures rely on the relationship between patient characteristics and outcome measures for a base year of data, and apply this relationship to later years of data. Using a single model for later periods permits comparison across



## Medicare initiated a value-based purchasing program for home health agencies in 2016

In 2016, Medicare initiated a value-based purchasing (VBP) program for home health care. The model will test whether home health agencies in nine states (Arizona, Florida, Iowa, Maryland, Massachusetts, Nebraska, North Carolina, Tennessee, and Washington) improve or maintain high quality when they are subject to a VBP incentive. Under the demonstration, agencies with higher performance receive bonuses, while those with lower scores receive lower payments relative to current levels. Agency performance is evaluated against separate improvement and attainment scores, with payment tied to the higher of these two scores.

CMS will use 2015 as the baseline year for performance, with 2016 as the first year for performance measurement. The first payment adjustment began January 1, 2018, based on 2016 performance data. Between 2018 and 2021, the

payment withhold increases from 3 percent to 8 percent.

CMS's home health VBP model adopts a scoring approach similar to that used in the hospital VBP program, including allocating points based on achievement or improvement and calculating those points based on industry benchmarks and thresholds. For each measure, agencies receive points along an achievement range, a scale between the achievement threshold and a benchmark.

The VBP program is an important step forward for moving Medicare away from volume-rewarding fee-for-service incentives, and the Commission has recommended an incentive to reduce rehospitalizations for home health agencies. Compared with its predecessor demonstration, the VBP design has been

*(continued next page)*

time, but it can also introduce distortions if the actual effect of the risk factors in later years differs from the relationship assumed in the base year for the model.

Several factors likely drive the trends observed, but methods of data collection may account for some of the differences. The functional quality measures (walking and transferring) show marked increases between 2015 and 2016, and are based on self-reported data from HHAs. These outcomes contrast with the mostly unchanged hospitalization measure, which is derived from Medicare claims for home health care and hospital services. The substantial increase in the functional measures for 2016 is particularly important because these data will be used in a nine-state pilot test of value-based purchasing (VBP). In 2018, agencies will receive penalties or bonuses depending on how they compare with other HHAs in their state (see text box on the VBP program for HHAs).

Most of the measures used in the VBP program to compute penalties and bonuses will be based on quality data reported by HHAs, including the walking and transferring measures discussed above. While 3 measures—discharge to community, rate of

hospitalization, and emergency care use—will be claims based, the other 21 measures will rely on data reported by agencies. The divergent trends between claims-based measures of quality such as hospitalizations and the self-reported functional measures suggest that closer scrutiny of the functional measures is necessary.

### **Providers' access to capital: Access to capital for expansion is adequate**

Few HHAs access capital through publicly traded shares or through public debt such as issuing bonds. HHAs are not as capital intensive as other providers because they do not require extensive physical infrastructure, and most are too small to attract interest from capital markets. Information on publicly traded home health care companies provides some insight into access to capital but has limitations. Publicly traded companies may have other lines of business in addition to Medicare home health care, such as hospice, Medicaid-covered services, and private-duty nursing. Also, publicly traded companies are a small portion of the total number of agencies in the industry. For these reasons, access to capital is a smaller consideration for home health than for most other health care sectors receiving Medicare payment.



## Medicare initiated a value-based purchasing program for home health agencies in 2016 (cont.)

strengthened in that participation is compulsory for the agencies active in the nine states selected. The prior VBP demonstration was voluntary, and agencies with low quality could avoid penalties by not participating. In addition, by 2021, the demonstration places a significant portion of payments at risk (8 percent), which should ensure that even agencies with relatively high margins have an incentive to maintain or improve quality. Agencies that do not have the number of episodes (20) required to produce data for at least 5 measures will not be subject to the payment adjustment.

In our 2017 comment letter, the Commission noted several changes that could improve the VBP program. The program uses 20 measures, complicating the

administration of the program and making it difficult for agencies to focus on quality improvement efforts. The Commission also recommended that the program focus on rewarding attainment (or the absolute level of performance) and not improvement. An agency's absolute level of performance matters most to a beneficiary and is best encouraged by rewarding attainment. In addition, rewarding improvement creates potential inequities in that agencies with equal or better achievement scores receive smaller incentive payments than agencies with lower attainment scores but higher improvement scores. The greatest rewards in a VBP program should flow to the agencies with the best quality, and attainment-based scoring better achieves this goal. ■

Analysis of for-profit companies indicates that these companies had adequate access to capital in 2016. Firms continued to expand home health capacity. For example, Almost Family Incorporated, LHC Group, and Encompass (formerly known as HealthSouth) acquired or opened new agencies. These capacity expansions by publicly traded companies suggest that access to capital remains adequate.

### Medicare payments and providers' costs: Payments rose while cost per episode remained low in 2016

In 2016, average Medicare payments per episode increased by about 0.7 percent for freestanding agencies. Meanwhile, low or no cost growth has been typical for home health care, and in some years, cost per episode declined. The average cost per episode grew less than 1 percent in 2016, slightly greater than the annual decrease of about 0.6 percent for the last five years. The ability of HHAs to keep costs low in most years has contributed to their high margins under the Medicare PPS for freestanding HHAs.

### Medicare margins for freestanding HHAs remained high in 2016

In 2016, HHA Medicare margins in aggregate were 15.5 percent for freestanding agencies (Table 9-8, p. 258).<sup>7</sup> The aggregate Medicare margins varied from 0.6 percent for

freestanding agencies at the 25th percentile of the margin distribution to 24.5 percent for freestanding agencies at the 75th percentile (not shown in table). For-profit agencies had higher margins than nonprofit agencies, and urban agencies had slightly higher margins than rural agencies. The profitability of freestanding agencies did not differ significantly for agencies with differing shares of Medicare revenues as a share of total payments. For example, agencies in the bottom quintile of Medicare payments as a share of total revenues had margins of 15.3 percent while agencies in the top quintile had margins of 14.4 percent.

The Commission includes hospital-based HHAs in its calculation of total Medicare margins for acute care hospital margins because these agencies operate in the financial context of hospital operations. Margins for hospital-based agencies in 2016 were -15.8 percent. The lower margins of hospital-based agencies are due chiefly to their higher costs, some of which are due to overhead costs allocated to the HHA from its parent hospital. Hospital-based HHAs help their parent institutions financially if they can shorten inpatient stays, lowering expenses in the most costly setting.

The financial performance in 2015 and 2016 permit an examination of the financial impact of the second

**TABLE  
9–8****Medicare margins for freestanding home health agencies, 2015 and 2016**

	Medicare margin		Percent of agencies, 2016	Percent of episodes, 2016
	2015	2016		
All	15.6%	15.5%	100%	100%
Geography				
Majority urban	16.0	15.8	84	83
Majority rural	13.2	13.4	17	17
Type of ownership				
For profit	16.7	16.6	88	77
Nonprofit	12.1	12.0	12	23
Volume quintile				
First (smallest)	7.4	7.9	20	3
Second	9.6	10.1	20	6
Third	12.4	11.3	20	11
Fourth	13.8	14.1	20	19
Fifth (largest)	17.6	17.4	20	62

Note: Agencies were classified as majority urban if they provided more than 50 percent of episodes to beneficiaries in urban counties and were classified as majority rural if they provided more than 50 percent of episodes to beneficiaries in rural counties. Components may not sum to totals due to rounding.

Source: MedPAC analysis of home health cost report files from CMS.

and third years of the rebasing required by PPACA. In both years, the margins for freestanding agencies have remained high, reflecting the Commission's concerns that the PPACA policy would not make sufficient reductions. The actual performance contrasts starkly with the home health industry's predictions. In 2013, the industry predicted that Medicare margins for freestanding agencies in 2014 would be 4.96 percent and 0.96 percent in 2015. These predictions were significantly lower than the actual performance of 10.8 percent and 15.6 percent, respectively.

### Marginal profits

Another factor we consider when evaluating the adequacy of payments is whether providers have any financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare

patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries. If we approximate marginal cost as total Medicare cost minus fixed building and equipment cost, then marginal profit is:

$$\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and equipment costs})) / \text{Medicare payments}$$

On average, the marginal profit for freestanding HHAs was 17.4 percent in 2016. This substantial marginal profit indicates that these HHAs have an incentive to increase the volume of Medicare beneficiaries they serve.

### Relatively efficient HHAs serve patients similar to all other HHAs' patients

Across all health care sectors, the Commission follows two principles when selecting a set of efficient providers. First, the providers must do relatively well across cost

**TABLE  
9-9****Performance of relatively efficient home health agencies in 2015**

<b>Provider characteristics</b>	<b>All</b>	<b>Relatively efficient providers</b>	<b>All other providers</b>
Number of agencies	4,810	446	4,364
Share that are for-profit agencies	87%	82%	87%
<b>Median:</b>			
Medicare margin	14.0%	21.1%	13.2%
Hospitalization during stay and following 30 days (percent)	15.7%	14.3%	15.9%
Cost per full episode	\$2,341	\$2,236	\$2,361
Patient severity case-mix index	0.99	1.04	0.99
<b>Visits per episode</b>			
Average visits per episode	17.6	16.8	17.9
<b>Share of visits by type</b>			
Skilled nursing visits	47%	47%	48%
Aide visits	9%	7%	9%
MSS visits	1%	1%	1%
Therapy visits	44%	45%	41%
<b>Size (number of 60-day payment episodes)</b>			
Median	495	776	474
Mean	897	1,401	846
<b>Share of episodes</b>			
Low-use episode	8%	10%	8%
Outlier episode	3%	3%	3%
Share of episodes provided to rural beneficiaries	21%	14%	21%

Note: MSS (medical social services). Sample includes freestanding agencies with complete data for three consecutive years (2013–2015). A home health agency is classified as relatively efficient if it is in the best third of performance for quality or cost and is not in the bottom third of either measure for three consecutive years. Low-use episodes are those with 4 or fewer visits in a 60-day episode. Outlier episodes are those that received a very high number of visits and qualified for outlier payments. Therapy episodes are those with six or more therapy visits. Components may not sum due to rounding.

Source: Medicare cost reports and standard analytic file.

and quality metrics. Second, the performance has to be consistent, meaning that the provider cannot have poor performance on any metric over a three-year period. The Commission's approach is to develop a set of criteria and then examine how many providers meet them. It does not establish a set share of providers to be considered efficient and then define criteria to meet that pool size.

We examined the quality and cost efficiency of freestanding HHAs to identify a cohort that demonstrated better performance on these metrics relative to its peers

(Table 9-9). The cost measure was on a per episode basis, adjusted for risk (patient's health status) and local wages; the quality measures were risk-adjusted rates of hospitalizations and improvement in walking. Our approach categorized an HHA as relatively efficient if the agency was in the best performing third on at least one measure (either low cost per episode, a low hospitalization rate, or a high rate of beneficiaries showing improvement in walking) and was not in the worst performing third of any of these measures for three consecutive years (2013 to

2015). About 9 percent of freestanding agencies met these criteria in this period.

In 2016, relatively efficient agencies compared with other HHAs had median margins that were about 8 percentage points higher, a median hospitalization rate that was 1.6 percentage points lower, and a median cost per episode that was 5 percent lower. Relatively efficient HHAs provided more episodes but 1.1 fewer visits per episode. The mix of nursing, therapy, aide, and social services visits did not differ significantly between relatively efficient and other HHAs. Efficient providers tended to provide fewer episodes in rural areas.

### Medicare margins for freestanding agencies are projected to remain high in 2018

In modeling 2018 payments and costs, we incorporate policy changes that went into effect between the year of our most recent data, 2016, and the year for which we are making the margin projection, 2018. The major changes are:

- payment rebasing change of –0.3 percent in 2017 (the net impact of the PPACA rebasing adjustments, partially offset by the payment updates for each year);
- 1 percent payment update for 2018;
- coding adjustments of –0.97 percent in 2017 and 2018, consistent with CMS’s policy;
- sequester of 2 percent, which remains in effect for 2017 and 2018;
- assumed nominal case-mix growth of 0.5 percent in 2017 and 2018;
- expiration of the 3 percent add-on for episodes provided in rural areas in 2017; and
- assumed episode cost growth of 0.5 percent per year.

On the basis of these policies and assumptions, the Commission projects an aggregate margin of 14.4 percent in 2018 for freestanding agencies.

### How should Medicare payments change in 2019?

Our review of the Medicare home health benefit indicates that access is more than adequate in most areas and that

Medicare payments are substantially in excess of costs. On the basis of these findings, the Commission concludes that home health payments need to be significantly reduced. In addition to payment adequacy, the Commission is concerned that the current payment system provides a financial incentive for agencies to favor therapy services when delivering care. Though PPACA included a provision intended to lower payments, the reductions under this provision are modest, and substantial margins for many agencies are likely to remain, particularly for those that are efficient or focus on higher paying services.

## RECOMMENDATION 9

**The Congress should reduce Medicare payments to home health agencies by 5 percent in calendar year (CY) 2019 and implement a two-year rebasing of the payment system beginning in CY 2020. The Congress should direct the Secretary to revise the prospective payment system to eliminate the use of therapy visits as a factor in payment determinations, concurrent with rebasing.**

## RATIONALE 9

The data for 2016, the third year of rebasing under PPACA, indicate that Medicare continues to overpay for home health care and likely will continue to do so unless additional reductions are made. Under current policy, it appears likely that the average payment per episode in 2018 will be higher than the average payment in effect before rebasing. While the PPACA rebasing has restrained the increase in home health payments, the margins for 2016 and projected margin for 2018 indicate that payments will be substantially greater than costs unless significant additional reductions occur.

An immediate reduction of 5 percent in 2019 would represent a significant action to address the magnitude of the overpayments embedded in Medicare’s rates. Subsequently, CMS should implement a revised rebasing beginning in 2020. Under the rebasing policy, CMS would assess the average margins of HHAs in the most recent year of data available (using audited cost reports to the extent feasible) and reduce payments in 2020 and 2021. The experience of the PPACA rebasing indicates that the continued updating of payments using the market basket update has undermined the goal of lowering payments, and a revised policy should not include these updates. In determining the amount by which to reduce payments, CMS could also use information on the costs of efficient providers, not just the average provider, since data suggest that efficient providers can deliver adequate service for

lower costs. With these adjustments, payments should be better aligned with costs compared with current policy.

The recommendation also calls for an end to the use of the number of therapy visits as a payment factor in the PPS when rebasing begins in 2020. The current system relies on a series of visit-number thresholds that increase payments beginning with 6 or more therapy visits and stopping at 20 visits per episode. Increasing the number of therapy visits increases payments significantly, sometimes by hundreds of dollars for a single additional visit. A Senate Finance Committee investigation of the therapy management practices of publicly traded home health companies concluded that CMS needs to eliminate the therapy thresholds in the home health PPS (Committee on Finance 2011). The continued use of these thresholds distorts the incentives of the payment system and distracts HHAs from focusing on patient needs and characteristics when delivering services. In 2017, CMS proposed the implementation of a new case-mix system that does not use therapy visits as a factor, but this proposal was withdrawn. The distributional effects of implementing a revised PPS would generally decrease payments for agencies that provide relatively more therapy episodes and raise payments for those that provide fewer of these services. (Subsequent to the Commission's vote on this recommendation, the Bipartisan Budget Act of 2018 eliminated the therapy thresholds beginning in 2020.)

Beyond the payment update recommendation, the Commission notes that the current home health rural add-on payment is poorly targeted. Because most of the funds are paid to rural areas with high rates of per capita home health utilization, we conclude that the add-on should not be extended. Overall margins for rural providers were 13.4 percent in 2016, indicating that, like urban providers, on average, these HHAs are paid well in excess of costs and generally do not need an additional subsidy. The untargeted higher payments in all rural areas do not create value for the beneficiary or the taxpayer. Future efforts to address the needs of rural areas should identify specific access problems and develop targeted policies that focus on the identified problems. The design of the current rural add-on payment does not fulfill this principle.

As discussed in the chapter on post-acute care (Chapter 7), before implementing a unified PAC PPS in 2021, the Commission recommends that the Congress direct the Secretary to establish home health payments using a blend of the unified PAC PPS and home health PPS relative

weights. As noted in Chapter 7, the recommendation to blend relative weights does not affect the level of payments to a setting, but does affect the distribution of those payments across conditions. A blend of the relative weights would redistribute payments within the home health setting by increasing payments for medically complex patients and lowering payments to patients who receive rehabilitation therapy unrelated to their care needs. Based on HHAs' mix of patients and current therapy practices, the blend would have the effect of raising payments to nonprofit and hospital-based HHAs and lowering payments to for-profit and freestanding HHAs. The blended weights would narrow the relative profitability across types of stays, which would improve access for medically complex patients. Narrower differences in profitability would also mean there would be fewer financial incentives for providers to engage in patient selection. The redistribution across providers enables the Commission to recommend, and policymakers to implement, a level of payments that would better align payments with the cost of care.

## IMPLICATIONS 9

### Spending

- The payment reductions would lower payments relative to current law by \$750 to \$2 billion in 2019 and by \$5 billion to \$10 billion over five years. Our recommendation to eliminate the use of therapy visits as a factor in payment determinations would be budget neutral.

### Beneficiary and provider

- Lowering payments should not affect providers' willingness to deliver appropriate home health care. Beneficiary access should not be adversely affected; indeed, it should be improved for patients requiring nontherapy care.
- The removal of therapy visits as a payment factor would be redistributive, after accounting for the effects of the recommendation mentioned above to reduce payments. In general, the change would lower payments for agencies with high numbers of therapy episodes and increase payments for agencies with relatively few therapy cases. ■



## Endnotes

---

- 1 The Balanced Budget Act of 1997 ended coverage of home health care for the sole purpose of venipuncture services.
- 2 The rate is risk adjusted and excludes hospitalizations that were planned in advance or part of a normal course of treatment (for instance, organ transplant).
- 3 Surety bond firms review an HHA's organizational and financial integrity and agree to cover the Medicare obligations, up to a set amount, for those agencies that the surety bond firm believes are low risk. A surety bond covers liabilities that occur when an agency does not repay funds it owes Medicare (for example, when an agency is found to have improperly billed for services) (Government Accountability Office 1999). Requiring a surety bond would prevent Medicare participation by agencies that a surety firm judges to be high risk.
- 4 As of November 2017, our measure of access is based on data collected and maintained as part of CMS's Home Health Compare database. The service areas listed are postal ZIP codes where an agency has provided services in the past 12 months. This definition may overestimate access because agencies need not serve the entire ZIP code to be counted as serving it. At the same time, the definition may understate access if HHAs are willing to serve a ZIP code but did not receive a request in the previous 12 months. The analysis excludes beneficiaries with unknown ZIP codes.
- 5 Medicare makes a case-mix-adjusted 60-day episode payment when more than 4 visits are provided. Episodes with four or fewer visits are paid on a per visit basis.
- 6 For bedfast patients, transferring includes the ability of the patient to sit upright or position themselves in bed.
- 7 The all-payer margins for freestanding agencies equaled 4.5 percent in 2016.



## References

---

- Benjamin, A. E. 1993. An historical perspective on home care policy. *Milbank Quarterly* 71, no. 1: 129–166.
- Cheh, V., N. Duda, B. L. Carlson, et al. 2007. *Evaluation of the Home Health Independence Demonstration: Barriers to a successful experiment were multifaceted and difficult policy issues remain*. Prepared for the Centers for Medicare & Medicaid Services. Princeton, NJ: Mathematica Policy Research, Inc. October.
- Committee on Finance, United States Senate. 2011. *Staff report on home health and the Medicare therapy threshold*. 112th Congress, 1st sess. S. PRT. 2011 112–24. Report prepared by the staff of the Committee on Finance, United States Senate. Committee print.
- Feder, J., and J. Lambrew. 1996. Why Medicare matters to people who need long-term care. *Health Care Financing Review* 18, no. 2 (Winter): 99–112.
- Government Accountability Office. 1999. *Medicare home health agencies: Role of surety bonds in increasing scrutiny and reducing overpayments*. HEHS–99–23. Washington, DC: GAO.
- Government Accountability Office. 1996. *Medicare: Home health utilization expands while program controls deteriorate*. GAO/HEHS–96–16. Washington, DC: GAO.
- McCall, N., J. Korb, A. Petersons, et al. 2004. Decreased home health use: Does it decrease satisfaction? *Medical Care Research and Review* 61, no. 1 (March): 64–88.
- McCall, N., A. Petersons, S. Moore, et al. 2003. Utilization of home health services before and after the Balanced Budget Act of 1997: What were the initial effects? *Health Services Research* 38, no. 1 part 1 (February): 85–106.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014. *Report to the Congress: Impact of home health payment rebasing on beneficiary access to and quality of care*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2011. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2010. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2004. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Office of Inspector General, Department of Health and Human Services. 2001. *The physician's role in Medicare's home health services*. OEI–02–00–00620. Washington, DC: OIG.
- Office of Inspector General, Department of Health and Human Services. 1997. *Review of Medicare home health services in California, Illinois, New York, and Texas*. A–04–99–01994. Washington, DC: OIG.
- Wolff, J., A. Meadow, C. Weiss, et al. 2008. Medicare home health and the role of physicians. Presentation at Academy Health, Medicare and Post-Acute Care. June 8.



CHAPTER

# 10

---

## **Inpatient rehabilitation facility services**

---

## R E C O M M E N D A T I O N

- 10** The Congress should reduce the fiscal year 2019 Medicare payment rate for inpatient rehabilitation facilities by 5 percent.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....  
*(Additionally, the Commission reiterates its March 2016 recommendations on the inpatient rehabilitation facility prospective payment system. See text box, p. 276.)*

## Inpatient rehabilitation facility services

### Chapter summary

Inpatient rehabilitation facilities (IRFs) provide intensive rehabilitation services to patients after illness, injury, or surgery. Rehabilitation programs are supervised by rehabilitation physicians and include services such as physical and occupation therapy, rehabilitation nursing, speech–language pathology, and prosthetic and orthotic services. In 2016, Medicare spent \$7.7 billion on fee-for-service (FFS) IRF care provided in about 1,200 IRFs nationwide. About 350,000 beneficiaries had more than 391,000 IRF stays. On average, Medicare accounts for about 60 percent of IRF discharges.

### Assessment of payment adequacy

Our indicators of Medicare payment adequacy for IRFs are positive.

**Beneficiaries’ access to care**—Our analysis of IRF supply and volume of services provided suggests that capacity remains adequate to meet demand.

- **Capacity and supply of providers**—After declining for several years, the total number of IRFs increased in 2014 and continued to grow through 2016, reaching 1,188 facilities nationwide. Over time, the number of hospital-based and nonprofit IRFs has declined, while the number of freestanding and for-profit IRFs has increased. In 2016, the average IRF occupancy rate remained at 65 percent, indicating that capacity is more than adequate to meet demand for IRF services.

### In this chapter

- Are Medicare payments adequate in 2018?  
.....
- How should Medicare payments change in 2019?  
.....

- ***Volume of services***—Following a period of low volume growth, the number of FFS cases grew more quickly between 2015 and 2016, rising 2.4 percent to almost 391,000 cases.

***Quality of care***—The Commission tracks three broad categories of IRF quality indicators: risk-adjusted facility-level change in functional and cognitive status during the IRF stay, rates of discharge to the community and to skilled nursing facilities, and rates of readmission to an acute care hospital. Most measures were steady or improved between 2011 and 2016.

***Providers' access to capital***—The parent institutions of hospital-based IRFs continue to have good access to capital. The major freestanding IRF chain, which accounted for almost half of all freestanding IRFs in 2016 and about a quarter of all Medicare IRF discharges, also has good access to capital. This assessment is reflected in the chain's continued expansion. We were not able to determine the ability of other freestanding facilities to raise capital.

***Medicare payments and providers' costs***—Following a period of steady growth between 2009 and 2015, the aggregate IRF margin declined in 2016 but remained high at 13.0 percent. Medicare margins in freestanding IRFs declined by 1.2 percentage points in 2016 but, at 25.5 percent, remained very high. Hospital-based IRF margins were comparatively low, but one-quarter of hospital-based IRFs had Medicare margins greater than 11 percent, indicating that many hospitals can manage their IRF units profitably. Lower margins in hospital-based IRFs were driven largely by higher unit costs. Several factors account for these higher costs. First, hospital-based IRFs are smaller than their freestanding counterparts and may achieve fewer economies of scale. Second, hospital-based IRFs appear to be less stringent in their cost control, perhaps because they are far less likely than freestanding IRFs to be for profit and therefore are likely to be less focused on controlling costs to maximize returns to investors. Third, there are notable differences in hospital-based and freestanding IRFs' mix of cases, which may indicate differences in profitability across case types. If some case types are less profitable, facilities that admit more of these cases will have lower margins than facilities that admit fewer of these cases. Finally, while not definitive, evidence indicates that IRFs' assessments of patients' motor and cognitive function are not reliably consistent across providers. To the extent that hospital-based IRFs routinely assess their patients as less disabled than do their freestanding counterparts, their payments—and margins—will be systematically lower. Given the difference in financial performance across IRFs, we examined freestanding and hospital-based IRFs' marginal profits to assess whether both provider types have a financial incentive to expand the number of Medicare beneficiaries they serve. We found that



Medicare payments exceed marginal costs by a substantial amount—19.3 percent for hospital-based IRFs and 40.9 percent for freestanding IRFs—suggesting that IRFs with available beds have an incentive to admit Medicare patients. This finding is a very positive indicator of patient access, even with respect to IRFs with lower margins. We project an aggregate Medicare margin of 11.9 percent for IRFs in 2018.

For fiscal years 2009 through 2017, the Commission recommended a 0 percent update to the IRF payment rate. As the aggregate margin neared historic highs, however, the Commission recommended in March 2017 that the Congress reduce the 2018 IRF payment rate by 5 percent. Since such action was not taken and since, in the absence of legislative action, CMS is required by statute to apply an adjusted market basket increase, payments have continued to rise. At the same time, growth in costs historically has been low. From 2009 to 2015, the cumulative growth in cost per discharge was 8.5 percent, well below the increase in the market basket over the period. The gap between payments and costs per case for freestanding IRFs has grown even wider: From 2009 to 2015, the cumulative increase in payments per case for freestanding IRFs was 14.6 percent, compared with 4.2 percent growth in costs per case. In 2015, margins for freestanding IRFs reached an all-time high of 26.7 percent. In 2016, the gap between payments and costs narrowed somewhat as per case cost growth (3.4 percent in aggregate) exceeded payment growth (3.2 percent in aggregate) for the first time since 2008. Still, the aggregate margin of 13.0 percent in 2016 and our projected IRF margin of 11.9 percent in 2018 indicate that aggregate Medicare payments continue to substantially exceed the costs of caring for beneficiaries. These overpayments contribute to the long-run sustainability challenges of the Medicare program.

On the basis of these factors, the Commission recommends that the IRF payment rate for fiscal year 2019 be reduced by 5 percent. The recommendation about the level of payments to IRFs is made in the context of the Commission's recommendation (discussed in the chapter on post-acute care (Chapter 7)) to establish IRF payments using a blend of the current IRF prospective payment system (PPS) relative weights and the unified post-acute care PPS relative weights beginning in 2019. A blend of the relative weights would redistribute payments within the IRF setting by increasing payments for medically complex patients and lowering payments for patients with less complex conditions. The recommendation would narrow the differences in financial performance across providers based on their mix of patients, which enables the Commission to recommend, and policymakers to implement, a level of payments that is better aligned with the costs of care. In addition, the Commission reiterates its March 2016 recommendations

that the high-cost outlier pool be expanded to further redistribute payments in the IRF payment system and reduce the impact of misalignments between IRF payments and costs and that the Secretary should conduct focused medical record review of IRFs that have unusual patterns of case mix and coding and reassess the inter-rater reliability of the IRF assessment tool to improve the accuracy of payments and protect program integrity. ■

---

## Background

---

After illness, injury, or surgery, some patients need intensive, inpatient rehabilitative care, including physical, occupational, and speech therapy. Such services can be provided in inpatient rehabilitation facilities (IRFs).<sup>1</sup> To qualify as an IRF, a facility must meet Medicare's conditions of participation for acute care hospitals and must be primarily focused on treating conditions that typically require intensive rehabilitation, among other requirements. IRFs can be freestanding facilities or specialized units within acute care hospitals. To qualify for a covered IRF stay, a beneficiary must be able to tolerate and benefit from intensive therapy and must have a condition that requires frequent and face-to-face supervision by a rehabilitation physician. Other patient admission criteria also apply. In 2016, Medicare spent \$7.7 billion on IRF care provided in about 1,200 IRFs nationwide. About 350,000 beneficiaries had almost 391,000 IRF stays. On average, Medicare accounts for about 60 percent of IRF discharges.

Since January 2002, Medicare has paid IRFs under a per discharge prospective payment system (PPS).<sup>2</sup> Under the IRF PPS, Medicare patients are assigned to case-mix groups (CMGs) based on the patient's primary reason for inpatient rehabilitation, age, and level of motor and cognitive function. Within each of these CMGs, patients are further categorized into one of four tiers based on the presence of specific comorbidities that have been found to increase the cost of care. Each CMG tier has a designated weight that reflects the average relative costliness of cases in the group compared with that of the average Medicare IRF case.<sup>3</sup> The CMG weight is multiplied by a base payment rate and then adjusted to reflect geographic differences in the wages IRFs pay. The payment is further adjusted based on the IRF's share of low-income patients. Additional adjustments are made for IRFs that are teaching facilities and for IRFs located in rural areas.

The IRF PPS has outlier payments for patients who are extraordinarily costly. High-cost outlier payments are intended to offer providers some financial protection against exceptionally high-cost cases. Outlier payments can also help ensure continued access for patients who are predictably more likely than others to be exceptionally costly compared with the usual payment for the case type. Medicare provides an outlier payment, in addition to the usual PPS payment, for a case if its costs exceed a threshold. The outlier payment for a case is equal to 80

percent of costs above the threshold. The cost threshold is equal to the sum of the IRF's usual payment for the CMG plus a fixed loss amount. CMS sets the fixed loss amount each year at a level that it estimates will result in aggregate outlier payments exhausting the funds available in the outlier pool, which is currently set at 3 percent of total IRF payments. (For fiscal year 2018, the fixed-loss amount is \$8,679, adjusted for the applicable wage index and other facility-specific characteristics.) The outlier pool is funded by an offset to the national base payment amount, which reduces all CMG payment rates by the same percentage.

### Medicare facility requirements for IRFs

To qualify as an IRF for Medicare payment, facilities must meet the Medicare conditions of participation for acute care hospitals. They must also:

- have a preadmission screening process to determine that each prospective patient is likely to benefit significantly from an intensive inpatient rehabilitation program;
- ensure that the patient receives close medical supervision and provide—through qualified personnel—rehabilitation nursing, physical therapy, and occupational therapy and, as needed, speech—language pathology and psychological (including neuropsychological) services, social services, and orthotic and prosthetic services;
- have a medical director of rehabilitation with training or experience in rehabilitation who provides services in the facility on a full-time basis for freestanding IRFs or at least 20 hours per week for hospital-based IRF units;
- use a coordinated interdisciplinary team led by a rehabilitation physician that includes a rehabilitation nurse, a social worker or case manager, and a licensed therapist from each therapy discipline involved in the patient's treatment;
- have a plan of treatment for each patient that is established, reviewed, and revised as needed by a physician in consultation with other professional personnel who provide services to the patient; and
- meet the compliance threshold, which requires that no less than 60 percent of all patients admitted to an IRF have as a primary diagnosis or comorbidity at least 1 of 13 conditions specified by CMS.<sup>4</sup> The intent of the compliance threshold is to distinguish

**TABLE  
10-1****The share of FFS IRF cases with neurological conditions and brain injury continued to grow, 2004–2016**

Condition	Percent of IRF Medicare FFS cases				Meets compliance threshold <sup>a</sup>	Percentage point change		
	2004	2008	2015	2016		2004–2008	2008–2015	2015–2016
Stroke	16.6%	20.4%	19.6%	20.1%	yes	3.8	–0.8	0.5
Other neurological conditions	5.2	8.0	13.0	13.7	yes	2.9	5.0	0.7
Fracture of the lower extremity	13.1	16.0	11.5	10.8	yes	3.0	–4.5	–0.7
Debility	6.2	9.1	10.7	10.7	no	2.9	1.6	0.0
Brain injury	3.9	7.0	9.3	9.9	yes	3.0	2.3	0.6
Other orthopedic conditions	5.2	6.1	7.9	8.2	no	0.9	1.8	0.3
Cardiac conditions	5.3	4.6	6.0	6.1	no	–0.6	1.3	0.1
Major joint replacement of lower extremity	24.1	13.1	6.8	5.5	<sup>b</sup>	–11.0	–6.3	–1.3
Spinal cord injury	4.2	4.3	4.7	4.9	yes	0.1	0.4	0.2
All other	16.3	11.3	10.6	10.1	<sup>c</sup>	–5.0	–0.7	–0.4

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility). “Other neurological conditions” includes multiple sclerosis, Parkinson’s disease, polyneuropathy, and neuromuscular disorders. “Fracture of the lower extremity” includes hip, pelvis, and femur fractures. Patients with debility have generalized deconditioning not attributable to other conditions. “Other orthopedic conditions” excludes fractures of the hip, pelvis, and femur, and hip and knee replacements. “All other” includes conditions such as amputations, arthritis, and pain syndrome. All Medicare FFS IRF cases with valid patient assessment information were included in this analysis. Yearly figures presented in the table are rounded, but figures in the percentage point change columns were calculated using unrounded data.

<sup>a</sup>The compliance threshold requires that at least 60 percent of an IRF’s patients have 1 of 13 specified diagnoses or have a comorbidity that could cause significant decline in functional ability such that the patient requires intensive rehabilitation. Some FFS cases with conditions that do not meet the compliance threshold could thus be counted toward the threshold if they had certain comorbidities.

<sup>b</sup>Cases admitted for rehabilitation after major joint replacement of the lower extremity count toward the compliance threshold if joint replacement was bilateral, if the patient had a body mass index of 50 or greater, or if the patient was age 85 or older.

<sup>c</sup>Conditions in the “all other” category that meet the compliance threshold include congenital deformity, lower-limb amputations, major multiple trauma, burns, and certain arthritis cases.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

IRFs from acute care hospitals. If an IRF does not meet the compliance threshold, then Medicare pays for all its cases on the basis of the inpatient hospital PPS rather than the IRF PPS.

### Medicare coverage criteria for beneficiaries

Medicare applies additional criteria that govern whether IRF services are covered for an individual Medicare beneficiary. For an IRF claim to be considered reasonable and necessary, the patient must be reasonably expected to meet the following requirements at admission:

- The patient requires active and ongoing therapy in at least two modalities, one of which must be physical or occupational therapy.

- The patient can actively participate in and benefit from intensive therapy that most typically consists of three hours of therapy a day at least five days a week.
- The patient is sufficiently stable at the time of admission to actively participate in the intensive rehabilitation program.
- The patient requires supervision by a rehabilitation physician. This requirement is satisfied by physician face-to-face visits with a patient at least three days a week.

### Patterns of use in IRFs

In 2004, CMS began to consistently enforce the IRF compliance threshold and enacted revisions to some of the qualifying conditions.<sup>5</sup> The combination of renewed enforcement of the threshold and additional restrictions

**TABLE  
10-2****Mix of Medicare FFS IRF cases differed by provider type, selected conditions, 2016**

Condition	Freestanding		Hospital based	
	For profit	Nonprofit	For profit	Nonprofit
Stroke	15%	25%	20%	25%
Other neurological conditions	19	7	11	10
Fracture of the lower extremity	10	9	14	11
Debility	11	8	12	10
Brain injury	9	11	10	10
Other orthopedic conditions	11	7	6	6

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. "Fracture of the lower extremity" includes hip, pelvis, and femur fractures. Patients with debility have generalized deconditioning not attributable to other conditions. "Other orthopedic conditions" excludes fractures of the hip, pelvis, and femur, and hip and knee replacements. All Medicare FFS IRF cases with valid patient assessment information were included in this analysis.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

resulted—as intended—in a substantial decline in the volume of Medicare patients treated in IRFs. By 2008, the number of IRF discharges had fallen 26 percent, with the biggest declines seen in the number of medically complex (–73 percent), arthritis (–68 percent), and hip and knee replacement (–60 percent) cases. Average case-mix severity and cost per case increased as IRFs shifted their mix of cases to conditions that count toward the threshold, such as stroke, brain injury, and other neurological conditions (Table 10-1). Even after IRF volume stabilized, the growth in other neurological conditions—including multiple sclerosis, Parkinson's disease, neuromuscular disorders, and polyneuropathy—continued. Between 2008 and 2015, the number of IRF discharges with other neurological conditions climbed 76 percent, while the total number of Medicare IRF discharges increased 9 percent (data not shown). The number of discharges with brain injuries (traumatic and nontraumatic combined) rose 45 percent over the same period. Notably, the number of cases with other orthopedic conditions, cardiac conditions, and debility also rose, though less than a third of these cases counted toward the compliance threshold in 2013.<sup>6</sup>

In 2016, CMS eliminated some of the diagnosis codes that can be used to determine compliance.<sup>7</sup> CMS removed these diagnosis codes because, without supporting documentation, they do not provide sufficient information to indicate that the patient would reasonably require intensive inpatient rehabilitation (Centers for Medicare

& Medicaid Services 2014). In a previous analysis using assessment data from 2013, the Commission estimated that, among the most common conditions in IRFs, cases admitted for rehabilitation following hip or knee replacement would be most affected under the new rules, with the share of cases meeting compliance falling from 83 percent to 33 percent (Medicare Payment Advisory Commission 2017). We expected IRFs would shift their mix of cases in response to the policy change to ensure continued compliance with the threshold, and analysis of assessment data from 2016 suggests IRFs have done so. Between 2008 and 2015, the number of IRF cases admitted for lower extremity joint replacement declined, on average, 8 percent per year, but in 2016, the number dropped about 19 percent. Those cases made up 5.5 percent of all IRF cases in 2016, down from 6.8 percent in 2015 (Table 10-1). The number and share of cases with neurological conditions and brain injuries continued to grow. The most common Medicare case type in IRFs continued to be stroke, accounting for 20.1 percent of cases in 2016.

The distribution of case types differs by type of IRF (Table 10-2). For example, in 2016, only 15 percent of cases in freestanding for-profit IRFs were admitted for rehabilitation following a stroke, compared with 25 percent of cases in hospital-based nonprofit IRFs. Likewise, 19 percent of cases in freestanding for-profit IRFs were admitted with other neurological conditions,



roughly double the share admitted to hospital-based IRFs. Cases with other orthopedic conditions also made up a higher share of cases in freestanding for-profit facilities than in other IRFs. By contrast, the share of cases with brain injury was similar across IRF types.

In 2016, 7.6 percent of IRF cases received high-cost outlier payments, although the share varied by case type. For example, 11.7 percent of cases with spinal cord injury and 9.7 percent of stroke cases were high-cost outliers. By contrast, 5.5 percent of cases with other neurological conditions and 4.6 percent of other orthopedic conditions were high-cost outliers. Outlier cases were also distributed unevenly among IRFs. Almost 13 percent of cases in hospital-based IRFs were high-cost outliers compared with 2.5 percent of cases in freestanding IRFs. On average, high-cost outliers had an average length of stay that was almost 8 days longer than non-outlier cases (19.9 days vs. 12.1 days, respectively). Outlier cases were also more likely to have comorbidities that increased case mix (62.5 percent of outlier cases vs. 51.3 percent for non-outlier cases).

### **High-margin IRFs have a different mix of cases**

A previous Commission analysis of differences in the mix of cases across IRFs suggested that patient selection contributes to provider profitability (Medicare Payment Advisory Commission 2016). We found that IRFs with the highest margins in 2013 had a higher share of other neurological cases and a lower share of stroke cases.<sup>8</sup> Further, we observed differences in the types of stroke and other neurological conditions admitted to high-margin and low-margin IRFs. Stroke cases in the highest margin IRFs were two-and-a-half times more likely than those in the lowest margin IRFs to have no paralysis. Likewise, other neurological cases in the highest margin IRFs were almost three times more likely than those in the lowest margin IRFs to have a neuromuscular disorder (such as amyotrophic lateral sclerosis or muscular dystrophy) as opposed to conditions like multiple sclerosis or Parkinson's disease.

As noted in our March 2016 report to the Congress, these findings suggest that, under the IRF PPS, some case types are more profitable than others. The Commission plans to assess variation in costs within the IRF CMGs and differences in relative profitability across CMGs in future analyses. Identifying and reducing variation within CMGs and properly calibrating payments with costs for each group is necessary to avoid overpayments and reduce

financial incentives for providers to admit certain types of cases and avoid others. In the short term, the Commission has recommended that the Secretary effect changes to reduce potential misalignments between IRF payments and costs by redistributing payments within the IRF PPS through the high-cost outlier pool (see text box on March 2016 recommendations, p. 276). Expanding the outlier pool would increase outlier payments for the most costly cases, easing the financial burden for IRFs that have a relatively high share of these cases.

### **Patient assessment may not be uniform across IRFs**

A previous Commission analysis of acute care hospital claims data and data from the Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI), while not definitive, strongly suggested that IRFs differ in their assessment of patients' motor and cognitive function (Medicare Payment Advisory Commission 2016). In that analysis, we examined IRF patient assessment data from 2013 and administrative data from immediately preceding acute care hospital stays for those IRF patients.<sup>9</sup> To control for differences in the mix of case types across IRFs, we examined patient characteristics in the IRF and in the preceding acute care hospital stay by patients' type of condition, as coded by the IRF at IRF admission.<sup>10</sup> Our approach allowed us to compare patient characteristics as coded in the acute care hospital with those coded in the IRF. Ideally, we would evaluate IRF patient characteristics by comparing IRF patient assessment data with complete patient assessment information recorded for the beneficiary during the preceding acute care hospital stay. However, because acute care hospitals do not submit patient assessment data to CMS, no such data exist. Nevertheless, though acute care hospital claims data do not provide information about a patient's motor function and provide only limited information about a patient's cognition, they can tell us about patients' diagnoses, severity of illness, and relative resource requirements during the hospital stay preceding admission to the IRF.<sup>11</sup>

Overall, when we compared patients in high-margin and low-margin IRFs, we found that patients in high-margin IRFs were less severely ill and resource intensive during the acute care hospitalization that preceded the IRF stay:

- Patients in high-margin IRFs had, on average, a lower case-mix index in the acute care hospital as well as a lower level of severity of illness and a shorter length of stay.



- Patients in high-margin IRFs were less likely to have been high-cost outliers in the acute care hospital or to have spent four or more days in the hospital intensive care or coronary care unit.

But once patients were admitted to and assessed by the IRF, the average patient profile changed, with patients treated in high-margin IRFs appearing to be more disabled than those in low-margin IRFs (as measured by motor impairment scores assigned by IRFs). This pattern persisted across case types.

We found that the difference in average motor impairment scores between high-margin and low-margin IRFs was particularly wide for stroke cases with no paralysis: Cases in the highest margin IRFs had a motor impairment score that was 18 percent lower, on average, than cases in the lowest margin IRFs. (In IRFs, motor impairment is measured using a 13-item Functional Independence Measure™ (FIM™) scale to assess the level of disability in motor functioning and the burden of care for a patient's caregivers. Lower scores indicate greater disability and generally result in higher payment.) Indeed, in 2013, nonparalyzed stroke patients in the highest margin IRFs had an average motor FIM score (29.0) that was almost the same as the average motor score of paralyzed stroke patients in the lowest margin IRFs (29.2) (Table 10-3). This finding was surprising because stroke patients with paralysis typically have worse motor function than stroke patients without paralysis. All else being equal, Medicare's payments for these two types of stroke patients with a motor FIM score of 29 would be the same—even though stroke patients with no paralysis had an IRF length of stay that was, on average, more than two days shorter than that of stroke patients with paralysis.

As noted in our March 2016 report to the Congress, the consistent finding that high-margin IRFs have patients who are, on average, less severely ill in the acute care hospital but appear more functionally disabled upon assessment in the IRF suggests that assessment and scoring practices contribute to greater profitability in some IRFs, especially given the comparatively low level of costs and cost growth observed in high-margin facilities. If providers differ in their assessment and scoring of patients' motor and cognitive function, payments will not be properly aligned with the resource needs of patients. Some IRFs will receive payments that are too high relative to the costs incurred in treating their patients, while other IRFs will receive payments that are too low.

**TABLE  
10-3**

**Nonparalyzed stroke patients in the highest margin IRFs had the same average motor impairment score as stroke patients with paralysis in the lowest margin IRFs, 2013**

Type of stroke case	Average motor impairment score	
	Lowest margin IRFs	Highest margin IRFs
With paralysis	29.2	24.6
Without paralysis	35.3	29.0

Note: IRF (inpatient rehabilitation facility). Average motor impairment scores were calculated using the motor Functional Independence Measure™ (FIM™) scored by the IRF. The motor FIM measures the level of disability in motor functioning at IRF admission on a 91-point scale. Higher FIM scores indicate higher levels of function. IRFs were ranked by their 2013 Medicare margins and then sorted into five equal-sized groups (quintiles). Lowest margin IRFs (quintile 1) had a mean margin of -36.6 percent, while highest margin IRFs (quintile 5) had a mean margin of 31.1 percent. Stroke cases with paralysis include patients with left body involvement, right body involvement, and bilateral involvement. Cases that did not have an acute care hospital discharge within 30 days of admission to the IRF were excluded from this analysis.

Source: MedPAC analysis of Medicare Provider Analysis and Review data, Inpatient Rehabilitation Facility–Patient Assessment Instrument data, and cost report data from CMS.

These findings led the Commission to recommend that CMS ensure payment accuracy and help improve program integrity by reviewing medical records merged with IRF patient assessment data, reassessing inter-rater reliability across IRFs, and conducting other research as necessary (see text box on March 2016 recommendations, p. 276).

## Are Medicare payments adequate in 2018?

To assess whether payments for fiscal year 2018 are adequate to cover the costs providers incur and how much providers' costs are expected to change in the coming year (2019), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care by examining the capacity and supply of IRFs and changes over time in the volume of services provided, quality of care, providers' access to capital, and the relationship between Medicare payments and providers' costs.

## **The Commission reiterates its March 2016 recommendations on the IRF prospective payment system**

### **Recommendation 9-2**

**The Secretary should conduct focused medical record review of inpatient rehabilitation facilities that have unusual patterns of case mix and coding.**

#### **Rationale 9-2**

The Commission's finding that high-margin inpatient rehabilitation facilities (IRFs) have patients who are, on average, less severely ill in the acute care hospital but appear more functionally disabled in the IRF suggests the possibility that coding practices contribute to greater profitability in some IRFs. Providers may differ in their assessment of patients' motor and cognitive function, resulting in payments for some IRFs that are too high relative to the costs incurred in treating their patients. To improve the accuracy of payments and protect program integrity, CMS should review medical records merged with IRF patient assessment data, reassess inter-rater reliability across IRFs, and conduct other research as necessary. Because medical record review is resource intensive, CMS should begin by focusing on providers that have an atypical mix of cases, such as a high concentration of neuromuscular disorders and stroke cases without paralysis, and on providers that have anomalous patterns of coding, such as wide discrepancies in their patients' levels of severity as coded in the acute care hospital compared with that coded in the IRF. However, system-wide assessment of payment accuracy is also needed.

#### **Implications 9-2**

##### **Spending**

- Implementing this recommendation could result in changes to the payment system that would be budget neutral but could also reduce Medicare's spending on IRF services if CMS were to make payment adjustments to account for assessment and coding differences across providers or for coding changes that do not reflect real case-mix change. CMS would incur some administrative expenses to conduct these activities.

##### **Beneficiary and provider**

- We do not expect this recommendation to have adverse effects on Medicare beneficiaries with respect to access to care or out-of-pocket spending or on providers' willingness and ability to care for Medicare beneficiaries.

### **Recommendation 9-3**

**The Secretary should expand the inpatient rehabilitation facility outlier pool to redistribute payments more equitably across cases and providers.**

#### **Rationale 9-3**

The Commission's finding that high-margin IRFs may be selecting certain types of cases suggests that some case-mix groups (CMGs) may be more profitable than others. At the same time, our finding that IRFs may differ in their assessments of patients' motor and cognitive function suggests that the IRF CMGs may not be adequately capturing differences in patient acuity and costs across cases and providers. The potential for financial loss may therefore be greater for some providers than for others. Expanding the outlier pool would increase outlier payments for the most costly cases, easing the financial burden for IRFs that have a relatively high share of these cases.

#### **Implications 9-3**

##### **Spending**

- This recommendation would be implemented in a budget-neutral manner and should not have an overall impact on spending.

##### **Beneficiary and provider**

- We do not expect this recommendation to have adverse effects on Medicare beneficiaries with respect to access to care or out-of-pocket spending. This recommendation may relieve the financial pressure on some providers and may improve equity among providers by diminishing the effects of inaccurate coding. ■

**TABLE  
10-4**

**The number of for-profit and freestanding IRFs continued to grow in 2016**

Type of IRF	Share of Medicare FFS discharges 2016	Number of IRFs								Average annual change		
		2004	2006	2008	2010	2013	2014	2015	2016	2004–2006	2006–2013	2013–2016
All IRFs	100%	1,221	1,225	1,202	1,179	1,161	1,177	1,182	1,188	0.2%	–0.8%	0.8%
Urban	93	1,024	1,018	1,001	981	977	1,013	1,020	1,026	–0.3	–0.6	1.6
Rural	7	197	207	201	198	184	164	162	162	2.5	–1.7	–4.2
Freestanding	50	217	217	221	233	243	251	262	273	0.0	1.6	4.0
Hospital based	50	1,004	1,008	981	946	918	926	920	915	0.2	–1.3	–0.1
Nonprofit	41	768	758	738	729	677	681	681	676	–0.7	–1.6	0.0
For profit	52	292	299	291	294	322	338	352	370	1.2	1.1	4.7
Government	7	161	168	173	156	155	149	138	133	2.2	–1.1	–5.0

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service). The number of facilities are for the calendar year. The large decline in the number of rural IRFs between 2013 and 2014 is due primarily to changes in the core-based statistical areas, as defined by the Office of Management and Budget, which determine whether geographic areas are considered urban or rural. Because of these changes, 19 IRFs that were previously considered rural are now designated urban.

Source: MedPAC analysis of Provider of Services data and Medicare Provider Analysis and Review data from CMS.

### Beneficiaries' access to care: IRF supply and service volume suggest sufficient access

We have no direct indicator of beneficiaries' access to IRF care. Although there are criteria for admission to an IRF, it is not clear when IRF care is necessary or beneficial for a given patient or when another, potentially lower cost post-acute care provider (such as a skilled nursing facility (SNF)) could provide appropriate care. The absence of IRFs in some areas of the country makes it particularly difficult to assess the need for IRF care since beneficiaries in areas without IRFs presumably receive similar services in other settings. Nevertheless, our analysis of IRF supply and volume of services provided suggests that capacity remains adequate to meet demand.

### Number of IRFs and occupancy rates suggest adequate capacity and supply

After declining for several years, the total number of IRFs increased in 2014 and continued to grow through 2016 to 1,188 facilities nationwide (Table 10-4). In general, IRFs are concentrated in states that have large Medicare populations. IRFs are not the sole provider of

rehabilitation services in communities; SNFs also provide inpatient rehabilitation services, and home health agencies, comprehensive outpatient rehabilitation facilities, and independent therapy providers furnish care at home or on an outpatient basis. Given the number and distribution of these other rehabilitation therapy providers, it is unlikely that areas exist where IRFs are the only provider of rehabilitation therapy services available to Medicare beneficiaries.

In 2016, about 77 percent of IRFs were distinct units in acute care hospitals; the remaining 23 percent were freestanding facilities. However, because hospital-based units have, on average, fewer beds and a lower share of Medicare discharges, they accounted for only 50 percent of Medicare discharges. Overall, 31 percent of IRFs were for-profit entities. Freestanding IRFs were far more likely to be for profit than were hospital-based IRFs (73 percent vs. 19 percent, respectively; data not shown). About 52 percent of Medicare discharges in 2016 were from for-profit facilities. Over time, the number of hospital-based and nonprofit IRFs has declined, while the number of freestanding and for-profit IRFs has increased. Between

**TABLE  
10-5****The number of IRF cases per FFS beneficiary increased in 2016**

	2004	2006	2008	2010	2013	2014	2015	2016	Average annual change		
									2004–2008	2008–2015	2015–2016
Number of cases	495,349	404,633	356,312	359,307	373,118	375,590	381,339	390,514	–7.9%	1.0%	2.4%
Cases per 10,000 FFS beneficiaries	135.6	111.9	100.4	99.7	99.1	99.3	101.0	101.7	–7.2	0.0	1.4
Payment per case	\$13,290	\$15,380	\$16,646	\$17,085	\$18,258	\$18,632	\$19,116	\$19,714	5.8	2.0	3.1
ALOS (in days)	12.7	13.0	13.3	13.1	12.9	12.8	12.7	12.7	1.3	–0.6	0.0
Users	449,362	369,269	323,897	325,506	337,704	338,887	343,562	350,353	–7.9	0.8	2.0

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service), ALOS (average length of stay).

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

2004 and 2016, the number of hospital-based IRFs fell by 9 percent and the number of nonprofit IRFs fell by 12 percent, while the number of freestanding IRFs and for-profit IRFs rose by 26 percent and 27 percent, respectively.

In 2016, 31 IRFs closed; most were hospital-based units. At the same time, 37 new IRFs opened. Slightly more than half of the new IRFs were hospital-based units. Of the hospital-based units, about a third were for profit. All but one of the new freestanding IRFs were for profit. Acute care hospitals may find that IRF units help reduce inpatient lengths of stay. Previous Commission analyses have found that hospitals with IRF units have higher inpatient margins than hospitals without such units (Medicare Payment Advisory Commission 2015).

In 2016, the average IRF occupancy rate remained at 65 percent. Occupancy rates were higher in freestanding IRFs (68 percent) than in hospital-based IRFs (62 percent). These rates suggest that capacity is more than adequate to meet demand for IRF services.

### IRF volume increased in 2016

The number of Medicare FFS IRF cases grew rapidly throughout the 1990s and the early years of the IRF PPS,

reaching a peak of about 495,000 in 2004. After CMS renewed its enforcement of the compliance threshold in 2004, IRF volume declined substantially, as expected, falling almost 8 percent per year from 2004 to 2008 (Table 10-5). At that point, volume began to increase slowly, rising an average of 1 percent per year from 2008 to 2015. Between 2015 and 2016, the number of FFS cases grew more quickly, rising 2.4 percent to almost 391,000 cases.

In 2016, the number of IRF cases per 10,000 FFS beneficiaries was almost 102, up 1.4 percent from the previous year. Relatively few Medicare beneficiaries use IRF services because, to qualify for Medicare coverage, IRF patients must be able to tolerate and benefit from rehabilitation therapy that is intensive, which is typically interpreted to mean at least three hours of therapy a day for at least five days a week. Still, compared with all Medicare beneficiaries, those admitted to IRFs in 2015 were disproportionately over age 85.

Despite the growth in the number of IRF cases per FFS beneficiary, the aggregate Medicare FFS discharge share in IRFs was stable at about 60 percent of total discharges.

## Measures of inpatient rehabilitation facility quality

In its assessment of the quality of care in inpatient rehabilitation facilities (IRFs), the Commission examines risk-adjusted rates of readmission to the hospital, discharge to the community and to skilled nursing facilities (SNFs), and change in functional status during the IRF stay.

Two readmission measures are calculated: one that occurs during the IRF stay and one that occurs within 30 days after discharge from the IRF (Kramer et al. 2015). Individuals who died in the IRF or during the 30 days after discharge from the IRF were excluded from the facilities' readmission rates. The readmission measures count patients whose primary diagnosis for rehospitalization was considered potentially avoidable; that is, the condition typically can be managed in the IRF. The potentially avoidable readmissions are respiratory-related illness (pneumonia, influenza, bronchitis, chronic obstructive pulmonary disease, and asthma); sepsis; congestive heart failure; fractures or fall with a major injury; urinary tract or kidney infection; blood pressure management; electrolyte imbalance; anticoagulant therapy complications; diabetes-related complications; cellulitis or wound infection; pressure ulcer; medication error or adverse drug reaction; and delirium. For the measure of potentially avoidable readmission during the IRF stay, delirium could be a primary or a secondary rehospitalization diagnosis.

To account for beneficiaries who are discharged from the IRF to a SNF, a measure of discharge to SNF is calculated. This measure reflects the share of stays in which the patient was discharged directly from the IRF for additional rehabilitation in a SNF that was financed under Medicare Part A's skilled nursing benefit.

Patients who were discharged from the IRF to a nursing home for a non-SNF episode are not considered discharged to a SNF.

The community discharge measure reflects the share of stays in which the patient was not discharged directly from the IRF to a hospital or a SNF. Individuals who were discharged from the IRF to a nursing home as a non-SNF resident (that is, for long-term care financed by payers other than Medicare) are included in the measure of community discharge. Patients who were discharged from the IRF to the community but were admitted to a hospital within one day of discharge are not considered discharged to the community.

The change in the Functional Independence Measure™ from admission to discharge is calculated for both motor function and cognition. The measures represent the average change among patients for 13 motor items and 5 cognitive items on the IRF–Patient Assessment Instrument. Patients with missing information for any of the items are not included when calculating average change.

The observed rates of readmission to the hospital, discharge to the community and to SNFs, and change in functional status during the IRF stay were risk adjusted for medical comorbidities, functional status at IRF admission, rehabilitation impairment category, and demographic characteristics. The data sources used for risk adjustment were Part A hospital and IRF claims. Risk-adjusted rates compare a facility's observed rates with its expected rates based on the mix of patients. The rates reported are the average risk-adjusted rates for Medicare fee-for-service beneficiaries in all IRFs with 25 or more stays during the year. ■

### Quality of care: Steady or improved for most measures

The Commission tracks three broad categories of IRF quality indicators: risk-adjusted facility-level change in functional and cognitive status during the IRF stay, rates

of discharge to the community and to SNFs, and rates of readmission to the acute care hospital (see text box on measures of quality). Most measures were steady or improved between 2011 and 2016.



**TABLE  
10-6****Risk-adjusted rates of discharge to the community and potentially avoidable rehospitalizations improved, 2011–2016**

Measure	2011	2012	2013	2014	2015	2016
Potentially avoidable rehospitalizations during IRF stay	2.8%	2.6%	2.5%	2.5%	2.4%	2.5%
Discharged to a SNF	6.9	6.7	6.7	6.9	6.8	6.7
Discharged to the community	74.1	75.3	75.9	76.2	76.0	76.9
Potentially avoidable rehospitalizations during 30 days after discharge from IRF	5.0	4.6	4.5	4.4	4.1	4.4

Note: IRF (inpatient rehabilitation facility), SNF (skilled nursing facility). High rates of discharge to the community indicate better quality. High rates of rehospitalization and discharge to SNF indicate worse quality. Rates are the average of facility rates and calculated for all facilities with 25 or more Medicare fee-for-service stays.

Source: Analysis of Inpatient Rehabilitation Facility–Patient Assessment Instruments from CMS.

**Risk-adjusted rates of potentially avoidable rehospitalization, discharge to the community, and discharge to SNF**

Avoidable rehospitalizations expose beneficiaries to hospital-acquired infections, increase the number of transitions between settings (which are disruptive to patients), and can result in medical errors (such as medication errors). In addition, they unnecessarily increase Medicare spending. There has been relatively little research on rehospitalization of IRF patients in aggregate, though some studies have focused on one or more rehabilitation impairment categories (Dejong et al. 2009, Galloway et al. 2013, Ottenbacher et al. 2014, Schneider et al. 2013, Schneider et al. 2012). However, research regarding rehospitalization of SNF and nursing home patients has identified several contributing factors that may be within a post-acute care provider’s control. These factors include staffing level, skill mix, and frequency of staff turnover; drug management; and adherence to transitional care protocols such as discharge counseling, medication reconciliation, patient education regarding self-care, and communication among providers, staff, and the patient’s family (Grabowski et al. 2008, Kane et al. 2003, Konetzka et al. 2008a, Konetzka et al. 2008b, Lau et al. 2005, Mustard and Mayer 1997).

The Commission’s rates of rehospitalization during the IRF stay and during the 30 days after discharge are risk adjusted and reflect those readmissions that are potentially avoidable with adequate care in the IRF setting (Kramer et al. 2015).<sup>12</sup> The measure of readmission in the 30 days after discharge reflects how well facilities prepare

beneficiaries and their caregivers for safe and appropriate transitions to the home or the next health care setting. Since 2013, the national average for the rate of risk-adjusted potentially avoidable readmissions during the IRF stay has been about 2.5 percent (Table 10-6). (Lower rates are better.) Meanwhile, between 2011 and 2015, the rate of risk-adjusted potentially avoidable readmissions within 30 days after discharge from an IRF declined from 5.0 percent to 4.1 percent, then rose to 4.4 percent in 2016.

We also examined rates of discharge to the community and to SNFs. We found that between 2011 and 2016, the national average for the risk-adjusted community discharge rate increased from 74.1 percent to 76.9 percent.<sup>13</sup> (Higher rates are better.) The national average for the risk-adjusted rate of discharge to SNFs declined slightly to 6.7 percent.

**Risk-adjusted gains in motor function and cognition**

To qualify for coverage of IRF care, beneficiaries must require, be able to participate in, and be able to benefit from intensive rehabilitation therapy. To observe the extent to which IRFs help improve the motor function and cognition of the beneficiaries they treat, we use a risk-adjusted measure of the gains in these areas. Our measures reflect the extent to which patients’ motor skills and cognition improved during the IRF stay, given their level of function at admission and how much improvement they would be expected to make. Some patients, such as a relatively healthy 68-year-old recovering from an elective hip replacement, are likely to improve across several



**TABLE  
10-7****Mean risk-adjusted functional outcomes improved, 2011–2016**

Measure	Risk-adjusted gain in function					
	2011	2012	2013	2014	2015	2016
Motor FIM™ gain	22.2	22.7	23.1	23.5	23.6	24.4
Cognitive FIM gain	3.6	3.7	3.9	3.9	3.9	4.0

Note: FIM™ (Functional Independence Measure™). The motor FIM measures the level of disability in motor functioning on a 91-point scale. The cognitive FIM measures the level of cognitive impairment on a 35-point scale. FIM gain is calculated as the FIM score at discharge minus the FIM score at admission. Higher FIM gain indicates more improvement. Mean FIM gain averages the change of all facilities with 25 or more Medicare fee-for-service stays.

Source: Analysis of Inpatient Rehabilitation Facility–Patient Assessment Instruments from CMS.

activities of daily living during their IRF stay. Other patients, such as an 85-year-old suffering from debility following a prolonged acute care hospital stay, may be expected to make only modest improvements during the IRF stay.

Functional status at admission and discharge is measured using the motor and cognitive scores on the IRF–PAI. This instrument incorporates the 18-item FIM scale to assess the level of disability in motor and cognitive functioning and the burden of care for a patient’s caregivers (Deutsch et al. 2005). Scores for each of the 18 FIM items can be summed to calculate a motor score (based on 13 FIM items) and a cognitive score (based on 5 FIM items). The motor score at discharge can range from 13 to 91, while the cognitive score can range from 5 to 35, with higher scores indicating greater functional independence. To measure observed improvement in motor function and cognition, we subtracted the respective FIM scores at admission from the FIM scores at discharge to calculate FIM motor and cognitive gains (Kramer et al. 2015). A larger number indicates more improvement in functional independence and cognition between admission and discharge. Each risk-adjusted rate was calculated by comparing a facility’s observed rate with its expected rate and multiplying this ratio by the national rate.

In 2016, the mean gain (positive change) in the motor FIM score during an IRF stay was 24.4, while the mean gain for the cognitive FIM score was 4.0 (Table 10-7). (Bigger gains are better.) The average risk-adjusted gain in IRF

patients’ motor and cognitive FIM scores (as assigned by IRFs) increased from 2011 to 2016. However, changes in motor function and cognition must be interpreted with caution. Functional status data are generally obtained by observation of the patient and are somewhat subjective. Because payment is based in part on patients’ functional status at admission—with higher payments associated with lower functional status—providers have a financial incentive to minimize their assessments of patients’ levels of function at admission. If IRFs minimize patients’ functional status at admission, gains in function during the patients’ stays will be overstated.

**Variation in quality measures across IRFs**

The measures we examined varied across providers (Table 10-8, p. 282). We found that the lowest performing quartile of IRFs had a risk-adjusted rate of discharge to a SNF that was 8.5 percent or higher in 2016, whereas the best performing quartile of providers had rates of 4.2 percent or less. (A lower rate of discharge to a SNF is better.) Risk-adjusted rates of discharge to the community varied as well: The worst performing quartile of IRFs had a community discharge rate of 73.9 percent or less, while the best performing quartile of providers had rates of 79.9 percent or more. (A higher rate of discharge to the community is better.) Variation was also seen in rehospitalization rates: The worst performing quartile had risk-adjusted rates of potentially avoidable readmissions during the IRF stay that were at or above 3.2 percent, whereas the best quartile had rates at or below 1.5 percent. (A lower rate of readmissions is better.)

**TABLE  
10-8**

**Performance on risk-adjusted quality measures varied across IRFs in 2016**

Measure	Risk-adjusted rate		
	Mean	Worst performing quartile	Best performing quartile
Motor FIM™ gain	24.4	21.7	27.0
Cognitive FIM gain	4.0	3.2	4.9
Potentially avoidable rehospitalizations during IRF stay	2.5%	3.2%	1.5%
Discharged to a SNF	6.7	8.5	4.2
Discharged to the community	76.9	73.9	79.9
Potentially avoidable rehospitalizations during 30 days after discharge from IRF	4.6	5.7	3.4

Note: IRF (inpatient rehabilitation facility), FIM™ (Functional Independence Measure™), SNF (skilled nursing facility). The motor FIM measures the level of disability in motor functioning on a 91-point scale. The cognitive FIM measures the level of cognitive impairment on a 35-point scale. FIM gain is calculated as the FIM score at discharge minus the FIM score at admission. Higher FIM gain indicates more improvement. High rates of discharge to the community indicate better quality. High rates of rehospitalization and discharge to SNF indicate worse quality. Mean rates are calculated for all facilities with 25 or more Medicare fee-for-service stays.

Source: Analysis of Inpatient Rehabilitation Facility–Patient Assessment Instruments from CMS.

### Providers' access to capital: IRFs appear to have adequate access to capital

More than three-quarters of IRF providers are hospital-based units that would access any necessary capital through their parent institutions. Overall, as detailed in the hospital chapter, hospitals' access to capital remained strong in 2016 and 2017 due in part to continuing low interest rates (Cain Brothers 2017). However, the three major bond-rating agencies (Fitch Ratings, Moody's Investor Services, and Standard & Poor's Ratings Services) reported that nonprofit hospitals in 2016 experienced slowing of revenue growth from the previous year, rising expense growth, and slightly lower facility-wide operating profits (Fitch Ratings 2017, Moody's Investors Service 2017, Standard & Poor's Ratings Services 2017). The three largest for-profit hospital systems reported a similar trend (Community Health Systems 2017, Morningstar Document Research 2017a, Morningstar Document Research 2017b). Expense growth picked up because of increases in the cost of nursing labor, information technology, and pharmaceutical and medical supplies—costs that affect IRFs as well as acute care hospitals.

Market analysts indicate that the IRF industry's largest chain, HealthSouth—which owned almost half of all freestanding IRFs in 2016 and accounted for about a

quarter of all Medicare IRF discharges—has good access to capital. This assessment is reflected in the chain's continued expansion. Analysts note that HealthSouth traditionally has prioritized building new facilities over acquisition of existing facilities, which allows the company to maintain control over facility size and amenities. In 2016, the company opened three new facilities and reported that it had at least four more facilities under construction (HealthSouth Corporation 2017). As part of a vertical integration strategy, the company is strengthening ties between its IRFs and home health agencies. (The chain acquired one of the nation's largest providers of home health care in late 2014.) In addition, HealthSouth is increasingly entering into joint ventures with acute care hospitals to build new IRFs. This strategy is intended to position the company as a desirable partner for acute care hospitals operating under coordinated care delivery models and bundled payment arrangements, and it helps ensure a steady stream of referrals from acute care hospitals. To advance this strategy, HealthSouth is one of the few post-acute care companies that has invested heavily in electronic medical record technology. Analysts believe the company is well positioned to partner with acute care hospitals seeking post-acute care providers with provable outcomes and thus have rated HealthSouth stock a "buy."

Most other freestanding IRFs are independent or local chains with a limited number of facilities. The extent to which these providers have access to capital is less clear.

### Medicare payments and providers' costs: Medicare margins remained high in 2016

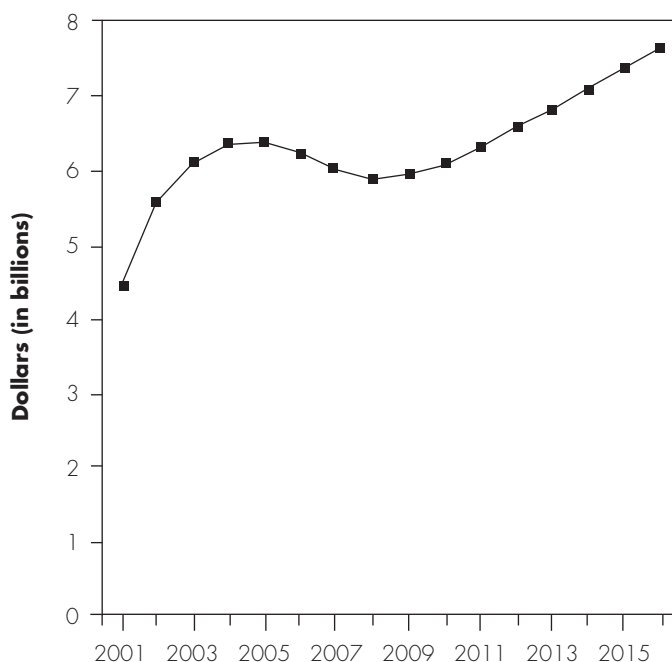
After a period of steady growth between 2009 and 2015, the aggregate IRF margin declined in 2016 but remained high at 13.0 percent. Medicare margins in freestanding IRFs declined by 1.2 percentage points in 2016 but, at 25.5, remained very high. Hospital-based IRF margins were comparatively low, but one-quarter of hospital-based IRFs had Medicare margins greater than 11 percent, indicating that many hospitals can manage their IRF units profitably. Lower margins in hospital-based IRFs were driven largely by higher unit costs. Several factors account for these higher costs. First, hospital-based IRFs are smaller than their freestanding counterparts and may achieve fewer economies of scale. Second, hospital-based IRFs appear to be less stringent in their cost control, perhaps because they are far less likely than freestanding IRFs to be for profit and therefore less likely to be focused on controlling costs to maximize returns to investors. In addition, Commission analysis suggests that hospital-based IRFs may provide a somewhat different mix of services, including more costly therapy modalities. Third, there are notable differences in hospital-based and freestanding IRFs' mix of cases. Some case types may be less profitable, resulting in higher margins for facilities that admit smaller shares of these cases. Finally, hospital-based IRFs may also differ in their assessment and scoring of patients' motor and cognitive function, which can result in payments that are not properly aligned with resource costs. Given the difference in financial performance across IRFs, we examined freestanding and hospital-based IRFs' marginal profit to assess whether both types of providers have a financial incentive to expand the number of Medicare beneficiaries they serve. We found that Medicare payments exceed marginal costs by a substantial amount—19.3 percent for hospital-based IRFs and 40.9 percent for freestanding IRFs—suggesting that IRFs with available beds have a strong incentive to admit Medicare patients. This finding is a very positive indicator of patient access, even in IRFs with lower margins.

### Trends in spending and cost growth

The Office of the Actuary estimates that Medicare FFS spending for IRF services in fiscal year 2016 was \$7.7 billion (Figure 10-1). Program spending has been growing,

**FIGURE 10-1**

**Program spending for IRF services has grown steadily since 2008**

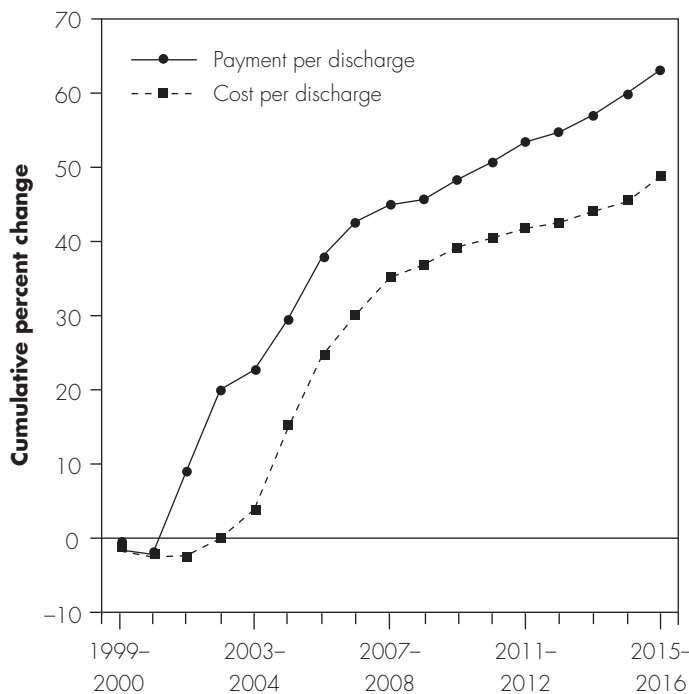


Note: IRF (inpatient rehabilitation facility).

Source: Office of the Actuary 2017.

on average, more than 3 percent per year since 2009, reversing a downward trend that began in 2004. Beginning that year, renewed enforcement of the compliance threshold and restrictions of some of the qualifying conditions resulted in a substantial reduction in the number of Medicare patients treated in IRFs. (This reduction was consistent with the underlying reason for the compliance threshold—to direct only the most clinically appropriate cases to this intensive, costly post-acute setting.) Between 2005 and 2008, program spending for IRF services fell 8 percent. The decline in volume slowed in 2008 and reversed in 2009, after the Congress permanently capped the compliance threshold at 60 percent. Medicare spending for IRF services began to grow again at that point.

As the IRF patient population shifted to patients with more severe conditions who counted toward the compliance threshold, case-mix severity increased, as did the average cost per discharge. Between 2004 and 2008, the cumulative growth in cost per discharge was

**FIGURE  
10-2****IRFs' payments per discharge  
increased cumulatively more  
than costs, 1999-2016**

Note: IRF (inpatient rehabilitation facility). Percent changes are calculated based on consistent two-year cohorts.

Source: MedPAC analysis of Medicare cost report data from CMS.

31.2 percent (Figure 10-2). Payments per discharge grew somewhat more slowly, due in part to reductions in the IRF standard payment conversion factor in 2006 and 2007. CMS applied these reductions after determining that some of the growth in IRFs' case mix did not reflect a real increase in IRF patients' acuity but, rather, was the result of documentation and coding changes.<sup>14</sup> As cost growth outpaced payment growth, the aggregate margin between 2003 and 2009 declined from 17.8 percent to 8.4 percent.

From 2009 to 2015, cost growth slowed considerably; over the period, the cumulative growth in cost per discharge was 8.5 percent. Cost growth was slower during this period for all types of IRFs but especially for freestanding for-profit IRFs: From 2009 to 2015, the cumulative growth in cost per discharge for freestanding for profits was 2.0 percent. The cumulative growth in payments per discharge grew more rapidly than costs, climbing 14.3 percent in aggregate and 15.1 percent for freestanding for profits.

Aggregate margins climbed from 8.4 percent in 2009 to 13.8 percent in 2015.

Between 2015 and 2016, cost growth outpaced payment growth for the first time since 2009. The aggregate cost per discharge increased 3.4 percent, while payments per discharge increased 3.2 percent.

**Margins vary widely**

Following a period of steady growth, the aggregate IRF margin declined in 2016 but remained high at 13.0 percent (Table 10-9). Financial performance varied across IRFs. Medicare margins in freestanding IRFs declined by 1.2 percentage points in 2016 but remained very high. In 2016, the aggregate margin for freestanding IRFs (which accounted for half of all Medicare discharges from IRFs) was 25.5 percent; hospital-based IRFs had an aggregate margin of 1.2 percent.<sup>15</sup> Margins varied by ownership as well, with for-profit IRFs having a higher aggregate Medicare margin in 2016 than nonprofit IRFs (23.9 percent vs. 2.0 percent, respectively). (Hospital-based IRFs are far more likely than freestanding IRFs to be nonprofit.) Among freestanding IRFs, nonprofit facilities (which accounted for 7 percent of Medicare discharges from IRFs) had an aggregate margin of 11.5 percent (data not shown). Freestanding for-profit IRFs (which accounted for 42 percent of Medicare discharges from IRFs) had an aggregate margin of 28.1 percent. Among hospital-based IRFs, the aggregate margin for nonprofit units (which accounted for 35 percent of Medicare discharges from IRFs) was 0.1 percent, while the margin for for-profit units (10 percent of Medicare discharges from IRFs) was 6.2 percent.

Higher unit costs were the primary driver of differences in financial performance between freestanding and hospital-based IRFs. Freestanding IRFs had a median standardized cost per discharge that was 28 percent lower than that of hospital-based IRFs (\$11,796 vs \$16,406, respectively) (Table 10-10, p. 286). Hospital-based IRFs are far more likely than freestanding IRFs to be nonprofit, which may contribute to the disparity in unit costs. But even nonprofit freestanding IRFs had a median standardized cost per discharge that was 17 percent lower than that of hospital-based IRFs (data not shown). Previous Commission analysis of underlying cost components found that hospital-based IRFs had higher costs than freestanding IRFs across all cost categories, with the biggest difference in routine costs (Medicare Payment Advisory Commission 2015).

**TABLE  
10-9****Aggregate IRF margins declined in 2016 but remained high**

Type of IRF	Share of Medicare discharges, 2016	Margins								
		2004	2006	2008	2010	2012	2013	2014	2015	2016
All IRFs	100%	16.7%	12.5%	9.4%	8.6%	11.2%	11.5%	12.4%	13.8%	13.0%
Hospital based	50	12.2	9.9	3.9	-0.5	0.7	-0.1	0.9	1.9	1.2
Freestanding	50	24.7	17.5	18.2	21.4	23.9	24.7	25.3	26.7	25.5
Nonprofit	41	12.8	11.0	5.3	2.1	2.1	1.1	2.0	3.5	2.0
For profit	52	24.4	16.3	16.9	19.6	22.9	23.4	23.8	24.8	23.9
Government	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Urban	93	17.0	12.8	9.6	9.0	11.6	11.9	12.8	14.2	13.2
Rural	7	13.2	10.0	6.9	4.7	6.5	6.0	6.2	8.3	9.5
Number of beds										
1 to 10	2	3.7	-3.6	-4.9	-10.3	-6.9	-11.2	-10.8	-7.1	-10.3
11 to 24	22	10.5	7.3	1.2	-3.3	-1.2	-0.8	-0.2	-0.4	0.3
25 to 64	48	18.3	13.7	10.1	10.6	12.3	13.2	14.2	15.8	14.6
65 or more	28	21.5	17.8	17.3	17.5	21.0	20.0	20.7	22.9	22.0
Medicare share										
<50%	22	12.9	11.1	5.1	0.3	1.5	0.6	1.2	2.9	2.0
50% to 75%	56	17.1	12.6	9.5	9.6	13.3	14.0	15.4	16.6	15.8
>75%	22	19.6	13.9	13.5	13.6	18.6	18.5	17.9	19.2	18.2

Note: IRF (inpatient rehabilitation facility), N/A (not applicable). Government-owned facilities operate in a different financial context from other facilities, so their margins are not necessarily comparable. Their margins are not presented separately here, although they are included in the margins for other groups (e.g., "all IRFs"), where applicable. Percentages may not sum to 100 due to rounding.

Source: MedPAC analysis of cost report data from CMS.

Nevertheless, one-quarter of hospital-based IRFs had Medicare margins greater than 11 percent, indicating that many hospitals can manage their IRF units profitably. Further, despite comparatively low average margins in hospital-based IRFs, evidence suggests that these units make a positive financial contribution to their parent hospitals. Commission analysis found that, in 2013, the aggregate Medicare margin for inpatient hospitals with IRF units was a percentage point higher than that of hospitals without IRF units (Medicare Payment Advisory Commission 2015).

Margins also varied by facility size. IRFs with 10 or fewer beds had an aggregate Medicare margin of -10.3 percent in 2016, compared with an aggregate Medicare margin of

22.0 percent in IRFs with 65 or more beds (Table 10-9). Medicare margins tended to rise as the Medicare share increased. The aggregate Medicare margin was 2.0 percent for IRFs in which fewer than half of all discharges were covered by Medicare FFS; for IRFs in which more than three-quarters of discharges were covered by Medicare FFS, the aggregate Medicare margin was 18.2 percent.

### **Differences in standardized costs suggest economies of scale**

Adjusting IRF costs per discharge for differences in wages, case mix, high-cost outliers, and short-stay cases permits a standardized comparison of costs across types of IRFs nationwide.<sup>16</sup> The median standardized cost per



**TABLE  
10-10****IRFs with fewer beds had  
much higher standardized  
costs per discharge, 2016**

Type of IRF	Median standardized cost per discharge
All IRFs	\$15,494
Hospital based	16,406
Freestanding	11,796
Nonprofit	16,311
For profit	13,315
Government	17,813
Urban	15,185
Rural	17,914
Number of beds	
1 to 10	18,588
11 to 24	16,408
25 to 64	14,239
65 or more	12,103

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for differences in area wages, mix of cases, and prevalence of high-cost outliers, short-stay outliers, and transfer cases. Government-owned facilities operate in a different financial context from other facilities, so their costs are not necessarily comparable.

Source: MedPAC analysis of Medicare cost report and Medicare Provider Analysis and Review data from CMS.

discharge for all IRFs in 2016 was \$15,494 (Table 10-10). Costs were inversely related to the size of the IRF. IRFs with 10 or fewer beds had a median standardized cost per discharge that was 54 percent higher than that of IRFs with 65 or more beds (\$18,588 vs. \$12,103, respectively).

We stratified IRFs into quartiles of standardized costs to compare the characteristics of facilities with the lowest and highest costs in 2016 (Table 10-11). IRFs in the lowest cost quartile had a median standardized cost per discharge that was 42 percent less than that of IRFs in the highest cost quartile (\$11,490 vs. \$19,873, respectively). The difference in Medicare margins between low-cost and high-cost IRFs was very large. IRFs in the lowest cost quartile had a median Medicare margin of 28.4 percent compared with -22.1 percent for IRFs in the highest cost quartile.

IRFs with the lowest costs tended to be larger: The median number of beds was 48 compared with 18 in the

highest cost quartile (Table 10-11). IRFs with the lowest costs also had a higher median occupancy rate than IRFs in the highest cost quartile (72 percent vs. 53 percent, respectively). These results suggest that low-cost IRFs benefit from economies of scale. Low-cost facilities were disproportionately freestanding and for profit. Still, 38 percent of the IRFs in the lowest cost quartile were hospital based, and 31 percent of the IRFs in this group were nonprofit. By contrast, in the highest cost quartile, 94 percent were hospital based and 62 percent were nonprofit.

**Numerous factors contribute to higher costs in  
hospital-based IRFs**

Several factors account for the disparity in margins between hospital-based and freestanding IRFs, including differences in economies of scale, stringency of cost control, service mix, and patient mix. Differences in IRFs' assessment of patients' motor function and cognition likely play a role as well.

**Hospital-based IRFs may have fewer economies of scale**

Because they are typically small and have relatively few cases, hospital-based IRFs likely achieve fewer economies of scale than their freestanding counterparts. In 2016, 66 percent of hospital-based IRFs had fewer than 25 beds, compared with 7 percent of freestanding IRFs. Only 3 percent of hospital-based IRFs had 65 or more beds, compared with 34 percent of freestanding IRFs. Further, occupancy rates were lower in hospital-based IRFs than in their freestanding counterparts (62 percent vs. 68 percent, respectively). As a result, hospital-based IRFs had, on average, about 415 cases (all payers) in 2016 compared with 1,139, on average, for freestanding IRFs.

**Hospital-based IRFs may be less stringent in cost control**

Hospital-based IRFs appear to be less stringent in their cost control. Commission analysis of IRF cost growth for consistent two-year cohorts found that the cumulative increase between 2009 and 2016 in costs per case for hospital-based IRFs was 17.9 percent compared with 7.4 percent growth in costs per case for freestanding IRFs. Notably, hospital-based IRFs are far less likely than freestanding IRFs to be for profit and therefore are likely to be less focused on controlling costs to maximize returns to investors. We see this effect even among freestanding IRFs, where the cumulative increase in costs per case for nonprofits has far outstripped that of for-profit facilities. From 2009 to 2016, costs per case in nonprofit freestanding IRFs grew 23 percent, compared



with 5 percent growth in costs per case in for-profit freestanding IRFs.

The Commission's long-standing position has been that providers' costs are not entirely immutable and that many costs are indeed within providers' ability to control. Providers can control costs by eliminating low-value services and providing a more efficient mix of services, while maintaining quality of care. Less desirably, providers can also control their costs by stinting on care. Commission analysis suggests that hospital-based IRFs may provide a somewhat different mix of services than do freestanding providers, including more costly therapy modalities. It is not clear whether use of more costly therapy modalities is necessary to care for the population hospital-based IRFs admit (and thus is clinically appropriate), or whether it represents provider inefficiency, and is thus within providers' ability to control.

#### **Hospital-based IRFs have a different mix of patients**

There are marked differences in hospital-based and freestanding IRFs' mix of cases. A larger share of hospital-based IRFs' patients than those of freestanding IRFs were admitted with stroke as the primary reason for rehabilitation (24 percent vs. 17 percent, respectively). Freestanding IRFs compared with hospital-based IRFs admitted larger shares of cases with other neurological conditions (18 percent vs. 10 percent, respectively) and other orthopedic conditions (10 percent vs. 6 percent, respectively). Notably, the impairment groups of other neurological conditions and other orthopedic conditions encompass a broader range of conditions than do many of the other impairment groups. This clinical heterogeneity can allow favorable selection of patients within these groups based on their likely costs of care. Cases with other neurological conditions also count toward the compliance threshold, so IRFs with higher shares of these cases may be able to more easily meet the requirements of the 60 percent rule while keeping down costs. Further, some case types may be more profitable than others, resulting in higher margins for facilities that admit larger shares of those cases. The Commission plans to examine the relative profitability of the IRF case-mix groups in a future analysis.

In general, hospital-based IRFs also have a much larger share of cases with extraordinarily high costs. In 2016, 13 percent of hospital-based IRF cases qualified for high-cost outlier payments, compared with just 3 percent of freestanding IRF cases. Indeed, 83 percent of Medicare's IRF outlier payments were made to hospital-based

**TABLE  
10-11**

### **Low standardized costs led to high margins for both hospital-based and freestanding IRFs in 2016**

Characteristic	Quartile	
	Lowest cost	Highest cost
Median cost per discharge		
All	\$11,490	\$19,873
Hospital based	12,158	19,860
Freestanding	10,854	20,417
Median Medicare margin		
All	28.4%	-22.1%
Hospital based	23.4	-22.1
Freestanding	31.0	-23.1
Median		
Number of beds	48	18
Occupancy rate	72%	53%
Share of facilities that are:		
Hospital based	38%	94%
Freestanding	62	6
Nonprofit	31	62
For profit	66	20
Government	3	17
Urban	94	80
Rural	6	20

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for differences in area wages, mix of cases, and prevalence of high-cost outliers, short-stay outliers, and transfer cases. Government-owned facilities operate in a different financial context from other facilities, so their costs are not necessarily comparable.

Source: MedPAC analysis of Medicare cost report and Medicare Provider Analysis and Review data from CMS.

facilities. Though these payments diminish per case losses, they do not completely cover per case costs. It is not clear whether the large number of outlier cases in hospital-based IRFs stems from differences in efficiency, unmeasured case complexity, or both.

#### **Hospital-based IRFs may assess their patients differently**

As noted earlier, evidence suggests that assessments of patients' motor and cognitive function are not reliably consistent across IRFs. Some in the industry have postulated that hospital-based IRFs devote less time to

training assessment staff and verifying the accuracy of assessments, resulting in less reliable measures of patients' motor and cognitive function in hospital-based IRFs. Others assert that some freestanding IRFs are aggressively assessing their patients so as to maximize payment. The integrity of Medicare's payment system for IRFs is contingent on FIM inter-rater reliability; that is, the payment system assumes that similar patients will be given similar function scores. If IRFs assess similar patients differently, payments will not be properly aligned with resource costs. Some IRFs could receive payments that are too low relative to the costs incurred in treating patients, while other IRFs could receive payments that are too high. To the extent that hospital-based IRFs consistently assess their patients as less disabled than do their freestanding counterparts, for whatever reason, their payments—and margins—will be systematically lower.

### **Marginal profit: A measure of the financial attractiveness of Medicare patients**

Given the difference in financial performance across IRFs, the Commission considers whether providers have any financial incentive to expand the number of Medicare beneficiaries they serve. In deciding whether to treat a patient, a provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries. If we approximate marginal cost as total Medicare cost minus fixed building and equipment cost, then:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

The result is a lower bound on the marginal profit because we ignore any potential labor costs that are fixed. For IRFs with available data, we find that Medicare payments exceed marginal costs by a substantial amount—19.3 percent for hospital-based IRFs and 40.9 percent for freestanding IRFs—suggesting that IRFs with available beds have an incentive to admit Medicare patients. This finding is a very positive indicator of patient access, even in IRFs with lower margins.

## **How should Medicare payments change in 2019?**

To estimate 2018 payments, costs, and margins with 2016 data, the Commission considers policy changes effective in 2017 and 2018, including those in the Patient Protection and Affordable Care Act of 2010 (PPACA) and the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). Those changes that affect our estimate of the 2018 margin include:

- a market basket increase of 2.7 percent for fiscal year 2017, offset by PPACA-required reductions totaling 1.05 percentage points, for a net update of 1.65 percent;
- an update of 1.0 percent for fiscal year 2018, as required by MACRA;<sup>17</sup> and
- changes to the high-cost outlier fixed loss amount in 2017, which will increase payments.

Historically, cost growth in this sector has been at or below market basket levels, though between 2015 and 2016, cost growth exceeded the market basket. We use a three-year historical average to estimate cost growth in 2017 and 2018.

Considering these assumptions, we project an aggregate Medicare margin of 11.9 percent for IRFs in 2018.

For fiscal years 2009 through 2017, the Commission recommended a 0 percent update to the IRF payment rate. In its calculations for fiscal year 2018, however, as the aggregate margin neared historic highs, the Commission recommended in March 2017 that the Congress reduce the 2018 IRF payment rate by 5 percent. Since such action was not taken and since, in the absence of legislative action, CMS is required by statute to apply an adjusted market basket increase, payments have continued to rise: From 2009 to 2015, the cumulative growth in payments per discharge was 14.3 percent. At the same time, growth in costs has been low. From 2009 to 2015, the cumulative growth in cost per discharge was 8.5 percent, well below market basket levels. The gap between payments and cost per case for freestanding IRFs has grown even wider: From 2009 to 2015, the cumulative increase in payments per case for freestanding IRFs was 14.6 percent, compared with 4.2 percent growth in costs per case. In 2015, margins for freestanding IRFs reached an all-time high of 26.7

percent. Freestanding nonprofit IRFs had a margin of 13.9 percent that year, while freestanding for-profit facilities had a margin of 29.2 percent. In 2016, the gap between payments and costs narrowed somewhat as per case cost growth (3.4 percent in aggregate) exceeded payment growth (3.2 percent in aggregate) for the first time since 2008. As a result, the aggregate margin in 2016 declined but remained high at 13.0 percent. This high aggregate margin indicates that aggregate Medicare payments continue to substantially exceed the costs of caring for beneficiaries. Absent congressional action, payments to IRFs will continue to increase in fiscal year 2019.

Reducing the payment rate for IRFs would better align Medicare payments with the costs of IRF care. A reduction in the payment rate is made in the context of the Commission's recommendation that the Congress adjust the IRF payment rate using a blend of the current IRF PPS relative weights and the unified PAC PPS relative weights described in Chapter 7. A blend of the relative weights would not affect the level of payments to IRFs but would redistribute payments across case types by increasing payments for medically complex patients and lowering payments to patients with less complex medical conditions. Based on their mix of patients, the blend would have the effect of raising payments to nonprofit and hospital-based IRFs and lowering payments to for-profit and freestanding IRFs. The redistribution across providers enables the Commission to recommend, and policymakers to implement, a level of payments that would better align with the cost of care.

At the same time, the IRF high-cost outlier pool should be expanded, as previously recommended by the Commission, to further redistribute payments within the IRF PPS and reduce the impact of potential misalignments between IRF payments and costs. Currently, the outlier pool is set at 3 percent of total IRF payments. Expanding the outlier pool would increase outlier payments for the most costly cases, ameliorating the financial burden for IRFs that have a relatively high share of these cases. The expanded outlier pool would be funded by an offset to the national base payment amount, which would further reduce all CMG payment rates by the same percentage across the board. As noted in our March 2016 and March 2017 reports to the Congress, expanding the outlier pool could increase payments for providers who are less efficient as well as for providers whose patients' acuity is not well captured by the case-mix system. Nevertheless, because of concerns about the accuracy of Medicare's

payments for resource-intensive cases, the Commission continues to believe that an expanded outlier pool is warranted in the near term. Over the longer term, however, CMS must ensure the accuracy of Medicare's payments by determining that IRFs' assessment and scoring consistently reflects patients' level of disability. Research is also needed to assess variation in costs within the IRF CMGs and differences in relative profitability across CMGs. In the future, CMS could enact payment system reforms that necessitate reassessment of IRF outlier payments and adjustments to the outlier pool, including a return to a smaller pool.

The Commission also reiterates its March 2016 recommendation that the Secretary conduct focused medical record review of IRFs that have unusual patterns of case mix and coding. Further, the Secretary should reassess the inter-rater reliability of the IRF-PAI and conduct other research necessary to improve the accuracy of payments and protect program integrity.

The Commission estimates that reducing the payment rate for IRFs by 5 percent and expanding the outlier pool from 3 percent to 5 percent would decrease total payments to IRFs by 5 percent. Using payment weights that blended the IRF CMG weights with the unified PAC PPS relative weights would be budget neutral and so would have no effect on total payments to IRFs. We estimate the combined effect of reducing the payment rate for IRFs by 5 percent, expanding the outlier pool, and implementing blended relative weights would decrease aggregate payments to freestanding IRFs by 7.3 percent; to hospital-based IRFs by 2.8 percent; to for-profit IRFs by 6.9 percent; and to nonprofit IRFs by 3.4 percent.

## RECOMMENDATION 10

**The Congress should reduce the fiscal year 2019 Medicare payment rate for inpatient rehabilitation facilities by 5 percent.**

## RATIONALE 10

The combination of low historical cost growth and increasing average payments has resulted in overpayments to IRFs. The high aggregate margin in 2016 and our projected margin for 2018 indicate that Medicare payments substantially exceed the costs of caring for beneficiaries. This excess contributes to Medicare's long-run sustainability challenges. For every fiscal year since 2009, the Commission has recommended that the

update to the IRF payment rate be eliminated or that the payment rate be reduced by 5 percent. However, CMS has been required by statute to apply an adjusted market basket increase each year. Between 2009 and 2016, the cumulative increase in payments per case for all IRFs was 17.5 percent, while costs per case rose 11.9 percent, a difference of more than 5 percentage points. Reducing the payment rate for IRFs by 5 percent would better align Medicare payments with the costs of IRF care.

## IMPLICATIONS 10

### Spending

- The payment update for IRFs in fiscal year 2019 consists of a forecasted 2.8 percent market basket update, a forecasted –0.6 percent productivity adjustment of the market basket update, and a –0.75 percent market basket reduction required by PPACA.<sup>18</sup> Relative to current law, this recommendation would decrease Medicare spending by between \$250 million

and \$750 million in 2019 and by between \$1 billion and \$5 billion over five years.

### Beneficiary and provider

- We do not expect this combination of recommendations to have an adverse effect on Medicare beneficiaries' access to care or out-of-pocket spending. Indeed, to the extent that expanding the outlier pool and blending IRF PPS relative weights with weights developed for a unified PAC PPS shifts payments to more medically complex patients, access for some beneficiaries may improve. This recommendation could increase the financial pressure on some providers, but the effect would be ameliorated by blending IRF PPS relative weights with unified PAC PPS relative weights and expanding the high-cost outlier pool. We expect relatively efficient providers will continue to be willing and able to care for Medicare beneficiaries. ■



## Endnotes

---

- 1 More frequently, Medicare beneficiaries receive inpatient rehabilitation services in skilled nursing facilities (SNFs), in part because nationwide there are many more SNFs than IRFs.
- 2 More information about the prospective payment system for IRFs is available at [http://medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_17\\_irf\\_final93a311adfa9c665e80adff00009edf9c.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_17_irf_final93a311adfa9c665e80adff00009edf9c.pdf?sfvrsn=0).
- 3 Patients with a length of stay of fewer than four days are assigned to a single CMG, regardless of diagnosis, age, level of motor or cognitive function, or presence of comorbidities.
- 4 The 13 conditions are stroke; spinal cord injury; congenital deformity; amputation of a lower limb; major multiple trauma; hip fracture; brain injury; certain other neurological conditions (multiple sclerosis, Parkinson's disease, cerebral palsy, and neuromuscular disorders); burns; three arthritis conditions for which appropriate, aggressive, and sustained outpatient therapy has failed; and hip or knee replacement when it is bilateral, the patient's body mass index is greater than or equal to 50, or the patient is age 85 or older.
- 5 CMS's major revisions to the compliance threshold policy in 2004 were to (1) increase the number of conditions that count toward the threshold from 10 to 13 and (2) revise the qualifying conditions of major joint replacement—a condition that was commonly treated in IRFs at that time—such that only a specific subset of patients with that condition would count toward the compliance threshold.
- 6 Other orthopedic conditions, cardiac conditions, and debility are not among the 13 conditions that count toward the compliance threshold, but such cases may count if they have specified comorbidities.
- 7 Compliance is determined annually at the beginning of each facility's cost reporting period. Compliance is evaluated by Medicare's administrative contractors either through a review of a random sample of medical records or, more commonly, through the less resource-intensive "presumptive" method, which uses a computer program to compare a facility's assessments for all Medicare patients for the year with a list of eligible International Classification of Diseases diagnosis codes. The diagnosis codes included on the presumptive list are ones that CMS believes demonstrate either that the patient has one of the conditions that count toward compliance or that the patient has a comorbidity that could cause significant decline in function such that the patient would require intensive rehabilitation. Examples of the diagnosis codes that CMS removed in 2016 include nonspecific or miscellaneous diagnosis codes and codes for arthritis conditions that would meet the compliance criteria only if severity and prior treatment criteria are met, which can be determined only through medical record review.
- 8 This analysis of fee-for-service IRF claims and assessment data from 2013 excluded cases that did not have an acute care hospital discharge within 30 days before the IRF admission.
- 9 For this analysis, the Commission matched fee-for-service IRF claims and assessment data from 2013 with claims for IRF patients' preceding acute care hospital services. About 87 percent of IRF claims from 2013 could be linked to an acute care hospital discharge within 30 days before the IRF admission date. The vast majority of these post-acute IRF cases (96 percent) had an acute care hospital discharge within three days of the IRF admission. IRF cases that did not have an acute care hospital discharge within 30 days before the IRF admission were excluded from the analysis.
- 10 IRFs assign each patient to an impairment group that indicates the primary reason for inpatient rehabilitation. These impairment groups can be collapsed into 21 rehabilitation impairment categories (e.g., stroke, traumatic brain injury, and other neurological conditions). We looked at IRF patient characteristics both by impairment group and by the collapsed rehabilitation impairment categories.
- 11 For each impairment group, we examined patients' average case-mix index in the acute care hospital (a measure of resource intensity in the hospital) as well as the average severity of illness using the all-patient refined–diagnosis related groups. We also looked at the average length of stay in the hospital, the average length of stay in an intensive care or coronary care unit, and whether patients had been high-cost outliers in the hospital.
- 12 The potentially avoidable readmissions we measure are respiratory-related illness (pneumonia, influenza, bronchitis, chronic obstructive pulmonary disease, and asthma); sepsis; congestive heart failure; fractures or fall with a major injury; urinary tract or kidney infection; blood pressure management; electrolyte imbalance; anticoagulant therapy complications; diabetes-related complications; cellulitis or wound infection; pressure ulcer; medication error or adverse drug reaction; and delirium.
- 13 Our measure of community discharge does not give IRFs credit for discharging a Medicare beneficiary to the community if the beneficiary is subsequently readmitted to an acute care hospital within 30 days of the IRF discharge.

- 14 CMS reduced the IRF standard payment conversion factor by 1.9 percent in 2006 and 2.6 percent in 2007.
- 15 In 2016, for freestanding IRFs, the total (all-payer) margin—that is, the margin across all lines of business—was 9.4 percent, down 1.2 percentage points from the previous year. Due to data limitations, the total margin for hospital-based IRFs was not available.
- 16 In comparing costs across providers, the Commission standardizes costs using provider case mix. In IRFs, case mix is based in part on the functional status of patients. If assessment of patients' functional status is not reasonably consistent across providers, then differences in case mix may not reflect real differences in patient acuity. To the extent that this inconsistency occurs, facilities with an average case mix that is higher than warranted will have lower standardized costs than they otherwise would.
- 17 The market basket increase for fiscal year 2018 was 2.6 percent. That update would have been offset by PPACA-required reductions totaling 1.35 percentage points, for a net update of 1.25 percent. However, section 411(b) of MACRA required that the increase factor for fiscal year 2018 be 1.0 percent.
- 18 This market basket forecast was made in the third quarter of 2017. When setting the update for fiscal year 2019, CMS will use the most recent forecast available at that time, which may differ from the number we report here.



## References

---

- Cain Brothers. 2017. *Industry Insights*. October 30.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014. Medicare program; inpatient rehabilitation facility prospective payment system for federal fiscal year 2015. Final rule. *Federal Register* 79, no. 151 (August 6): 45872–45936.
- Community Health Systems. 2017. Form 10–K annual report to the Securities and Exchange Commission. February 26.
- Dejong, G., S. D. Horn, R. J. Smout, et al. 2009. Joint replacement rehabilitation outcomes on discharge from skilled nursing facilities and inpatient rehabilitation facilities. *Archives of Physical Medicine and Rehabilitation* 90, no. 8 (August): 1284–1296.
- Deutsch, A., C. V. Granger, R. C. Fiedler, et al. 2005. Outcomes and reimbursement of inpatient rehabilitation facilities and subacute rehabilitation programs for Medicare beneficiaries with hip fracture. *Medical Care* 43, no. 9 (September): 892–901.
- Fitch Ratings. 2017. 2017 median ratios for not for profit hospitals and healthcare systems. September 20.
- Galloway, R. V., C. V. Granger, A. M. Karmarkar, et al. 2013. The Uniform Data System for Medical Rehabilitation: Report of patients with debility discharged from inpatient rehabilitation programs in 2000–2010. *American Journal of Physical Medicine & Rehabilitation* 92, no. 1 (January): 14–27.
- Grabowski, D. C., K. A. Stewart, S. M. Broderick, et al. 2008. Predictors of nursing home hospitalization: A review of the literature. *Medical Care Research and Review* 65, no. 1 (February): 3–39.
- HealthSouth Corporation. 2017. Annual report (Form 10–K) for fiscal year ending December 31, 2016. Filing submitted to the Securities and Exchange Commission. February 22.
- Kane, R. L., G. Keckhafer, S. Flood, et al. 2003. The effect of Evercare on hospital use. *Journal of the American Geriatrics Society* 51, no. 10 (October): 1427–1434.
- Konetzka, R. T., W. Spector, and M. R. Limcangco. 2008a. Reducing hospitalizations from long-term care settings. *Medical Care Research and Review* 65, no. 1 (February): 40–66.
- Konetzka, R. T., S. C. Stearns, and J. Park. 2008b. The staffing-outcomes relationship in nursing homes. *Health Services Research* 43, no. 3 (June): 1025–1042.
- Kramer, A., M. Lin, R. Fish, et al. 2015. *Development of inpatient rehabilitation facility quality measures: Potentially avoidable readmissions, community discharge, and functional improvement*. Report prepared for the Medicare Payment Advisory Commission. Washington, DC: MedPAC.
- Lau, D. T., J. D. Kasper, D. E. Potter, et al. 2005. Hospitalization and death associated with potentially inappropriate medication prescriptions among elderly nursing home residents. *Archives of Internal Medicine* 165, no. 1 (January 10): 68–74.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Moody’s Investors Service. 2017. Non-profit and public healthcare medians: Key financial metrics underperform as pressures mount. August 21.
- Morningstar Document Research. 2017a. HCA Holdings, for 10–K. February 22.
- Morningstar Document Research. 2017b. Tenet Healthcare Corporation, for 10–K. February 27.
- Mustard, C. A., and T. Mayer. 1997. Case-control study of exposure to medication and the risk of injurious falls requiring hospitalization among nursing home residents. *American Journal of Epidemiology* 145, no. 8 (April 15): 738–745.
- Office of the Actuary, Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. Personal communication of author with Theresa Bean, November 1.
- Ottenbacher, K. J., A. Karmarkar, J. E. Graham, et al. 2014. Thirty-day hospital readmission following discharge from postacute rehabilitation in fee-for-service Medicare patients. *Journal of the American Medical Association* 311, no. 6 (February 12): 604–614.
- Schneider, J. C., P. Gerrard, R. Goldstein, et al. 2013. The impact of comorbidities and complications on burn injury inpatient rehabilitation outcomes. *Physical Medicine and Rehabilitation* 5, no. 2 (February): 114–121.

Schneider, J. C., P. Gerrard, R. Goldstein, et al. 2012. Predictors of transfer from rehabilitation to acute care in burn injuries. *Journal of Trauma and Acute Care Surgery* 73, no. 6 (December): 1596–1601.

Standard & Poor's Ratings Services. 2017. U.S. not-for-profit acute health care ratios: Operating performance weakens while balance sheets are stable. August 24.

C H A P T E R

# 11

---

## **Long-term care hospital services**

---

## R E C O M M E N D A T I O N

- 11** The Secretary should eliminate the fiscal year 2019 Medicare payment update for long-term care hospitals.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

## Long-term care hospital services

### Chapter summary

Long-term care hospitals (LTCHs) provide care to beneficiaries who need hospital-level care for relatively extended periods. To qualify as an LTCH for Medicare payment, a facility must meet Medicare’s conditions of participation for acute care hospitals, and certain Medicare patients must have an average length of stay greater than 25 days. In 2016, Medicare spent \$5.1 billion on care provided in LTCHs nationwide. About 111,000 fee-for-service (FFS) beneficiaries had roughly 126,000 LTCH stays in 407 LTCHs. On average, Medicare FFS beneficiaries account for about two-thirds of LTCHs’ discharges.

### Assessment of payment adequacy

**Beneficiaries’ access to care**—We have no direct measures of beneficiaries’ access to needed LTCH services. While we consider the capacity and supply of LTCH providers and changes over time in the volume of services they furnish, we expect reductions in both following the implementation of the patient-specific criteria that began in fiscal year 2016.

- **Capacity and supply of providers**—The number of LTCHs filing Medicare cost reports decreased in recent years because of two moratoriums on new facilities and changes to Medicare’s LTCH payment policy. Using cost report data, we estimate that the number of LTCHs and LTCH beds decreased annually by an average of 1.1 percent and 2.3

### In this chapter

- Are Medicare payments adequate in 2018?
- How should Medicare payments change in 2019?

percent, respectively, from 2012 through 2016. However, the average LTCH occupancy rate was 66 percent in 2016, suggesting that LTCHs have adequate capacity in the markets they serve.

- ***Volume of services***—From 2015 to 2016, the number of LTCH cases decreased by 4.2 percent, continuing a four-year trend that began in 2013. Controlling for the number of FFS beneficiaries, we found that the number of LTCH cases per beneficiary declined during this period (2015 to 2016) by 5.1 percent, similarly continuing a trend of decreasing per capita LTCH use that began in 2012.

***Quality of care***—Consistent with prior years, we found stable non-risk-adjusted rates of readmission, death in the LTCH, and death within 30 days of discharge across the top 25 LTCH diagnoses.

***Providers' access to capital***—In prior years, the availability of capital to LTCHs reflected uncertainty regarding possible changes to Medicare's regulations and legislation governing LTCHs. Beginning with cost reporting periods starting in fiscal year 2016, the criteria to receive the higher LTCH payment rate specified in the Pathway for SGR Reform Act of 2013 provide more long-term regulatory certainty for the industry compared with recent years. However, we expect LTCHs to alter their cost structure and referral patterns in response to the payment reductions for cases that do not meet the criteria. The new criteria, coupled with payment reductions to annual updates required by statute, have limited opportunities for growth in the near term and reduced the industry's need for capital.

***Medicare payments and providers' costs***—From 2007 until 2012, LTCHs held cost growth below the rate of increase in the market basket index, a measure of inflation in the prices of goods and services LTCHs buy to provide care, and aggregate Medicare margins increased to a high of 7.6 percent in 2012. Between 2012 and 2016, Medicare payments continued to increase, but more slowly than provider costs, resulting in an aggregate 2016 Medicare margin of 4.1 percent across all cases. In its March 2017 report to the Congress, the Commission also calculated a margin, using claims data, for cases that would have met the criteria to qualify to receive the higher LTCH payment rate had the policy been in effect at the time of beneficiary discharge. In 2015, using this claims-based methodology, the Commission calculated an aggregate Medicare margin for qualifying cases of 6.8 percent. Using the same methodology for 2016, the aggregate margin decreased to 6.3 percent. Financial performance in 2016 varied across LTCHs, reflecting differences in cost control and responses to payment incentives. Marginal profit, an indicator of whether LTCHs with excess capacity have an incentive to admit more Medicare patients, equaled about 20 percent in 2016, consistent with last year's



analysis. We expect continued changes in admission patterns and cost structure of LTCHs in response to the implementation of the patient-specific criteria that began during fiscal year 2016.

We project that LTCHs' aggregate Medicare margin for discharges that meet the patient-specific criteria and that qualify for the full LTCH payment rate will be 4.7 percent in 2018. On the basis of these indicators, and in the context of recent changes in payment policy, the Commission concludes that LTCHs can continue to provide Medicare beneficiaries with access to safe and effective care and accommodate changes in their costs with no update to LTCH payment rates in fiscal year 2019. This update recommendation applies to the Medicare LTCH prospective payment system (PPS) base payment rate. That is, it applies to payments for discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013.

The recommendation about the level of payments to LTCHs is made in the context of the Commission's recommendation (discussed in the chapter on post-acute care (Chapter 7)) to establish LTCH payments using a blend of the current LTCH PPS relative weights and the unified post-acute care PPS weights beginning in fiscal year 2019. A blend of the relative weights would redistribute payments within the LTCH setting by increasing payments for medically complex patients and lowering payments for patients with less complex conditions. The recommendation would narrow the differences in financial performance across providers based on their mix of patients and would enable the Commission to recommend, and policymakers to implement, a level of payments that would better align payments with the cost of care. ■



---

## Background

---

Patients with chronic critical illness—those who exhibit metabolic, endocrine, physiologic, and immunologic abnormalities that result in profound debilitation and often ongoing respiratory failure—frequently need hospital-level care for extended periods. Some are treated in long-term care hospitals (LTCHs). These facilities can be freestanding or colocated with other hospitals as hospitals within hospitals (HWHs) or satellites. To qualify as an LTCH for Medicare payment, a facility must meet Medicare’s conditions of participation for acute care hospitals (ACHs), and certain Medicare patients must have an average length of stay greater than 25 days.<sup>1</sup> By comparison, the average Medicare length of stay in ACHs is about five days. In 2016, Medicare spent \$5.1 billion on care provided in LTCHs nationwide. About 111,000 beneficiaries had roughly 126,000 LTCH stays. On average, Medicare fee-for-service (FFS) beneficiaries account for about two-thirds of LTCHs’ discharges.

Since October 2002, Medicare has paid LTCHs prospective per discharge rates based primarily on the patient’s diagnosis and the facility’s wage index.<sup>2</sup> Under this prospective payment system (PPS), LTCH payment rates are based on the Medicare severity long-term care diagnosis related group (MS–LTC–DRG) patient classification system, which groups patients primarily according to diagnoses and procedures. MS–LTC–DRGs include the same groupings used in ACHs paid under the inpatient PPS (IPPS) but have relative weights specific to LTCH patients, reflecting the average relative costliness of cases in the group compared with that of the average LTCH case. The LTCH PPS has outlier payments for patients who are extraordinarily costly.<sup>3</sup> The LTCH PPS pays differently for short-stay outlier cases (patients with shorter than average lengths of stay), reflecting CMS’s contention that Medicare should adjust payment rates for patients with relatively short stays to reflect the reduced costs of caring for them (see text box discussing short-stay outliers, p. 302). In addition, CMS implemented a policy to prevent LTCHs from functioning as units of ACHs in 2005; however, the Congress and CMS have delayed the full implementation of this policy until fiscal year 2019 (see text box on the “25 percent rule,” p. 303).

In fiscal year 2016, CMS began phasing in a payment change for LTCH cases that do not meet certain criteria

specified in the Pathway for SGR Reform Act of 2013 (see text box on LTCH PPS payment criteria, pp. 304–305). Under this new dual payment structure, qualifying Medicare cases are paid under the LTCH PPS if the patient had an immediately preceding ACH stay that included 3 or more days in an intensive care unit (ICU) or if the patient received mechanical ventilation services for at least 96 hours in the LTCH. LTCH cases not meeting the specified criteria receive a “site-neutral” rate based on the lesser of an IPPS-comparable amount or 100 percent of the cost for the case. The Commission recommended in March 2014 that LTCH rates be paid only for cases that received eight or more days of care in an ICU or received prolonged mechanical ventilation services during the previous ACH stay.

Starting on October 1, 2015, CMS began phasing in the payment changes associated with the LTCH criteria policy.<sup>4</sup> Cases not meeting the specified criteria receive payment of 50 percent of the LTCH PPS rate and 50 percent of the site-neutral rate for the first four full years of implementation. Fiscal year 2021 will be the first year the policy will be fully in effect for all LTCH facilities.

---

## Are Medicare payments adequate in 2018?

---

To address whether payments for 2018 are adequate to cover the costs that providers incur in furnishing services to Medicare beneficiaries and how much providers’ costs are expected to change in the coming year (2019), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries’ access to care (by examining the capacity and supply of LTCH providers and changes over time in the volume of services furnished), quality of care, providers’ access to capital, and the relationship between Medicare payments and providers’ costs.

### **Beneficiaries’ access to care: Expected reductions in supply and volume continue, without affecting access to care**

We have no direct measures of beneficiaries’ access to needed LTCH services. The absence of LTCHs in many areas of the country does not necessarily indicate an inadequacy of supply since beneficiaries in areas without LTCHs have access to similar services in other

## Payment for short-stay outliers in long-term care hospitals

In the long-term care hospital (LTCH) payment system, Medicare adjusts payments for cases with short stays. CMS defines a short-stay outlier (SSO) case as having a length of stay less than or equal to five-sixths of the geometric mean length of stay for the case type. The SSO policy reflects CMS's contention that patients with lengths of stay similar to those in acute care hospitals (ACHs) should be paid at rates comparable with the cases paid under the ACH inpatient prospective payment system (IPPS).

Previously, the Commission expressed concern regarding the financial incentives associated with the payment structure of the SSO policy and the inherent payment cliffs it created. Historically, Medicare paid LTCHs for SSO discharges based on the lesser of four payment calculations, including up to the full LTCH standard payment amount.<sup>5</sup> This payment structure created large differences between the SSO payment and the full LTCH payment, resulting in a strong financial incentive for LTCHs to keep patients until their lengths of stay exceed the SSO threshold for the relevant case type. In its March 2017 report to the Congress, the Commission stated that CMS could reduce the financial incentives to increase a beneficiary's length of stay beyond the SSO threshold by better aligning the incremental payments for short-stay cases to the provider's incremental costs.

Beginning in fiscal year 2018, CMS changed how LTCHs are paid for SSOs. Instead of paying LTCHs for SSO cases based on the lesser of four payment rates, CMS now pays a rate equal to an amount that is a blend of the IPPS amount for the Medicare severity diagnosis related group and 120 percent of the LTCH per diem payment amount up to the full LTCH prospective payment system (PPS) standard federal payment rate. As the length of stay for the SSO increases, the blended payment includes an increasing share of payment attributable to the LTCH per diem. The longer the length of stay, the more closely payment resembles the full LTCH PPS amount, greatly reducing the payment cliff that existed under the prior policy. CMS also updated this policy to no longer differentiate between the SSO cases and cases with "very short" lengths of stay, referred to as VSSOs.

In fiscal year 2016, the prior SSO structure remained in place. Under this structure, 30.1 percent of LTCH discharges received SSO payment adjustments, but this share varied across types of LTCHs. For example, 29.7 percent of for-profit LTCHs' cases were SSOs compared with 32.5 percent of nonprofit LTCHs' cases. If we consider only the cases in 2016 that met or would have met the new criteria to receive the LTCH PPS standard federal rate, 34.9 percent of cases would be SSOs. ■

settings, including ACHs and skilled nursing facilities (SNFs). In 2017, LTCHs were located in just 8.5 percent of counties, but these LTCHs served beneficiaries from over 90 percent of counties nationwide. A recent study found that 80 percent of Medicare beneficiaries reside in a hospital referral region with at least one LTCH (National Association of Long Term Hospitals 2017). At the median, beneficiaries traveled about 17 miles to receive LTCH care. About 10 percent of beneficiaries traveled in excess of about 90 miles. The distance that beneficiaries traveled was fairly consistent by facility ownership (e.g., nonprofit or for profit). While we consider the overall capacity and supply of LTCH providers and changes over time in the volume of services they furnish, we expect reductions in

both following the implementation of the patient-specific criteria that began in fiscal year 2016. Given that these reductions are driven by specific statutory and regulatory changes, they do not represent an undue reduction in access to medically necessary LTCH-level care, and instead reflect intended industry change.

### Capacity and supply of providers: The number of LTCHs began to decrease in 2013

The Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) and subsequent legislation imposed a limited moratorium on new LTCHs and new beds in existing LTCHs from December 29, 2007, through December 28, 2012. During that time, new LTCHs were

## The “25-percent rule”

In fiscal year 2005, CMS established the 25-percent rule to set a limit on the share of cases that can be admitted to a long-term care hospital (LTCH) from certain referring acute care hospitals (ACHs) and reduce payments for some LTCHs that exceed the threshold. After the threshold is reached, the LTCH is paid the lesser of the LTCH prospective payment system (PPS) rate or an amount equivalent to the acute care hospital PPS rate for patients discharged from the host ACH. CMS established the 25-percent rule in an attempt to prevent LTCHs from functioning as ACH units; decisions about admission, treatment, and discharge in both ACHs and LTCHs were to be made for clinical rather than financial reasons. The 25-percent rule uses payment adjustments to create disincentives for LTCHs to admit a large share of their patients from a single ACH.

The 25-percent rule initially applied only to LTCH hospitals within hospitals (HWHs) and LTCH satellites. In July 2007, CMS extended the rule to also apply to freestanding LTCHs. The Congress delayed full implementation of the 25-percent rule so that most HWHs and satellites were paid standard LTCH rates for eligible patients admitted from their host hospitals as long as the share of Medicare admissions from the host hospital did not exceed 50 percent (instead of the more restrictive 25 percent threshold) until cost reporting periods that began on or after July 1, 2016. In the 21st Century Cures Act, enacted on December 13, 2016, the Congress further delayed the implementation of the 25-percent rule for LTCHs until fiscal year 2018. In its final 2018 payment rule, CMS delayed implementation of the 25-percent rule until fiscal year 2019. ■

able to enter the Medicare program only if they met specific exceptions to the moratorium.<sup>6</sup> The Pathway for SGR Reform Act of 2013 and subsequent legislation implemented a new moratorium from April 1, 2014, through September 30, 2017.<sup>7</sup> That moratorium originally provided exceptions that allowed the establishment of new LTCHs and new LTCH satellites (that is, the law permitted certain new LTCHs in their entirety); however, the 21st Century Cures Act expanded the exceptions to also permit increases in the number of certified beds in existing facilities.

We examine Medicare cost report data to assess the number of LTCH beds and facilities. Growth in the number of LTCHs filing Medicare cost reports slowed considerably in the later years of the moratorium (Table 11-1, p. 305). Between 2012 and 2015, a larger than usual number of facilities made changes to their cost reporting period, thereby affecting the facilities used for this payment adequacy analysis.<sup>8</sup> Between 2012 and 2016, the number of LTCHs paid under the LTCH PPS decreased from 426 to 407, or about a 1.1 percent average annual decrease, roughly consistent with the 0.8 percent

average annual decrease in the Provider of Services file.<sup>9</sup> Cost report data indicate that the number of LTCH beds nationwide decreased about 2.3 percent annually from 2012 through 2016 (data not shown).

Consistent with historical trends, the Commission estimates that, in 2016, more than 75 percent of LTCHs were for profit, and 95 percent were located in urban areas. In our analysis of urban and rural facilities, the data presented in Table 11-1 for 2015 and 2016 are not comparable with prior years because CMS adopted new core-based statistical area (CBSA) codes based on the 2010 census for LTCHs beginning fiscal year 2015, in addition to the aforementioned anomalous cost reporting trends. This change reclassified as urban several facilities previously classified as rural.<sup>10</sup>

Aggregate occupancy rates for LTCHs from 2012 through 2016 remained largely unchanged at 66 percent. Historically, occupancy rates for for-profit LTCHs have been 1 to 2 percentage points higher than that of nonprofit LTCHs. In 2016, for-profit LTCHs had an occupancy rate of 66 percent compared with 64 percent for nonprofit LTCHs (data not shown).

## Criteria to receive payment under the long-term care hospital prospective payment system

The Pathway for SGR Reform Act of 2013 mandated changes to the long-term care hospital (LTCH) prospective payment system, including limiting standard LTCH payments to cases that spent at least three days in an intensive care unit (ICU) during an immediately preceding acute care hospital (ACH) stay or to discharges that received an LTCH principal diagnosis indicating prolonged mechanical ventilation. In March 2014, the Commission recommended that the LTCH payment system be reformed to better align payments for both chronically critically ill (CCI) and non-CCI cases across LTCH and ACH settings.

### Commission recommendation for long-term care hospitals

The Commission has maintained that LTCHs should serve only the most medically complex patients—the CCI cases—and has determined that the best available proxy for intensive resource needs in LTCH patients is ICU length of stay during an immediately preceding ACH stay. The Commission has also long held that payments to providers should be properly aligned with patients' resource needs. Further, subject to risk differentials, payment for the same services should be comparable regardless of where the services are provided.

The Commission recommended that the Congress limit standard LTCH payments to cases that spent eight or more days in an ICU during an immediately preceding ACH stay. The Commission's analysis of inpatient prospective payment system (IPPS) claims data found that cases with eight or more days in an ICU accounted for about 6 percent of all Medicare IPPS discharges and had a geometric mean cost per discharge that was four times that of IPPS cases with seven or fewer ICU days. Further, these cases were concentrated in a small number of Medicare severity diagnosis related groups that correspond with the "ideal" LTCH patients described by LTCH representatives and critical care clinicians (Dalton et al. 2012).

Setting the ICU length of stay threshold for CCI cases at eight days captures a large share of LTCH cases requiring prolonged mechanical ventilation—a service

specialty of many LTCHs. However, the Commission was concerned that LTCH care could be appropriate for some patients requiring mechanical ventilation even if they did not spend eight or more days in an ICU during an immediately preceding ACH stay. The Commission therefore recommended that patients requiring prolonged ventilation care should qualify for CCI status. For LTCH cases that did not spend eight or more days in an ICU during an immediately preceding ACH stay, the Commission recommended that the Secretary of Health and Human Services set the payment rates equal to those of ACHs. The Commission recommended that savings from this policy be used to create additional inpatient outlier payments for CCI cases in IPPS hospitals.

### Congressionally mandated patient-level criteria

The Pathway for SGR Reform Act of 2013 established "site-neutral" payments for specified cases in LTCHs, beginning in fiscal year 2016. Under the law, the LTCH payment rate applies only to qualifying LTCH discharges that had an ACH stay immediately preceding LTCH admission and for which:

- the ACH stay included at least 3 days in an intensive care unit or
- the discharge was assigned to the Medicare severity long-term care diagnosis related group (MS–LTC–DRG) based on the receipt of mechanical ventilation services for at least 96 hours.

All other LTCH discharges—including any discharges assigned to psychiatric or rehabilitation MS–LTC–DRGs, regardless of intensive care unit use—are paid a site-neutral amount (an amount based either on Medicare's IPPS or 100 percent of the costs of the case, whichever is lower). These site-neutral payments are being phased in over a four-year period. In cost reporting periods starting fiscal year 2016, cases that do not meet the specified criteria receive a blended rate of one-half the standard LTCH payment and one-half the site-neutral payment. In cost reporting periods starting on or after October 1, 2019, these cases will

*(continued next page)*



## Criteria to receive payment under the long-term care hospital prospective payment system (cont.)

receive 100 percent of the site-neutral payment rate. Given LTCHs' varying cost reporting periods, the Commission expects fiscal year 2021 to be the first full year in which this policy is completely phased in.

### Congressionally mandated facility-level criteria

To qualify as an LTCH for Medicare payment, a facility must meet Medicare's hospital conditions of participation and certain Medicare patients must have an average length of stay greater than 25 days.

The Pathway for SGR Reform Act of 2013 loosens these criteria such that, beginning in fiscal year 2016, CMS calculates the LTCH average length of stay only for Medicare fee-for-service cases that are not paid the site-neutral rate. However, the Pathway for SGR Reform Act of 2013 requires that, for cost reporting periods starting on or after October 1, 2019, an LTCH must have no more than 50 percent of its cases paid at the site-neutral rate to continue to receive the LTCH payment rate for eligible cases. ■

### Volume of services: Number of LTCH users decreased

Beneficiaries' use of LTCH services suggests that access is adequate. Growth in the number of FFS LTCH cases was high in the first years of the LTCH PPS (data not shown),

but the number of cases declined from 2005 to 2007 (Table 11-2, p. 306). Much of this decrease is consistent with the decline in beneficiaries' enrollment in FFS Medicare and their increased enrollment in Medicare Advantage plans. CMS regulations that reduced LTCH payments to bring

**TABLE  
11-1**

### The number of LTCHs has decreased since 2012

Type of LTCH	Congressionally imposed moratorium					Congressionally imposed moratorium				Average annual change		
	2009	2010	2011	2012	2013*	2014*	2015*	2016	2009–2012	2012–2016	2015–2016	
Hospitals with valid cost reports	411	417	421	426	411	399	392	407	1.2%	–1.1	*	
Urban	389	392	397	401	385	373	373	388	1.0	**	**	
Rural	22	25	24	25	26	26	19	19	4.4	**	**	
Nonprofit	79	82	77	78	78	73	66	71	–0.4	–2.3	*	
For profit	313	314	324	328	315	308	309	320	1.6	–0.6	*	
Government	19	21	20	20	18	18	17	16	1.7	–5.4	*	

Note: LTCH (long-term care hospital). The Medicare, Medicaid, and SCHIP Extension Act of 2008 and subsequent legislation imposed a moratorium on new LTCHs and new LTCH beds in existing facilities from December 29, 2007, through December 29, 2012. The Pathway for SGR Reform Act of 2013 and subsequent legislation implemented a new moratorium from April 1, 2014, through September 30, 2017.

\*Data for 2013 through 2015 should not be compared with prior or subsequent years because of an anomalous number of facilities that underwent an acquisition and changes in the cost reporting period.

\*\*In addition to the anomalous numbers of facilities that underwent an acquisition and changes in the cost reporting period, CMS adopted new core-based statistical area codes for LTCHs beginning fiscal year 2015; this change reclassified as urban several facilities previously classified as rural, and therefore the number of facilities between 2014 and 2015 should not be compared.

Source: MedPAC analysis of cost report data and the Medicare Provider of Services file from CMS.

**TABLE  
11-2****The number of Medicare LTCH cases and users  
continued to decrease between 2015 and 2016**

	2005	2007	2012	2013	2014	2015	2016	Average annual change		
								2007– 2012	2012– 2015	2015– 2016
Cases	134,003	129,202	140,463	137,827	133,984	131,129	125,586	1.7%	–2.3%	–4.2%
Cases per 10,000 FFS beneficiaries	36.4	36.2	37.7	36.6	35.4	34.5	32.7	0.8	–2.9	–5.1
Spending (in billions)	\$4.5	\$4.5	\$5.5	\$5.5	\$5.4	\$5.3	\$5.1	4.3	–1.3	–4.4
Spending per FFS beneficiary	\$122.2	\$126.0	\$148.8	\$146.6	\$141.7	\$140.3	\$132.9	3.4	–1.9	–5.3
Payment per case	\$33,658	\$34,769	\$39,493	\$40,070	\$40,015	\$40,719	\$40,656	2.6	1.0	–0.2
Average length of stay (in days)	28.2	26.9	26.2	26.5	26.3	26.6	26.8	–0.5	0.4	1.1
Users	119,282	114,299	123,652	121,532	118,288	116,088	111,171	1.6	–2.1	–4.2

Note: LTCH (long-term care hospital), FFS (fee-for-service).

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS and the annual report of the Boards of Trustees of the Medicare trust funds.

them more in line with costs also likely slowed growth in LTCH admissions during that period and beyond. From 2007 to 2012, the number of LTCH cases per capita (per 10,000 FFS beneficiaries) increased by an annual average rate of 0.8 percent. Between 2012 and 2015, the number of LTCH cases per capita decreased by 2.9 percent. LTCH cases per 10,000 FFS beneficiaries further decreased by 5.1 percent between 2015 and 2016. These decreases likely occurred because LTCHs changed their admitting practices in response to the implementation of the new patient-specific criteria that resulted in lower payments for certain cases. In 2016, Medicare FFS beneficiaries accounted for about two-thirds of LTCH discharges and just over half of patient days in aggregate, representing a slight decline in the share of Medicare FFS discharges and patient days in LTCHs following a period of relative stability since 2010. In 2016, dually eligible Medicare beneficiaries accounted for about 40 percent of FFS Medicare days.

Compared with all Medicare beneficiaries, those admitted to LTCHs are disproportionately disabled (under age 65), over age 85, or diagnosed with end-stage renal disease. They are also more likely to be African American. The higher rate of LTCH use by African American beneficiaries may be due to the concentration of LTCHs in areas of the country with larger African American populations (Dalton et al. 2012, Kahn et al. 2010). Another contributing factor may be a greater incidence of critical illness in this population (Mayr et al. 2010). At the same time, African American Medicare beneficiaries may be more likely to opt for LTCH care since they are less likely to elect hospice care compared with White beneficiaries (Medicare Payment Advisory Commission 2017).

LTCH patient discharges are concentrated in a relatively small number of diagnosis groups. In fiscal year 2016, the top 20 LTCH diagnoses made up over 61 percent of all LTCH discharges, representing a consistent share of cases across for-profit and nonprofit facilities (Table 11-3). The most frequently occurring diagnosis was pulmonary

**TABLE  
11-3****The top 20 MS-LTC-DRGs made up over 60 percent of LTCH discharges in 2016**

MS-LTC-DRG	Description	Discharges	Share of cases	Share of for-profit cases	Share of nonprofit cases
189	Pulmonary edema and respiratory failure	17,539	14.0%	13.8%	15.0%
207	Respiratory system diagnosis with ventilator support 96+ hours	14,445	11.5	10.9	15.0
871	Septicemia without ventilator support 96+ hours with MCC	7,938	6.3	6.7	4.3
539	Osteomyelitis with MCC	3,418	2.7	2.7	2.7
592	Skin ulcers with MCC	3,351	2.7	2.8	2.0
177	Respiratory infections and inflammations with MCC	3,092	2.5	2.6	1.8
949	Aftercare with CC/MCC	2,960	2.4	2.3	2.8
208	Respiratory system diagnosis with ventilator support <96 hours	2,790	2.2	2.1	2.6
682	Renal failure with MCC	2,516	2.0	2.0	1.8
981	Extensive OR procedure unrelated to principal diagnosis with MCC	2,451	2.0	1.9	2.3
166	Other respiratory system OR procedures with MCC	1,959	1.6	1.6	1.5
559	Aftercare, musculoskeletal system, and connective tissue with MCC	1,939	1.5	1.6	1.2
570	Skin debridement with MCC	1,746	1.4	1.5	0.8
853	Infectious and parasitic diseases with OR procedure with MCC	1,731	1.4	1.5	0.9
314	Other circulatory system diagnoses with MCC	1,679	1.3	1.4	1.2
919	Complications of treatment with MCC	1,640	1.3	1.3	1.2
862	Postoperative and post-traumatic infections with MCC	1,624	1.3	1.3	1.5
463	Wound debridement and skin graft except hand, for musculo-connective tissue disorders with MCC	1,551	1.2	1.3	1.0
291	Heart failure and shock with MCC	1,535	1.2	1.3	1.0
4	Tracheostomy with ventilator support 96+ hrs or primary diagnosis except face, mouth and neck without major OR procedure	1,534	1.2	1.2	1.4
Top 20 MS-LTC-DRGs		84,369	61.7	61.6	61.8

Note: MS-LTC-DRG (Medicare severity long-term care diagnosis related group), LTCH (long-term care hospital), MCC (major complication or comorbidity), CC (complication or comorbidity), OR (operating room). MS-LTC-DRGs are the case-mix system for LTCH facilities. The sum of column components may not equal the stated total due to rounding.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

edema and respiratory failure (MS-LTC-DRG 189). Respiratory system diagnosis with ventilator support for 96 or more hours (MS-LTC-DRG 207) was the second most frequently occurring diagnosis. Over 30 percent of all LTCH cases were respiratory conditions—a statistic that has been relatively stable since the 2008 implementation of the MS-LTC-DRGs; however, nonprofit LTCHs care for a higher share of beneficiaries with a respiratory-related illness compared with for-profit LTCHs (37 percent compared with 32 percent) (data not shown).

Not unexpectedly, the MS-LTC-DRGs become even more concentrated when we consider only the cases that

qualified or would have qualified to receive the LTCH PPS standard federal payment rate if the dual payment rate had been in effect at the time of discharge.<sup>11</sup> The top 25 diagnoses for cases that met the patient-specific criteria accounted for more than three-quarters of these cases.<sup>12</sup> More than half of these cases involved diagnoses that were respiratory conditions or involved prolonged mechanical ventilation. Given the phased-in implementation of criteria for receiving the LTCH PPS standard federal payment rate, we would expect to see an increase in the concentration of diagnoses over time.

**TABLE  
11-4****Unadjusted rates of readmission and mortality were higher for cases that met patient-specific criteria in 2016**

	All cases	Only cases that met patient-specific criteria
Unadjusted readmissions	9%	10%
Unadjusted mortality in LTCH	12	16
Unadjusted mortality in LTCH or within 30 days of discharge	24	29

Note: LTCH (long-term care hospital). Cases defined as meeting “patient-specific criteria” include cases that would have qualified to receive the LTCH prospective payment system standard federal payment rate if the dual payment structure mandated in the Pathway for SGR Reform Act of 2013 had been in effect at the time of discharge. “Unadjusted” refers to measures that are not adjusted for differences in patient characteristics, including severity of illness.

Source: MedPAC analysis of LTCH cost reports and Medicare Provider Analysis and Review data from CMS.

**Quality of care: Meaningful measures not available, but trends for gross indicators improved**

LTCHs began reporting a limited set of quality measures to CMS in fiscal year 2013 (see text box on quality measures). CMS intended to begin reporting quality data publicly on four measures in the fall of 2016; however, public reporting of two of these measures had been delayed because of an error in the data calculations. Public reporting on the two other measures—the rate of pressure ulcers that are new or worsened and the rate of unplanned hospital readmission within 30 days after discharge from an LTCH—began in mid-December of 2016. In light of the issues with the Medicare LTCH quality measures, and because of interest in understanding changes in the quality of care provided to Medicare beneficiaries, the Commission continues this year to assess aggregate trends in the quality of LTCH care by examining in-facility mortality rates, mortality within 30 days of discharge, and readmissions from LTCHs to ACHs.

For this report, we analyzed unadjusted readmission and mortality rates for the top LTCH diagnoses from 2012 to 2016. Although rates of readmission and death can vary from year to year, over the 5-year period, we found stable or declining rates of readmissions to ACHs and stable or declining mortality rates for these diagnoses, both in the facility and 30 days postdischarge. However, we caution that these measures are not risk adjusted, meaning that patient characteristics were not taken into account when calculating rates, and trends may therefore be muted or exaggerated by changes in patient mix over time.

In aggregate, in 2016, 9 percent of LTCH cases were readmitted to an ACH directly from the LTCH, 12 percent died in the LTCH, and another 12 percent died within 30 days of discharge from the LTCH. Mortality rates varied markedly by diagnosis group. For example, among patients with a principal diagnosis of septicemia with prolonged ventilator support (MS–LTC–DRG 870), 36 percent died in the LTCH and another 14 percent died within 30 days of discharge. By comparison, among patients assigned to the diagnosis group called “aftercare, musculoskeletal system and connective tissue with complication or comorbidity” (MS–LTC–DRG 560), only 1 percent died in the LTCH and an additional 2 percent died within 30 days of discharge. Among the highest volume MS–LTC–DRGs in 2016, patients with a diagnosis of complications of treatment with major complication or comorbidity (MS–LTC–DRG 919) had the highest readmission rate (16 percent).<sup>13</sup>

If we consider only cases that would have qualified to receive the LTCH PPS standard federal payment rate if the dual payment structure had been in effect at the time of discharge, then the unadjusted rates of readmission directly from the LTCH, death in the LTCH, and death within 30 days of discharge would have been higher for a vast majority of highest volume MS–LTC–DRGs compared with all cases in 2016 (Table 11-4). This difference is expected given the greater severity of illness and case mix for this group of beneficiaries. In 2016, 10 percent of LTCH cases that would have qualified to receive the LTCH PPS standard federal rate under the dual payment structure were readmitted to an ACH directly

## Quality measures for long-term care hospitals

The Patient Protection and Affordable Care Act of 2010 required CMS to establish a quality reporting program for long-term care hospitals (LTCHs) by fiscal year 2014 and further stipulated that LTCHs not participating in the program would have their annual payment update reduced by 2 percentage points starting in 2014. Beginning October 1, 2013, LTCHs receive a full payment update only if they successfully report on three quality measures—catheter-associated urinary tract infections (CAUTIs), central line-associated bloodstream infections (CLABSI), and new or worsened pressure ulcers. Data on incidences of CAUTIs and CLABSI are collected through the National Healthcare Safety Network (NHSN), an Internet-based surveillance system maintained by the Centers for Disease Control and Prevention (CDC). The data elements needed to calculate the pressure ulcer measure are provided through a collection instrument called the LTCH Continuity Assessment Record and Evaluation (CARE) Data Set.

In 2014, CMS added two measures to the LTCH quality reporting program: the share of LTCH patients assessed for and appropriately given an influenza vaccine and influenza vaccination coverage among facility health care personnel. Facilities collect data on patient vaccination using the LTCH CARE Data Set, while the CDC's NHSN collects data on vaccination of LTCH health care personnel. Payment updates for fiscal year 2016 and after are affected by LTCHs' reporting on these two measures.

In 2015, LTCHs were required to begin reporting facility-acquired cases of *Clostridium difficile* and methicillin-resistant *Staphylococcus aureus* through the CDC NHSN. Reductions of LTCH payment updates for failing to report on these two measures began in fiscal year 2017. At that time, CMS started using claims data to calculate LTCHs' rates of all-cause unplanned readmissions to acute care hospitals.

CMS added 4 more measures to the program beginning in fiscal year 2018, which will bring the total number of measures to 12. In January 2016, LTCHs began reporting on ventilator-associated events (such as pneumonia, sepsis, and pulmonary embolism) through the CDC NHSN. In April 2016, CMS began collecting data on the following three measures using the LTCH CARE Data Set: share of patients experiencing one or more falls resulting in major injury, change in mobility among LTCH patients who require ventilator support, and share of LTCH patients with an admission and discharge functional assessment and a care plan that addresses patient function.

In its fiscal year 2017 final rule, CMS finalized three additional measures for payment determinations beginning in fiscal year 2018 to meet the requirements specified by the Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT). CMS developed measures of total estimated Medicare spending per beneficiary, discharge to community, and potentially preventable 30-day postdischarge readmission measures for post-acute care providers to meet IMPACT's requirements to develop cross-setting measures regarding resource use and other indicators. CMS also finalized a quality measure to address IMPACT's requirement to develop a measure regarding medication reconciliation for use beginning with 2020 payment determination. This measure requires facilities to conduct drug regimen reviews with follow-up for identified issues.

CMS began publicly reporting two LTCH quality measures on the LTCH Compare website in December 2016, including the share of patients with pressure ulcers that were new or worsened and the rate of the all-cause unplanned readmissions. CMS began public reporting on several additional measures during calendar year 2017. ■

from the LTCH, 16 percent died in the LTCH, and another 13 percent died within 30 days of discharge from the LTCH. Mortality rates for these qualifying cases continued to vary markedly by diagnosis group.

### Providers' access to capital: Implementation of LTCH patient criteria slows investment

Access to capital allows LTCHs to maintain, modernize, and expand their facilities. If LTCHs were unable to



access capital, it might in part reflect problems with the adequacy of Medicare payments since Medicare accounts for about half of LTCH total revenues. However, in prior years, the level of capital investment reflected more about uncertainty regarding changes to regulations and legislation governing LTCHs than about Medicare payment rates. Although the criteria to receive the higher LTCH payment rate specified in the Pathway for SGR Reform Act of 2013 provided more long-term regulatory certainty for the industry compared with prior years, uncertainties regarding the industry's ability to comply with the new patient criteria have resulted in low levels of capital investment. Further, payment reductions to the annual update required by statute limit future growth and reduce the industry's need for capital in the near term.

LTCHs and LTCH companies have been positioning themselves for the changing payment environment. For example, two for-profit companies, Kindred Healthcare Inc. (Kindred) and Select Medical Corporation (Select), which own close to half of all LTCHs, have continued to diversify their portfolios. Such diversification is intended both to improve their ability to control their mix of patients and costs and to limit the impact of payment policy changes in any one post-acute care sector. In addition, both major LTCH chains have shifted their portfolios over the last several years through closures and sales. For example, since 2014, Kindred reduced the number of LTCHs in its portfolio from 97 to 77, while Select has reduced the number of LTCHs it operates from 112 to 101 (Kindred Healthcare 2017, Kindred Healthcare 2015, Select Medical 2017, Select Medical 2015). Many of these sales and closures have occurred in markets with substantial competition from other LTCH providers. For example, during 2016, Kindred acquired five LTCHs from Select, and Select acquired three hospitals from Kindred, most of which were subsequently closed. Kindred completed an agreement to sell 12 LTCHs (a total of 783 licensed beds) to Curahealth, also in 2016 (Kindred Healthcare 2016a, Kindred Healthcare 2016b, Select Medical 2016).

The Commission expects continued industry consolidation, limited need for capital, and limited growth opportunities until after LTCH patient criteria become fully implemented and LTCHs adjust their admission patterns and cost structures to comply with the new payment rules.

## **Medicare's payments and providers' costs: Cost growth exceeded payment growth in 2016**

From 2007 until 2012, LTCHs held cost growth below the rate of increase in the market basket index, a measure of inflation in the prices of goods and services LTCHs buy to provide care. Beginning in 2009 through 2012, payments increased at a faster rate than the rate of provider costs, increasing aggregate Medicare margins from 5.8 percent to 7.6 percent. Starting in 2013 through 2016, however, Medicare payments increased more slowly than the rate of provider costs, resulting in an aggregate 2016 Medicare margin of 4.1 percent across all cases (Figure 11-1; margin data not shown).<sup>14</sup> In its March 2017 report to the Congress, the Commission also calculated a margin, using claims data, for cases that would have met the criteria to qualify to receive the higher LTCH payment rate had the policy been in effect at the time of beneficiary discharge. In 2015, using this claims-based methodology, the Commission calculated an aggregate Medicare margin for qualifying cases of 6.8 percent. Under the same methodology for 2016, the aggregate margin decreased to 6.3 percent. Financial performance in 2016 varied across LTCHs, reflecting differences in cost control and response to payment incentives.

## **Beginning in 2013, reductions in the number of LTCH cases slowed spending growth**

In the first three years of the LTCH PPS (2003 to 2005), Medicare spending for LTCH services grew rapidly, climbing an average of 29 percent per year. CMS's subsequent changes to LTCH payment policies slowed spending growth from 2005 through 2008 to less than 1 percent per year. MMSEA halted or rolled back the implementation of some CMS regulations designed to address issues of excessive payments to LTCHs. As a result, from 2008 through 2010, spending increased by more than 6 percent per year.<sup>15</sup> Although some of the MMSEA provisions continued through fiscal year 2013, spending growth from 2010 through 2013 slowed to 2.1 percent per year on average, in part because of reductions mandated by the Patient Protection and Affordable Care Act of 2010 (PPACA) in Medicare's LTCH payment rate beginning in 2011.<sup>16</sup> From 2013 through 2016, aggregate spending decreased by an average of 2.1 percent per year, with the largest decrease from 2015 through 2016. On a per beneficiary basis, LTCH spending from 2015 through 2016 fell by 5.3 percent, in part because of the



implementation of the patient-level criteria to qualify for the full LTCH payment amount.

### LTCHs continue to restrain cost growth

LTCHs appear to be responsive to changes in payment, adjusting their costs per case when payments per case change. In the first years of the PPS, cost per case increased rapidly after a surge in payment per case (Figure 11-1). However, starting in 2007, growth in cost per case slowed considerably because regulatory changes to Medicare's payment policies for LTCHs slowed growth in payment per case.

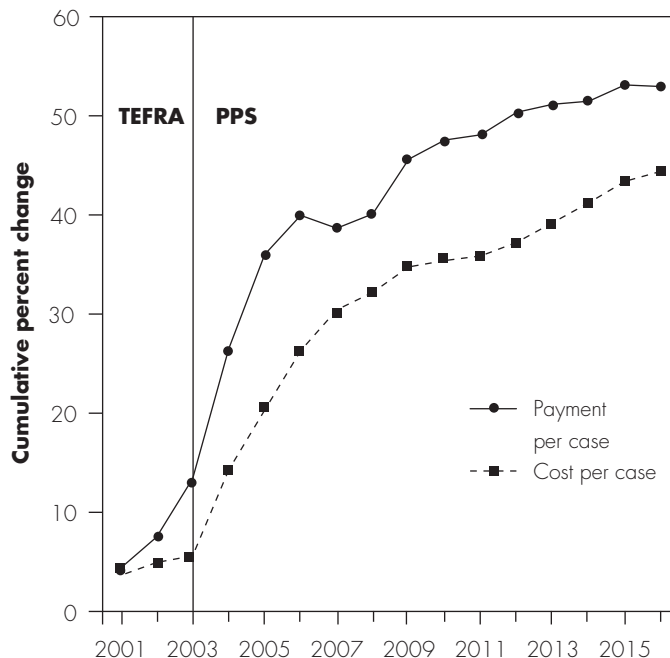
For most of the past decade, LTCHs have held cost growth below the rate of market basket increases, likely because of ongoing concerns about possible changes to Medicare's payment policies for LTCH services. The slowest growth in average cost per case occurred between 2009 and 2011, when it increased less than 1 percent per year. Between 2012 and 2015, the average cost per case increased by about 2 percent per year, including 2.1 percent between 2014 and 2015. Cost growth in 2016 was 1 percent, the slowest growth since 2011 (Figure 11-1).

### Aggregate LTCH margins for all cases decreased

After the LTCH PPS was implemented in fiscal year 2003, margins rose rapidly for all LTCH provider types, climbing to 11.9 percent in 2005. At that point, margins began to fall as growth in payments per case leveled off. In 2008, LTCH margins averaged 3.7 percent, the lowest since the implementation of the LTCH PPS in 2003. From 2009 through 2012, LTCH margins began to climb again as providers consistently held cost growth below payment growth. CMS began implementing a downward adjustment in response to unexpected changes in coding practices that increased payments to LTCHs relative to CMS's estimates in the first year of the PPS, fiscal year 2003. These adjustments in 2013, 2014, and 2015 were intended to bring LTCH payments more in line with what would have been spent under the previous payment method, decreasing the standard federal payment rate by about 3.75 percent in total. Because of these adjustments, the 2013 aggregate LTCH margin was 6.8 percent, down from 7.6 the previous year (Table 11-5, p. 312). As anticipated, the margin fell again in 2014 to 5.2 percent. In 2015, the third and final year of the downward adjustment for budget neutrality, the aggregate LTCH margin fell to 4.6 percent. The aggregate LTCH margin fell in 2016 to 4.1 percent primarily because of decreases in Medicare

**FIGURE 11-1**

**LTCH cost growth in 2016 was the slowest since 2011**



Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Percentage changes are calculated based on consistent two-year cohorts of LTCHs.

Source: MedPAC analysis of Medicare cost report data from CMS.

payment for discharges that do not meet the criteria to receive the full LTCH payment. However, despite this payment policy change, LTCHs treating higher shares of Medicare beneficiaries had stronger financial performance under than those with lower shares.

### Differences in cost growth across the industry

Consistent with prior years, financial performance in 2016 varied across LTCHs. For-profit LTCHs (which accounted for more than three-quarters of all LTCHs and over 85 percent of LTCH discharges) had the highest margins at 5.7 percent (Table 11-5, p. 312). The aggregate margins for nonprofit LTCHs (which accounted for less than 20 percent of all LTCHs and 12 percent of LTCH discharges) was -4.7 percent, an increase from -6.0 percent in 2015. From 2015 through 2016, the for-profit LTCH margin decreased by 0.8 percentage point. The decline in margin

**TABLE  
11-5****The aggregate LTCH Medicare margin for all cases fell to 4.1 percent in 2016**

Type of LTCH	Share of discharges	2010	2011	2012	2013	2014	2015	2016
All	100%	6.7%	6.9%	7.6%	6.8%	5.2%	4.6%	4.1%
Urban	96	7.0	7.1	7.7	7.0	5.2	4.7*	4.3
Rural	4	0.0	2.7	3.1	2.5	4.1	2.9*	-0.5
Nonprofit	12	-0.3	0.3	-0.3	-1.1	-2.2	-6.0	-4.7
For profit	87	8.3	8.4	9.3	8.7	7.1	6.5	5.7
Government	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility share of Medicare days:								
Less than or equal to 75%	73	6.1	7.0	7.0	6.3	4.5	4.0	3.3
Greater than 75%	27	7.9	7.0	9.2	8.7	7.3	6.4	6.6

Note: LTCH (long-term care hospital), N/A (not applicable). Margins for government-owned providers are not shown. They operate in a different context from other providers, so their margins are not necessarily comparable. Percentages may not sum to 100 percent due to rounding.

\*CMS adopted new core-based statistical area codes for LTCHs beginning fiscal year 2015; this change reclassified several facilities as urban that had previously been classified as rural, and therefore the margins across categories of urban and rural of facilities before 2015 should not be compared.

Source: MedPAC analysis of Medicare cost report data from CMS.

for for-profit LTCHs resulted from growth in cost that exceeded growth in payment per case.

With the exception of 2014, nonprofit LTCHs have generally experienced higher cost growth than for-profit entities. In 2016, nonprofit LTCHs again experienced a higher rate of cost growth compared with for-profit LTCHs. When we examine cumulative cost growth over the last decade, we find that for-profit facilities exhibited cost growth levels about one-third lower than that of nonprofit LTCHs.

The comparatively poor financial performance of nonprofit LTCHs reflects a number of differences in providers' ability to control their costs. First, though occupancy rates in 2016 for the two groups were fairly similar (65.7 percent for nonprofit LTCHs vs. 68.6 percent for for-profit LTCHs), nonprofit LTCHs were smaller and had fewer total cases than for-profit LTCHs (an average of 407 vs. 507, respectively). About 69 percent of nonprofit LTCHs had fewer than 50 beds compared with about half of for-profit LTCHs. Nonprofit LTCHs were therefore less likely than for-profit LTCHs to benefit from economies of scale. In addition, nonprofit LTCHs tend to be less able

to control their input costs than for-profit LTCHs that are members of large chains. For-profit LTCH chains that own or network with other types of post-acute care providers in a single market likely have a distinct advantage over other LTCHs because they are better able to control their mix of patients and lengths of stay (which is especially true if the providers are vertically integrated). Nonprofit LTCHs had a larger share of cases with extraordinarily high costs (22.9 percent of nonprofit LTCHs' cases qualified for high-cost outlier payments vs. 15.1 percent of for-profit LTCHs' cases), although it is not clear whether this difference stems from differences in efficiency, case complexity, or both. Nonprofit LTCHs had a higher share of short-stay outliers than for-profit LTCHs (32.6 percent vs. 29.9 percent, respectively). Nonprofit LTCHs also had a higher share of very short-stay outliers (16.4 percent compared with 15.4 percent in for-profit LTCHs), which typically pay less than short-stay outliers, and thus received reduced payments for a larger share of their Medicare patients.

Differences in case mix between nonprofit and for-profit LTCHs are difficult to evaluate. By some measures, nonprofit LTCHs appear to care for a somewhat sicker patient population. For example, a higher share of cases in

nonprofit LTCHs qualified for high-cost outlier payments. Similarly, nonprofit LTCHs had a higher share of cases that were high-cost outliers during their immediately preceding ACH stay (19.8 percent compared with 16.6 percent of for-profit LTCHs' cases). Another indicator suggesting a sicker patient population is length of stay: The average Medicare-covered stay in nonprofit LTCHs was 2 days longer than in for-profits (28 days vs. 26 days, respectively). However, longer stays could also result from inefficient care. Other indicators of patient mix suggest fewer differences between the two types of facilities. The median case mix in nonprofit and for-profit LTCHs was similar. Nonprofit and for-profit LTCHs also had similar shares of cases that had ICU stays lasting longer than three days during an immediately preceding ACH stay.

### High-margin LTCHs had lower unit costs

In 2016, higher unit costs were the primary driver of differences in financial performance between LTCHs with the lowest and highest Medicare margins (those in the bottom and top 25th percentiles of Medicare margins) (Table 11-6).<sup>17</sup> After accounting for differences in case mix and local market input price levels, low-margin LTCHs had standardized costs per discharge that were 20 percent higher than high-margin LTCHs (\$35,770 vs. \$27,501, respectively). Low-margin LTCHs likely benefited less from economies of scale. Compared with their high-margin counterparts, low-margin LTCHs had fewer cases overall (an average of 427 compared with 520 for high-margin LTCHs) and lower occupancy rates (56 percent vs. 73 percent, respectively). Notably, high-margin LTCHs had a higher average share of Medicare discharges compared with low-margin LTCHs (68 percent vs. 57 percent, respectively), which suggests that Medicare patients are financially desirable.

Outlier payments made up a larger share of total payments to low-margin LTCHs compared with high-margin LTCHs (7 percent compared with 15 percent, data not shown). High-cost outlier payments per discharge for low-margin LTCHs averaged more than double the amount paid to high-margin LTCHs (\$5,947 vs. \$2,607, respectively). When these outlier payments were removed from total payments, we found that the standard payment per discharge for low-margin LTCHs was 9.6 percent lower than that for high-margin LTCHs (\$33,467 vs. \$37,019, respectively). This difference was in part because the low-margin LTCHs had a lower average case mix (1.12 vs. 1.17 for high-margin LTCHs) and in part because they cared for a disproportionate share of short-stay outlier

**TABLE  
11-6**

### LTCHs in the top quartile of Medicare margins in 2016 had lower costs

Characteristics	High-margin quartile	Low-margin quartile
Mean margin	17.7%	-17.5%
Mean total discharges per facility (all payers)	520	427
Medicare patient share	68%	57%
Average length of stay (in days)	25	26
Occupancy rate	73%	56%
Mean CMI	1.17	1.12
Mean per discharge:		
Standardized costs	\$27,501	\$35,770
Standard Medicare payment*	37,019	33,467
High-cost outlier payments	2,607	5,947
Share of:		
SSO cases	27%	34%
Medicare cases from		
primary referring ACH	35	41
LTCHs that are for profit	88	63

Note: LTCH (long-term care hospital), CMI (case-mix index), SSO (short-stay outlier), ACH (acute care hospital). Includes only established LTCHs—those that filed valid cost reports in both 2015 and 2016. High-margin-quartile LTCHs were in the top 25 percent of the distribution of Medicare margins. Low-margin-quartile LTCHs were in the bottom 25 percent of the distribution of Medicare margins. Standardized costs have been adjusted for differences in case mix and area wages. Case-mix indexes have been adjusted for differences in short-stay outliers across facilities. The “primary referring ACH” is the acute care hospital from which the LTCH receives a plurality of its Medicare patients. Government providers were excluded. \*Excludes outlier payments.

Source: MedPAC analysis of LTCH cost reports and Medicare Provider Analysis and Review data from CMS.

cases, which often are paid at reduced rates. Such cases made up about one-third of low-margin LTCHs' cases compared with roughly a quarter of cases in high-margin LTCHs.

### Financial incentives to serve Medicare beneficiaries across LTCHs

Another factor we consider when evaluating the adequacy of payments is whether providers have any financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a

**TABLE  
11-7**

**The aggregate LTCH Medicare margin for cases that qualify for payment under the LTCH PPS totaled 6.3 percent in 2016**

Type of LTCH	Margin
All	6.3%
Urban	6.4
Rural	1.4
Nonprofit	-0.3
For profit	7.6
Government	N/A

Note: LTCH (long-term care hospital), PPS (prospective payment system), N/A (not available). Margins for government-owned providers are not shown. They operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of cost report data from CMS.

provider with excess capacity compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. In contrast, if payments do not cover the marginal costs, the provider may have a disincentive to care for Medicare beneficiaries. If we approximate marginal cost as total Medicare cost minus fixed building and equipment cost, then marginal profit is:

Marginal profit = (payments for Medicare services – (total Medicare costs – fixed building and equipment costs)) / Medicare payments

This comparison is a lower bound on the marginal profit because we ignore any labor costs that are fixed. In 2016, the average LTCH marginal profit was 19.5 percent across all Medicare cases, virtually unchanged from 19.6 percent in 2015. This share suggests that LTCHs with available beds have a financial incentive to increase their occupancy rates with Medicare beneficiaries and represents a positive indicator of access.

## LTCH margins for cases meeting patient-level criteria decreased

CMS began phasing in a payment change for LTCH cases that do not meet certain criteria specified in the Pathway for SGR Reform Act of 2013 during fiscal year 2016 (see text box on implementation of LTCH legislation, pp. 316–317). Under this new dual payment structure, CMS will pay for Medicare cases that meet the criteria under the LTCH PPS. LTCH cases not meeting the specified criteria receive a “site-neutral” rate based on the lesser of an IPPS-comparable amount or 100 percent of the cost for the case. In its March 2017 report to the Congress, the Commission calculated a margin for cases that would have met the criteria to qualify to receive the higher LTCH payment rate had the policy been in effect at the time of beneficiary discharge, using claims data combined with cost-to-charge ratios for each LTCH. In 2015, using this methodology, the Commission calculated an aggregate Medicare margin for qualifying cases of 6.8 percent. Using the same methodology for 2016, the aggregate margin decreased to 6.3 percent (Table 11-7). Similar to the aggregate Medicare margin across all LTCH discharges, urban facilities and for-profit facilities were more profitable compared with rural facilities or nonprofit facilities.

## How should Medicare payments change in 2019?

We project LTCH margins for 2018 based on margins in 2016 and policy changes in 2017 and 2018. Those changes that affect our estimate of the 2018 margin include:

- a market basket increase of 2.8 percent for fiscal year 2017, offset by reduction required by PPACA, totaling 1.05 percentage points for a net update of 1.75 percent;<sup>18</sup>
- a market basket increase of 2.70 percent for fiscal year 2018, offset by PPACA-required reductions totaling 1.35 percentage points for a net update of 1.35 percent;<sup>19</sup>
- an increase in expected short-stay outlier payments based on an increase in costs in 2017; and
- applicable high-cost outlier payment adjustments.

As required by the Pathway for SGR Reform Act of 2013, beginning in 2016, LTCH discharges for beneficiaries who



do not meet the specified patient criteria are paid differently from the LTCH standard federal payment rate. Once fully phased in, the site-neutral payment for these beneficiaries will equal the lesser of an amount based on Medicare's ACH IPPS or 100 percent of cost. The Commission expects that substantial changes in provider behavior will mitigate the impact that the new payment methodology has on LTCH providers (see text box on the implementation of LTCH legislation, pp. 316–317). The LTCH industry has repeatedly demonstrated its responsiveness to payment policy changes, and the Commission has no reason to believe that the response to these most recent changes will be any different. This responsiveness, combined with the multiyear policy phase-in, complicates the projection of future margins. For example, the two largest for-profit LTCH chains have taken different approaches to the new policy, which seem to be, based on limited data, either changing admission patterns significantly or reducing cost. There is less certainty regarding how LTCHs not included in large chains (including nonprofit LTCHs) will respond to the new patient-specific criteria. In addition, there is an industry-wide focus on lower cost sites of post-acute care through several initiatives, including the expansion of accountable care organizations and the ACH Value-Based Purchasing Program; therefore, it is reasonable to expect that changes in practice and referral patterns across the industry from these programs will result in lower LTCH use.

Based on historical trends, we expect cost growth for cases that meet the criteria to receive the full LTCH payment amount to be slightly lower than payment growth and below market basket level. The lower cost growth found in 2016 shows the industry's capability to reduce costs in response to the phase-in of the patient-specific criteria.

In our projection of the LTCH margin for fiscal year 2018, we excluded cases not paid under the standard LTCH payment rate because payment for these cases also relies on the update to the IPPS rate or the individual LTCH's growth in cost. We thus calculated a projected margin using only cases that would have qualified to receive the full LTCH standard payment rate. From 2013 through 2016, these cases were more profitable than cases that do not meet the criteria specified by law. Using the most recently available claims data combined with cost-to-charge ratios for each LTCH, we calculated the 2016 margin for cases that would have qualified to receive the full LTCH standard payment rate to equal 6.3 percent, 2.2 percentage points higher than the total aggregate Medicare margin (4.1 percent). Using a three-year historical average of cost growth, we project

that LTCHs' aggregate Medicare margin for qualifying cases paid under the LTCH PPS will be 4.7 percent in 2018, reflecting current policy and cost structure for these cases.

On the basis of these indicators, the Commission concludes that LTCHs can continue to provide Medicare beneficiaries with access to safe and effective care and accommodate changes in their costs with no update to LTCH payment rates in fiscal year 2019. As we have done historically, we plan to assess both our cost growth assumptions and methodology for calculating the margin on cases that would qualify for the standard LTCH payment rate as the policy is phased in and data reflecting the new policy become available.

This update recommendation applies to the Medicare LTCH PPS base payment rate. That is, it applies to payments for discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 and to the portion of the blended payment that reflects the LTCH PPS payment rate for discharges that do not meet the specified criteria (applicable during the policy's phase-in period).

## RECOMMENDATION 11

**The Secretary should eliminate the fiscal year 2019 Medicare payment update for long-term care hospitals.**

## RATIONALE 11

The aggregate Medicare margin for 2016 was positive, indicating that LTCHs are able to operate under current payment rates. We continue to expect LTCHs to quickly respond to the new payment incentives. We estimate that the supply of LTCH facilities and beds decreased slightly in 2016. Although the number of LTCH stays decreased, both in total and per capita, LTCH occupancy rates remain well under capacity, suggesting that LTCHs have continued capacity to provide care to Medicare beneficiaries. While the limited quality trends that we measure appear to be stable across all cases, we will continue to monitor these trends under the new dual payment system. We will also begin to evaluate the utility of the new CMS LTCH quality measures once they have sufficiently matured. LTCHs' access to capital does not reflect LTCH PPS payment rates but, rather, the implementation of the dual payment system beginning in fiscal year 2016. Based on historical trends, we also expect to see increases in cost growth in 2017 and 2018 as the new payment policy continues to be implemented. Given the projected positive margin for qualifying cases, the

## Implementation of long-term care hospital legislation

The Pathway for SGR Reform Act of 2013 established “site-neutral” payments for specified cases in long-term care hospitals (LTCHs), beginning in fiscal year 2016. Since 2016, only qualifying cases are eligible to receive the full LTCH prospective payment system (PPS) standard payment rate. It will be some time before we see LTCHs’ full response to the legislation because this policy is being implemented based on the start of each LTCH’s fiscal year, which varies across LTCHs. Further, for four years (2016 through 2019), it is phased in at 50 percent of the LTCH PPS standard payment rate and 50 percent of the site-neutral payment rate.

In discussing LTCH strategies in 2017 to maintain profitability after implementation, the Commission heard a variety of responses from the industry. For example, LTCHs in one large for-profit chain are admitting only beneficiaries who qualify to receive the full LTCH PPS standard payment rate. As of September 30, 2016, this LTCH chain reported that close to 100 percent of Medicare discharges met the criteria to receive the full LTCH PPS standard rate. Initially, the average daily census across these LTCHs had dropped by about 2.5 patients per hospital per day; however, as of September 30, 2017, patient days increased by 2.7 percent and occupancy increased by 4 percentage points compared with the same quarter of the prior year (2016) (Select Medical 2017). In addition, the admitted Medicare cases have higher case mix and thus result in higher revenue per day than before the implementation of the dual payment policy (Select Medical 2016).

Another large for-profit chain began receiving Medicare payment for discharges under the dual payment structure on September 1, 2016. In its third quarter 2017 earnings release, this chain reported an 11 percent decrease in Medicare admissions compared with the third quarter of 2016, holding the number of facilities constant (Kindred Healthcare 2017).<sup>20</sup> Medicare revenue per admission initially decreased by about 5 percent when the dual payment policy began. The revenue per admission has begun to increase again, gaining just over 1 percent since fall of 2016. Occupancy rates remain below pre-policy levels (Kindred Healthcare 2016b).

LTCHs have discussed other strategies, including expanding their market presence, reducing costs associated with supplies and pharmacy, expanding the payer mix to include more managed care, and reducing costs for nonqualifying cases through changes in staff mix. The success of these strategies will likely vary by facility and market area, and it will be another several years before the data reflect facilities’ full responses to this new policy.

Overall, the Commission found that total facility payments per case remained stable from 2015 to 2016, and overall costs per case increased by about 1 percent during the same time (Figure 11-1, p. 311). A preliminary analysis of aggregate Medicare costs and payments for facilities with cost reports reflecting the dual payment structure compared with facilities with cost reports that do not include any of the dual payment structure found wide variation across payment and cost growth and, therefore, total Medicare margin (Table 11-

*(continued next page)*

2019 LTCH base payment rate should be the same as the 2018 rate.

As discussed in Chapter 7, before implementing a unified PAC PPS in 2021, the Commission recommends that the Congress direct the Secretary to establish LTCH payments using a blend of the current LTCH PPS relative weights and the unified PAC PPS weights. The recommendation to blend relative weights would not affect the *level* of

payments to a setting but, rather, the *distribution* of those payments across conditions. A blend of the relative weights would redistribute payments within the LTCH setting by increasing payments for medically complex patients and lowering payments for patients with less complex conditions. Based on an LTCH’s mix of patients, the blend would have the effect of raising payments to nonprofit LTCHs and lowering payments to for-profit LTCHs. The redistribution across providers enables



## Implementation of long-term care hospital legislation (cont.)

8). Cost reports without any implementation of the dual payment structure found growth in payment per case of about 3 percent and growth in cost per case of about 2 percent. For these facilities, cost and payment growth resulted in an aggregate margin of 5.2 percent across all Medicare cases. Facilities with cost reports reflecting the dual payment structure reduced costs per case by about 4 percent, whereas overall payments per case decreased by about 9 percent. The greater reduction in payment compared with cost resulted in an aggregate margin of 1.4 percent across all Medicare cases for these facilities. However, further analysis found that there are substantial differences in cost and payment growth, and therefore aggregate Medicare margin, based on the share of cases paid the “site-neutral” rate.

As expected, on an aggregate basis, facilities with a high portion of discharges paid under the LTCH PPS had higher margins compared with facilities with a lower share of discharges paid under the LTCH PPS. For example, the aggregate Medicare margin for facilities with less than 15 percent of discharges paid the site-neutral rate (or more than 85 percent of Medicare cases paid under the LTCH PPS) was 5.0 percent in 2016. In contrast, the total Medicare margin across all cases for facilities with 15 percent or more discharges paid the site-neutral rate totaled 0.2 percent in 2016. This analysis suggests that facilities with a high portion of cases paid under the LTCH PPS will remain profitable under the dual payment structure. ■

**TABLE  
11-8**

**Aggregate Medicare margin for all cases varied by share of cases that qualified to receive the LTCH PPS rate**

	Payment growth per case 2015–2016	Cost growth per case 2015–2016	Aggregate Medicare margin 2016
All facilities	0%	1%	4.1%
Facilities without implementation of dual payment structure	3	2	5.2
Facilities with implementation of the dual payment structure	–9	–4	1.4
<15 percent of Medicare cases paid as site neutral	4	7	5.0
≥15 percent of Medicare cases paid as site neutral	–13	–7	0.2

Note: LTCH (long-term care hospital), PPS (prospective payment system). “Facilities without implementation of the dual payment structure” were identified as LTCHs with cost reports that do not reflect the new payment policy specified under the Pathway for SGR Reform Act of 2013. “Facilities with implementation of the dual payment structure” were identified as LTCHs with cost reports reflecting the new payment policy. “Site-neutral” refers to the cases that do not meet the criteria to receive the full LTCH PPS standard payment rate as established by the Pathway for SGR Reform Act of 2013.

Source: MedPAC analysis of LTCH cost report data from CMS.

the Commission to recommend, and policymakers to implement, a level of payments that would better align payments with the cost of care.

### IMPLICATIONS 11

#### Spending

- This recommendation would decrease federal program spending relative to the statutory payment update by

between \$50 million and \$250 million in 2019 and by less than \$1 billion over five years.

#### Beneficiary and provider

- This recommendation is not expected to affect Medicare beneficiaries’ access to care or providers’ willingness or ability to furnish care. ■

## Endnotes

---

- 1 The Medicare, Medicaid, and SCHIP Extension Act of 2007 also requires LTCHs to have a patient review process that screens patients to ensure appropriateness of admission and continued stay, physician on-site availability on a daily basis, and interdisciplinary treatment teams of health care professionals. The Pathway for SGR Reform Act of 2013 specifies that, beginning in fiscal year 2020, LTCHs will also be required to maintain a certain share of beneficiaries who qualify to receive the full LTCH standard payment rate.
- 2 More information on the prospective payment system for LTCHs is available at [http://www.medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_17\\_ltch\\_finalaaa311adfa9c665e80adff00009edf9c.pdf?sfvrsn=0](http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_17_ltch_finalaaa311adfa9c665e80adff00009edf9c.pdf?sfvrsn=0).
- 3 High-cost outlier cases are identified by comparing their costs with a threshold that is the MS–LTC–DRG payment for the case plus a fixed loss amount (\$16,423 in 2016). Medicare pays 80 percent of the LTCH’s costs above the threshold. In fiscal year 2016, high-cost outlier payments were made for about 16 percent of LTCH cases. The prevalence of high-cost outlier cases varied by LTCH ownership. About 15 percent of cases in for-profit LTCHs were high-cost outliers compared with 23 percent of cases in nonprofit LTCHs. Historically, some case types have been far more likely to be high-cost outliers than others. For example, almost a quarter of cases assigned to MS–LTC–DRG 4 (tracheostomy with prolonged mechanical ventilation) typically receive high-cost outlier payments each year.
- 4 Not all LTCHs’ cost reporting start dates are the same, so implementing the dual payment structure began for LTCHs throughout fiscal year 2016.
- 5 Previously, the amount Medicare paid to LTCHs for an SSO case equaled the lowest of the following payment formulas: 100 percent of the cost of the case, 120 percent of the per diem amount for the MS–LTC–DRG multiplied by the patient’s length of stay, the full MS–LTC–DRG payment, or a blend of the IPPS amount for the same type of case and 120 percent of the MS–LTC–DRG per diem amount. The LTCH per diem payment amount makes up more of the total amount as the patient’s length of stay increases.
- 6 MMSEA and subsequent legislation allowed exceptions to the moratorium for (1) LTCHs that began their qualifying period (demonstrating an average Medicare length of stay greater than 25 days) on or before December 29, 2007; (2) entities that had a binding or written agreement with an unrelated party for the construction, renovation, lease, or demolition of an LTCH, with at least 10 percent of the estimated cost of the project already expended on or before December 29, 2007; (3) entities that had obtained a state certificate of need on or before December 29, 2007; (4) existing LTCHs that had obtained a certificate of need for an increase in beds issued on or after April 1, 2005, and before December 29, 2007; and (5) LTCHs that are located in a state with only one other LTCH and that sought to increase beds after the closure or decrease in the number of beds of the state’s other LTCH.
- 7 The Pathway for SGR Reform Act of 2013, as amended by the Protecting Access to Medicare Act of 2014, allows exceptions to the moratorium for (1) LTCHs that began their qualifying period (demonstrating an average Medicare length of stay greater than 25 days) on or before April 1, 2014; (2) entities that had a binding or written agreement with an unrelated party for the construction, renovation, lease, or demolition of an LTCH, with at least 10 percent of the estimated cost of the project already expended on or before April 1, 2014; and (3) entities that had obtained a state certificate of need on or before April 1, 2014.
- 8 The anomalous cost reporting trends during this period make it difficult to accurately compare changes in the number of LTCH facilities and LTCH beds using cost report data in 2013, 2014, and 2015. The Commission requires cost reports to span 10 to 13 months for inclusion in the margin analysis. Thirty-five LTCHs included in the 2014 analysis were excluded from the 2015 analysis because of changes in cost reporting periods, closures, or status as an all-inclusive rate provider. Twenty-seven LTCHs that were not included in the 2014 analysis because of changes in cost reporting periods were included in the 2015 analysis. Combined, these facility changes resulted in eight fewer facilities in the 2015 analysis compared with 2014.
- 9 The Medicare Provider of Services (POS) file is an alternate data source for determining LTCH supply. The POS file includes a larger number of facilities than is found in the cost report file. The cost report file provides a more conservative estimate of total capacity because some LTCHs may not yet have filed a cost report for the applicable year when we completed our analysis, while others may have been exempt from filing cost reports because of low Medicare volume or because they are paid under an all-inclusive rate. However, POS data may overstate the total number of LTCHs because facilities that close may not be immediately removed from the file.
- 10 In contrast to the new CBSA codes used for the analysis as presented in Table 11-1 (p. 305), we found that applying the former CBSA codes to the 2015 data resulted in 368 facilities classified as urban and 23 facilities as rural.

- 11 Since the implementation of the patient-specific criteria began at individual LTCHs based on their unique cost reporting period start date, in 2016, the dual payment rate affected about 35 percent of discharges. For this analysis, we assumed that the policy was fully implemented for the entire year.
- 12 Across the top 25 diagnoses for both qualifying cases and all cases, 22 MS–LTC–DRGs overlap. The diagnoses that do not overlap in the top 25 represent relatively low-volume MS–LTC–DRGs. The list of top 25 MS–LTC–DRGs based on all cases captures about three-quarters of qualifying cases.
- 13 We observed a higher readmission rate (21.7 percent) for cases with respiratory diagnoses with mechanical ventilation lasting less than 96 hours (MS–LTC–DRG 208). However, a higher rate of readmission is expected for this group because it is defined in part by the length of time a service (mechanical ventilation) is received. Any patient with a principal respiratory diagnosis with use of mechanical ventilation who is readmitted to a short-term ACH within 4 days is assigned to MS–LTC–DRG 208, while a similar patient who stays in the LTCH for a longer period is likely assigned to “respiratory diagnosis with mechanical ventilation lasting more than 96 hours” (MS–LTC–DRG 207). When we combined cases assigned to MS–LTC–DRGs 207 and 208 and recalculated the rate of readmission, we found that 12.6 percent of these cases were readmitted in 2016.
- 14 The 2016 aggregate all-payer margin was 3.1 percent across all cases in LTCHs.
- 15 Another factor was growth in the reported patient case-mix index (CMI), which measures the expected costliness of a facility’s patients (Centers for Medicare & Medicaid Services 2010, Centers for Medicare & Medicaid Services 2009, Centers for Medicare & Medicaid Services 2008, Centers for Medicare & Medicaid Services 2007, Centers for Medicare & Medicaid Services 2006). Refinements to the LTCH case-mix classification system, implemented in October 2007, likely led to more complete documentation and coding of the diagnoses, procedures, services, comorbidities, and complications that are associated with payment, thus raising the average CMI, even though patients may have been no more resource intensive than they were previously (Centers for Medicare & Medicaid Services 2009, Medicare Payment Advisory Commission 2009, RAND Corporation 1990). Although some of the increase in LTCHs’ CMI between 2008 and 2009 was due to growth in the intensity and complexity of the patients admitted, CMS estimated that the case-mix increase attributable to documentation and coding improvements was 2.5 percent (Centers for Medicare & Medicaid Services 2010, Centers for Medicare & Medicaid Services 2009). Those improvements contributed to growth in payments to providers without corresponding increases in providers’ costs. CMS reduced the update to the LTCH base payment rate in fiscal years 2010 and 2011 to partly offset payment increases due to documentation and coding improvements between 2007 and 2009.
- 16 PPACA specified that the annual update to the LTCH standard payment rate in 2011 be reduced by half a percentage point. That requirement, combined with a CMS offset to the 2011 update to account for past improvements in documentation and coding, resulted in a negative update to the LTCH payment rate in 2011. PPACA also mandated reductions in the LTCH standard payment rate of 1.1 percent in 2012, 0.8 percent in 2013, 0.8 percent in 2014, 0.7 percent in 2015, and 0.7 percent in 2016.
- 17 Many new LTCHs operate at a loss for a period after opening. For this analysis of high-margin and low-margin LTCHs, we examined only LTCHs that submitted valid cost reports in both 2015 and 2016. We excluded government-owned LTCHs.
- 18 The 2017 LTCH PPS market basket increase equaled 2.8 percent; then, as required by law, CMS applied a 1.05 percentage point reduction to account for multifactor productivity (0.3 percentage point) and an additional factor (0.75 percentage point).
- 19 The 2018 payment update equaled the LTCH PPS market basket increase of 2.7 percent, less the required multifactor productivity adjustment of 0.6 percentage point and less the required 0.75 percentage point reduction.
- 20 This chain consolidated its presence in several geographic markets, reducing the number of LTCHs between 2016 and 2017. Medicare admissions decreased by over 22 percent based on all LTCHs owned by this chain in 2016 (Kindred Healthcare 2017).

## References

---

- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2010. Medicare program; hospital inpatient prospective payment systems for acute care hospitals and the long term care hospital prospective payment system changes and FY 2011 rates; provider agreements and supplier approvals; and hospital conditions of participation for rehabilitation and respiratory care services; Medicaid program: Accreditation for provider of inpatient psychiatric services. Final rule. *Federal Register* 75, no. 157 (August 16): 50042–50677.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2009. Medicare program; changes to the hospital inpatient prospective payment systems for acute care hospitals and fiscal year 2010 rates; and changes to the long term care hospital prospective payment system and rate years 2010 and 2009 rates. Final rule. *Federal Register* 74, no. 165 (August 27): 43754–44236.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2008. Medicare program; prospective payment system for long-term care hospitals RY 2009; annual payment rate updates, policy changes, and clarifications; and electronic submission of cost reports: Revision to effective date of cost reporting period. Final rule. *Federal Register* 73, no. 91 (May 9): 26787–26874.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2007. Medicare program; prospective payment system for long-term care hospitals RY 2008; annual payment rate updates and policy changes; and hospital direct and indirect graduate medical education policy changes. Final rule. *Federal Register* 72, no. 91 (May 11): 26870–27029.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2006. Medicare program; prospective payment for long-term care hospitals RY 2007; annual payment rate updates, policy changes, and clarification. Final rule. *Federal Register* 71, no. 92 (May 12): 27798–27939.
- Dalton, K., D. Kennell, S. Bernard, et al. 2012. *Determining medical necessity and appropriateness of care for Medicare long-term care hospitals (LTCHs): Report on site visits to IPPS critical care services and LTCHs*. Prepared under contract by Kennell and Associates Inc. and Research Triangle International for the Centers for Medicare & Medicaid Services. Baltimore, MD: CMS.
- Kahn, J. M., N. M. Benson, D. Appleby, et al. 2010. Long-term acute care hospital utilization after critical illness. *Journal of the American Medical Association* 303, no. 22 (June 9): 2253–2259.
- Kindred Healthcare. 2017. Kindred Healthcare reports third quarter 2017 results. News release. November 6. <http://investors.kindredhealthcare.com/news-releases/news-release-details/kindred-healthcare-reports-third-quarter-2017-results>.
- Kindred Healthcare. 2016a. Kindred completes sale of 12 LTAC hospitals to Curahealth, advancing LTAC portfolio optimization strategy. News release. October 3. <http://investors.kindredhealthcare.com/news-releases/news-release-details/kindred-completes-sale-12-ltac-hospitals-curahealth-advancing>.
- Kindred Healthcare. 2016b. Kindred Healthcare updates strategy and reports third quarter 2016 results. News release. November 7. <http://investors.kindredhealthcare.com/kindred-healthcare-updates-strategy-and-reports-third-quarter-2016-results>.
- Kindred Healthcare. 2015. Kindred Healthcare reports third quarter 2015 results. News release. November 4. <http://investors.kindredhealthcare.com/news-releases/news-release-details/kindred-healthcare-reports-third-quarter-2015-results>.
- Mayr, F. B., S. Yende, W. T. Linde-Zwirble, et al. 2010. Infection rate and acute organ dysfunction risk as explanations for racial differences in severe sepsis. *Journal of the American Medical Association* 303, no. 24 (June 23): 2495–2503.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- National Association of Long Term Hospitals. 2017. *State of the long term care hospital sector: Access to care for Medicare beneficiaries*. West Hartford, CT: NALTH.
- RAND Corporation. 1990. *Methodology for measuring case-mix change: How much change in the case mix is DRG creep?* E–90–5. Arlington, VA: RAND Corporation. April.
- Select Medical. 2017. Select Medical Holdings Corporation announces results for its third quarter ended September 30, 2017. [https://www.selectmedical.com/uploadedFiles/Content/Investor\\_Relations/Earnings\\_Releases/2017-Q3-Earnings-Release.pdf](https://www.selectmedical.com/uploadedFiles/Content/Investor_Relations/Earnings_Releases/2017-Q3-Earnings-Release.pdf).
- Select Medical. 2016. Select Medical Holdings Corporation announces results for third quarter ended September 30. [http://www.selectmedical.com/uploadedFiles/Content/Investor\\_Relations/Earnings\\_Releases/2016-Q3-Earnings-Release.pdf](http://www.selectmedical.com/uploadedFiles/Content/Investor_Relations/Earnings_Releases/2016-Q3-Earnings-Release.pdf).
- Select Medical. 2015. Q3 2015 Select Medical Holdings Corporation earnings conference call, October 30.

# CHAPTER 12

---

## Hospice services

---

## R E C O M M E N D A T I O N

- 12** The Congress should eliminate the fiscal year 2019 update to the Medicare payment rates for hospice services.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1



## Hospice services

### Chapter summary

The Medicare hospice benefit covers palliative and support services for beneficiaries who are terminally ill with a life expectancy of six months or less if the illness runs its normal course. Beneficiaries may elect the Medicare hospice benefit; in so doing, they agree to forgo Medicare coverage for conventional treatment of their terminal illness and related conditions. In 2016, more than 1.4 million Medicare beneficiaries (including nearly 50 percent of decedents) received hospice services from more than 4,380 providers, and Medicare hospice expenditures totaled about \$16.8 billion.

### Assessment of payment adequacy

The indicators of payment adequacy for hospices—beneficiaries’ access to care, quality of care, provider access to capital, and Medicare payments relative to providers’ costs—are positive.

**Beneficiaries’ access to care**—Hospice use among Medicare beneficiaries has grown substantially in recent years, suggesting greater awareness of and access to hospice services. In 2016, hospice use increased across all demographic and beneficiary groups examined. However, rates of hospice use remained lower for minority beneficiaries than for White beneficiaries.

- **Capacity and supply of providers**—The number of hospice providers increased by about 4.4 percent in 2016, due to growth in the number of

### In this chapter

- Are Medicare payments adequate in 2018?  
.....
- How should Medicare payments change in 2019?  
.....

for-profit hospices, continuing a more than decade-long trend of substantial market entry by for-profit providers.

- ***Volume of services***—In 2016, the proportion of beneficiaries using hospice services at the end of life continued to grow, and length of stay among decedents increased slightly. Of the total Medicare beneficiary decedents in 2016, 49.7 percent used hospice, up from 48.6 percent in 2015. Between 2015 and 2016, average length of stay among decedents increased from 86.7 days to 87.8 days, and median length of stay increased from 17 to 18 days.

***Quality of care***—Hospices’ performance on seven quality measures related to processes of care at hospice admission is generally high and increased between 2015 and 2016. These measures focus on pain screening, pain assessment, dyspnea (shortness of breath) screening, dyspnea treatment, documentation of treatment preferences, addressing beliefs and values if desired by the patient, and provision of a bowel regimen for patients treated with an opioid. In 2016, most hospices scored high (93 percent or higher) on six of the seven measures, while performance on the pain assessment measure was lower and more varied.

***Providers’ access to capital***—Hospices are not as capital intensive as some other provider types because they do not require extensive physical infrastructure. Continued growth in the number of for-profit providers (a more than 7 percent increase in 2016) suggests capital is available to for-profit providers. Less is known about access to capital for nonprofit freestanding providers, for which capital may be more limited. Hospital-based and home health–based hospices have access to capital through their parent providers.

***Medicare payments and providers’ costs***—The aggregate 2015 Medicare margin, which is an indicator of the adequacy of Medicare payments relative to providers’ costs, was 10.0 percent, up from 8.2 percent in 2014. The projected 2018 aggregate Medicare margin is 8.7 percent.

On the basis of strong financial performance and other strong positive indicators of payment adequacy, the Commission recommends no update for the 2019 Medicare hospice payment rates. ■

---

## Background

---

Medicare began offering the hospice benefit in 1983, pursuant to the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). The benefit covers palliative and support services for beneficiaries who are terminally ill, with a medical prognosis that the individual's life expectancy is six months or less if the illness runs its normal course. A broad set of services is included, such as nursing care; physician services; counseling and social worker services; hospice aide (also referred to as home health aide) and homemaker services; short-term hospice inpatient care (including respite care); drugs and biologics for symptom control; supplies; home medical equipment; physical, occupational, and speech therapy; bereavement services for the patient's family; and other services for palliation of the terminal illness and related conditions. Most commonly, hospice care is provided in patients' homes, but hospice services are also provided in nursing facilities, assisted living facilities, hospice facilities, and hospitals. In 2016, more than 1.4 million Medicare beneficiaries received hospice services, and Medicare expenditures totaled about \$16.8 billion.

Beneficiaries receive the Medicare hospice benefit only if they elect to do so; if they do, they agree to forgo Medicare coverage for conventional treatment of the terminal illness and related conditions. Medicare continues to cover items and services unrelated to the terminal illness and related conditions. For each person admitted to a hospice program, a written plan of care must be established and maintained by an interdisciplinary group (which must include a hospice physician, registered nurse, social worker, and pastoral or other counselor) in consultation with the patient's attending physician, if there is one. The plan of care must identify the services to be provided (including management of discomfort and symptom relief) and describe the scope and frequency of services needed to meet the patient's and family's needs.

Beneficiaries elect hospice for defined benefit periods. The first hospice benefit period is 90 days. For a beneficiary to elect hospice initially, two physicians—a hospice physician and the beneficiary's attending physician—are generally required to certify that the beneficiary has a life expectancy of six months or less if the illness runs its normal course.<sup>1</sup> If the patient's terminal illness continues to engender the likelihood of death within 6 months, the hospice physician can recertify the patient for another 90

days and for an unlimited number of 60-day periods after that, as long as he or she remains eligible.<sup>2</sup> Beneficiaries can disenroll from hospice at any time (referred to as "revoking hospice") and can reelect hospice for a subsequent period as long as the beneficiary meets the eligibility criteria.

Since 2000, hospice spending has grown substantially, increasing at a rapid rate between 2000 and 2012, remaining flat between 2012 and 2014, and growing again between 2014 and 2016. Between 2000 and 2012, Medicare spending for hospice care increased more than 400 percent, from \$2.9 billion to \$15.1 billion. That spending increase was driven by greater numbers of beneficiaries electing hospice and by growth in length of stay for patients with the longest stays. Occurring simultaneously since 2000 has been a substantial increase in the number of for-profit providers.<sup>3</sup> Between 2012 and 2014, Medicare spending for hospice services was flat at about \$15.1 billion each year. The flat spending partly reflects the effect of the across-the-board budget cut known as the sequester, which reduced Medicare payments to providers by 2 percent beginning in April 2013. Between 2014 and 2016, Medicare hospice spending increased again: 5.5 percent in 2015 and an additional 6 percent in 2016. This spending growth between 2014 and 2016 predominantly reflects an increase both in the number of beneficiaries using hospice care and in the Medicare base payment rate. Medicare is the largest payer of hospice services, covering more than 90 percent of hospice patient days in 2016.

### Medicare payment for hospice services

The Medicare program pays a daily rate to hospice providers. The hospice provider assumes all financial risk for costs and services associated with care for the patient's terminal illness and related conditions. The hospice provider receives payment for every day a patient is enrolled, regardless of whether the hospice staff visited the patient or otherwise provided a service each day. This payment design is intended to encompass not only the cost of visits but also other costs a hospice incurs for palliation and management of the terminal condition and related conditions, such as on-call services, care planning, drugs, medical equipment, supplies, patient transportation between sites of care that are specified in the plan of care, and short-term hospice inpatient care.

Payments are made according to a fee schedule that has four levels of care: routine home care (RHC), continuous

**TABLE  
12-1****Medicare hospice payment categories and rates**

Category	Description	Base payment rate, FY 2018	Percent of hospice days, 2016
Routine home care*	Home care provided on a typical day: Days 1–60	\$193 per day	98.0%
	Home care provided on a typical day: Days 61+	\$151 per day	
Continuous home care	Home care provided during periods of patient crisis	\$41 per hour	0.3
Inpatient respite care	Inpatient care for a short period to provide respite for primary caregiver	\$173 per day	0.3
General inpatient care	Inpatient care to treat symptoms that cannot be managed in another setting	\$744 per day	1.5

Note: FY (fiscal year). Payment rates are rounded in the table to the nearest dollar. Payment for continuous home care (CHC) is an hourly rate (\$40.68 per hour, with a maximum payment per day equal to about \$976) for care delivered during periods of crisis if care is provided in the home for 8 or more hours within a 24-hour period beginning at midnight. In addition, a nurse must deliver more than half of the hours of this care to qualify for CHC-level payment. The above rates are 2 percentage points lower for hospices that do not submit the required quality data. Percentages may not sum to 100 percent due to rounding.

\*In addition to the daily rate, Medicare pays \$41 per hour for registered nurse and social worker visits (up to four hours per day) that occur during the last seven days of life for beneficiaries receiving routine home care.

Source: Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. *Update to hospice payment rates, hospice cap, hospice wage index, and the hospice pricer for FY 2018*. Manual System Pub 100–04 Medicare Claims Processing, Transmittal 3828, August 4.

home care (CHC), inpatient respite care (IRC), and general inpatient care (GIP) (Table 12-1). The four levels are distinguished by the location and intensity of the services provided. RHC is the most common level of hospice care, accounting for 98 percent of all hospice days in 2016.

Other levels of care—GIP, CHC, and IRC—are available to manage needs in certain situations. GIP is provided in a facility on a short-term basis to manage symptoms that cannot be managed in another setting. CHC is intended to manage a short-term symptom crisis in the home and involves eight or more hours of care per day, mostly nursing. IRC is care in a facility for up to five days to provide a break to an informal caregiver. Unless a hospice provides CHC, IRC, or GIP on any given day, it is paid at the RHC rate. The level of care can vary throughout a patient's hospice stay as the patient's needs change.

In January 2016, CMS implemented reforms to the hospice payment system that represented the first changes to the payment structure since the benefit's inception in 1983. Formerly, RHC was paid at a single, uniform daily rate. Now, Medicare pays two per diem rates for RHC—a higher rate for the first 60 days of a hospice episode and a lower rate for days 61 and beyond (\$193 and \$151 per day, respectively, in 2018) (Table 12-1). Medicare pays

an additional \$41 per hour for registered nurse and social worker visits that occur during the last seven days of life (up to four hours are payable per day) for patients receiving RHC in 2018.

The new RHC payment structure is intended to better align payments with the costs of providing hospice care throughout an episode. Hospices tend to provide more services at the beginning and end of an episode and fewer in the middle. As a result, under a flat per diem payment, long stays are more profitable than short stays. The Commission expressed concern that this misalignment of the payment system led to a number of issues (e.g., making the payment system vulnerable to patient selection, spurring some providers to pursue revenue-generation strategies such as enrolling patients likely to have long stays who may not meet the eligibility criteria, and generating wide variation in profit margins across providers based on the length of stay) (Medicare Payment Advisory Commission 2015b, Medicare Payment Advisory Commission 2009). In March 2009, the Commission recommended that Medicare move away from the flat per diem to one that is higher at the beginning and end of an episode and lower in the intervening period. The new payment structure that CMS implemented in

2016 moves in this direction and may begin to address some of the negative consequences resulting from the misalignment of the payment system.

Hospice payment rates are updated annually by the inpatient hospital market basket index. Beginning fiscal year 2013, the market basket index has been reduced by a productivity adjustment, as required by the Patient Protection and Affordable Care Act of 2010 (PPACA). An additional 0.3 percentage point reduction to the market basket update was required in fiscal years 2013 to 2017 and may be required in fiscal year 2019 if certain targets for health insurance coverage among the working-age population are met. The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) modified the hospice update amount for fiscal year 2018, setting it at 1 percent. Beginning in fiscal year 2014, hospices that do not report quality data receive a 2 percentage point reduction in their annual payment update.

Daily payment rates for hospice are adjusted to account for geographic differences in wage rates. From 1983 to 1997, Medicare adjusted hospice payments with a 1983 wage index. In 1998, CMS began using the most current hospital wage index to adjust hospice payments and applied a budget-neutrality adjustment each year to make aggregate payments equivalent to what they would have been under the 1983 wage index. This adjustment increased Medicare payments to hospices by about 4 percent. The budget-neutrality adjustment was phased out over seven years, with a 0.4 percentage point reduction in 2010 and an additional 0.6 percentage point reduction in each subsequent year through 2016. Beginning 2017, there are no further reductions to the payment rates associated with this phase-out.

Beneficiary cost sharing for hospice services is minimal. Prescription drugs and inpatient respite care are the only services potentially subject to cost sharing. Hospices may charge coinsurance of 5 percent for each prescription provided outside the inpatient setting (not to exceed \$5) and for inpatient respite care (not to exceed the inpatient hospital deductible). (For a more complete description of the hospice payment system, see [http://www.medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_17\\_hospice\\_final4ea311adfa9c665e80adff00009edf9c.pdf?sfvrsn=0](http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_17_hospice_final4ea311adfa9c665e80adff00009edf9c.pdf?sfvrsn=0).)

### **Medicare hospice payment limits (“caps”)**

The Medicare hospice benefit was designed to give beneficiaries a choice in their end-of-life care, allowing

them to forgo conventional treatment (often in inpatient settings) and die at home, with family, according to their personal preferences.

The inclusion of the Medicare hospice benefit in TEFRA was based in large part on the premise that the new benefit would be a less costly alternative to conventional end-of-life care (Government Accountability Office 2004, Hoyer 2007). Studies show that beneficiaries who elect hospice incur less Medicare spending in the last one or two months of life than comparable beneficiaries who do not, but also that Medicare spending for beneficiaries is higher for hospice enrollees than for nonenrollees in the earlier months before death. In essence, hospice’s net reduction in Medicare spending decreases the longer the patient is enrolled, and beneficiaries with long hospice stays tend to incur higher Medicare spending than those who do not elect hospice (Medicare Payment Advisory Commission 2008). Studies have been mixed on whether hospice has saved the Medicare program money in the aggregate compared with conventional care. Recent research by a Commission contractor examined the literature and conducted a new market-level analysis of hospices’ effect on Medicare expenditures. That study found that while hospice may produce savings for some beneficiaries (such as those with cancer), overall, hospice does not appear to have produced aggregate savings for the Medicare program because of very long stays among some hospice enrollees (Direct Research 2015).

When the Congress established the hospice benefit, it included two limitations, or “caps,” on payments to hospices in an effort to make cost savings more likely. The first cap limits the share of inpatient care days that a hospice may provide to 20 percent of its total Medicare patient care days. This cap is rarely exceeded; any inpatient days provided in excess of the cap are reimbursed at the routine home care payment rate.

The second, more visible cap limits the aggregate Medicare payments that an individual hospice can receive. This cap was implemented at the outset of the hospice benefit with the goal of ensuring that Medicare payments did not exceed the cost of conventional care for patients at the end of life. Under the cap, if a hospice’s total Medicare payments exceed its total number of Medicare beneficiaries served multiplied by the cap amount (\$28,689 in 2018), it must repay the excess to the program.<sup>4,5,6</sup> This cap is not applied individually to the payments received for each beneficiary, but rather to



the total payments across all Medicare patients served by the hospice in the cap year. The number of hospices that exceed the payment cap has been low historically, but we have found that increases in the number of hospices and increases in very long stays have resulted in more hospices exceeding the cap (with the number peaking in 2009 at 12.5 percent and oscillating in recent years). The hospice cap is the only significant fiscal constraint on the growth of program expenditures for hospice care (Hoyer 2007).

---

## **Are Medicare payments adequate in 2018?**

---

To address whether payments in 2018 are adequate to cover the costs of the efficient delivery of care and how much providers' payments should change in the coming year (2019), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care by examining the capacity and supply of hospice providers, changes over time in the volume of services provided, quality of care, providers' access to capital, and the relationship between Medicare's payments and providers' costs. Overall, the Medicare payment adequacy indicators for hospice providers are positive.

### **Beneficiaries' access to care: Use of hospice continues to increase**

In 2016, hospice use among Medicare beneficiaries increased, continuing the trend of a growing proportion of beneficiaries using hospice services at the end of life. Of the Medicare beneficiaries who died that year, 49.7 percent used hospice, up from 48.6 percent in 2015 and 22.9 percent in 2000 (Table 12-2). Hospice use varied in 2016 by beneficiary characteristics—enrollment in traditional fee-for-service (FFS) Medicare or Medicare Advantage (MA); Medicare-only beneficiaries and beneficiaries dually eligible for Medicare and Medicaid; age, race, and gender; and urban or rural residence—but increased in all of these groups.

Hospice use is higher among decedents in MA than in FFS, but the gap has been closing. In 2016, about 49 percent of Medicare FFS decedents and almost 52 percent of MA decedents used hospice. MA plans do not provide hospice services. Once a beneficiary in an MA plan elects hospice care, the beneficiary receives hospice services through a provider paid by Medicare FFS. In March 2014, the Commission urged that this policy be

changed, recommending that hospice be included in the MA benefits package (Medicare Payment Advisory Commission 2014).

Hospice use varies by other beneficiary characteristics. In 2016, a smaller proportion of Medicare decedents who were dually eligible for Medicare and Medicaid used hospice compared with Medicare-only decedents (about 44 percent and 51 percent, respectively). Hospice use was least prevalent among Medicare decedents under age 65 (who are also likely to be dually eligible) and most prevalent among those age 85 and older (about 30 percent vs. 59 percent, respectively). Female beneficiaries were also more likely than male beneficiaries to use hospice, which partly reflects the longer average life span for women and greater hospice use among older beneficiaries.

Hospice use also varies by racial and ethnic group (Table 12-2). As of 2016, Medicare hospice use was highest among White decedents, followed by Hispanic, African American, Asian American, and North American Native decedents, in that order. Hospice use grew across all these groups between 2015 and 2016, with Whites and Hispanics showing the largest increase (1.3 and 1.0 percentage points, respectively). Since 2000, hospice use has grown substantially for all racial and ethnic groups, but differences persist across these groups in the rates of use. The reasons for these differences are not fully understood. Researchers have cited a number of possible factors, such as cultural or religious beliefs, preferences for end-of-life care, socioeconomic factors, disparities in access to care or information about hospice, and mistrust of the medical system (Barnato et al. 2009, Cohen 2008, Crawley et al. 2000).

Hospice use is higher for urban than rural beneficiaries, although use has grown across all area categories (Table 12-2).<sup>7</sup> In 2016, the share of decedents residing in urban counties who used hospice was about 51 percent; in micropolitan counties and rural counties adjacent to urban counties, approximately 46 percent; in rural nonadjacent counties, about 40 percent; and in frontier counties, almost 34 percent. Utilization rates for beneficiaries residing in all these areas increased in 2016.

One driver of increased hospice use over the past decade has been growing use by patients with noncancer diagnoses, owing to increased recognition that hospice can care for such patients. In 2016, 73 percent of Medicare decedents who used hospice had a noncancer diagnosis,



**TABLE  
12-2****Use of hospice continues to increase****Percent of Medicare decedents who used hospice**

	<b>2000</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Average annual percentage point change 2000–2015</b>	<b>Percentage point change 2015–2016</b>
All beneficiaries	22.9%	47.3%	47.9%	48.6%	49.7%	1.7	1.1
FFS beneficiaries	21.5	46.2	46.8	47.6	48.7	1.7	1.1
MA beneficiaries	30.9	50.6	50.9	51.1	51.9	1.3	0.8
Dual eligibles	17.5	42.1	42.6	43.1	44.1	1.7	1.0
Medicare only	24.5	48.9	49.6	50.3	51.4	1.7	1.1
Age							
<65	17.0	29.2	29.5	29.9	30.1	0.9	0.2
65–74	25.4	40.7	40.8	41.2	41.4	1.1	0.2
75–84	24.2	48.2	49.0	49.5	50.7	1.7	1.2
85+	21.4	55.0	56.1	57.1	59.1	2.4	2.0
Race/ethnicity							
White	23.8	49.2	49.8	50.5	51.8	1.8	1.3
African American	17.0	37.3	37.6	38.3	38.8	1.4	0.5
Hispanic	21.1	40.2	41.4	41.9	42.9	1.4	1.0
Asian American	15.2	32.0	33.8	35.4	36.0	1.3	0.6
North American Native	13.0	34.1	34.8	35.0	35.7	1.5	0.7
Sex							
Male	22.4	43.3	43.9	44.5	45.4	1.5	0.9
Female	23.3	50.9	51.5	52.3	53.7	1.9	1.4
Beneficiary location							
Urban	24.2	48.5	49.1	49.7	50.7	1.7	1.0
Micropolitan	18.3	43.6	44.1	44.9	46.3	1.8	1.4
Rural, adjacent to urban	17.5	42.8	43.4	44.5	45.7	1.8	1.2
Rural, nonadjacent to urban	15.0	37.3	38.1	38.9	40.2	1.6	1.3
Frontier	13.1	32.3	32.5	33.6	33.8	1.4	0.2

Note: FFS (fee-for-service), MA (Medicare Advantage). Beneficiary location reflects the beneficiary's county of residence in one of four categories (urban, micropolitan, rural adjacent to urban, or rural nonadjacent to urban) based on an aggregation of the urban influence codes. This chart uses the 2013 urban influence code definition. The frontier category is defined as population density equal to or less than six people per square mile and overlaps with the beneficiary county of residence categories. Yearly figures presented in the table are rounded, but figures in the percentage point change columns were calculated using unrounded data.

Source: MedPAC analysis of data from the denominator file and the Medicare Beneficiary Database from CMS.

compared with 72 percent in 2015 and 48 percent in 2000 (data not shown). As of 2016, the most common noncancer primary diagnoses reported among hospice decedents were heart and circulatory disorders (28 percent) and neurological conditions (23 percent).<sup>8</sup>

### **Capacity and supply of providers: Supply of hospices continues to grow, driven by growth in the number of for-profit providers**

In 2016, 4,382 hospices provided care to Medicare beneficiaries, a 4.4 percent increase from the prior year,

**TABLE  
12-3****Increase in total number of hospices driven by growth in for-profit providers**

Category	2000	2007	2014	2015	2016	Average annual percent change		Percent change 2015-2016
						2000-2007	2007-2015	
All hospices	2,255	3,250	4,092	4,199	4,382	5.4%	3.3%	4.4%
For profit	672	1,676	2,588	2,730	2,938	13.9	6.3	7.6
Nonprofit	1,324	1,337	1,305	1,294	1,273	0.1	-0.4	-1.6
Government	257	237	199	175	171	-1.2	-3.7	-2.3
Freestanding	1,069	2,103	3,024	3,163	3,369	10.1	5.2	6.5
Hospital based	785	683	535	517	501	-2.0	-3.4	-3.1
Home health based	378	443	510	494	487	2.3	1.4	-1.4
SNF based	22	21	23	25	25	-0.7	2.2	0.0
Urban	1,455	2,237	3,102	3,235	3,449	6.3	4.7	6.6
Rural	757	965	944	920	904	3.5	-0.6	-1.7

Note: SNF (skilled nursing facility). Some categories do not sum to total because of missing data for some providers. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census).

Source: MedPAC analysis of Medicare cost reports, Medicare Provider of Services file, and the 100 percent hospice claims standard analytical file from CMS.

continuing more than 10 years of growth in the number of hospices providing care to Medicare beneficiaries (Table 12-3). For-profit hospices accounted entirely for the net increase in the number of hospices. Between 2015 and 2016, the number of for-profit hospices increased by more than 7 percent, while the number of nonprofit hospices and government hospices declined by roughly 2 percent. As of 2016, about 67 percent of hospices were for profit, 29 percent were nonprofit, and 4 percent were government.

Between 2015 and 2016, freestanding hospices (which are highly correlated with for-profit ownership status) accounted for all of the net increase in the number of providers (Table 12-3). During this period, the number of freestanding providers increased by roughly 7 percent, while the number of hospital-based hospices and home health-based hospices declined by roughly 3 percent and 1 percent, respectively.<sup>9</sup> The number of skilled nursing facility (SNF)-based hospices was unchanged. As of 2016, about 77 percent of hospices were freestanding, 11 percent were hospital based, 11 percent were home health based, and less than 1 percent were SNF based.

Overall, the supply of hospices increased substantially between 2000 and 2016 in both urban and rural areas. The number of rural hospices has declined since its peak in 2007, with a decline of about 2 percent in 2016 (Table 12-3). As of 2016, 79 percent of hospices were located in urban areas and 21 percent were located in rural areas. The number of hospices located in rural areas is not necessarily reflective of hospice access for rural beneficiaries for several reasons. A count of the number of rural hospices does not capture the size of those hospice providers, their capacity to serve patients, or the size of their service area. Furthermore, a count of hospices located in rural areas does not take into account hospices with offices in urban areas that also provide services in rural areas. While the number of hospices located in rural areas has declined in the last several years, the share of rural decedents using hospice grew over this same period.

In 2016, substantial changes in the number of hospices were concentrated in a few states, while other states generally experienced modest changes. Since 2013, California and Texas have experienced the largest growth in the number of hospices. Between 2013 and 2016, the

**TABLE  
12-4****Hospice utilization and spending increased in 2016**

Category	2000	2014	2015	2016	Average annual change, 2000–2014	Change, 2014–2015	Change, 2015–2016
Total spending (in billions)	\$2.9	\$15.1	\$15.9	\$16.8	12.4%	5.5%	6.0%
Number of hospice users (in millions)	0.534	1.324	1.381	1.427	6.7%	4.3%	3.3%
Number of hospice days for all hospice beneficiaries (in millions)	25.8	91.9	95.9	101.2	9.5%	4.3%	5.5%
Average length of stay among decedents (in days)	53.5	88.2	86.7	87.8	3.6%	–1.7%	1.3%
Median length of stay among decedents (in days)	17	17	17	18	0 days	0 days	1 day

Note: Average length of stay is calculated for decedents who were using hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime. Total spending, number of hospice users, number of hospice days, and average length of stay displayed in the table are rounded; the percent change for number of users and total spending is calculated using unrounded data.

Source: MedPAC analysis of the denominator file, the Medicare Beneficiary Database, and the 100 percent hospice claims standard analytical file from CMS.

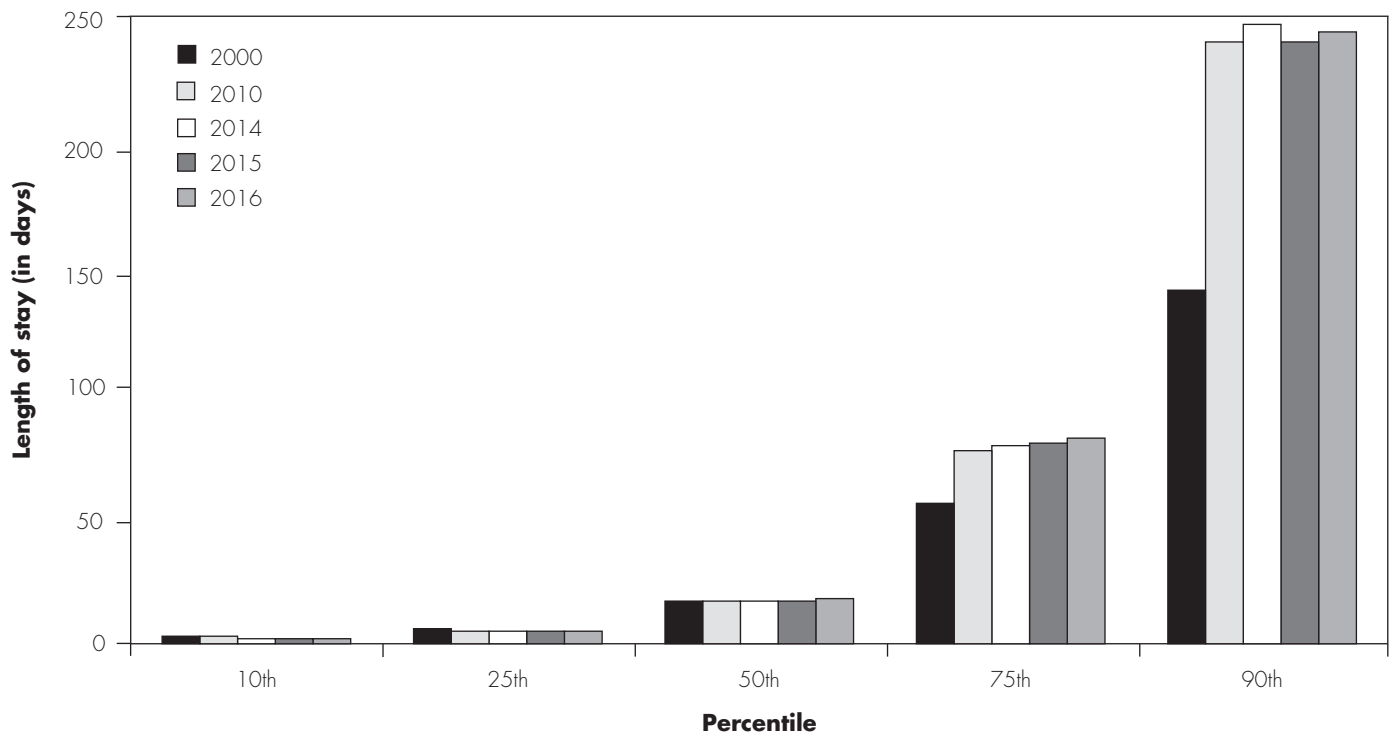
number of hospices in California has grown at an average rate of roughly 20 percent per year (with the state gaining an additional 90 hospices in 2014, an additional 101 hospices in 2015, and an additional 110 hospices in 2016). Texas, which gained 38 hospices in 2014 and an additional 24 hospices in 2015 (a 9 percent and 5 percent increase, respectively), gained another 46 hospices in 2016 (an additional 9 percent increase). In 2016, Arizona, Georgia, Kansas, Missouri, and Nevada experienced the next largest growth in raw numbers of providers (an increase of six or eight providers per state), while Mississippi, Nebraska, and Pennsylvania saw the largest decline (a decrease of three or four providers). With the exception of Pennsylvania, all of the states with the largest growth or decline in the number of hospice providers had an above-average number of hospices per 10,000 Medicare decedents.<sup>10</sup>

The number of hospice providers is not necessarily an indicator of beneficiary access to hospice. The supply of providers—as measured by the number of hospices per 10,000 Medicare decedents—varies substantially across states. In the past, we have concluded that there is no relationship between the supply of hospice providers and the rate of hospice use across states (Medicare Payment Advisory Commission 2010).

**Volume of services: Hospice use and length of stay increased in 2016**

In 2016, the number of Medicare beneficiaries receiving hospice services continued to increase. About 1.43 million beneficiaries used hospice services, up 3.3 percent from about 1.38 million in 2015 (Table 12-4). The number of hospice days furnished to Medicare beneficiaries also increased 5.5 percent from about 96 million days in 2015 to 101 million days in 2016. The mix of hospice days by level of care shifted some between 2015 and 2016. The share of RHC days increased from 97.8 percent to 98.0 percent because the number of RHC days increased 6 percent, while the number of GIP and CHC days declined (3 percent and 9 percent, respectively) (data not shown).

In 2016, hospice average length of stay among decedents was 87.8 days, up slightly from 86.7 days in the prior year (Table 12-4). Between 2015 and 2016, length of stay increased among decedents in the upper half of the length of stay distribution. The median increased from 17 to 18 days, the 75th percentile increased from 80 days to 82 days, and the 90th percentile increased from 240 days to 244 days (Figure 12-1, p. 332). Length of stay at the 10th percentile (two days) and 25th percentile (five days) were unchanged in 2016.

**FIGURE  
12-1****Length of stay among hospice patients with the longest stays increased slightly in 2016**

Note: Length of stay is calculated for decedents who were using hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime.

Source: MedPAC analysis of the Medicare Beneficiary Database from CMS.

In the last few years, hospice length of stay among decedents with the longest stays has oscillated. The slowdown of growth in length of stay among decedents with the longest stays follows a period of substantial growth in very long stays (Figure 12-1). Between 2000 and 2010, hospice length of stay at the 90th percentile grew substantially, from 141 days to 240 days. Since 2010, hospice length of stay at the 90th percentile has oscillated between 240 days and 247 days, with the 2016 level at 244 days. In contrast, since 2000, the median length of stay has remained 17 or 18 days, the 25th percentile has been 5 or 6 days, and at the 10th percentile has been 2 or 3 days.

Hospice length of stay is generally similar for hospice decedents in Medicare FFS and MA. The most significant difference is that very long stays in hospice are slightly shorter for beneficiaries in MA than for those in FFS (241 days for MA beneficiaries compared with 246

days for FFS beneficiaries at the 90th percentile of stays as of 2016). There are also slight differences at the median (18 days for MA beneficiaries vs. 17 days for FFS beneficiaries) and 75th percentile (80 days for MA beneficiaries vs. 83 days for FFS beneficiaries).

With growing use of hospice, rates of patients dying in the hospital have declined, but evidence is mixed on the extent to which the decline has been accompanied by a reduction in the overall intensity of care in the last months of life. One study found that between 2000 and 2009, the share of Medicare decedents ages 65 and older dying in the hospital declined (from 32.6 percent to 24.6 percent), and the average number of hospital days in the last 30 days of life also declined (from 4.9 days to 4.6 days) (Teno et al. 2013). At the same time, the study found that other indicators of intensity of care in the last months of life

**TABLE  
12-5****Hospice length of stay among decedents by  
beneficiary and hospice characteristics, 2016**

Characteristic	Average length of stay (in days)	Percentile of length of stay				
		10th	25th	50th	75th	90th
Beneficiary						
Diagnosis						
Cancer	53	3	6	17	52	129
Neurological conditions	148	4	8	35	169	435
Heart/circulatory	94	2	5	16	88	280
COPD	118	2	6	27	127	348
Other	53	2	3	8	35	146
Main location of care						
Home	90	4	9	26	88	239
Nursing facility	106	3	6	20	98	309
Assisted living facility	152	5	13	51	185	430
Hospice						
Hospice ownership						
For profit	106	3	6	22	98	308
Nonprofit	66	2	5	13	56	180
Type of hospice						
Freestanding	91	2	5	18	80	255
Home health based	69	2	5	15	61	186
Hospital based	55	2	4	12	48	147

Note: COPD (chronic obstructive pulmonary disease). Length of stay is calculated for Medicare beneficiaries who died in 2016 and used hospice that year and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime. "Main location" is where the beneficiary spent the largest share of his or her days while enrolled in hospice. "Diagnosis" reflects primary diagnosis on the beneficiary's last hospice claim.

Source: MedPAC analysis of the 100 percent hospice claims standard analytical file, the Medicare Beneficiary Database, Medicare hospice cost reports, and Medicare Provider of Services file from CMS.

have increased. For example, the share of beneficiaries receiving treatment in an intensive care unit during the last month of life increased between 2000 and 2009 (from 24.3 percent to 29.2 percent), and the share of beneficiaries with 3 or more hospitalizations in the last 90 days of life increased slightly (from 10.3 percent to 11.5 percent) (Teno et al. 2013). This increase in the intensity of some aspects of end-of-life care may in part reflect referrals to hospice occurring only in the last few days of life for some beneficiaries.

The Commission has previously expressed concern about very short hospice stays. More than one-quarter of

hospice decedents enroll in hospice only in the last week of life, a length of stay that is commonly thought to be of less benefit to patients and their families than enrolling somewhat earlier. Very short hospice stays (e.g., 25th percentile) occur across a wide range of diagnoses (Table 12-5). These very short stays stem largely from factors unrelated to the Medicare hospice payment system: Some physicians are reluctant to have conversations about hospice or tend to delay such discussions until death is imminent; some patients and families have difficulty accepting a terminal prognosis; and financial incentives in the FFS system encourage increased volume of clinical services (compared with palliative care) (Medicare Payment

**TABLE  
12-6****More than half of Medicare hospice spending in 2016 was for patients with stays exceeding 180 days**

	Medicare hospice spending, 2016 (in billions)
All hospice users in 2016	\$16.8
Beneficiaries with LOS > 180 days	9.5
Days 1–180	3.2
Days 181–365	3.0
Days 366+	3.3
Beneficiaries with LOS ≤ 180 days	7.4

Note: LOS (length of stay). “LOS” indicates the beneficiary’s lifetime LOS as of the end of 2016 (or at the time of discharge in 2016 if the beneficiary was not enrolled in hospice at the end of 2016). All spending presented in the chart occurred only in 2016. Components may not sum to total because of rounding.

Source: MedPAC analysis of the 100 percent hospice claims standard analytical file and the common Medicare enrollment file from CMS.

Advisory Commission 2009). In addition, some point to the requirement that beneficiaries forego intensive conventional care to enroll in hospice as a factor that contributes to deferring hospice care, resulting in short hospice stays.

A number of initiatives seek to address concerns about potentially late hospice enrollments and the quality of end-of-life care more generally. CMS launched a demonstration program (called the Medicare Care Choices Model) that permits certain FFS beneficiaries who are eligible for hospice (but not enrolled in the Medicare hospice benefit) to enroll in the demonstration and receive palliative and supportive care from a hospice provider while continuing to receive “curative” care from other providers.<sup>11</sup> Beginning in 2016, under the physician fee schedule, Medicare pays for advance care planning conversations between a beneficiary and his or her physician, advanced practice registered nurse, or physician assistant. In March 2014, the Commission recommended that hospice be included in the Medicare Advantage benefits package, which would give plans greater incentives to develop and test new models aimed at improving end-of-life care and care for beneficiaries with advanced illnesses (Medicare Payment Advisory Commission 2014). The Institute of Medicine also issued

a report on end-of-life care in the United States, reviewing the challenges and making recommendations for changes (Institute of Medicine 2014).

The Commission has also expressed concern about very long hospice stays. In 2016, Medicare spent about \$9.5 billion, more than half of all hospice spending that year, on patients with stays exceeding 180 days (Table 12-6). About \$3.3 billion of that spending was on additional hospice care for patients who had already received at least one year of hospice services. The flat per diem payment system, which was in effect before 2016, made long stays more profitable than short stays. In response to the higher profitability of long stays, some hospices appear to have pursued revenue-generation strategies by focusing on patients with long stays, some of whom may not have met the eligibility criteria. Although the 2016 payment changes reduced payments for long stays and increased payments for short stays, it remains to be seen the extent to which these payment changes lessened the differential in profitability between short and long stays.

Hospice lengths of stay vary by observable patient characteristics, such as patient diagnosis and location, which has made it possible for some providers that wish to do so to identify and enroll patients likely to have long, more profitable stays (Table 12-5, p. 333). For example, Medicare decedents in 2016 with neurological conditions and chronic obstructive pulmonary disease had substantially higher average lengths of stay (148 days and 118 days, respectively) compared with decedents with cancer (53 days). In addition, length of stay varies by the setting where care is provided. In 2016, average length of stay was higher among Medicare decedents whose main care setting was an assisted living facility (ALF) (152 days) or a nursing facility (106 days) compared with home (90 days) (Table 12-5, p. 333). In particular, hospice patients in ALFs had markedly longer stays compared with other settings, even for the same diagnosis, which warrants further monitoring and investigation in CMS’s medical review efforts.

Differences in length of stay by patient characteristics are also reflected in differences in length of stay by provider ownership type (Table 12-5, p. 333). In 2016, average length of stay was substantially longer among for-profit hospices than among nonprofit hospices (106 days compared with 66 days). The reason for longer length of stay among for-profit hospices has two components: (1) for-profit hospices have more patients with diagnoses



**TABLE  
12-7****Hospices that exceeded Medicare's annual payment cap, selected cap years**

	2002	2012	2013	2014	2015
Percent of hospices exceeding the cap	2.6%	11.0%	10.7%	12.2%	12.3%
Average payments over the cap per hospice exceeding it (in thousands)	\$470	\$510	\$460	\$370	\$320
Payments over the cap as percent of overall Medicare hospice spending	0.6%	1.4%	1.3%	1.2%	1.0%
Total Medicare hospice spending (in billions)	\$4.4	\$15.0	\$15.1	\$15.0	\$15.7

Note: The cap year is defined as the period beginning November 1 and ending October 31 of the following year. Total spending for 2002 reflects the fiscal year; total spending for years 2012 to 2015 reflects the cap year.

Source: MedPAC analysis of 100 percent hospice claims standard analytical file, Medicare hospice cost reports, and Medicare Provider of Services file from CMS. Data on total spending are from the CMS Office of the Actuary or MedPAC estimates.

that tend to have longer stays, and (2) for-profit hospice beneficiaries have longer stays for all diagnoses than those of nonprofit hospices. For example, among decedents with a neurological diagnosis, the average length of stay was 174 days in for-profit hospices and 117 days in nonprofits (data not shown).

Among the hospices with very long stays are those that exceed the hospice aggregate cap. In 2015, about 12.3 percent of hospices exceeded the aggregate payment cap, about the same percentage as the prior year (12.2 percent in 2014) (Table 12-7).<sup>12</sup> On average, above-cap hospices exceeded the cap by about \$320,000 in 2015. As shown in prior reports, above-cap hospices have substantially higher lengths of stay and rates of discharging patients alive than other hospices.<sup>13</sup> This may suggest that above-cap hospices are admitting patients who do not meet the hospice eligibility criteria, which merits further investigation by the Office of Inspector General and CMS.

With the variation in practice patterns across hospices and concerns about potential for some hospices to focus on patients likely to have long stays and high profitability, the Commission has advocated over the years for a targeted approach to auditing hospice providers, focusing the most resources on providers for which such scrutiny is warranted. In March 2009, the Commission recommended that CMS conduct medical reviews of all hospice stays exceeding 180 days among those hospice providers for which these long stays exceeded a specified share of the provider's caseload. Similarly, in this report and

prior reports, the Commission has expressed concern about very long hospice stays in ALFs among some hospice providers, and long stays and high live-discharge rates among above-cap hospices. The Commission has suggested that more program integrity scrutiny is warranted in those areas.

Another targeted auditing approach that could be considered is to focus on providers that receive a high share of their payments for hospice patients before the last year of life. As discussed in detail in our March 2017 report, the share of payments hospice providers receive for a beneficiary's care before the last year of life varies across providers. A provider with an unusually high share of payments derived from care furnished to patients earlier in the disease trajectory—for example, before the last year of life—could signal questionable admitting practices and warrant further program integrity scrutiny of those providers (Medicare Payment Advisory Commission 2017).

### Visits in the last days of life

One feature of the new hospice payment system implemented in 2016 is that it provides additional payment for certain visits in the last days of life. The purpose of these additional payments is to compensate hospices for the higher patient need and visit intensity in the last days of life. Under the new payment system, the hospice provider is eligible for additional payments for registered nurse and social worker visits that occur during

**TABLE  
12-8****The frequency and length of nurse and social worker visits during the last seven days of life among beneficiaries receiving routine home care, 2015–2016**

Number of days from death	Average number of nurse visits per day			Average length of nurse visit (in number of 15-minute increments)		
	2015	2016	Change	2015	2016	Change
0	0.73	0.71	–0.01	4.7	4.3	–0.4
1	0.74	0.77	0.04	5.1	5.3	0.1
2	0.63	0.66	0.03	4.9	5.1	0.2
3	0.56	0.58	0.02	6.1	4.9	–1.1
4	0.51	0.53	0.02	4.7	4.6	–0.1
5	0.47	0.49	0.02	4.6	5.0	0.3
6	0.45	0.46	0.01	4.7	4.6	–0.2
Last 7 days total	0.59	0.61	0.02	5.0	4.8	–0.2

Number of days from death	Average number of social worker visits per day			Average length of social worker visit (in number of 15-minute increments)		
	2015	2016	Change	2015	2016	Change
0	0.06	0.07	0.01	4.3	4.9	0.6
1	0.11	0.12	0.02	4.9	4.2	–0.7
2	0.10	0.11	0.01	4.1	4.1	0.0
3	0.09	0.10	0.01	4.1	4.0	–0.1
4	0.09	0.09	0.00	4.0	4.1	0.0
5	0.08	0.08	0.00	4.0	4.1	0.1
6	0.08	0.08	0.00	3.9	5.1	1.2
Last 7 days total	0.09	0.09	0.01	4.2	4.3	0.1

Note: For 2015 and 2016, nurse visits include both registered nurse (RN) and licensed practical nurse (LPN) visits. Although the new payment system makes additional payments only for RN (not LPN) visits in the last days of life, we have included both types of visits in this chart because data specific to RNs are not available for 2015. Due to rounding, the number in the change column may not always equal the difference between the numbers displayed in the 2015 and 2016 columns.

Source: MedPAC analysis of 100 percent hospice claims standard analytical file data.

the last seven days of life for patients receiving routine home care. These payments are additional to the base payment that the hospice receives for each day of care. These visits are paid at an hourly rate (up to four hours per day) as a means of targeting the payments toward those hospices that provide more visits in the last days of life. We estimate that, in 2016, Medicare paid hospice providers roughly \$120 million for registered nurse and social worker visits in the last seven days of life. We examined the visit patterns in the 2016 claims data to see the frequency and length of visits that occurred in the last days of life and whether they changed between

2015 and 2016, the first year of the new payment system. The prevalence and length of visits in the last days of life changed modestly in 2016 (Table 12-8). Overall, between 2015 and 2016, the average number of nurse visits per day appears to have increased slightly (from 0.59 visits per day to 0.61 visits per day) during the last 7 days of life. At the same time, the average length of nurse visits during the last days of life appears to have declined slightly, from about 75 minutes (5.0 fifteen-minute increments) to 72 minutes (4.8 fifteen-minute increments) per visit. Social worker visits in the last days of life were less frequent and changed little during this period.

## **Quality of care: Limited quality data are now available**

CMS has had a hospice quality reporting program underway for several years. In the fall of 2017, through Hospice Compare, CMS released the first public hospice quality data for individual hospice providers. The publicly reported quality data include seven measures that seek to gauge whether appropriate processes of care occurred at hospice admission. Most hospices scored very high on six of the seven quality measures, which is encouraging but raises questions about the ability of the measures to distinguish quality across providers. CMS has established some additional quality measures that will be available on Hospice Compare in the future, including a composite measure of the seven original process measures, a measure of visits at the end of life, and a Consumer Assessment of Healthcare Providers and Systems® (CAHPS®) survey of bereaved family members of hospice patients.

### **Background on hospice quality reporting program**

In accord with PPACA, beginning in fiscal year 2014, hospices that do not report quality data receive a 2 percentage point reduction in their annual payment update. Since July 2014, hospices have been required to report data on seven process measures that address important aspects of care for patients newly admitted to hospice, using a reporting tool called the Hospice Item Set. These measures focus on pain screening, pain assessment, dyspnea screening, dyspnea treatment, documentation of treatment preferences, addressing beliefs and values if desired by the patient, and provision of a bowel regimen for patients treated with an opioid. Hospices were required to report on these measures during the second half of calendar year 2014 to receive a full payment update in fiscal year 2016. Hospices continue to be required to report on these measures.

CMS added two quality measures effective April 2017. The first consists of a pair of indicators related to hospices' provision of visits when death is imminent: (1) the share of patients receiving a registered nurse, physician, nurse practitioner, or physician assistant visit in the last three days of life and (2) the share of patients receiving at least two visits from a social worker, chaplain or spiritual counselor, licensed practical nurse, or hospice aide in the last seven days of life. The second measure is a composite measure that gauges the share of patients who received all seven of the original process measures on admission to hospice.

In 2015, the hospice quality reporting program began requiring hospice providers (except very small providers) to participate in a CAHPS hospice survey. Hospices are required to contract with a CMS-approved vendor to administer the survey. The survey gathers information from the patient's informal caregiver (typically a family member) after the patient's death. The survey addresses aspects of hospice care that are thought to be important to patients and for which informal caregivers are positioned to provide information. In particular, the survey collects information on how the hospice performed in the following areas: communicating, providing timely care, treating patients with respect, providing emotional support, providing help for symptom management, providing information on medication side effects, and training family or other informal caregivers in the home setting. Participation in the CAHPS hospice survey and the Hospice Item Set will affect payment updates for fiscal year 2017 and thereafter.<sup>14</sup>

### **Hospice process measures related to care at admission**

Hospices' performance on seven quality measures related to processes of care at hospice admission is generally high and increased between 2015 and 2016. On six of the seven individual process measures, most hospices scored very high in 2016 (Table 12-9, p. 338). In 2016, for all measures except pain assessment, at least three-quarters of hospices performed the activity appropriately about 93 percent or more of the time. Performance was extremely high on a few measures (documenting treatment preferences and dyspnea screening), with at least three-quarters of hospices having scores of about 98 percent or higher. For a pain assessment process measure—which indicates the share of patients who received a comprehensive pain assessment within one day of screening positive for pain—performance was lower and more varied. Scores ranged from about 68 percent at the 25th percentile to about 95 percent at the 75th percentile. Although scores for pain assessment were lower than for the other measures, they also improved between 2015 and 2016 (i.e., the median increased from about 79 percent to about 85 percent).

Since most hospices score high on most of the seven process measures, the ability of these individual measures to distinguish quality across hospices seems limited. As one way to address this concern, CMS has adopted a composite of the seven process measures for future years that shows some variation in performance across providers. The composite measures reflect the share of

**TABLE  
12-9****Scores on the seven hospice quality measures suggest most are topped out**

Measure	2015				2016			
	Aggregate average	25th percentile	50th percentile	75th percentile	Aggregate average	25th percentile	50th percentile	75th percentile
Treatment preferences	97.9%	98.8%	100.0%	100.0%	98.5%	99.1%	100.0%	100.0%
Beliefs and values	92.6	92.3	98.2	100.0	94.2	94.1	98.8	100.0
Dyspnea screening	97.4	97.4	99.4	100.0	98.1	97.7	99.4	100.0
Dyspnea treatment	95.6	92.5	97.8	100.0	96.6	94.1	98.4	100.0
Pain screening	93.7	92.1	97.3	99.6	94.9	93.2	97.8	100.0
Pain assessment	70.3	63.2	79.4	92.7	76.7	68.4	84.6	95.2
Bowel regimen	93.3	89.7	97.1	100.0	95.4	92.7	98.4	100.0
Composite of all 7 measures	73.3	62.7	77.8	88.2	78.7	68.0	82.1	91.8

Note: The numbers in the chart refer to the share of times a hospice appropriately performed a process measure at admission (among patients for whom the process measure was relevant). The composite of all seven process measures represents the share of patients for whom the hospice appropriately performed all seven process measures (or all of the subset of process measures relevant to the patient) at admission. The aggregate average is a beneficiary-level estimate and reflects the share of all patients nationally for whom the process measure was appropriately performed at admission. The percentiles reflect provider-level performance scores.

Source: MedPAC analysis of Hospice Item Set data from CMS.

admitted patients for whom the hospice performed all seven activities appropriately (or performed appropriately all the activities relevant to the patient). We modeled this future composite measure using 2015 and 2016 data to see how hospices would have fared on the measure. Composite measure scores ranged from about 63 percent at the 25th percentile to about 88 percent at the 75th percentile in 2015. Hospices' performance on the composite measure improved in 2016, with scores increasing to 68 percent at the 25th percentile and about 92 percent at the 75th percentile (Table 12-9).

The high scores for most hospices on most of the quality measures and the improvement in hospices' performance on all of the measures from 2015 to 2016 is encouraging. However, the Commission has several concerns about these measures. Because they are process measures, it is uncertain how much they affect quality from the perspective of patients and families. In addition, concern exists that these measures either are, or will become, "topped out" (meaning that everyone performs well on these measures) and thus not helpful for differentiating performance across hospice providers.

CMS has also indicated that it will release the first provider-level hospice CAHPS data on Hospice Compare in February 2018. Although individual provider-level data

were not available at the time this report was finalized, in 2016, CMS released some data on national average performance scores on the hospice CAHPS domains (Centers for Medicare & Medicaid Services 2016). On average, hospices scored highest in the areas of treating family members with respect (90 percent) and providing emotional and religious support (89 percent). The national average scores were lowest in the areas of giving hospice care training to family members (72 percent) and getting help for symptoms (75 percent).

CMS has also indicated that it is considering adopting a measure that gauges whether a provider offers high-acuity care to patients. As discussed in prior reports, concern exists that some hospice providers do not provide high-acuity care, such as general inpatient care or continuous home care to any patients. In addition, CMS has stated that it is considering adopting a measure related to live discharges and burdensome transitions across sites of care.

With quality measurement in general, it has been the Commission's view that outcome measures are preferable to process measures. Although outcome measures for hospice are particularly challenging, the Commission believes outcome measures such as patient-reported pain and other symptom-management measures merit further

**TABLE  
12-10****Rates of hospice live discharge and reported reason for discharge, 2013–2016**

Category	2013	2014	2015	2016
Live discharges as a share of all discharges, by reason for live discharge				
All live discharges	18.4%	17.2%	16.7%	16.9%
No longer terminally ill	7.8	7.3	6.9	6.8
Beneficiary revocation	7.3	6.6	6.3	6.4
Transferred hospice providers	2.0	2.0	2.1	2.1
Moved out of service area	0.9	0.9	1.0	1.2
Discharged for cause	0.4	0.3	0.3	0.3
Providers' overall rate of live discharge as a share of all discharges, by percentile				
10th percentile	9.3%	8.5%	8.4%	8.3%
25th percentile	13.2	12.3	12.0	12.2
50th percentile	19.4	18.7	18.4	19.1
75th percentile	30.2	30.2	29.6	31.3
90th percentile	47.2	50.0	50.0	53.3

Note: Percentages may not sum to total due to rounding. "All discharges" includes patients discharged alive or deceased.

Source: MedPAC analysis of the 100 percent hospice claims standard analytical file, Medicare hospice cost reports, and Medicare Provider of Services file from CMS.

exploration. Rate of live discharge is another measure that in some ways could be considered an outcome measure. The rate at which hospice providers discharge patients alive could signal quality issues. Hospice providers are expected to have some rate of live discharges because some patients change their mind about using the hospice benefit and disenroll from hospice or their condition improves and they no longer meet the hospice eligibility criteria. However, analyses showing providers with substantially higher rates of live discharge than their peers signal a potential problem with quality of care or program integrity. An unusually high rate of live discharges could indicate that a hospice provider is not meeting the needs of patients and families or is admitting patients who do not meet the eligibility criteria.

Live discharges occur for patients with short and long stays. In our June 2013 report, we conducted an analysis of patients discharged alive in 2010 and followed them through the next year. Among patients discharged alive,

18 percent were discharged after a stay of 14 days or less, 22 percent after a 15-day to 60-day stay, 32 percent after a 61-day to 180-day stay, and 29 percent after a stay greater than 180 days (Medicare Payment Advisory Commission 2013). Patients discharged alive after a long hospice stay were more likely to be alive 180 days after discharge and to have lower average Medicare spending per day post-hospice discharge than those discharged after a short hospice stay.

The rate of live discharge (that is, live discharges as a share of all discharges) increased slightly between 2015 and 2016 from 16.7 percent to 16.9 percent (Table 12-10). This slight increase follows a period of several years (2013 to 2015) when the live-discharge rate was declining (from 18.4 percent to 16.7 percent). Hospice providers report the reason for live discharge on claims. The rate of live discharge by reason for discharge experienced small changes between 2015 and 2016. The rate of live discharge associated with the beneficiary moving out of the service area and the beneficiary revoking



**TABLE  
12-11****Total hospice costs per day varied  
by type of provider, 2015**

	Average	Percentile		
		25th	50th	75th
All hospices	\$150	\$116	\$141	\$179
Freestanding	143	112	134	165
Home health based	159	125	154	194
Hospital based	213	150	194	255
For profit	134	109	130	161
Nonprofit	176	141	167	206
Above cap	129	110	131	158
Below cap	151	117	145	181
Urban	151	117	142	178
Rural	139	111	140	181

Note: Data reflect aggregate costs per day for all types of hospice care combined (routine home care, continuous home care, general inpatient care, and inpatient respite care). Data are not adjusted for differences in case mix or wages across hospices.

Source: MedPAC analysis of Medicare hospice cost reports and Medicare Provider of Services file from CMS.

hospice increased slightly (0.2 percentage points and 0.1 percentage point, respectively). The rate of live discharge due to the beneficiary no longer being terminally ill decreased slightly (0.1 percentage point).

Live-discharge rates vary by patient diagnosis. In 2016, the rate was higher for hospice beneficiaries with heart and circulatory conditions (19 percent), neurological conditions (22 percent), and chronic obstructive pulmonary disease (25 percent) than for those with cancer (12 percent) or other diagnoses (14 percent) (data not shown). The diagnoses that tend to have higher live-discharge rates are the same diagnoses that tend to have longer stays (lengths of stay by diagnosis are shown in Table 12-5, p. 333).

Some providers have unusually high live-discharge rates. In 2016, about 25 percent of providers had a live-discharge rate of 31 percent or more, and 10 percent of providers had live-discharge rates of 53 percent or more (Table 12-10, p.

339). These data reflect providers of all sizes.<sup>15</sup> Hospices with very high live-discharge rates are disproportionately for-profit, small, and recent entrants to the Medicare program (entered in 2010 or after), and have an above-average prevalence of exceeding the aggregate payment cap.<sup>16</sup>

Our analysis focuses on the broadest measure of live discharges, including live discharges that are initiated by the hospice (because the beneficiary is no longer terminally ill or because the beneficiary is discharged for cause) and live discharges that are initiated by the beneficiary (because the beneficiary revokes his or her hospice enrollment, transfers hospice providers, or moves out of the area). Some stakeholders argue that live discharges initiated by the beneficiary—such as when the beneficiary revokes his or her hospice enrollment—should not be included in a live-discharge measure because they assert that these discharges reflect beneficiary preferences and are not in the hospice’s control. Because beneficiaries may choose to revoke hospice for a variety of reasons, which in some cases may be related to the hospice provider’s business practices or quality of care, we include revocations in our analysis. A CMS contractor, Abt Associates, found that rates of live discharges, both beneficiary revocations and discharges because beneficiaries are no longer terminally ill, increase as hospice providers approach or surpass the aggregate cap (Plotzke et al. 2015). The contractor report suggested this pattern may reflect hospice-encouraged revocations or inappropriate live discharges and merit further investigation.

### **Providers’ access to capital: Access to capital appears to be adequate**

Hospices in general are not as capital intensive as other provider types because they do not require extensive physical infrastructure (although some hospices have built their own inpatient units, which require significant capital). Overall, access to capital for hospices appears adequate, given the continued entry of for-profit providers into the Medicare program.

In 2016, the number of for-profit providers grew by more than 7 percent, indicating that capital is accessible to these providers. In addition, most publicly traded hospice companies reported favorable financial performance in their fall 2017 filings, with favorable admissions, net revenue growth, or both. According to financial analysts, hospice mergers and acquisitions have been somewhat



slower in the 2015 to 2017 period, but private equity investors remain interested in the sector. In addition, some analysts report that post-acute care providers and hospitals are interested in acquiring or developing joint ventures with hospice providers. Also, some publicly traded hospice companies have expressed interest in further acquisitions in the sector. It is also notable that CMS's changes to the hospice payment system for 2016 have been viewed by some financial analysts as modest and a sign of stability in the sector.

Among nonprofit freestanding providers, less is known about access to capital, which may be limited. Hospital-based and home health-based nonprofit hospices have access to capital through their parent providers, which currently appear to have adequate access to capital in both sectors.

### **Medicare payments and providers' costs**

As part of our assessment of payment adequacy, we examine the relationship between Medicare payments and providers' costs by considering whether current costs approximate what providers are expected to spend on the efficient delivery of high-quality care. Medicare margins illuminate the relationship between Medicare payments and providers' costs. Specifically, we examined margins through the 2015 cost reporting year, the latest period for which complete cost report and claims data are available.<sup>17</sup> To understand the variation in margins across providers, we also examined the variation in costs per day across providers.

### **Hospice costs**

Hospice costs per day vary substantially by type of provider (Table 12-11), which is one reason for differences in hospice margins across provider types. In 2015, hospice costs per day across all hospice providers were about \$150 on average, an increase of about 0.5 percent from the previous year.<sup>18</sup> Freestanding hospices had lower costs per day than provider-based hospices (i.e., home health-based hospices and hospital-based hospices). For-profit, above-cap, and rural hospices also had lower average costs per day than their respective counterparts.

Many factors contribute to variation in hospices' costs across providers. One factor is length of stay. Hospices with longer stays have lower costs per day on average. Freestanding and for-profit hospices have substantially longer stays than other hospices and as a result have lower costs per day (Table 12-5, p. 333). Another factor that

contributes to cost differences across providers relates to overhead costs. Included in the costs of provider-based hospices are overhead costs allocated from the parent provider, which contributes to provider-based hospices having higher costs than freestanding providers. The Commission believes payment policy should focus on the efficient delivery of services to Medicare's beneficiaries. If freestanding hospices are able to provide high-quality care at a lower cost than provider-based hospices, payment rates should be set accordingly, and the higher costs of provider-based hospices should not be a reason for increasing Medicare payment rates.

The total cost per day estimates discussed above reflect the total cost per day averaged across the four levels of hospice care. CMS has recently restructured the hospice cost report to provide information on cost per day by level of care. With the restructured cost report, for the first time, we are able to estimate how hospice costs per day differ by level of care. The new cost report is effective for freestanding providers beginning cost report year 2015. These data will also be available for provider-based cost reports for the 2016 cost report year.

Table 12-12 (p. 342) presents estimates of hospice costs by level of care for freestanding providers in 2015. As expected, costs vary by level of care. The average cost per day is lowest for RHC, the typical level of hospice care, and is higher for the more specialized levels of care. RHC, which accounts for the vast majority of days, had an average cost per day of \$124 and a median cost per day of \$125, while the Medicare RHC payment rate was substantially higher in 2015 at \$159 per day. Medicare's payment rate for the other, less frequent levels of care appears to be lower than the average and median costs per day for freestanding providers. The cost per day for general inpatient care was \$793 on average and \$882 at the median, compared with a payment rate of \$709. The cost per day for inpatient respite care was \$481 on average and \$343 at the median compared with a payment rate of about \$165.<sup>19</sup> The cost per hour for continuous home care was \$48 on average and \$51 at the median compared with a payment rate of about \$39 per hour in 2015. These data suggest that a rebalancing of the payment rates for the four levels of care may be warranted. We plan to continue to explore this issue with future data and analysis.

### **Hospice margins**

Between 2014 and 2015, the aggregate hospice Medicare margin increased from 8.2 percent to 10.0 percent (Table

**TABLE  
12-12****Hospice costs and payment rates by level  
of care for freestanding providers, 2015**

Category	2015 cost per day*				FY 2015 payment rate per day*	Percent of days 2015
	Average	25th percentile	50th percentile	75th percentile		
Routine home care	\$124	\$106	\$125	\$150	\$159	97.8%
General inpatient care	793	572	882	1,255	709	1.6
Inpatient respite care	481	223	343	552	165	0.3
Continuous home care* (dollars per hour)	48	18	51	94	39	0.3

Note: FY (fiscal year). Medicare payment rates and costs are rounded to the nearest dollar.

\*Cost estimates and payment rates reflect dollars per day except for continuous home care, which is dollars per hour.

Source: MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims data, and Provider of Services file from CMS.

12-13).<sup>20</sup> In 2015, Medicare margins varied widely across individual hospice providers: –10.6 percent at the 25th percentile, 8.8 percent at the 50th percentile, and 22.5 percent at the 75th percentile (data not shown). Our estimates of Medicare margins from 2009 to 2015 exclude overpayments to above-cap hospices and are calculated based on Medicare-allowable, reimbursable costs, consistent with our approach in other Medicare sectors.<sup>21</sup>

We excluded nonreimbursable bereavement costs from our margin calculations. The statute requires that hospices offer bereavement services to family members of their deceased Medicare patients (Section 1861(dd)(2)(A) (i)); however, the statute prohibits Medicare payment for these services (Section 1814(i)(1)(A) of the Social Security Act). Hospices report the costs associated with bereavement services on the Medicare cost report in a nonreimbursable cost center. If we included bereavement costs from the cost report in our margin estimate, it would reduce the 2015 aggregate Medicare margin by, at most, 1.3 percentage points. This estimate is likely an overestimate of the bereavement costs associated with Medicare hospice patients because, in addition to bereavement costs associated with hospice patients, the estimate could also include the costs of community bereavement services offered to the family and friends of decedents who were not enrolled in hospice. Also, some hospices fund bereavement services through donations. Hospice revenues from donations are not included in our margin calculations.

We also exclude nonreimbursable volunteer costs from our margin calculations. As discussed in our March 2012 report, the statute requires Medicare hospice providers to use some volunteers in the provision of hospice care. Costs associated with recruiting and training volunteers are generally included in our margin calculations because they are reported in reimbursable cost centers. The only volunteer costs that would be excluded from our margins are those associated with nonreimbursable cost centers. It is unknown what costs are included in the volunteer nonreimbursable cost center. If nonreimbursable volunteer costs were included in our margin calculation, it would reduce the aggregate Medicare margin by 0.3 percentage point.

Hospice margins vary by provider characteristics, such as type of hospice (freestanding or provider based), type of ownership (for profit or nonprofit), patient volume, and urban or rural location (Table 12-13). Because our margin estimates predate the implementation of the new payment system in 2016, they do not reflect any distributional effects resulting from the new payment system. In 2015, freestanding hospices had higher margins (13.8 percent) than home health–based or hospital-based hospices (3.3 percent and –22.9 percent, respectively) (Table 12-13). Provider-based hospices have lower margins than freestanding hospices for several reasons, including their shorter stays and the allocation of overhead costs from the parent provider to the provider-based hospice. The aggregate Medicare margin was considerably

**TABLE  
12-13****Hospice Medicare margins by selected characteristics, 2009–2015**

Category	Percent of hospices 2015	2009	2010	2011	2012	2013	2014	2015
All	100%	7.4%	7.4%	8.7%	10.0%	8.5%	8.2%	10.0%
Freestanding	75	10.2	10.7	11.8	13.3	12.0	11.6	13.8
Home health based	12	6.2	3.4	6.1	5.5	2.5	3.7	3.3
Hospital based	12	-12.7	-17.1	-17.0	-17.1	-17.4	-20.8	-22.9
For profit (all)	65	11.8	12.3	14.7	15.4	14.7	14.6	16.4
Freestanding	60	12.9	13.4	15.9	16.5	15.7	15.4	17.7
Nonprofit (all)	31	3.6	2.9	2.3	3.6	0.9	-0.9	0.1
Freestanding	15	6.6	7.6	6.4	7.7	5.2	3.5	5.0
Urban	79	7.9	7.7	9.0	10.3	8.8	8.7	10.5
Rural	21	3.2	4.6	5.2	7.3	5.9	3.3	4.9
Patient volume (quintile)								
Lowest	20	-6.2	-4.8	-3.8	-2.3	-0.4	-4.9	-5.7
Second	20	2.0	4.1	2.7	5.8	5.9	2.0	3.9
Third	20	4.2	6.8	7.6	9.7	9.3	9.8	10.6
Fourth	20	6.6	7.0	9.3	11.1	10.6	9.9	12.8
Highest	20	9.1	8.2	9.6	10.5	8.2	8.4	10.1
Below cap	87.7	7.9	7.6	8.9	10.3	8.6	8.4	10.0
Above cap (excluding cap overpayments)	12.3	1.5	3.2	4.1	5.2	7.0	6.0	9.9
Above cap (including cap overpayments)	12.3	18.4	17.3	18.4	21.3	20.1	18.8	21.4

Note: Margins for all provider categories exclude overpayments to above-cap hospices, except where specifically indicated. Margins are calculated based on Medicare allowable, reimbursable costs. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census).

Source: MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims standard analytical file, and Medicare Provider of Services file from CMS.

higher for for-profit hospices (16.4 percent) than for nonprofit hospices (0.1 percent). While the overall margin for nonprofits was near zero in 2015, the margin for freestanding nonprofit hospices was higher (5.0 percent). Generally, hospice margins vary by the providers' volume—hospices with more patients have higher margins on average. Hospices in urban areas have a higher overall aggregate Medicare margin (10.5 percent) than those in rural areas (4.9 percent). The difference between rural and urban margins may partly reflect differences in volume.

In 2016, above-cap hospices had favorable margins even after the return of overpayments. Above-cap hospices would have had a margin of about 21.4 percent before the return of overpayments but had a margin of 9.9 percent after the return of overpayments. Notably in 2015, above-

cap hospices' margin after the return of overpayments is similar to below-cap hospices' margin. In prior years, above-cap hospices' aggregate margin had been lower than below-cap hospices' margin because of the return of overpayments. As shown in Table 12-7 (p. 335), the amount by which above-cap hospices have been exceeding the cap has been decreasing in recent years, which likely contributes to their increasing margin. This decline suggests that above-cap hospices are becoming better at bringing their utilization closer to the cap in a way that is financially favorable to the hospice.

Hospice profitability is closely related to length of stay. Hospices with longer stays have higher margins. For example, in an analysis of hospice providers based on the share of their patients' stays exceeding 180 days, the

**TABLE  
12-14****Hospice Medicare margins  
by length of stay and  
patient residence, 2015**

Hospice characteristic	Medicare margin
Average length of stay	
Lowest quintile	-9.1%
Second quintile	4.2
Third quintile	13.7
Fourth quintile	19.0
Highest quintile	18.5
Percent of stays > 180 days	
Lowest quintile	-8.9
Second quintile	3.6
Third quintile	14.5
Fourth quintile	20.4
Highest quintile	16.7
Percent of patients in nursing facilities	
Lowest quartile	2.4
Second quartile	8.6
Third quartile	11.4
Highest quartile	15.7
Percent of patients in assisted living facilities	
Lowest quartile	1.6
Second quartile	5.5
Third quartile	10.6
Highest quartile	16.3

Note: Margins for all provider categories exclude overpayments to above-cap hospices. Margins are calculated based on Medicare-allowable, reimbursable costs.

Source: MedPAC analysis of Medicare hospice cost reports, Medicare Beneficiary Database, 100 percent hospice claims standard analytical file, and Medicare Provider of Services file from CMS.

average margin ranged from -8.9 percent for hospices in the lowest quintile to 20.4 percent for hospices in the second highest quintile (Table 12-14). Hospices in the quintile with the greatest share of their patients exceeding 180 days had a 16.7 percent average margin after the return of cap overpayments, but without the hospice aggregate cap, these providers' margins would have averaged 20.6 percent (latter figure not shown in table).

Hospices with a large share of patients in nursing facilities and assisted living facilities also have higher margins

than other hospices (Table 12-14). For example, in 2015, hospices in the top quartile of share of patients residing in nursing facilities had a margin of about 16 percent compared with a margin of roughly 9 percent to 11 percent in the middle quartiles and a margin of about 2 percent in the bottom quartile. Margins also vary by the share of a provider's patients in assisted living facilities, with a margin in 2015 ranging from 1.6 percent in the lowest quartile to more than 16 percent in the highest quartile. Some of the difference in margins among hospices with different concentrations of nursing facility and assisted living facility patients is driven by differences in their patients' diagnosis profile and length of stay.

However, hospices may find caring for patients in facilities more profitable than caring for patients at home for reasons in addition to length of stay. As discussed in our June 2013 report, there may be efficiencies in treating hospice patients in a centralized location in terms of mileage costs and staff travel time, as well as facilities serving as referral sources for new patients. Nursing facilities may also be a more efficient setting for hospices to provide care because of the overlap in responsibilities between the hospice and the nursing facility. Analyses in our June 2013 report suggest that a reduction to the routine home care payment rate for patients in nursing facilities may be warranted because of the overlap in responsibilities between the hospice and the nursing facility (Medicare Payment Advisory Commission 2013).

Our 2015 margin estimates reflect hospices' financial performance in the year before adoption of the new payment system. In 2016, CMS's payment reforms—which moved away from a single base rate for routine home care to a two-tiered base rate and provide additional payments for certain visits in the last seven days of life—could modestly reduce the variation in profitability across hospices. To illustrate the potential effect of the new payment system in 2016, we calculated actual 2016 payments under the new payment system as reflected in the 2016 claims data and compared them with what we estimate payments would have been in 2016 under the old payment structure.<sup>22</sup>

Under the new payment system, providers with the fewest long-stay patients had higher payments, while those with the most long-stay patients had lower payments than they would have had under the old payment structure (Table 12-15). For example, we estimate aggregate payments increased on average about 3 percent for providers in the lowest length of stay quintile (as measured by percent



of stays greater than 180 days) and decreased about 3 percent for providers in the highest length of stay quintile as a result of the new payment system. The effects remain modest when viewed by hospice type. For example, under the new payment system, provider-based hospices as a group experienced a modest payment increase (2.6 percent for hospital-based hospices and 1.0 percent for home health–based hospices) and freestanding providers experienced a modest payment decrease (–0.6 percent). Similarly, payment changes for nonprofit and for-profit hospices as a group were small—an estimated 1.1 percent increase in payments to nonprofit hospices and a 1.3 percent reduction in payments to for-profit hospices.

We also examined the effect of the new payment system on hospice providers based on the share of the providers’ stays that were 7 days or less. As a result of the new payment system, we estimate that 2016 aggregate payments increased by 1.2 percent for the quintile of providers with the most short stays and decreased 2.1 percent for the quintile of providers with the fewest short stays (data not shown). The modest effect of the payment changes on hospices with many short stays may be partly explained by the fact that some patients with short stays receive general inpatient care, which was unaffected by the 2016 payment changes.

Given the magnitude of the estimated effects, the new payment system may reduce some of the variation in margins across providers, but substantial variation is likely to remain. As the Commission noted in its comment letter on the 2016 hospice proposed rule, the initial changes to the hospice payment system are projected to be modest and leave room for additional changes in future years based on further data and experience (Medicare Payment Advisory Commission 2015a). The Commission intends to continue to examine the effects of the new payment system and consider whether additional changes are needed to the RHC payment structure to better match the costs of care for both short and long hospice stays.

Another consideration in evaluating the adequacy of payments is whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, the provider compares the marginal revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase their volume of Medicare patients. On the other hand, if marginal payments do not cover the marginal costs,

**TABLE  
12–15**

**The new payment system  
modestly redistributed  
payments across providers**

Type of hospice	Estimated percent change in hospice payments in 2016 as a result of the new payment system
Percent of stays > 180 days	
Lowest quintile	3.3%
Second quintile	0.9
Third quintile	–0.4
Fourth quintile	–1.8
Highest quintile	–2.9
Freestanding	–0.6
Home health based	1.0
Hospital based	2.6
For profit	–1.3
Nonprofit	1.1
Urban	–0.3
Rural	0.3

Note: The figures in this table reflect the percentage difference between actual 2016 payments under the new payment system and a Commission estimate of what 2016 payments would have been if the old payment structure had remained in effect in 2016. These estimates reflect only the difference in payment rates under the new payment structure compared with the old payment structure and do not account for any behavioral change.

Source: MedPAC analysis of 100 percent hospice claims standard analytical file, the denominator file, the Medicare Beneficiary Database, and Medicare Provider of Services file from CMS.

the provider may have a disincentive to treat Medicare beneficiaries. If we approximate marginal cost as total Medicare cost minus fixed building and equipment cost, then marginal profit is:

$$\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and equipment costs})) / \text{Medicare payments}$$

This formula gives a lower bound on the marginal profit because we ignore any potential labor costs that are fixed. For hospice providers, we find that Medicare payments

exceed marginal costs by roughly 13 percent, suggesting that providers have an incentive to treat Medicare patients. This profit margin is a positive indicator of patient access.

### Projecting margins for 2018

To project the aggregate Medicare margin for 2018, we model the policy changes that went into effect between 2015 (the year of our most recent margin estimates) and 2018. The policies include:

- updates of 1.6 percent in 2016 and 2.1 percent in 2017 (which reflects the market basket update, productivity adjustment, and an additional legislated adjustment of –0.3 percentage point each year);
- an update of 1.0 percent in 2018 per the Medicare Access and CHIP Reauthorization Act of 2015;
- year 7 of the seven-year phase-out of the wage index budget-neutrality adjustment factor and additional wage index changes, which reduced payments to hospices by 0.5 percentage point in 2016; and
- implementation of the new structure for routine home care payments beginning January 2016.

We also assume a rate of cost growth in 2016 through 2018 that is consistent with historical rates of cost growth among hospice providers. Taking these factors into account, we project an aggregate Medicare margin for hospices of 8.7 percent in 2018. This margin projection excludes nonreimbursable costs associated with bereavement services and volunteers (which, if included, would reduce margins by at most 1.3 percentage points and 0.3 percentage point, respectively).

---

### How should Medicare payments change in 2019?

---

The indicators of payment adequacy for hospices—beneficiaries’ access to care, quality of care, provider access to capital, and Medicare payments relative to

providers’ costs—are positive and suggest that current payment rates are adequate.

## RECOMMENDATION 12

**The Congress should eliminate the fiscal year 2019 update to the Medicare payment rates for hospice services.**

## RATIONALE 12

Our payment indicators for hospice are positive. The number of hospices increased by more than 4 percent in 2016 because of the entry of for-profit providers. The number of beneficiaries enrolled in hospice increased by more than 3 percent, and the total number of hospice days increased by over 5 percent. Average length of stay among decedents increased slightly. Access to capital appears adequate. Limited quality data are now available. The projected 2018 aggregate Medicare margin is 8.7 percent. Based on our assessment of the payment adequacy indicators, hospices should be able to accommodate cost changes in 2019 without an update to the 2018 base payment rates.

## IMPLICATIONS 12

### Spending

- Under current law, hospices are projected to receive an update in fiscal year 2019 equal to 1.7 percent (based on a projected market basket of 2.8 percent, a projected productivity adjustment of –0.8 percent, and an additional statutory adjustment of –0.3 percent). Our recommendation to eliminate the payment update for fiscal year 2019 would decrease federal program spending relative to the statutory update by between \$250 million and \$750 million over one year and between \$1 billion and \$5 billion over five years.

### Beneficiary and provider

- We do not expect this recommendation to have adverse effects on beneficiaries’ access to care. This recommendation is not expected to affect providers’ willingness and ability to care for Medicare beneficiaries. ■



## Endnotes

---

- 1 If a beneficiary does not have an attending physician, the beneficiary can initially elect hospice based on the certification of the hospice physician alone.
- 2 When first established under TEFRA, the Medicare hospice benefit limited coverage to 210 days of hospice care. The Medicare Catastrophic Coverage Repeal Act of 1989 and the Balanced Budget Act of 1997 eased this limit.
- 3 In 2000, 30 percent of hospice providers were for profit, 59 percent were nonprofit, and 11 percent were government. As of 2016, about 67 percent of hospices were for profit, 29 percent were nonprofit, and 4 percent were government.
- 4 The 2018 cap year spans from October 1, 2017, to September 30, 2018. Payments for the cap year reflect the sum of payments to a provider for services furnished in that year. The calculation of the beneficiary count for the cap year is more complex, involving two alternative methodologies. For a detailed description of the two methodologies and when they are applicable, see our March 2012 report (Medicare Payment Advisory Commission 2012).
- 5 This 2018 cap is equivalent to an average length of stay of 173 days of routine home care for a hospice with a wage index of 1.
- 6 The Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT) changed the annual update factor applied to the hospice aggregate cap for cap years 2017 through 2025. Previously, the aggregate cap was updated annually based on the percentage increase in the medical care expenditure category of the consumer price index for all urban consumers. As a result of IMPACT, the aggregate cap will be updated annually by the same factor as the hospice payment rates (market basket net of productivity and other adjustments).
- 7 Our hospice analyses in this report that break out data for rural and urban beneficiaries or rural and urban providers are based on core-based statistical area definitions (which rely on the 2010 census) or are based on the 2013 urban influence codes.
- 8 Effective October 1, 2014, CMS no longer allows debility, adult failure to thrive, and certain neurological diagnoses to be reported as the primary hospice diagnosis. If patients with these diagnoses have a life expectancy of six months or less, they still qualify for hospice, but the hospice must report a more specific primary diagnosis. As would be expected, the reported diagnosis mix of hospice patients changed in response to the new requirement. For example, between 2013 and 2016, the primary diagnosis of debility and adult failure to thrive dropped from 9 percent to 1 percent, while primary diagnoses for heart and circulatory conditions rose from 19 percent to 28 percent.
- 9 Type of hospice reflects the type of cost report filed (a hospice files a freestanding hospice cost report or is included in the cost report of a hospital, home health agency, or skilled nursing facility). The type of cost report does not necessarily reflect where patients receive care. For example, all hospice types may serve some nursing facility patients.
- 10 Hospice use increased among Medicare decedents in Pennsylvania between 2015 and 2016, even though the number of providers decreased and the number of providers per 10,000 beneficiaries was below the national average.
- 11 The terms *curative care* and *conventional care* are often used interchangeably to describe treatments intended to be disease modifying.
- 12 The estimates of hospices over the cap are based on the Commission's analysis. While the estimates are intended to approximate those of the CMS claims processing contractors, differences in available data and methodology have the potential to lead to different estimates. An additional difference between our estimates and those of the CMS contractors relates to the alternative cap methodology that CMS established in the hospice final rule for 2012 (Centers for Medicare & Medicaid Services 2011). Based on that regulation, for cap years before 2012, hospices that challenged the cap methodology in court or made an administrative appeal had their cap payments calculated from the challenged year going forward using a new, alternative methodology. For cap years from 2012 onward, all hospices have their cap liability calculated using the alternative methodology unless they elect to remain with the original method. For estimation purposes, we assume that the CMS contractors used the alternative methodology for cap year 2012 onward. Estimates for cap years 2011 and earlier assumed that the original cap methodology was used.
- 13 Above-cap hospices are more likely to be for-profit, freestanding providers and to have smaller patient counts than below-cap hospices.
- 14 In past years, a small fraction of hospices did not report quality data and faced a reduction of their annual update. In 2014, about 6 percent of hospices that provided services to Medicare beneficiaries that year did not report the required Hospice Item Set quality data and faced a 2 percentage point reduction in their update for fiscal year 2016. In 2015, about 9 percent of hospices that provided services to Medicare beneficiaries that year did not report the required CAHPS and/

- or Hospice Item Set quality data and faced a 2 percentage point reduction in their update for fiscal year 2017. In 2016, about 14 percent of hospices that provided services to Medicare beneficiaries that year did not report the required CAHPS and/or Hospice Item Set quality data and faced a 2 percentage point reduction in their update for fiscal year 2018. Nonreporters were generally small providers, and it is possible that some of them are no longer operating.
- 15 The live-discharge rates were calculated for providers regardless of size. If the live-discharge rate is used as a quality or program integrity measure, issues with random variation would dictate limiting the measure to providers with a specified minimum number of discharges. Nonetheless, it is important to include small providers in live-discharge measures because the aggregate live-discharge rate (based on combined data for similarly sized hospices) is higher for small hospice providers than large providers. In 2016, the aggregate live-discharge rate for providers with 30 or fewer discharges annually was about 41 percent compared with just under 17 percent for larger providers. One approach to including small providers in live-discharge rate measures could be to use data for multiple years for small providers that would otherwise not meet sample size criteria. To explore this method, we modeled limiting our analysis to providers that had more than 30 discharges in 2016 and to small providers with more than 30 discharges in 2015 and 2016 combined. With this approach, a live-discharge rate could be calculated for 90 percent of providers (compared with only 83 percent of providers if a single year of data were used for small providers). The live-discharge rate was 46 percent at the 90th percentile and 28 percent at the 75th percentile under this approach.
  - 16 In 2016, the 10 percent of providers with the highest live discharge rates were disproportionately for profit (88 percent), small (71 percent had fewer than 50 discharges in 2016), and newer providers (69 percent first participated in Medicare in 2010 or later). Providers with high live-discharge rates were also more likely to exceed the aggregate cap. In 2015 (the most recent year for which we have cap overpayment estimates), 54 percent of hospices in the top 10 percent for live discharges exceeded the aggregate cap that year.
  - 17 We present margins for 2015 because our margin estimates exclude cap overpayments to providers. To calculate this exclusion accurately, we need the next year's claims data (i.e., the 2015 cap overpayment calculation requires 2016 claims data).
  - 18 The cost per day calculation reflects aggregate costs for all types of hospice care (routine home, continuous home, general inpatient, and inpatient respite care). "Days" reflects the total number of days for which the hospice is responsible to care for its patients, regardless of whether the patient received a visit on a particular day. The cost per day estimates are not adjusted for differences in case mix or wages across hospices and are based on data for all patients, regardless of payer.
  - 19 Wide variation in cost per day exists in the freestanding hospice cost reports for inpatient respite care, including the presence of some high-end outliers that cause a significant divergence between the average and the median. To address the presence of outliers, we explored excluding observations below the 10th percentile and above the 90th percentile. With this approach, the average cost per day was \$373 and the median cost per day was \$343 for inpatient respite care in 2015.
  - 20 The aggregate Medicare margin is calculated as follows:  $((\text{sum of total payments to all providers}) - (\text{sum of total costs of all providers}) / (\text{sum of total payments to all providers}))$ . Estimates of total Medicare costs come from providers' cost reports. Estimates of Medicare payments and cap overpayments are based on Medicare claims data.
  - 21 Hospices that exceed the Medicare aggregate cap are required to repay the excess to Medicare. We do not consider the overpayments to be part of hospice revenues in our margin calculation.
  - 22 To estimate what 2016 payments would have been under the old payments, we took the 2016 utilization data as fixed (i.e., assumed no behavioral change) and estimated payments under the old payment structure with a single RHC base rate and no additional payments for certain visits at the end of life.

## References

---

- Barnato, A. E., D. L. Anthony, J. Skinner, et al. 2009. Racial and ethnic differences in preferences for end-of-life treatment. *Journal of General Internal Medicine* 24, no. 6 (June): 695–701.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. National CAHPS Hospice Survey data. <https://data.medicare.gov/Hospice-Data-Directory/National-CAHPS-Hospice-Survey-data/sj42-4yv4>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2011. Medicare program; hospice wage index for fiscal year 2012. Notice of CMS ruling. *Federal Register* 76, no. 89 (May 9): 26731–26735.
- Cohen, L. L. 2008. Racial/ethnic disparities in hospice care: A systematic review. *Journal of Palliative Medicine* 11, no. 5 (June): 763–768.
- Crawley, L., R. Payne, J. Bolden, et al. 2000. Palliative and end-of-life care in the African American community. *Journal of the American Medical Association* 284, no. 19 (November 15): 2518–2521.
- Direct Research. 2015. *Spending in the last year of life and the impact of hospice on Medicare outlays*. Updated August 2015. Report prepared by Direct Research for the Medicare Payment Advisory Commission. Washington, DC: MedPAC.
- Government Accountability Office. 2004. *Medicare hospice care: Modifications to payment methodology may be warranted*. GAO–05–42. Washington, DC: GAO.
- Hoyer, T. 2007. The future of hospice. *Caring*, November 6–8.
- Institute of Medicine. 2014. *Dying in America: Improving quality and honoring individual preferences near the end of life*. Washington, DC: The National Academies Press.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015a. Comment letter to CMS on the hospice wage index and payment rate update and hospice quality report requirements proposed rule, June 2.
- Medicare Payment Advisory Commission. 2015b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2013. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2010. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2008. *Report to the Congress: Reforming the delivery system*. Washington, DC: MedPAC.
- Plotzke, M., T. J. Christian, E. Axelrod, et al. 2015. *Medicare hospice payment reform: Analysis of how the Medicare hospice benefit is used*. Report prepared for the Centers for Medicare & Medicaid Services. Cambridge, MA: Abt Associates.
- Teno, J. M., P. L. Gozalo, J. P. Bynum, et al. 2013. Change in end-of-life care for Medicare beneficiaries: Site of death, place of care, and health care transitions in 2000, 2005, and 2009. *Journal of the American Medical Association* 309, no. 5 (February 6): 470–477.



CHAPTER

# 13

---

## **The Medicare Advantage program: Status report**

---

## R E C O M M E N D A T I O N S

**13-1** For Medicare Advantage contract consolidations involving different geographic areas, the Secretary should:

- For any consolidations effective on or after January 1, 2018, require companies to report quality measures using the geographic reporting units and definitions as they existed prior to consolidation, and
- Determine star ratings as though the consolidations had not occurred, and maintain the pre-consolidation reporting units until new geographic reporting units are implemented per Recommendation 13-2.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....  
**13-2** The Secretary should:

- Establish geographic areas for Medicare Advantage quality reporting that accurately reflect health care market areas, and
- Calculate star ratings for each contract at that geographic level for public reporting and for the determination of quality bonuses.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1



## The Medicare Advantage program: Status report

### Chapter summary

Each year, the Commission provides a status report on the Medicare Advantage (MA) program. In 2017, the MA program included almost 3,300 plan options offered by 185 organizations, enrolled about 19 million beneficiaries (32 percent of all Medicare beneficiaries), and paid MA plans about \$210 billion (not including Part D drug plan payments). To monitor program performance, we examine MA enrollment trends, plan availability for the coming year, and payments for MA plan enrollees relative to spending for fee-for-service (FFS) Medicare beneficiaries. We also provide updates on risk adjustment, risk coding practices, and current quality indicators in MA. As a result of the analyses, we provide recommendations for determining eligibility for bonuses under the quality bonus program.

The MA program gives Medicare beneficiaries the option of receiving benefits from private plans rather than from the traditional FFS Medicare program. The Commission strongly supports the inclusion of private plans in the Medicare program; beneficiaries should be able to choose between the traditional FFS Medicare program and alternative delivery systems that private plans can provide. Because Medicare pays private plans a risk-adjusted per person predetermined rate rather than a per service rate, plans have greater incentives than FFS providers to innovate and use care-management techniques to deliver more efficient care.

### In this chapter

- Trends in enrollment, plan availability, and payments
- Medicare Advantage risk adjustment and coding intensity
- Quality in the Medicare Advantage program and the effect of contract consolidations

The Commission has emphasized the importance of imposing fiscal pressure on all providers of care to improve efficiency and reduce Medicare program costs and beneficiary premiums. For MA, the Commission previously recommended that payments be brought down from prior levels, which were generally higher than FFS, and be set so that the payment system is neutral and does not favor either MA or the traditional FFS program. Legislation has reduced the inequity in Medicare spending between MA and FFS even as plans have received increased payments because of higher risk coding and quality bonus rules. As a result, over the past few years, plan bids and payments have come down in relation to FFS spending while MA enrollment continues to grow. The pressure of lower benchmarks has led to improved efficiencies and more competitive bids that enable MA plans to continue to increase enrollment by offering benefits that beneficiaries find attractive.

***Enrollment***—Between 2016 and 2017, enrollment in MA plans grew by about 8 percent (1.4 million enrollees) to 18.9 million enrollees. About 32 percent of all Medicare beneficiaries were enrolled in MA plans in 2017, up from 31 percent in 2016. Among plan types, HMOs continued to enroll the most beneficiaries (12.2 million), with 21 percent of all Medicare beneficiaries in HMOs in 2017. During this period, enrollment in local preferred provider organizations (PPOs) grew by 19 percent, regional PPO enrollment increased by 3 percent, and private fee-for-service (PFFS) enrollment decreased by 21 percent. Focusing on other plan characteristics, special needs plan (SNP) enrollment grew by 9 percent, and employer group enrollment grew by 16 percent.

***Plan availability***—Access to MA plans remains high in 2018, with most Medicare beneficiaries having access to many plans. Almost all beneficiaries have had access to some type of MA plan since 2006, and HMOs and local PPOs have become more widely available in the past few years. Nearly all Medicare beneficiaries (96 percent) have an HMO or local PPO plan operating in their county of residence. Regional PPOs are available to 74 percent of beneficiaries. Forty-one percent of beneficiaries have access to PFFS plans. Overall, 99 percent of Medicare beneficiaries have access to an MA plan.

An analysis of the MA program's market structure shows that, compared with 2007, MA enrollment in 2017 is more heavily concentrated. The top 10 MA organizations (ranked by enrollment) had 72 percent of total enrollment in 2017, compared with 61 percent in 2007. Enrollment is more concentrated in nonmetropolitan areas, where the top two companies have 54 percent of all enrollment, compared with 42 percent in metropolitan areas.

**Plan payments**—Using the 2018 plan bid data, before adjusting fully for coding intensity, we estimate that 2018 MA benchmarks (including quality bonuses), bids, and payments will average 107 percent, 90 percent, and 101 percent of FFS spending, respectively. Lower benchmarks have led to more competitive bids from plans: Bids have dropped from roughly 100 percent of FFS before the Patient Protection and Affordable Care Act of 2010 to 90 percent of FFS in 2018. For 2018, about 70 percent of plans, accounting for 77 percent of projected MA enrollment, have bids below FFS spending.

On average, quality bonuses in 2018 will add 4 percent to the average plan’s base benchmark and will add 3 percent to plan payments. The base benchmarks (that is, excluding the quality bonuses) are expected to average 103 percent of FFS spending in 2018, an increase from 102 percent in 2017, due to demographic changes in the Medicare population.

**Risk adjustment and coding intensity**—Medicare payments to MA plans are enrollee specific, based on a plan’s payment rate and an enrollee’s risk score. Risk scores account for differences in expected medical expenditures and are based in part on diagnoses that providers code. Most claims in FFS Medicare are paid using procedure codes, which offer little incentive for providers to record more diagnosis codes than necessary to justify ordering a procedure. In contrast, MA plans have had a financial incentive, since the current risk adjustment model was introduced, to ensure that their providers record all possible diagnoses because higher enrollee risk scores result in higher payments to the plan.

Our updated analysis for 2016 shows that higher diagnosis coding intensity resulted in MA risk scores that were 8 percent higher than scores for similar FFS beneficiaries. This estimate is lower than the prior year due to the full implementation of a new risk model and an increase in FFS risk score growth, matching the growth rate of MA risk scores. By law, CMS makes a minimum across-the-board adjustment to MA risk scores to make them more consistent with FFS coding. In 2016, the adjustment reduced MA risk scores by 5.41 percent, leaving MA risk scores and payments about 2 percent to 3 percent higher than they would have been if MA enrollees had been treated in FFS Medicare. The adjustment for 2018 is 5.91 percent. The Commission previously recommended that CMS change the way diagnoses are collected for use in risk adjustment and estimate a new coding adjustment that improves equity across plans and eliminates the impact of differences in MA and FFS coding intensity.

**Quality measures**—MA plans are able to receive bonus payments if they achieve an overall rating of 4 stars or higher on CMS’s 5-star rating system. In the past year,

contract consolidations undertaken for the purpose of obtaining bonus payments had the largest impact to date. At the end of 2017, 1.4 million enrollees were in a nonbonus contract that was absorbed by another contract with a rating of 4 stars or higher. The 1.4 million enrollees under the original contracts that were not in bonus-status contracts are in bonus status for the 2018 payment year because of the consolidations. Since 2013, over 4 million enrollees—over 20 percent of MA enrollees—have been moved among contracts to secure bonus payments that would not otherwise be payable. Thus, while over 70 percent of MA enrollees are classified as being in plans rated 4 stars or higher, taking into account the enrollees who are in bonus-status plans because of consolidations, the actual share could be as low as 50 percent.

The Commission recommends that contract consolidations not be allowed to affect star ratings and bonus payments when two contracts serving different geographic areas are consolidated. The determination of star ratings for each geographic area of the original contracts and the reporting of quality indicators that are the basis of the star ratings should continue as though the consolidation had not occurred. (Subsequent to the Commission’s vote on the recommendation, the Bipartisan Budget Act of 2018 directed the Secretary to address contract consolidations by averaging the star results of contracts that are being combined.) In conjunction with the recommendation addressing consolidations, the Commission restates its recommendation, first made in 2010, that the geographic unit for quality reporting should be the local health care market area.

In addition to the unwarranted bonus payments, the wave of contract consolidations has resulted in inaccurate reporting of Medicare Plan Finder star ratings that beneficiaries use to choose among plans in their area. The consolidations have also limited our ability to report quality results in MA in our usual manner of comparing year-over-year contract-level results. Alternative ways of looking at changes in quality over time—such as by using weighted average results across all plans—indicate that quality results are mixed, with most measures unchanged; among the small number of measures where there was a significant change, a greater number improved than declined. ■

---

## Background

---

The Medicare Advantage (MA) program allows Medicare beneficiaries to receive benefits from private plans rather than from the traditional fee-for-service (FFS) program. In 2017, the MA program included almost 3,300 plan options offered by 185 organizations, enrolled about 19 million beneficiaries (32 percent of all Medicare beneficiaries), and paid MA plans about \$210 billion (not including Part D drug plan payments). The Commission supports including private plans in the Medicare program because they allow beneficiaries to choose between FFS Medicare and alternative delivery systems that private plans can provide. Plans often have flexibility in payment methods, including the ability to negotiate with individual providers, care-management techniques that fill potential gaps in care delivery (e.g., programs focused on preventing avoidable hospital readmissions), and robust information systems that can potentially provide timely feedback to providers. Plans also can reward beneficiaries for seeking care from more efficient providers and give beneficiaries more predictable cost sharing; one trade-off is that plans typically restrict the choice of providers.

By contrast, traditional FFS Medicare has lower administrative costs and offers beneficiaries an unconstrained choice of health care providers, but it lacks incentives to coordinate care and is limited in its ability to modify care delivery. Because private plans and traditional FFS Medicare have structural aspects that appeal to different segments of the Medicare population, we favor providing a financially neutral choice between private MA plans and traditional FFS Medicare. Medicare's payment systems, as well as monitoring and enforcement efforts, should not unduly favor one component of the program over the other.

Efficient MA plans may be able to capitalize on their administrative flexibility to provide better value to beneficiaries who enroll in those plans. However, some of the extra benefits that MA plans provide their enrollees result from payments that would have been lower under FFS Medicare for similar beneficiaries. Thus, some of those benefits are financed by higher government spending and higher beneficiary Part B premiums (including for those who are in traditional FFS Medicare) at a time when Medicare and its beneficiaries are under increasing financial stress. To encourage efficiency and innovation, MA plans need to face some degree of financial pressure and effective monitoring and

regulation, as the Commission recommends for providers in the traditional FFS program. One method of achieving financial neutrality is to link private plans' payments more closely to FFS Medicare costs within the same market. Alternatively, neutrality can be achieved by establishing a government contribution that is equally available for enrollment in either FFS Medicare or an MA plan. The Commission will continue to monitor plan payments and performance and track progress toward financial neutrality.

Each year, the Commission provides a status report on the MA program. To monitor program performance, we examine MA enrollment trends, plan availability for the coming year, and payments for MA plan enrollees relative to spending for FFS Medicare beneficiaries. We also provide updates on risk adjustment, risk coding practices, and current quality indicators in MA.

---

## Trends in enrollment, plan availability, and payments

---

In contrast to traditional FFS Medicare, MA enrolls beneficiaries in private health plans. Medicare pays plans a fixed rate per enrollee rather than FFS Medicare's fixed rate per service.

### Types of MA plans

Our analysis of the MA program uses the most recent data available and reports results by plan type. The analysis does not cover non-MA private plan options that may be available to some beneficiaries (see endnote and text box on pp. 361–362).<sup>1</sup> The plan types are:

- **HMOs and local preferred provider organizations (PPOs)**—These plans have provider networks and, if they choose, can use tools such as selective contracting and utilization management to coordinate and manage care and control service use.<sup>2</sup> They can choose individual counties to serve and can vary their premiums and benefits across counties. These two plan types are classified as coordinated care plans (CCPs).
- **Regional PPOs**—These plans are required to offer a uniform benefit package and premium across CMS-designated regions made up of one or more states. Regional PPOs have more flexible provider network requirements than local PPOs. Regional PPOs are also classified as CCPs.



- **Private FFS (PFFS) plans**—PFFS plans are not classified as CCPs. Before 2011, PFFS plans typically did not have provider networks, making them less able than other plan types to coordinate care. They usually paid providers Medicare’s FFS payment rates (instead of negotiated rates). Because PFFS plans generally lacked care coordination, had lower quality measures than CCPs, paid Medicare FFS rates, and had higher administrative costs than traditional FFS Medicare, they were viewed as providing little value. In response, the Medicare Improvements for Patients and Providers Act of 2008 mandated that, in areas with two or more network MA plans, PFFS plans can be offered only if they have provider networks. Therefore, PFFS plans have to either locate in areas with fewer than two network plans or operate as network-based PFFS plans.

Two additional plan classifications cut across plan types: special needs plans (SNPs) and employer group plans. SNPs offer benefit packages tailored to specific populations (those beneficiaries who are dually eligible for Medicare and Medicaid, are institutionalized, or have certain chronic conditions). SNPs must be CCPs. Employer group plans are available only to Medicare beneficiaries who are members of employer or union groups that contract with those plans. SNPs are included in our plan data, with the exception of plan availability figures because these plans are not available to all beneficiaries. (See the Commission’s March 2013 report to the Congress, available at <http://www.medpac.gov>, for more detailed information on SNPs.) As we recommended in an earlier report, employer plans no longer submit bids, so we have only enrollment data for them. (See the Commission’s March 2015 report to the Congress for more detailed information on employer plans.)

## How Medicare pays MA plans

Plan payment rates are determined by the MA plan bid, which represents the dollar amount that the plan estimates will cover the Part A and Part B benefit package for a beneficiary of average health status, and the benchmark for the county in which the beneficiary resides, which is the maximum amount of Medicare payment set by law for an MA plan to provide Part A and Part B benefits. (Medicare also pays plans for providing the Part D drug benefit, but Medicare’s Part D payments are determined through the Part D bidding process, and not all plans include the Part D benefit.) Plans with higher quality ratings are rewarded with a higher benchmark. The benchmark that is

compared with an individual plan’s bid is a plan-specific risk-adjusted average, weighted by the plan’s projected enrollment from counties in its service area. If a plan’s bid is above the benchmark, its MA payment rate is equal to the benchmark and enrollees have to pay a premium (in addition to the usual Part B premium) equal to the difference. If a plan’s bid is below the benchmark, its payment rate is its bid plus a share (between 50 percent and 70 percent, depending on a plan’s quality ratings) of the difference between the plan’s bid and the benchmark; the beneficiary pays no additional premium to the plan for Part A and Part B benefits (but continues to be responsible for payment of the Medicare Part B premium and may pay premiums to the plan for additional benefits). The payment amount above the bid is referred to as the rebate. Plans must use the rebate to provide additional benefits to enrollees in the form of lower cost sharing, lower premiums, or supplemental benefits. (CMS reviews the projected uses of the rebates, but the valuation of the rebate can be fully loaded, meaning that the plan can devote some of the rebate to administration costs and margins.) Plans may also choose to include additional supplemental benefits in their packages and charge premiums to cover those additional benefits. (A more detailed description of the MA program payment system can be found at [http://medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_17\\_ma\\_final.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_17_ma_final.pdf?sfvrsn=0).)

## MA plan enrollment continued to grow faster than total Medicare beneficiary growth in 2017

Between November 2016 and November 2017, enrollment in MA plans grew by 8 percent—or 1.4 million enrollees—to 18.9 million enrollees (compared with 3 percent growth in the same period for the total Medicare population). During this period, MA enrollment rose from 31 percent to 32 percent of all Medicare beneficiaries (Table 13-1).

The Commission’s previous work suggests that many beneficiaries enroll in MA immediately upon becoming eligible, but most of those who enroll in MA initially enroll in FFS Medicare and subsequently move to MA. For more on enrollment patterns, see our March 2015 report (Medicare Payment Advisory Commission 2015b).

Among plan types, HMOs continued to enroll the most beneficiaries (12.2 million) in 2017, with 21 percent of all Medicare beneficiaries in HMOs. Between 2016 and



**TABLE  
13-1****MA plan enrollment continued to grow faster  
than total Medicare beneficiary growth in 2017**

	MA enrollment (in millions)		Percent change in enrollment	2017 MA enrollment as a share of total Medicare
	November 2016	November 2017		
Total	17.5	18.9	8%	32%
Plan type				
CCP	17.3	18.7	8	32
HMO	11.7	12.2	5	21
Local PPO	4.3	5.1	19	9
Regional PPO	1.3	1.4	3	2
PFFS	0.2	0.2	-21	<1
Restricted availability plans included in totals above				
SNPs*	2.3	2.5	9	4
Employer group*	3.2	3.7	16	6
Urban/rural				<b>Share of Medicare population in MA</b>
Urban	15.2	16.3	7	34
Rural	2.3	2.5	10	22

Note: MA (Medicare Advantage), CCP (coordinated care plan), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service), SNP (special needs plan). CCPs include HMO, local PPO, and regional PPO plans. Rural areas include counties designated as micropolitan counties and counties that are neither metropolitan nor micropolitan as defined by the Office of Management and Budget. Urban areas include metropolitan counties. The sum of column components may not equal the stated total due to rounding.

\*SNPs and employer group plans have restricted availability. Their enrollment is included in the statistics by plan type and location. We present them separately to provide a more complete picture of the MA program.

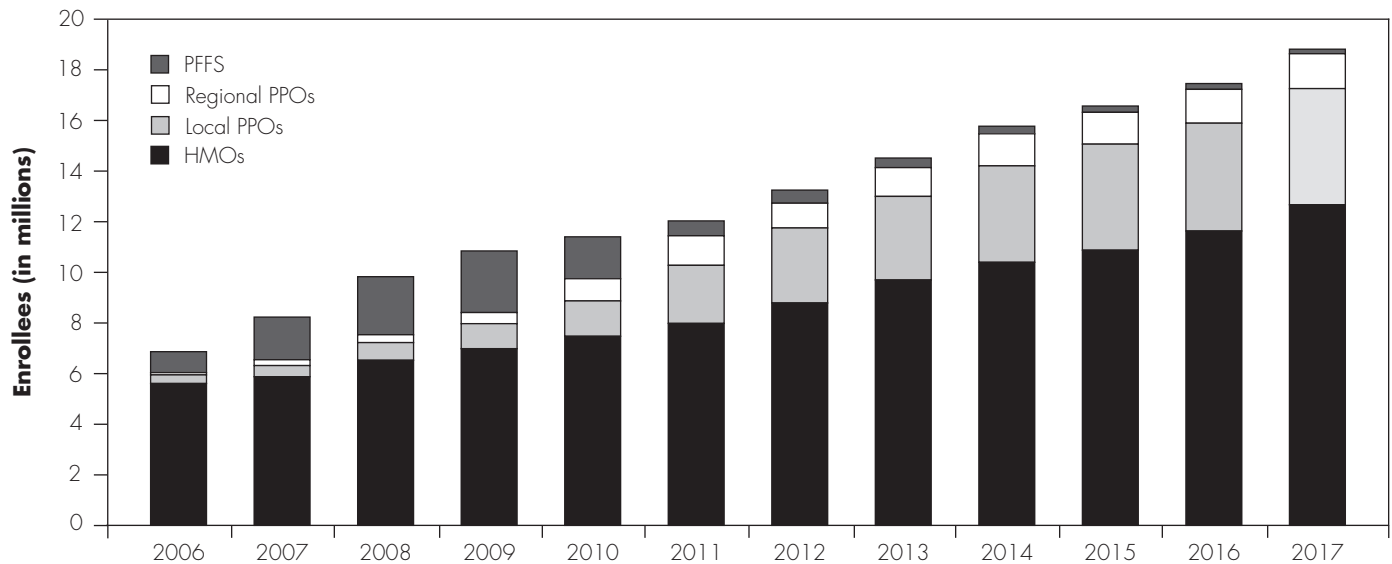
Source: MedPAC analysis of CMS enrollment files.

2017, enrollment in local PPOs grew by 19 percent and in regional PPOs by 3 percent. At the same time, PFFS enrollment dropped by 21 percent, but nevertheless rounded to 200,000 enrollees in both years (Table 13-1). In 2017, SNP enrollment grew by 9 percent, and employer group enrollment grew by 16 percent.

Enrollment patterns differ in urban and rural areas. Over a third of urban beneficiaries are enrolled in MA compared with less than a quarter of beneficiaries residing in rural counties. In 2017, about one-third of rural MA enrollees were in HMO plans compared with about 70 percent of urban enrollees (not shown in Table 13-1). By contrast, 4 percent of rural enrollees were in PFFS plans compared with less than 1 percent of urban enrollees.

Enrollment patterns also differ between those beneficiaries eligible for Medicare because they have reached 65 years of age (aged) and those who are eligible for Medicare on the basis of disability (disabled). We find that 33 percent of the aged and 26 percent of the disabled were enrolled in MA at the end of 2016 (the most recent CMS data are available only at summary levels and are not split by age and disability status). This difference has been narrowing somewhat over time: In 2011, 27 percent of aged beneficiaries and 18 percent of disabled beneficiaries were enrolled in MA.

The share of Medicare beneficiaries enrolled in MA plans in 2017 varied widely by geography. In some metropolitan areas, less than 1 percent of Medicare beneficiaries were

**FIGURE  
13-1****Medicare Advantage enrollment, 2006–2017**

Note: PFFS (private fee-for-service), PPO (preferred provider organization).

Source: MedPAC analysis of CMS enrollment files.

enrolled in MA plans. For example, in Anchorage, AK (1 percent enrolled in MA), only employer group plans are available, whereas in other areas (Miami; Pittsburgh; Rochester, NY; and several areas in Puerto Rico), MA enrollment was 60 percent or more.

MA enrollment growth in 2017 continued a trend begun in 2003. Since 2003, overall enrollment has more than tripled (Figure 13-1 begins with 2006). Trends vary by plan type. HMOs have grown steadily each year since 2003, but growth in other plan types has been more variable.

### Plan availability for 2018

Every year, we assess plan availability and projected enrollment for the coming year based on the bid data that plans submit to CMS. We find that access to MA plans remains high in 2018, with most Medicare beneficiaries having access to many plans. Some measures of availability have improved for 2018. While almost all beneficiaries have had access to some type of MA plan since 2006, local CCPs have become more widely available in the past few years (Table 13-3, p. 363). In

2018, 96 percent of Medicare beneficiaries have an HMO or local PPO plan (local CCP) operating in their county of residence, up from 95 percent in 2017 and 93 percent in 2012. Regional PPOs are available to 74 percent of beneficiaries in 2018, unchanged from 2017. Access to PFFS plans in 2018 is lower, available to 41 percent of beneficiaries, down from 45 percent in 2017. Overall, 99 percent of Medicare beneficiaries have access to an MA plan, and 98 percent have access to a CCP (total CCP data not shown in Table 13-3, p. 363), unchanged from 2017.

The availability of SNPs has changed slightly and varies by the type of special needs population served. In 2018, 86 percent of beneficiaries reside in areas where SNPs serve beneficiaries who are dually eligible for Medicare and Medicaid (the same percentage as in 2017), 47 percent live where SNPs serve beneficiaries with chronic conditions (up from 44 percent in 2017), and 56 percent live where SNPs serve institutionalized beneficiaries (up from 52 percent in 2017). Overall, 90 percent of beneficiaries reside in counties served by at least one type of SNP (not shown in table).

## Who chooses to join MA plans and when do they choose?

The Commission examined Medicare Advantage (MA) enrollment patterns for 2016. For the purposes of this analysis, MA enrollees include members of cost plans, the Program of All-Inclusive Care for the Elderly, and participants in Medicare–Medicaid dual-eligible demonstration plans.<sup>3</sup> The fee-for-service (FFS) population used in this analysis includes only those beneficiaries with both Part A and Part B because beneficiaries must have both Part A and Part B to enroll in MA.

Overall, 35 percent of Medicare beneficiaries with both Part A and Part B chose to enroll in MA plans for December 2016 (Table 13-2). The younger disabled population, those under age 55, chose MA plans 25 percent of the time. Beneficiaries ages 55 and older chose MA plans more frequently. Beneficiaries ages 70 to 74 chose MA plans at the highest rate (39 percent). Over three-quarters of MA enrollees are between the ages of 65 and 84. Of men and women, just over one-third of each enroll in MA. White beneficiaries are

(continued next page)

**TABLE  
13-2**

**Share of Medicare beneficiaries (who are enrolled in both Part A and Part B) choosing MA and share of total MA enrollees and special needs plan enrollees, by select characteristics, December 2016**

	Percentage choosing MA	Percentage of total MA	Percentage of SNPs
<b>Overall</b>	35%	100%	100%
<b>Age category</b>			
Under 55	25	5	16
55–64	36	8	16
65–69	35	26	21
70–74	39	23	18
75–84	37	27	21
Over 84	33	10	8
<b>Sex</b>			
Male	35	43	40
Female	36	57	60
<b>Race/Ethnicity</b>			
White	33	77	54
Black	38	12	24
Asian	45	3	5
Hispanic	49	4	13
Other/Unknown	36	4	4
<b>ESRD entitlement</b>			
Entitled	19	<1	1
Not entitled	36	100	99
<b>Dual status</b>			
Dually eligible for Medicare and Medicaid	35	19	75
Not dually eligible	36	81	25
<b>LIS status</b>			
LIS	36	24	78
Not LIS	35	76	22

Note: MA (Medicare Advantage), SNP (special needs plan), ESRD (end-stage renal disease), LIS (low-income subsidy). SNPs are included in total MA. Under Part D, Medicare provides extra help with premiums and cost sharing to Part D enrollees who qualify for the LIS. Components may not sum to totals because of rounding.

Source: CMS beneficiary data (Common Medicare Environment file), 2017.

## Who chooses to join MA plans and when do they choose? (cont.)

proportionally less likely to enroll in MA than any other racial/ethnic group, but they still make up 77 percent of the MA enrollment. Asian American and Hispanic beneficiaries are the most likely racial/ethnic groups to enroll in MA.

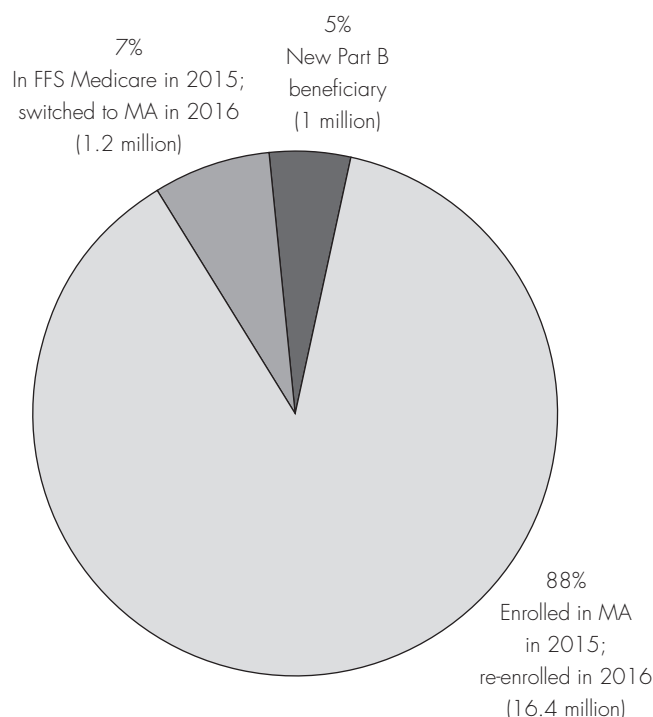
Beneficiaries who have end-stage renal disease (ESRD) are less likely to be in an MA plan, but those beneficiaries are not allowed to choose MA unless they were enrolled in a plan before they developed the disease. However, this prohibition has been reversed in legislation (the 21st Century Cures Act); beginning in 2021, beneficiaries with ESRD will be allowed to enroll in MA plans.

Beneficiaries dually entitled to both Medicare and Medicaid are about equally likely to enroll in MA plans as other beneficiaries.<sup>4</sup> Beneficiaries who receive the low-income subsidy (LIS) for Part D are also about equally likely to enroll in MA as other beneficiaries. Almost a quarter of MA enrollees receive the LIS.

Younger, female, and minority beneficiaries are a greater share of special needs plan (SNP) enrollment than they are of overall MA enrollment. Dual-eligible beneficiaries and beneficiaries receiving the LIS make up most of the SNP population; 78 percent of SNP enrollees receive the Part D LIS. If SNP enrollees were excluded from the MA population numbers, we would see that 81 percent are White, 11 percent are dual eligible, and 16 percent receive the LIS (data not shown in the table). None of the other categorical shares of MA enrollment would change by more than a percentage point if SNP enrollees were excluded from the calculations.

**FIGURE  
13-2**

**Number of beneficiaries  
in MA, December 2016**



Note: MA (Medicare Advantage), FFS (fee-for-service).  
MA in this text box includes non-MA enrollment in cost plans, Medicare-Medicaid dual-eligible demonstration plans, and Program of All-Inclusive Care for the Elderly plans.

Source: CMS beneficiary data (Common Medicare Environment file).

### When do beneficiaries tend to enroll in MA?

Of the 18.6 million beneficiaries enrolled in MA in December 2016, 88 percent (16.4 million beneficiaries) were enrolled in an MA plan in December 2015 (Figure 13-2), while 7 percent (1.2 million beneficiaries) were in FFS Medicare with both Part A and Part B in December 2015 and switched into MA during 2016. Additionally, 5 percent of MA enrollees (1 million beneficiaries) had Part A and Part B for the first time during 2016 (most of these “new beneficiaries” were completely new to Medicare; some may have had only Part A before 2016).

Overall, in 2016, the 18.6 million MA enrollees were 35 percent of all Medicare beneficiaries with both Part A and Part B. The 1 million MA enrollees who were new beneficiaries were 28 percent of all beneficiaries who newly enrolled in both Part A and Part B during 2016, meaning that new beneficiaries were less likely to be enrolled in MA than the average beneficiary. The 1.2 million beneficiaries who switched from FFS to MA in 2016 were 4 percent of the FFS population. In contrast, about 400,000 beneficiaries switched from MA to FFS in 2016, which was about 2 percent of MA enrollment. ■

**TABLE  
13-3****Access to Medicare Advantage plans remains high****Share of Medicare beneficiaries with access to at least one MA plan, by type**

Type of plan	2012	2013	2014	2015	2016	2017	2018
Any MA plan	100%	100%	100%	99%	99%	99%	99%
Local CCP	93	95	95	95	96	95	96
Regional PPO	76	71	71	70	73	74	74
PFFS	60	59	53	47	47	45	41
Special needs plans							
Dual eligible	78	82	82	82	83	86	86
Chronic condition	45	55	51	55	54	44	47
Institutional	41	46	47	47	50	52	56
Zero-premium plan with drug coverage	88	86	84	78	81	81	84
Average number of choices							
County weighted	12	12	10	9	9	10	10
Beneficiary weighted	19	19	18	17	18	18	20
Average monthly rebate for nonemployer, non-SNP plans	\$85	\$81	\$75	\$76	\$81	\$89	\$95

Note: MA (Medicare Advantage), CCP (coordinated care plan), PPO (preferred provider organization), PFFS (private fee-for-service), SNP (special needs plan). "Local CCPs" includes HMO and local PPO plans. These figures exclude employer-only plans. Special needs plans are included in the three special needs plan rows but excluded from all other rows. A zero-premium plan with drug coverage includes Part D coverage and has no premium beyond the Part B premium. "County weighted" means that each county is weighted the same and the measure is the average number of choices per county. "Beneficiary weighted" means that each county is weighted by the number of beneficiaries in the county. The plan rebate is the per beneficiary per month amount that the plan is offering as premium-free extra benefits.

Source: MedPAC analysis of CMS bid data and population reports.

In 2017, 84 percent of Medicare beneficiaries have access to at least one MA plan that includes Part D drug coverage and charges no premium (beyond the Medicare Part B premium), up from 81 percent in 2017 (Table 13-3). Over half of nonemployer, non-SNP MA enrollment is in these zero-premium plans. Also, 40 percent of beneficiaries have access to plans that offer some reduction in the Part B premium (not shown in Table 13-3), but only 2 percent of enrollment is in these premium-reduction plans. For 2018, rebates (which can include allocations to plan administration and profit margin) for nonemployer, non-SNP plans will average \$95 per enrollee per month. The average rebates are higher than at any point in the program's recent history.

In most counties, a large number of MA plans are available to beneficiaries. For example, in 2018, beneficiaries in

Albany (Albany, NY), Harris (Houston, TX), Cuyahoga (Cleveland, OH), Hamilton (Cincinnati, OH), Los Angeles (CA), and Orange (CA) counties and 8 counties in southeastern Pennsylvania can choose from at least 40 plans. At the other end of the spectrum, almost 250 counties, representing 1 percent of beneficiaries, have no MA plans available; however, many of these beneficiaries have the option of joining cost plans (another managed care option under Medicare).<sup>5</sup> On average, 10 plans are available in each county in 2018. Plan availability can also be calculated weighted by the number of beneficiaries living in the county to give a sense of the number of plan choices available to the average beneficiary. According to that calculation, the average beneficiary in 2018 has 20 available plans, including 19 CCPs, an increase from 18 plans and 17 CCPs in 2017.

**TABLE  
13-4****Projected benchmarks, bids, and payments as a percentage of fee-for-service expenditures for 2018, by plan type**

Plan type	Share of FFS spending in 2018*		
	Benchmarks	Bids	Payments
<b>All MA plans</b>	<b>107%</b>	<b>90%</b>	<b>101%</b>
HMO	106	88	100
Local PPO	110	99	106
Regional PPO	102	94	98
PFFS	107	105	106
Restricted availability plans included in totals above			
SNP	106	93	101

**All values would be increased by 2 percent if coding intensity were to be reflected fully (i.e., payments for all MA plans would average 103 percent of FFS spending if the coding differences were fully reflected).**

Note: FFS (fee-for-service), MA (Medicare Advantage), PPO (preferred provider organization), PFFS (private fee-for-service), SNP (special needs plan). Benchmarks are the maximum Medicare program payments for MA plans and incorporate plan quality bonuses. We estimate FFS spending by county using the 2018 MA rate book. We removed spending related to the remaining double payment for indirect medical education payments made to teaching hospitals.

\*All numbers in this table have been risk adjusted and reflect quality bonuses, but they have not been adjusted for coding intensity differences between MA and FFS that exceed the statutory minimum adjustment.

Source: MedPAC analysis of data from CMS on plan bids, enrollment, benchmarks, and fee-for-service expenditures.

## 2018 benchmarks, bids, and payments relative to FFS spending

Using plans' bid projections, we compare the Medicare program's projected MA spending with projected FFS spending on a like set of FFS beneficiaries. We calculate and present three sets of percentages: the benchmarks relative to projected FFS spending, the bids relative to projected FFS spending, and the resulting payments to MA plans relative to projected FFS spending.

Benchmarks are set each April for the following year. Plans submit their bids in June and incorporate the recently released benchmarks. Benchmarks reflect FFS spending estimates for 2018 made by CMS actuaries at the time the benchmarks were published in April 2017. We estimate that 2018 MA benchmarks (including quality bonuses), bids, and payments will average 107 percent, 90 percent, and 101 percent of FFS spending, respectively (Table 13-4). The benchmarks are up 1 percentage point from 2017. While the bids did not change from 90 percent of FFS, the payments rose from 100 percent of FFS because of the higher benchmarks relative to FFS.

## How Medicare calculates MA benchmarks

Under the Patient Protection and Affordable Care Act of 2010 (PPACA), each county's benchmark, excluding quality bonuses, is a certain share (ranging from 95 percent to 115 percent, subject to caps) of the average per capita FFS Medicare spending for the county's beneficiaries, which include those with both Part A and Part B coverage and those with only Part A or Part B. Each county's benchmark, excluding quality bonuses, is determined by organizing the counties into quartiles based on their FFS spending. Each quartile contains 786 or 787 counties. Low-FFS-spending counties have benchmarks higher than FFS to help attract plans, and high-FFS-spending counties have benchmarks lower than FFS to generate Medicare savings.

Counties (excluding the territories) are ranked by average FFS spending; the highest spending quartile of counties has benchmarks set at 95 percent of local FFS spending. The next highest spending quartile of county benchmarks is set at 100 percent of FFS spending, followed by the third highest quartile set at 107.5 percent of FFS spending.



**TABLE  
13-5****Share of Medicare beneficiaries living in counties by  
FFS spending quartile and average resulting unadjusted  
benchmark relative to FFS spending for 2012, 2017, and 2018**

Year	Payment quartile based on FFS spending*				Average unadjusted** benchmark as a share of FFS spending
	Quartile 1: 115 percent (low FFS spending)	Quartile 2: 107.5 percent	Quartile 3: 100 percent	Quartile 4: 95 percent (high FFS spending)	
2012	16%	18%	24%	43%	101.5%
2017	20	23	23	33	103.0
2018	22	24	26	28	103.7

Note: FFS (fee-for-service).

\*Total may not match number derived from components due to rounding.

\*\*Adjustments would include county benchmark caps, double quality bonuses, and year-to-year quartile smoothing.

Source: CMS Medicare Advantage rate book and enrollment files.

The lowest spending quartile has benchmarks set at 115 percent of local FFS spending (the U.S. territories are treated like counties in this low-spending quartile).

By statute, plans awarded quality bonuses have benchmarks 5 percent higher than the standard county benchmarks (subject to benchmark growth caps); in certain counties (where plans can receive a double bonus), the benchmarks for plans awarded quality bonuses are 10 percent higher than the standard benchmarks. Our March 2016 report to the Congress provides more detail on double-bonus counties and benchmark growth caps. In that report, we recommended eliminating the double bonuses as well as the benchmark growth caps, which limited the benchmarks in many counties (Medicare Payment Advisory Commission 2016).

### Why did benchmarks seem to rise for 2018?

The benchmarks the plans are bidding against rose from a projected 106 percent of FFS in the 2017 bids (excluding employer plan bids) to 107 percent in the 2018 bids. This increase occurred even though no explicit policies would have increased the benchmarks relative to FFS spending. The increase itself is projected to be only 0.6 percent, but because we round to the nearest percent, the increase has the appearance of a 1 percent increase.

The primary reason behind the increase in the benchmark-to-FFS ratio is the movement of counties from one payment-rate quartile to another. More beneficiaries lived

in counties that moved to lower spending quartiles than lived in counties that moved to higher spending quartiles (Table 13-5). In other words, average FFS spending grew more rapidly in counties with relatively fewer Medicare beneficiaries than in counties with relatively higher numbers of Medicare beneficiaries. So, after the counties were reranked by FFS spending to create quartiles for 2018, a lower share of Medicare beneficiaries lives in the 786 highest spending counties (28 percent) than lived in the 786 highest spending counties ranked by 2012 FFS spending (43 percent).

The average beneficiary-weighted benchmark would have increased from 101.5 percent of average FFS spending in 2012 to 103.7 percent in 2018 simply because of the change in the beneficiary distribution among the quartiles. (Plan benchmarks are based on their projected enrollment, but the change in enrollment patterns looks similar to the change in Medicare beneficiary residence patterns.) The 2018 average benchmark relative to FFS spending can be calculated from Table 13-5 as  $(0.22 \times 115) + (0.24 \times 107.5) + (0.26 \times 100) + (0.28 \times 95)$ . (The 2012 and 2017 figures cannot be calculated exactly from the table due to rounding. These calculations exclude benchmark quality bonuses and caps, as well as some year-to-year smoothing adjustments.) We first noted the potential for this movement in our March 2011 report to the Congress but cannot identify its definitive cause and cannot rule out that the movement has a large random component. We will continue to monitor the county quartile movements.

**TABLE  
13-6****Distribution of 2018 MA bids relative to FFS**

<b>Bid-to-FFS ratio</b>	<b>Share of bids</b>	<b>Share of projected MA enrollment</b>
Less than 0.7	4%	4%
0.7 to 0.8	10	14
0.8 to 0.9	22	27
0.9 to 1.0	33	33
1.0 to 1.1	23	18
More than 1.1	8	4

Note: MA (Medicare Advantage), FFS (fee-for-service). Employer group plans and special needs plans are not included.

Source: MedPAC analysis of data from CMS on plan bids, enrollment, benchmarks, and FFS expenditures.

### MA bids and payments for different plan types

Despite the slight increase in benchmarks for 2018, benchmarks are lower relative to earlier years. The benchmarks have exerted fiscal pressure and have led to more competitive bids from plans. Benchmarks before PPACA (in 2010) averaged about 112 percent of FFS, and the bids averaged 100 percent of FFS. The average nonemployer bid for 2018 is 90 percent of the projected FFS spending for beneficiaries with similar geographic and risk profiles, unchanged from 2017. About 70 percent of nonemployer non-SNP plans bid to provide Part A and Part B benefits for less than what the FFS Medicare program would spend to provide these benefits in 2018 (Table 13-6). These plans are projected to enroll about 77 percent of nonemployer non-SNP MA enrollees in 2018.

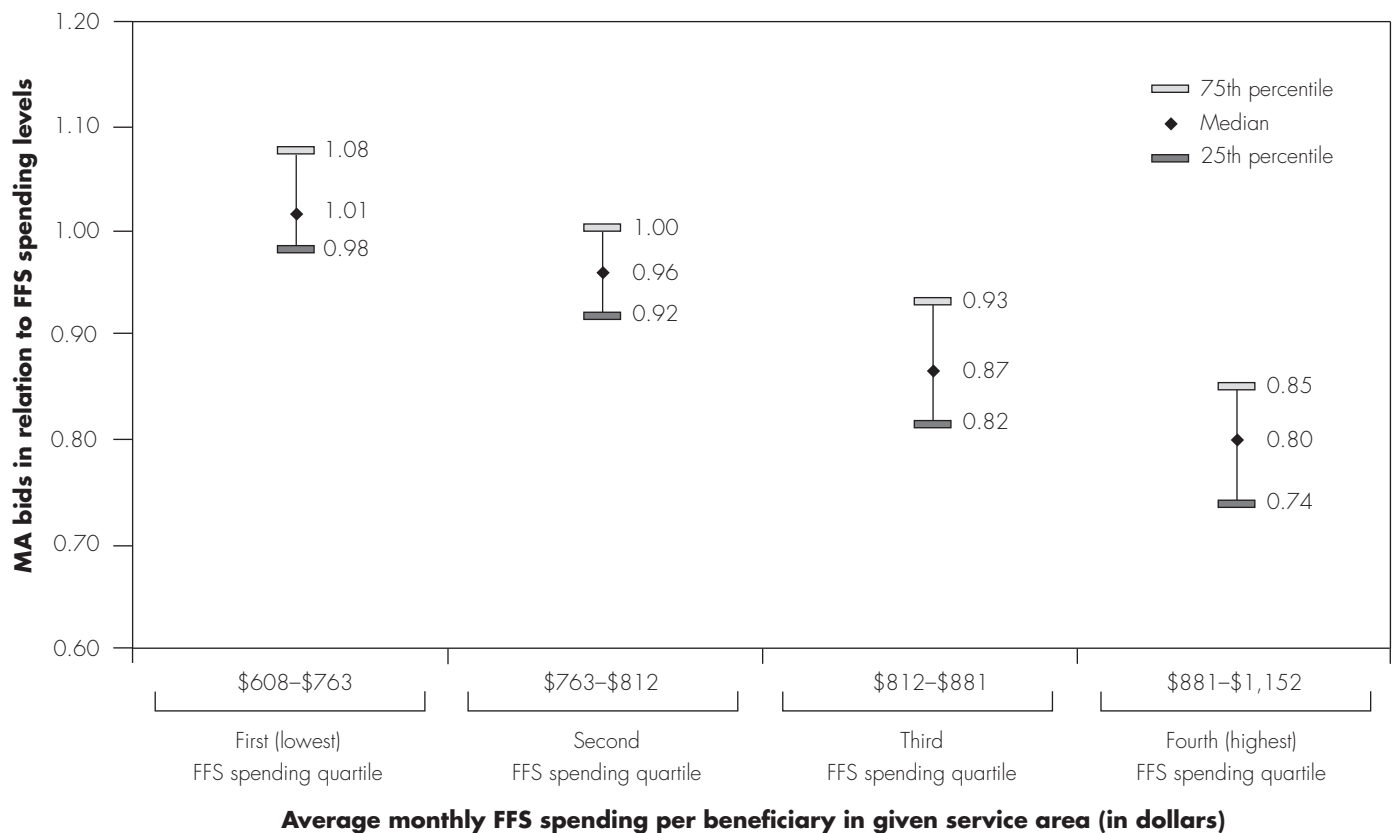
About 4 percent of MA enrollees, excluding those enrolled in employer group MA plans, are projected to enroll in plans that bid lower than 70 percent of FFS spending; 4 percent are also projected to enroll in plans that bid more than 110 percent of FFS spending.

Figure 13-3 shows how plans bid relative to FFS for service areas with different ranges of FFS spending. This figure is based on data from over 2,450 plan bids and excludes employer plans, SNPs, and plans in the territories. FFS spending ranges roughly correspond to FFS ranges in the payment quartiles for 2018. Each of the 4 FFS ranges covers the bids of at least 400 plans that include at least 2.9 million projected enrollees.

As expected, plans bid high (relative to FFS) in areas with relatively low FFS spending and bid low (relative to FFS) where FFS spending is relatively high. For example, plans bidding for service areas that average less than \$763 in monthly FFS spending are likely to bid more than FFS for 2018 (Figure 13-3). However, in plan service areas averaging more than \$763 per month in FFS spending, plans are likely to bid below (sometimes far below) the FFS level. This finding suggests that, geographically, plan costs do not vary as much as FFS spending. Ninety-eight percent of beneficiaries live in a county served by at least one plan that bid below its service area's average FFS spending for 2018. However, that does not mean that plans can bid lower than FFS in every county.

Although plan bids average less than FFS spending, payments for these plans' enrollees can often exceed FFS spending because the benchmarks (including the quality bonuses) can be high relative to their area's FFS spending. Overall, plan bids average 90 percent of expected FFS spending for beneficiaries with similar geographic and risk profiles in 2018, but because the benchmarks average 107 percent of FFS spending, Medicare pays an average of 101 percent of FFS for beneficiaries enrolled in MA (coding intensity differences are not considered in these numbers). Excluding quality bonuses, Medicare benchmarks average 103 percent of FFS, and Medicare payments would average 98 percent of FFS for MA enrollees.

The ratio of MA plan payments to FFS spending varies by plan type (Table 13-4, p. 364). For example, HMOs as a group bid an average of 88 percent of FFS spending,

**FIGURE  
13-3****Medicare Advantage bids in relation to FFS spending levels, 2018**

Note: FFS (fee-for-service), MA (Medicare Advantage). Excludes employer group plans, special needs plans, and plans in the territories.

Source: MedPAC analysis of MA bid and FFS expenditure data from CMS.

yet 2018 payments for HMO enrollees are estimated to average 100 percent of FFS spending because of benchmarks averaging 106 percent of FFS spending. Local PPOs' bids average 99 percent of FFS spending, and PFFS plans have average bids of 105 percent of FFS spending. As a result, payments for local PPO and PFFS enrollees are estimated to be 106 percent of FFS spending. Payments for beneficiaries enrolled in regional PPOs average 98 percent of FFS because of the regional PPOs' relatively low benchmarks.

We analyzed bids and payments to SNPs separately because these plans are available only to subpopulations of Medicare beneficiaries, and bidding behavior can differ from that of other plan types. In the past, payments to SNPs and their bids tended to be slightly higher relative to FFS spending than payments to the other nonemployer

MA plans. This year in aggregate, however, SNP bids are slightly higher than other MA plans, but their payments are similar to the average plan because their benchmarks are slightly lower relative to the average plan.

In the past, we recommended that CMS pay employer plans differently because the employer bids were not usually submitted for a competitive purpose, while the bids for nonemployer plans are submitted to compete for enrollment. (For more details on employer plans and our recommendation, see our March 2014 report to the Congress.) As we recommended, CMS no longer pays the employer plans based on their bids but instead pays them based on the bidding behavior of the nonemployer plans. As a result, we expect that payments to employer plans will look like the payments to the nonemployer plans analyzed here.

**TABLE  
13-7****Share of Medicare Advantage enrollment by parent organization, October 2017**

<b>Metropolitan areas</b>		<b>Nonmetropolitan areas</b>	
<b>Parent organization</b>	<b>Share of total MA enrollment in metropolitan counties</b>	<b>Parent organization</b>	<b>Share of total MA enrollment in nonmetropolitan counties</b>
UnitedHealth Group Inc.	25%	Humana Inc.	27%
Humana Inc.	16	UnitedHealth Group Inc.	27
Kaiser Foundation Health Plan	9	Aetna Inc.	7
Aetna Inc.	8	Blue Cross Blue Shield of MI	4
Anthem Inc.	4	Anthem Inc.	3
WellCare Health Plans Inc.	3	WellCare Health Plans Inc.	2
CIGNA	2	Highmark Health	2
Blue Cross Blue Shield of MI	2	BlueCross BlueShield of TN	2
Centene Corporation	2	CIGNA UPMC Health System	2
Highmark Health	2	UPMC Health System	2
<b>Total, top 10 organizations</b>	<b>72</b>	<b>Total, top 10 organizations</b>	<b>77</b>

Note: Includes only Medicare Advantage plans (coordinated care plans, private fee-for-service, and medical savings accounts plans). Excluded are cost-reimbursed plans and Medicare–Medicaid demonstration plans. The nonmetropolitan counties include those designated as micropolitan counties and counties that are neither metropolitan nor micropolitan as defined by the Office of Management and Budget. Totals may not sum due to rounding.

Source: MedPAC analysis of CMS monthly enrollment reports, October 2017 (which excludes enrollment for contracts where an organization has fewer than 11 enrollees), and Census data on county designations.

## MA margins

The growth in MA enrollment, the continued high level of access to plans, and the ability of plans to bid below benchmark levels are indicative of strong financial performance in the MA sector. As with other sectors, we have examined margin levels in MA. The most recent data available, from 2016, show that MA margins averaged 2.6 percent. This figure excludes Part D—for which we do not have 2016 data—and employer group plans, which are no longer included in the bid data on which we base our margin calculations. The 2016 margin of 2.6 compares with an average margin level of 1.4 percent in 2015.

Margins vary by plan type. In the 2016 data, nonprofit plans had a negative margin (–4.2 percent), while for-profit entities had a pretax margin of 4.9 percent. The large difference in margins between for-profit and nonprofit entities may reflect the extent to which employer group waiver plans (EGWPs) (plans available only to employer- or union-sponsored enrollees) are a more important market segment for nonprofit plans. Among nonprofit plans that are under contracts with 25 percent or more

EGWP enrollment (totaling 1.4 million enrollees in our 2016 margin data), the non-EGWP average margin was –8.6 percent. Among nonprofit MA plans with EGWP enrollment of 5 percent or less, the average margin was –1.8 percent (also with a total enrollment of 1.4 million). EGWP enrollment was a far smaller component of for-profit contracts in our 2016 margin data, with little difference in margins based on the level of EGWP enrollment. For-profit contracts with EGWP enrollment of 25 percent or more had an average margin of 4.4 percent, with 270,000 enrollees. For-profit contracts with EGWP enrollment of 5 percent or less had an average margin of 4.9 percent, with 7 million enrollees. In the 2016 data, EGWP margin data are not included because EGWPs were no longer required to submit bids after reforms to the manner in which EGWPs were paid. For prior years, when EGWP bids were included in the bid data, we found that EGWP margins were higher than non-EGWP margins, suggesting that EGWP margins can offset the losses that we see among nonprofit non-EGWP plans.

All categories of SNPs had positive margins: SNPs for Medicare–Medicaid dual-eligible beneficiaries (D–SNPs)

at 5.9 percent, SNPs for enrollees with chronic conditions (C-SNPs) at 9.7 percent, and SNPs for beneficiaries living in institutions (I-SNPs) at 14.1 percent. However, nonprofit D-SNPs had a negative margin (–2.3 percent). D-SNPs in Puerto Rico show relatively high margins, at 12.4 percent, but the Puerto Rico plans stated that extra funds were needed to subsidize their Medicaid line of business in serving D-SNP plan members.

Among D-SNPs, differences exist between CMS-designated fully integrated dual-eligible (FIDE) SNPs and other D-SNPs. FIDE-SNPs meet specified requirements regarding coverage of and coordination with Medicaid services. Some of the FIDE-SNPs can be eligible for additional payments that recognize higher frailty levels in the enrolled population (a payment adjustment available only to certain FIDE-SNPs and to PACE plans). In the margin data, only 16 plans are FIDE-SNPs. Among nonprofit plans, the data show that FIDE-SNPs with a frailty adjuster have higher margins than those without the frailty adjuster (0.9 percent vs. –0.4 percent), and the nonprofit FIDE-SNPs have higher margins than nonprofit D-SNPs that are not FIDE-SNPs (which have a margin of –4.4 percent). The relationship among types is different with for-profit plans. Two for-profit FIDE-SNPs with the frailty adjuster have a margin of 3.6 percent, compared with a margin of 7.2 percent for both of the other two categories, which do not have a frailty adjuster (for-profit D-SNPs that are FIDE-SNPs and those that are not). These data are limited and do not show a clear pattern. The data are thus inconclusive with respect to whether better integration between Medicare and Medicaid leads to lower costs and better profit margins. (Note that the margin data, based on bids that plans submit, do not contain information about the Medicare–Medicaid plans in the CMS financial alignment demonstration because such plans do not submit bids to CMS.)

We estimate that if we were to include Part D drug margins, doing so would raise the average MA plan margin by approximately 0.5 percent; if employer plan data were available, the margin would likely be higher—particularly in the case of nonprofit plans. Two additional factors affect this margin estimate: First, MA plans are subject to payment of the PPACA insurer fees applicable to most MA plans (which we estimate as representing 1.5 percent of plan revenue, but which have been suspended for 2017 through 2019). Second, as of 2014, plans are also subject to an 85 percent medical loss ratio (MLR) requirement, which could result in reduced margins (as evidenced by some plans returning funds to CMS for failure to meet the MLR requirement).

## **Market structure of the Medicare Advantage program**

In the March 2016 report to the Congress, we provided information about the degree of concentration in the MA market (Medicare Payment Advisory Commission 2016). In 2007, the top 4 organizations had 45 percent of MA enrollment—with the top 2 having 41 percent—and the top 10 had 61 percent of total enrollment. At the beginning of 2011, the year before the effective date of PPACA payment changes, the shares remained essentially the same at 46 percent and 60 percent, respectively. The MA market has become more concentrated since then. In 2017, the top 4 organizations had 59 percent of the enrollment, and the top 10 organizations had 72 percent of total enrollment.

There are differences between metropolitan areas and nonmetropolitan areas (Table 13-7). In metropolitan areas, the top 2 organizations had over 40 percent of the 17 million MA enrollees in these areas. In nonmetropolitan areas, the top 2 organizations accounted for over half the enrollment (54 percent of the 2 million MA enrollees residing in these areas).

Another way of looking at the market structure and level of competition in the MA program is to determine the number of parent organizations offering MA options in markets across the country. As was true in 2016, 87 percent of Medicare beneficiaries in 2017 resided in a county where at least three companies offered MA plans to individual Medicare beneficiaries (Table 13-8, p. 370). Thus, although the MA market is relatively concentrated by some measures, most beneficiaries reside in geographic areas where multiple companies offer MA options.

---

## **Medicare Advantage risk adjustment and coding intensity**

---

Medicare payments to MA plans are adjusted to account for differences in beneficiary medical costs through the CMS–hierarchical condition category (CMS–HCC) model. The model uses demographic information (e.g., age, sex, Medicaid status, and whether the original reason for Medicare entitlement was disability) and certain diagnoses grouped into HCCs to calculate a risk score for each enrollee. Higher risk scores generate higher payments for beneficiaries with higher expected expenditures and vice versa. CMS designed this risk adjustment model to



**TABLE  
13-8****Distribution of population by number of MA organizations operating in the county, October 2017**

<b>Number of MA organizations in county</b>	<b>As share of total Medicare population</b>	<b>As share of MA enrollment</b>
None	1%	0.1%
1	3	1
2	8	5
3	10	7
4	12	12
5 or more	65	76

Note: MA (Medicare Advantage). Excludes plans offered only to employer group-sponsored retirees. Numbers may not sum due to rounding. The 0.1 percent of MA enrollees residing in areas with no MA organizations are "out-of-area" enrollees whose recorded address is outside of the designated service area of their plan.

Source: MedPAC analysis of CMS enrollment reports.

maximize its ability to predict annual medical expenditures for Medicare beneficiaries. Therefore, in developing the model, CMS used statistical analyses to select certain HCCs for inclusion in the model based on each HCC's ability to predict annual Medicare expenditures, ensuring that the diagnostic categories included in the model were clinically meaningful and specific enough to minimize inappropriate manipulation or discretionary coding (Pope et al. 2004). To ensure the validity and reliability of the diagnostic data used in the model and to determine payment to MA plans, CMS applies additional eligibility criteria: Diagnoses must result from a hospital inpatient stay, hospital outpatient visit, or a face-to-face visit with a physician or other health care professional, and diagnoses must be supported by evidence in the patient's medical record.<sup>6</sup>

Diagnostic data in the CMS-HCC model are used prospectively, meaning that diagnoses collected during one calendar year are used to predict Medicare costs for the following calendar year. A particular diagnosis code needs to be submitted only once during the data collection year for the related HCC to be counted in an enrollee's risk score in the following payment year. Multiple submissions of the same diagnosis code and submissions of different diagnosis codes that are grouped in the same HCC do not affect an enrollee's risk score.

Each demographic and HCC component in the risk adjustment model has a coefficient that represents the expected medical expenditures associated with that component. These coefficients are estimated based

on FFS Medicare claims data such that all Medicare spending in a year is distributed among the model components. Medicare payment for a particular MA enrollee is approximately equal to the sum of the dollar-value coefficients for all components identified for that enrollee. In practice, the actual dollar amount a plan will receive for newly identifying a particular HCC for an enrollee depends on several additional factors, but for a simplified example of how coding additional HCCs increases payment to a plan, we consider amounts received by an MA plan that are approximately equal to average FFS Medicare spending.<sup>7</sup> In this example, the annual Medicare payment to the MA organization in 2018 for an 84-year-old male who is not eligible for Medicaid (demographic component valued at \$5,707) with diabetes without complication (HCC 19, valued at \$1,058) would be \$6,765, the sum of the two model components. Documenting each additional HCC for that enrollee can significantly increase the Medicare payment. If the same 84-year-old male with diabetes is also found to have vascular disease (HCC 108, valued at \$3,031), the Medicare payment to the MA organization would increase from \$6,765 to \$9,796. The payment per MA enrollee for most HCCs when identified for the first time in a given year is between \$1,000 and \$5,000, although some HCCs increase payment by \$10,000 or more.

MA plans submit diagnostic information to CMS in two ways. Through the Risk Adjustment Processing System (RAPS), plans submit the minimum information necessary to identify which HCCs apply to each enrollee. Since



2012, MA plans have also been submitting detailed information through the Encounter Data System (EDS) about each health care encounter an enrollee has with a Medicare provider. In 2016, CMS began a transition to use encounters as the source of diagnostic information by generating two risk scores, one based on RAPS data and one based on EDS data.<sup>8</sup> Payment in 2016 was based on a blend of the RAPS risk score (90 percent) and the EDS risk score (10 percent). In 2017, CMS increased the portion of the payment based on EDS risk scores to 25 percent and stated an intention to continue to increase the use of EDS until 2020, when payment would be fully based on EDS risk scores. However, for 2018, CMS reduced the portion of the payment based on EDS risk scores to 15 percent. While both sources of risk score data are used for payment, MA plans need to submit data supporting each HCC through both RAPS and EDS in order to maintain consistent payment rates.

### Differences in MA and FFS Medicare diagnostic coding

In the CMS–HCC risk adjustment model, CMS uses FFS Medicare claims data to estimate the size of the model coefficients. As a result, the model calculates an expected spending amount based on FFS Medicare costs and diagnostic coding patterns. If certain diagnoses are not reported, the cost of treating those conditions is attributed to other components in the model, causing the coefficients to be inflated above their true value. If diagnoses were coded with the same intensity in FFS Medicare and MA, meaning that the proportion of all reported diagnoses was equal in the two programs, the impact of inflated coefficients would be offset between the two programs and there would be no payment inaccuracy. However, if MA plans submit more diagnoses for a particular beneficiary than would have been documented in FFS Medicare, the program spends more money for that beneficiary to be in MA. We have found that MA coding intensity is higher than FFS Medicare, and payments to MA plans are thus higher than intended.

The CMS–HCC model has always provided MA plans with a strong financial incentive to document all possible diagnoses. The following mechanisms increase plans’ access to diagnostic data and allow MA plans to submit more diagnoses.

#### Passive mechanisms:

- **Capitated contracts**—Some plans have capitated contracts with physician groups in which payment is

risk adjusted. These contracts pass diagnostic coding incentives on to physicians with direct access to the patient’s medical record and diagnostic information.

- **Data sharing with providers**—Plans have varying levels of access to providers’ electronic medical record (EMR) systems, which affects access to diagnostic data. For example, in staff-model HMOs, all providers use a single EMR that plan administrators can access. Other HMOs may have access to the EMR systems of some physician groups and hospitals but not others. PPO and PFFS plans have looser networks and are less likely to have access to EMR systems.

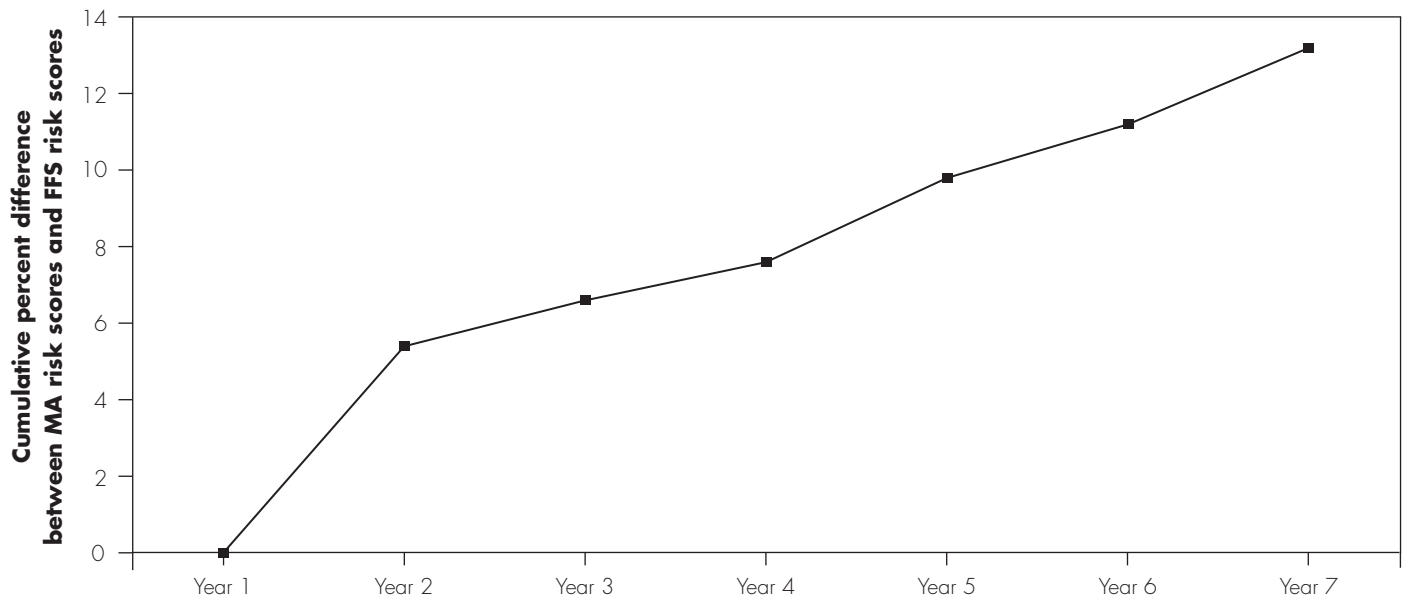
#### Plan-initiated mechanisms:

- **Health risk assessments (HRAs)**—HRAs assess an enrollee’s health status and document diagnoses as a first step to developing an enrollee’s care plan. HRAs can help enrollees engage in subsequent disease management, but generally treatment is not provided at the time of assessment. HRA diagnoses are used when calculating risk scores when conducted in person by a physician or other health care professional. With the help of consulting firms advertising revenue maximization, plans target HRAs to enrollees they suspect of having any undocumented diagnoses, often by sending a nurse to the enrollee’s home. Medicare’s annual wellness visit includes an HRA and is available in MA and FFS, but home visits are used almost exclusively in MA.
- **Chart reviews**—Plan staff visit providers’ offices to search medical records (“charts”) for diagnoses that were not included on the original claim submitted to the plan. Plans then submit additional diagnosis codes to CMS as an addendum to the original encounter.
- **Pay-for-coding programs**—For physicians who have an FFS contract with an MA plan (and do not share access to their EMR with the plan), there is no direct incentive to document diagnostic codes. In this situation, some plans inform physicians of potentially undocumented diagnoses and pay an additional amount if the physician submits a new diagnosis on a claim and includes documentation in the patient’s medical record.

Many of these actions serve multiple purposes. Some would argue that complete diagnostic information allows plans to more thoroughly identify enrollees who would benefit from preventive care or programs designed to

**FIGURE  
13-4**

**Average MA risk scores grew fastest relative to average FFS risk scores in the first cohort year, for all enrollment cohorts 2007 through 2013**



Note: MA (Medicare Advantage), FFS (fee-for-service). Analysis includes six MA and FFS cohort pairs ending in 2013 and starting in 2007 through 2012.

Source: MedPAC analysis of CMS enrollment and risk score files.

improve chronic condition management; the additional revenue that may result from higher MA coding intensity allows plans to fund such programs. However, some plans appear to have modified their approach to coding diagnoses to maximize revenue to the detriment of accurate reporting of diagnosis codes or consideration of patient needs. In recently unsealed lawsuits, whistleblowers alleged that plans ignored evidence of improper coding; used software that is incapable of deleting invalid diagnoses, or ignored the status of a diagnosis as valid or invalid; and focused clinical programs on patients with potential for coding a higher level of severity (e.g., diabetes without complications), but not on patients already coded with the highest level of severity for a condition (e.g., diabetes with complications) who might benefit the most from disease management.<sup>9</sup>

### **Policies to address the impact of coding differences**

A series of congressional mandates have required CMS to reduce MA risk scores as a way of addressing the impact

of coding differences. Because of the mandates, CMS reduced MA risk scores by 3.41 percent in each year from 2010 through 2013. Starting in 2014, the mandates specified a minimum reduction of about 4.9 percent, which increased gradually to about 5.9 percent in 2018, where it will remain until CMS estimates a risk adjustment model using MA cost and use data. CMS reduced MA risk scores by the minimum required by law for 2014 through 2018, although larger reductions would have been allowed.

CMS has taken an additional step to help control the increased coding intensity in MA by phasing in a new CMS–HCC model that removes some diagnoses suspected of being more aggressively coded by MA plans (e.g., lower severity kidney disease and polyneuropathy). Our analysis suggests that the new CMS–HCC model makes MA risk scores more similar to FFS scores by reducing them by about 2.5 percent relative to the old model. The new model was phased in during 2014 and 2015, and MA payments were based entirely on the new model in 2016.

**TABLE  
13-9****Impact of diagnostic coding intensity on MA risk scores relative to FFS, 2013-2016**

Cumulative change in MA risk scores relative to FFS risk scores				
Risk score model	2013	2014	2015	2016
Old model	8%	9%	10%	N/A
<b>Payment blend</b>	<b>8</b>	<b>7</b>	<b>10</b>	<b>8%</b>
New model	N/A	7	8	8

Note: MA (Medicare Advantage), FFS (fee-for-service), N/A (not applicable). Payments to MA plans are based in part on enrollee risk scores, where higher risk scores generate larger payments. All estimates account for any differences in age and sex between MA and FFS populations. "Old model" refers to the version of the CMS-hierarchical condition category (CMS-HCC) model used for payment through 2015. "New model" refers to the version of the CMS-HCC model introduced in payment year 2014. The payment blend was 75 percent new model / 25 percent old model in 2014 and 33 percent new model / 67 percent old model in 2015.

Source: MedPAC analysis of CMS enrollment and risk score files.

## Impact of coding differences on payment to MA plans

### Impact over time

For the past few years, the Commission has conducted its own analysis of coding differences between beneficiaries in FFS Medicare and those enrolled in MA plans. In our first year of analysis, we tested whether beneficiary risk scores grew faster in MA than in FFS using data from 2007 through 2013. We built cohorts of beneficiaries who spent their first full calendar year of Medicare in FFS and spent all subsequent years through 2013 in the same program, either FFS or MA. For example, one cohort pair consisted of those beneficiaries who joined Medicare FFS during 2006 and then either (1) remained exclusively in FFS through 2013 or (2) switched into MA in January 2007 and remained in MA through 2013. We also examined five similar pairs of cohorts for beneficiaries whose first full years in Medicare were 2008 through 2012. Beneficiaries were assessed starting with their first full year of Medicare enrollment so that the subsequent differences in the risk score growth between the cohort pairs could be attributed to differences in coding.

Figure 13-4 shows how average MA risk scores changed relative to the change in average FFS risk scores for all pairs of cohorts. From year 1 to year 2, average MA risk scores increased by about 6 percent more than FFS across all cohorts. For all subsequent years, average MA risk scores continued to increase more than FFS by about 1.5 percent across all cohorts.

While this analysis shows compelling evidence that a coding difference exists between beneficiaries in FFS Medicare and MA and that the difference grows over time, it does not tell us the overall impact of the coding difference on payments to MA plans in a given year.

### Overall impact

To assess the overall impact of coding differences on payments to MA plans for a given year, we tracked current-year enrollees backward in time for as long as they were continuously enrolled in either MA or FFS, or through 2007. We used these retrospective cohorts of MA and FFS enrollees, accounting for differences in age and sex, to calculate the difference in risk score growth between the MA and FFS programs.

Table 13-9 shows the total differences in MA risk scores relative to FFS for payment years 2013 through 2016. The risk scores used to determine MA plan payments were based entirely on the old CMS-HCC model in 2013, on a blend of the old and new models in 2014 and 2015, and entirely on the new model in 2016. We found that MA risk scores for 2016 were about 8 percent higher than a comparable FFS population. From 2013 through 2015, MA risk scores for both the old model and new model grew faster than FFS scores by about 1 percentage point per year. However, from 2015 to 2016, MA and FFS risk scores based on the new model grew at the same pace, and the overall difference in MA and FFS risk scores held constant at 8 percentage points.

Our analysis of 2015 and 2016 data shows that MA risk scores continued to increase at about the same rate as in prior years, but FFS risk scores grew faster than before and roughly matched the MA risk score growth rate.<sup>10</sup> Our estimate showing that MA risk scores for 2016 were about 8 percent higher than a comparable FFS population is lower than the previous year's estimate of a 10 percent difference. We find that the decrease is due to the full implementation of the new risk score model and an increase in the FFS risk score growth rate.

Relative to FFS Medicare, we found that MA risk score growth through 2016 was between 2 percent and 3 percent higher than CMS's adjustment for coding intensity (which was 5.41 percent in 2016). In other words, after accounting for all coding adjustments, payments to MA plans were between 2 percent and 3 percent higher than Medicare payments would have been if MA enrollees had been treated in FFS Medicare. The magnitude of these findings is similar to other research showing that the impact of coding differences on MA risk scores is larger than CMS's adjustment for coding (Congressional Budget Office 2017, Geruso and Layton 2015, Government Accountability Office 2013, Kronick and Welch 2014).

### **Impact of encounter data**

The use of encounter data for risk adjustment can help improve risk adjustment accuracy and reduce MA and FFS coding differences. The process of submitting encounter data provides CMS the ability to ensure that the data represent valid encounters with health care providers and that submitted diagnoses meet risk adjustment eligibility criteria. Data for each encounter include the specific health care provider of a service, date of service, diagnoses identified, procedures conducted, and the cost of the services provided (when a capitated arrangement is not in place). The information on each encounter record is encoded in 154 to 202 data elements, depending on the type of provider, and CMS has developed a system of error and duplicate checks to ensure that duplicate encounters are not submitted and that data elements are in a valid format and logical range of values. In addition to checking the completeness and accuracy of each encounter record, CMS can ensure that submitted diagnoses meet risk adjustment eligibility criteria before payment is made to a plan. Over the past few years, CMS and plans have been working to refine this process. CMS has continually revised the feedback it gives to plans, which takes the form of error codes, reports detailing

the disposition of submitted encounters as accepted or rejected, and reports identifying the risk adjustment eligibility status of diagnoses from accepted encounters. CMS has disseminated guidance to plans through memos and has conducted user group calls to explain changes and allow for questions to be answered. However, submission of encounter data is a newer process, and government auditors note that CMS has yet to complete all validity assessments of the data (Government Accountability Office 2017). Because that process is ongoing and continues to require significant effort from plans, CMS has extended the deadlines for submitting encounter data affecting payment years 2016 and 2017, the first years that payment relies on encounter data.

Although the submission of encounter data may be onerous for plans as CMS continues to refine the submission and feedback processes, the use of encounter data significantly improves oversight and the opportunity to ensure the validity of payment data relative to RAPS data, which have been used as a basis for the majority of MA plan payments since 2004. Under RAPS, plans submit a limited set of data (including the type of provider, the date of service, diagnoses identified, and whether the diagnoses resulted from a risk assessment), and attest that the submitted data (1) are complete and accurate and (2) meet the risk adjustment eligibility criteria. Once plans attest to their RAPS data, no further assessment of data validity is conducted before payment is made to the plan.

Data submitted through either the encounter or RAPS processes are supposed to be audited to ensure that diagnoses are supported by the medical record through the risk adjustment data validation (RADV) audit process. Given the differences in the data submission processes and the fact that CMS does not review risk adjustment eligibility for RAPS data before payment, RADV audits are relied on significantly for assessing the validity of RAPS data. However, RADV audits have been limited so far, and early audits of RAPS data found diagnoses that did not meet risk adjustment eligibility criteria, resulting in significant overpayments to plans. So far, CMS has completed audits for only 2007, and the overpayment rates were well over 10 percent for most contracts under audit (Schulte 2016). These audits addressed data for a sample of 201 beneficiaries from each of 32 contracts (covering 6,432 beneficiaries) and recouped overpayments of \$13.7 million. For audits of 2011, 2012, and 2013, CMS has identified 30 contracts, or roughly 5 percent of all MA contracts, to audit in each year. For these audits, CMS will



recoup overpayments for the full enrollment of the contract by calculating, at the 99th percentile lower confidence interval, an error rate for each contract's sample of 201 beneficiaries, applying an FFS adjuster, and then applying this rate to the contract's total MA payments. In reviewing the RADV audit process, government analysts note that the audits are tasked with recouping billions of dollars in improper payments to MA plans based on RAPS data, but their report finds that significant improvements are needed for the audits to identify and recoup those overpayments (Government Accountability Office 2016).

While MA payment uses both RAPS and encounter-based risk scores, data supporting each HCC needs to be submitted through both RAPS and encounter processes for plans to maintain consistent payment rates. For the 2016 payment year, CMS extended the deadline for submitting the underlying encounter data (based on 2015 dates of service) beyond April 2018, allowing plans more than 27 months to finalize their encounter data submissions. Using encounter data submitted as of May 1, 2017, we found that 2016 risk scores based on encounter data were about 2 percent lower on average than risk scores based on RAPS data; however, we expect the 2 percent difference to shrink as more encounters are submitted. Looking at individual risk scores, we found that 91 percent of MA enrollees had 2016 risk scores based on RAPS and encounter data that were exactly the same, while about 7 percent had lower encounter-based scores and 2 percent had higher encounter-based scores. After accounting for the effect of using encounter-based risk scores, which was -0.2 percent when basing 10 percent of payment on encounter data, our estimate of the overall impact of coding differences remained at 8 percent.

CMS based 25 percent of payments in 2017 on encounter-based risk scores and has stated an intention to extend the deadline for encounter submissions. For 2018, CMS decreased the use of encounter data to 15 percent of payments. While we recognize that the submission of accurate encounter data has required significant effort from plans and that CMS has been diligent in working through submission issues with plans, we believe that reducing the use of encounter data for payment was a step backward for the validity of the data used to calculate the more than \$200 billion that Medicare pays to MA plans. MA plans have been submitting encounter data since 2012 and should now be held accountable for submitting valid data by relying more on encounter data for payments.

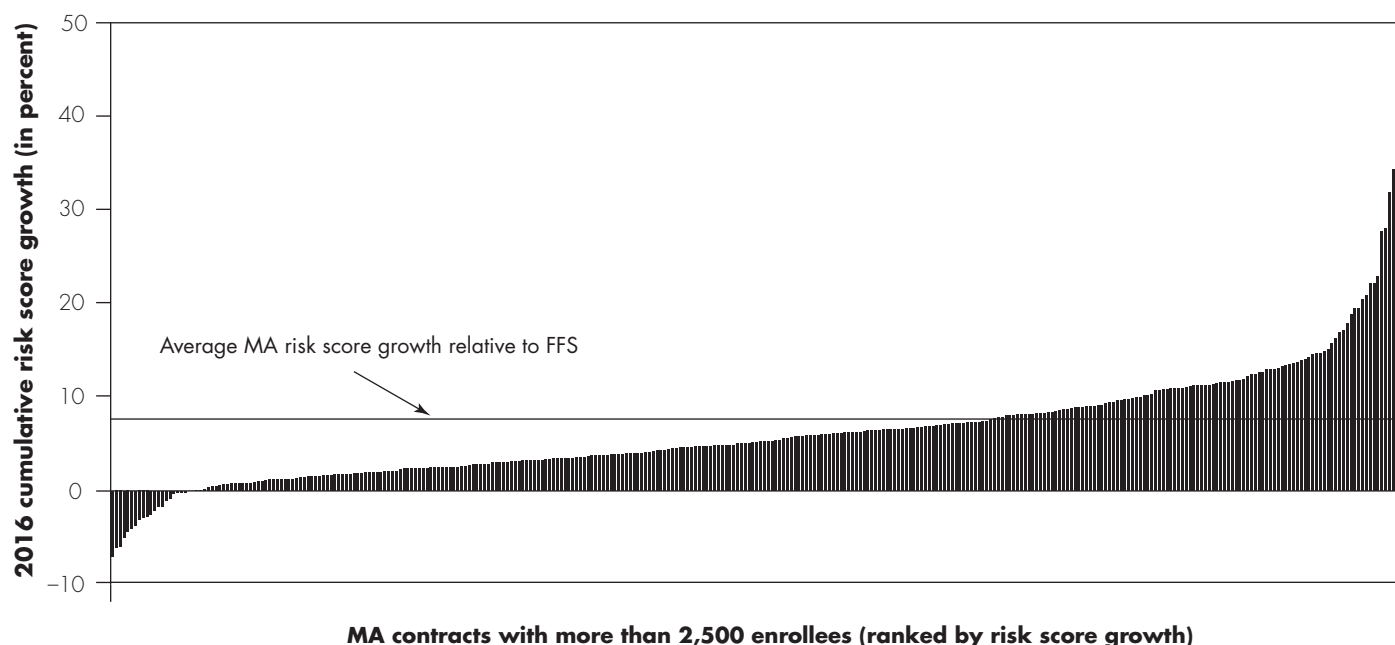
The Commission believes there is value for CMS in continuing to collect encounter data and to work with plans to submit complete and accurate encounter data. The use of encounter data allows risk adjustment eligibility to be ensured to a greater extent before payments are made to plans and provides a more substantial check on the submission of inaccurate or fraudulent data relative to RAPS data. Encounter data can improve program integrity by providing a more robust data source for risk adjustment and payment, allow for improvements in quality measurement in MA by incorporating claims-based measures, and be used to compare quality between MA and the FFS Medicare programs (for further discussion of quality, see text box on p. 391).

### **Variation in coding intensity across MA contracts**

We continued to find wide variation in the impact of coding intensity for each MA contract in 2016. This finding is based on an analysis we conducted similar to our coding differences analysis, but the change in risk score for each MA beneficiary was attributed to the contract (excluding contracts for PACE and SNPs) in which the beneficiary was enrolled in 2016, thereby capturing the coding impact on 2016 payments to each contract. Figure 13-5 (p. 376) illustrates the variation across contracts with more than 2,500 enrollees in 2016 relative to FFS in their local service area. Our finding that coding intensity varies across MA contracts is consistent with other research (Geruso and Layton 2015, Kronick and Welch 2014). Given this variation, CMS's across-the-board adjustment for coding intensity, which reduces all MA risk scores by the same amount, generates inequity across contracts by disadvantaging plans with lower coding intensity and allowing other plans to retain a significant amount of revenue from higher coding intensity.

### **Commission's prior recommendation on coding intensity**

The Commission's long-standing position is that the Medicare payment system should be neutral with respect to beneficiaries' choice of MA or FFS Medicare. Excess payments to MA plans allow them to offer additional benefits to enrollees, thus benefiting the MA program but costing taxpayers more than if MA beneficiaries had remained in FFS. Further, the additional payment to MA plans increases the Part B premium for all Medicare beneficiaries. The size of the Part B premium is based on total Part B spending, which for MA is calculated as a proportion of all MA spending.

**FIGURE  
13-5****Cumulative MA risk score growth varied across contracts relative to local FFS, 2016**

Note: MA (Medicare Advantage), FFS (fee-for-service). MA contracts with enrollment below 2,500 (representing about 1 percent of total MA enrollment), contracts for the Program of All-Inclusive Care for the Elderly, and special needs plans are not included.

Source: MedPAC analysis of CMS enrollment and risk score files.

In our March 2016 report to the Congress, the Commission recommended a multipronged approach that would fully account for the impact of coding differences and would improve the equity of the adjustment across MA contracts. The recommendation had three parts:

- develop a risk adjustment model that uses two years of FFS and MA diagnostic data,
- exclude diagnoses that are documented only on HRAs from either FFS or MA, and then
- apply a coding adjustment that fully and equitably accounts for the remaining differences in coding between FFS Medicare and MA plans.

Using two years of diagnostic data would improve the accuracy of both FFS and MA HCC information and would reduce year-to-year variation in documentation. The 21st Century Cures Act appears to adopt using two years of diagnostic data in MA risk adjustment by stating that, for 2019 and subsequent years, “the Secretary may use at least two years of diagnosis data.” Removing diagnoses documented through only HRAs would mean

that a diagnosis had to be treated in order to count in risk adjustment calculations. Diagnoses that were both documented on an assessment and treated would continue to count toward risk adjustment. However, of the HCCs documented on HRAs in MA, about 30 percent were not treated during the year. In FFS, only about 6 percent of diagnoses documented on HRAs were not treated during the year.

Implementing these two policies would result in a more equitable adjustment across MA contracts than the current across-the-board adjustment because they more effectively target coding differences. Our analysis suggests that the combined effect of using two years of diagnostic data and excluding diagnoses from HRAs would effectively reduce MA risk scores by roughly 3 percent to 5 percent relative to Medicare FFS and thus would address roughly half of the impact of coding differences, reducing the need for the coding intensity adjustment described in the third part of the Commission’s 2016 recommendation.

The Commission has also discussed ways to implement the third part of the recommendation in a way that



improves equity across MA contracts. One way to implement the recommended coding intensity adjustment would be to group contracts into categories of high, medium, and low coding intensity and apply a coding intensity adjustment based on each group's average level of coding intensity. CMS has used this grouping of contracts based on coding intensity when selecting MA contracts for RADV audits.<sup>11</sup> While this policy would leave some inequity within each group of contracts, overall inequity would be reduced. CMS could consider using a greater number of groups to further refine the equity of the overall adjustment.

---

## **Quality in the Medicare Advantage program and the effect of contract consolidations**

---

Each year, the Commission examines available quality indicators in MA to judge the quality of care beneficiaries receive and what changes there have been in quality indicators over time. However, our ability—and the ability of beneficiaries—to evaluate quality in MA is limited by contract consolidations, a practice that has been developing for several years whereby MA organizations consolidate MA contracts to obtain bonus payments under the MA quality bonus program. To date, over 4 million enrollees in MA—more than 20 percent of enrollees—have been moved among contracts to secure bonus payments that would not otherwise be payable.

### **Contract consolidations and quality ratings**

In this section, we examine how the strategy to consolidate MA contracts has been implemented, whether the effect is only short lived, and what the consequences are for program expenditures and reporting data on health plan quality. On the basis of our findings, we make a new recommendation regarding bonus payments and star ratings and restate a recommendation first made in 2005 and called for again in 2010 regarding market areas for MA payment and quality reporting (Medicare Payment Advisory Commission 2010, Medicare Payment Advisory Commission 2005).

### **Interaction between MA plans and MA contracts under the star rating system**

Medicare provides financial rewards in MA through a quality bonus program that has been in place since 2012. The concept of rewarding high quality is consistent

with the Commission's recommendations for MA and other sectors in Medicare. In 2004, the Commission recommended that the private plan sector of Medicare (now Medicare Advantage) incorporate a quality incentive program to reward and encourage high quality (Medicare Payment Advisory Commission 2004). The approach differs from the current quality bonus program in that the Commission recommended a budget-neutral approach to the determination of financial rewards. The 2004 recommendation would establish "a reward pool from a small percentage of current plan payments and redistribute it based on plans' performance attainment and improvement on quality indicators." High-performing plans would receive higher payments, and poorer performing plans would be penalized in the sense that they would receive lower payments than they would if there were no bonus program. An illustrative example was given whereby there would be a 1 percent withhold from all plans to be redistributed to high-performing plans. If half of plans qualified for bonuses, the high performers would have a payment level of 101 percent (retaining their 1 percent withhold and getting a 1 percent bonus), while the half of plans that were not eligible for bonuses would be paid at a 99 percent level. The approach of bonuses and penalties is the approach that Medicare currently uses in the hospital sector and others.

The current MA quality bonus program is not budget neutral and consists only of additional payments for higher quality plans with no penalty component. CMS currently uses 44 measures, assigned different weights, to determine a weighted average overall star rating of 1 to 5 stars. The bonus takes the form of an increase in benchmarks for MA contracts at 4 stars or higher. Contracts with a 5-star rating are able to enroll beneficiaries during every month of the year, rather than being limited to the October to December annual election period. The star rating also determines the level of rebate payments. Plans with higher star ratings retain a higher share of the difference between a plan bid and the benchmark when bids are below the benchmark. Star ratings are determined at the MA contract level, but bids are at the plan level. Under the contract-level rating system, the contract's star rating for quality determines the star rating for all of that contract's plans. (See the text box, pp. 378–379, for an explanation of terms associated with contract consolidation.)

The star rating system predates the quality bonus program. The rating system was introduced in 2006 as a 3-star rating system intended to provide information

## Glossary of contract consolidation terms used in this report

- **Consolidation**

*Consolidation* refers to a Medicare Advantage (MA) organization's combining of one or more MA contracts into a single surviving contract.

- **Consumed contract**

When an organization consolidates contracts, CMS uses the term *consumed contract* to refer to each contract that has been subsumed under another (surviving) contract.

- **Contract**

*MA contract* and *MA plan* are the two principal administrative designations in MA. As the terms suggest, the contract is the agreement entered into between an MA organization and CMS. Contracts are identified by an alphanumeric system; *H* designates a "local" contract, covering HMOs or local preferred provider organizations (PPOs), and *R* designates a contract for regional PPO plans. The letters are followed by four digits (e.g., H1234). Contracts for local plans are therefore sometimes referred to as "H-numbers." An organization that has an MA contract can offer a single plan or multiple plans under the contract (see the definition of the term *plan*).

The contract is the administrative unit for various aspects of CMS's administration of the MA program such as the collection and reporting of quality measures and the determination of network adequacy and for purposes of auditing and compliance. In contrast, MA bids are plan-level bids, and the statutory uniform benefit requirement—which requires that all enrollees in a given plan receive the same set of benefits—currently applies at the plan level, not the contract level.

- **Cross-walking**

In the late fall of each year, CMS publishes a file that "cross-walks" all current MA plans by listing their status in the current year and their status in the following year. All plans are shown in the cross-walk file, even if there are no changes to the plan (that is, if a plan continues to operate under

the same contract and there is no change in its service area, the plan is listed as unchanged). When there are changes, the types of changes include the contract consolidations discussed in this chapter and other changes such as termination of a contract or plan or expansions or reductions of service areas.

- **Deconsolidation**

*Deconsolidation* refers to the breaking up of a contract into separate contracts.

- **Plan or plan benefit package**

A contract can include multiple plans (also known as plan benefit packages). An MA organization can vary plans across geographic areas under one contract, and plans can be limited to a subset of Medicare beneficiaries—specifically, special needs beneficiaries (such as Medicare–Medicaid dually eligible beneficiaries), employer group enrollees, and, in the case of some organizations, residents of certain institutional facilities.

The statutory uniform benefit requirement currently applies at the plan level. For example, a bid for a special needs plan (SNP) would be different from the bids of other plans under the same contract in the same service area. Although quality measures are reported at the contract level, in the case of SNPs, a subset of quality measures is reported at the plan level, including four quality measures that apply only to SNPs.

If a company offers two or more plans in a county within the same category (such as two HMO options or two local PPO options), CMS currently requires that there be a "meaningful difference" between the products. Often, when a company has two plans in the same county under one contract, the distinction is that one includes drug coverage (an MA prescription drug (MA–PD) plan) and the other does not.

(continued next page)

## Glossary of contract consolidation terms used in this report (cont.)

- **Reconsolidation**

For purposes of this report, *reconsolidation* refers to the practice of consolidating a contract that has already undergone one (or more) consolidations in a prior period.

- **Segment**

Within a plan covering multiple counties, an MA organization can depart from the uniform benefit package requirement by using *segments*. A segment would have different premium amounts and/or different cost sharing depending on the county served. CMS's recent proposed rulemaking would allow segments to be the equivalent of plans in terms of the benefit. (The regulatory change would be that, in addition to premiums and cost sharing, the package of extra benefits could vary by county, but bidding would still be at the plan level (Centers for Medicare & Medicaid Services 2017)).

- **Service area**

A *service area* is defined as one or more counties in which an MA organization will provide health care services to enrollees and in which the organization establishes that it meets network adequacy requirements. A Medicare beneficiary must reside in the MA organization's service area to enroll in one of the organization's plans. The regulations require that the CMS qualification of the service area be made at the contract level as part of the application process (new applications and service area expansion applications).

There is generally a “county integrity”

requirement—meaning that service areas consist of an entire county, or whole counties, for local plans. On an exception basis, an MA organization can receive qualification for a portion of a county if it cannot ensure access to care throughout an entire county. The counties included in a contract do not need to be contiguous. Only regional PPOs have service areas that CMS specifies (covering entire states or multiple states with a uniform benefit package).

- **Surviving contract**

In a contract consolidation, the surviving contract is the one that remains after another contract, or other contracts, has been absorbed. Under current CMS policy, the star rating of the surviving contract determines the star rating for the “consumed” contracts for bonus purposes when bids are submitted (using a retrospective star rating that is current as of June of each year, when bids are due to CMS). For public reporting of updated star ratings published in October of each year for the annual election period, all subsumed contracts have the star rating of the surviving contract.

Generally, the identity of the consumed entities is not lost. Even though there is only one surviving contract, the consumed contracts can be identified because they have different plan numbers, bids, and service areas. ■

to Medicare beneficiaries about private health plans, as required by the Balanced Budget Act of 1997 (BBA). The BBA requires that beneficiaries be informed about health outcomes, disenrollment rates, member satisfaction, and a plan's compliance with program requirements—all of which are components of the current 5-star rating system. The BBA also requires that there be a comparison with the quality of care in FFS “in the area involved.” The MA quality bonus program was established by PPACA, effective for payments made in 2012 and thereafter, with the very brief statement that “the quality rating for a plan shall be determined according to a 5-star rating system

(based on the data collected under section 1852(e))” (the section of the law that requires MA organizations to submit data on “health outcomes and other indices of quality”). As we discuss the distortions that have arisen in the MA quality bonus program because of the financial incentives involved, it is important to keep in mind the original purpose of the MA star rating system. Its original primary purpose, and arguably its continuing primary purpose, is to provide Medicare beneficiaries with accurate comparative information about the quality of care they can expect to receive from a given MA plan when they

**TABLE  
13-10****Consolidation activity, by contract type, 2013 to 2017**

	End of year					Totals	
	2013	2014	2015	2016	2017	All consolidations	Moved to bonus status
HMO	9	8	31	15	14	77	51
Local PPO	7	21	23	2	8	61	55
Regional PPO	0	0	0	2	0	2	2
Enrollees moved to bonus status through consolidation (in thousands)	120	1,050	900	700	1,400		4,170

Note: PPO (preferred provider organization). Each year's total enrollment figures are rounded. The total for the end of 2014 is greater than previously reported and includes the movement of 700,000 employer group-sponsored Medicare Advantage enrollees to bonus-status contracts. In addition to the consolidations raising a contract to 4 stars or better, there were (1) six cases of a contract being moved from 2.5 stars (at risk of termination) to a higher rating (four HMOs and two local PPOs) and (2) eight cases of HMO contracts being raised to 3.5 stars from a lower rating, which changes the rebate share from 50 percent to 65 percent of the difference between the bid and the benchmark. Data exclude cost-reimbursed plans and private fee-for-service plans.

Source: MedPAC analysis of CMS enrollment and cross-walk data.

are evaluating their Medicare health care options. The star rating system is intended to give information about the clinical quality, administrative capability, and patient experience results for MA plans. In addition, giving plans quality bonus payments enables plans to convey a price signal to beneficiaries whereby higher quality plans are able to provide more generous benefit packages (with lower premiums, lower cost sharing, and better benefits). Both the quality indicators and the price signals are now distorted because of contract consolidations.

For the past several years, the Commission's reports have called attention to the industry practice of consolidating MA contracts for the purpose of increasing bonus payments. Under this strategy, a contract with a rating below 4 stars is subsumed under a surviving contract rated at 4 stars or higher, thereby enabling a company to qualify for bonus payments for members of the "consumed" contract. Over the years, CMS has encouraged companies offering MA plans to consolidate contracts as a means of streamlining contract administration for the companies and CMS. For example, a company that in 2001 had 4 separate contracts in California across 31 counties combined all contracts into 1 statewide contract for 2002 and thereafter (with all contracts absorbed into the MA organization's oldest and largest contract). With the advent of the quality bonus program, CMS, which approves contract consolidations, has not discouraged the practice of contract

consolidation to achieve bonus status (including when smaller, newer contracts absorb larger, older contracts). At one point, CMS invited organizations with contracts at risk of termination because of low star ratings to merge such contracts with higher rated contracts to avoid termination (Centers for Medicare & Medicaid Services 2014).

Increased bonus payments through contract consolidation are possible because of timing issues in the MA contracting cycle. Companies can increase MA payments by assigning enrollees to contracts that are known to receive bonuses because, in a given contract year, a contract's bonus status is based on a star rating from a prior period. This retrospective approach to determining a contract's bonus status is viewed as necessary to determine benchmark payment levels when plans submit bids in June for the following contract year, but it also means that a company knows the bonus status of each of its contracts before the company makes decisions about consolidation.

The Commission first raised concerns about this issue in its March 2014 report to the Congress, noting that, at the end of 2013, consolidations to achieve bonus status affected a little over 120,000 enrollees (Table 13-10). The process continued thereafter, affecting over 1 million enrollees at the end of 2014; nearly 900,000 at the end of 2015; over 700,000 at the end of 2016; and 1.4 million in the current period (the end of 2017).<sup>12</sup> Over the years, the total number of beneficiaries who are in



4-star plans solely due to the consolidation strategy is about 4 million beneficiaries, representing over 20 percent of the enrollment in MA contracts participating in the bonus program and over 30 percent of the enrollment in contracts at or above 4 stars. Stated differently, while over 70 percent of enrollees in the 2018 contract year will be in bonus plans, excluding the 4 million enrollees moved through contract consolidation would mean that the actual share of enrollment in bonus plans would be lower, perhaps as low as 50 percent. In terms of the number of enrollees affected, nearly 90 percent of the consolidation activity to raise star ratings to bonus levels has occurred among the top two organizations in total MA enrollment.

### The mechanics of contract consolidation

Three examples are helpful to illustrate:

- how the consolidation strategy works,
- whether the strategy is only a short-lived means of securing bonus payments, and
- what the direct and indirect consequences are of the strategy.

**Consolidation** The first example was included in the Commission’s March 2017 report and involves two large regional PPO contracts, each rated below 4 stars, being subsumed under a much smaller contract that had a 4-star rating (R7444). As a consequence of this action, UnitedHealth Group received bonus payments for 380,000 enrollees in plans that would not otherwise have been eligible for bonus payments. The contracts that included the 380,000 enrollees were consumed by a contract with 20,000 enrollees. The company capitalized on its first opportunity to consolidate regional PPOs to achieve bonus-level status since regional PPOs have generally not been able to achieve 4-star ratings.

**Consolidation and reconsolidation** The second example involves Humana contract H6609, which consumed 19 other contracts over the course of several years. In 2013, the H6609 service area included 250 counties in 9 states. At the end of 2013, the contract had 405,000 enrollees. In 2017, the contract served 955 counties in 35 states, with nearly 800,000 enrollees. One set of quality measures and one star rating applied to all 35 states under the contract. (See also the Commission’s 2014 report to the Congress, available at <http://www.medpac.gov>.)

The star rating for contract H6609 declined to 3.5 stars in the 2017 ratings released in October 2016. The 2017

star rating determines bonus eligibility for MA bids for the 2018 contract year (calendar year 2018). Having lost its bonus status, H6609 has now been “consumed” by a smaller 4-star contract, H5216, which served 91 counties in 4 states in 2017. The result is that, as of 2018, all enrollees of the former H6609 will be in a contract in bonus status (contract H5216). The new surviving H5216 will serve 38 states and 1,046 counties. H5216 initially had 50,000 enrollees in 2017 compared with the nearly 800,000 it added from contract H6609.

This example, involving a reconsolidation, illustrates how bonus status can be perpetuated. At first blush, it would appear that the strategy of using contract consolidation to increase bonus payments would be short lived if the combined memberships ended up having quality scores that were brought down because of the absorption of lower rated contracts. That is, the effect would be self-limiting—and perhaps less of a reason for concern—because poorer quality results would resurface under the consolidated contracts over time. However, as the example of H6609 shows us, if a surviving contract drops below 4 stars, there can be a subsequent consolidation in which a different contract that is at 4 stars or higher consumes the contract that fell below 4 stars. The H6609 reconsolidation (to H5216) is not the first instance of reconsolidation to maintain bonus status. Over the time we have been tracking this strategy, six contracts that were consumed and had an increase in star ratings to 4 stars or higher were in turn consumed by subsequent consolidations after falling below 4 stars. One contract underwent three rounds of consolidation.

**Deconsolidation** In the most recent contract cycle, there has been a deconsolidation. It is, to our knowledge, the first such instance: For 2018, a Humana regional PPO plan is breaking up a multi-region contract into separate contracts in each of the CMS-designated regional PPO regions covered under the original contract. Such a deconsolidation is beneficial in that it results in more accurate reporting of quality results in each region. When consolidated, each of the regional contract’s quality measures is a combined national result reported for all 23 states included in the contract, as illustrated in Table 13-11 (p. 382). When deconsolidated, reporting will be separate for each of the 14 regions involved.

If this regional plan had already deconsolidated for the 2016 Healthcare Effectiveness Data and Information Set® (HEDIS®) reporting year (the 2015 measurement year), rather than having a 3-star rating for the breast cancer

**TABLE  
13-11****HEDIS® breast cancer screening results for a multi-region contract**

Region and states included	Breast cancer screening result	Star rating for screening result
All regions in the contract combined	66%	3
Result if the regions had been deconsolidated		
AR, MO	54	2
AZ	57	2
KS, OK	52	2
OH	61	2
PA, WV	60	2
TX	60	2
AL, TN	67	3
GA, SC	68	3
IL, WI	67	3
IN, KY	64	3
LA, MS	67	3
MI	65	3
NC, VA	68	3
FL	72	4

Note: HEDIS® (Healthcare Effectiveness Data and Information Set®). Results are HEDIS breast cancer screening results for the 2015 measurement year. "Result" is the percentage of women 50 to 74 years of age who had a mammogram to screen for breast cancer.

Source: MedPAC analysis of HEDIS person-level data and CMS star cut points (which determine the star rating assigned to a given performance result).

screening measure that applied on a national, contract-wide basis, six of the regions would have been at 2 stars for this measure, seven would have been at 3 stars, and one region (Florida) would have received a 4-star rating for this measure. If the Florida region performs equally well for all other measures in the star rating system, it would achieve bonus status as a separate contract. Before the deconsolidation, the 3.5 overall star rating for this contract (not at a bonus level) applied to all its regions. (When deconsolidated, if the Florida region achieves 4-star status, it would be a candidate for consuming lower performing contracts.)

Deconsolidation is unusual in that one of the original reasons for allowing and encouraging contract consolidations was to streamline contract administration. A deconsolidation presumably has the opposite effect.

**Areas of concern regarding consolidation**

The practice of contract consolidation to achieve bonus status has a number of consequences related to program

expenditures as well as indirect consequences affecting the accuracy of information reported to beneficiaries and the integrity of data on MA quality. Several matters of concern are exemplified in the cases just discussed and in our earlier work on the issue of contract consolidation. In addition to increased program expenditures when bonuses are not warranted, the strategy results in:

- **Misrepresentation of information on quality.** The quality results reported to beneficiaries through the Medicare Plan Finder (MPF) website misrepresent the results for "consumed" contracts. Because CMS computes a star rating for consumed contracts in the first year of consolidation, that rating should be the star rating reported to beneficiaries, not the star rating of the surviving contract (which most often reflects performance in a different geographic area).
- **Inaccurate information on quality.** After consolidation, the population that is the basis for determining quality results is the population of the surviving contract, which includes all previously



independent contracts and generally encompasses a wider geographic area. Had the contracts not been consolidated, the star rating of the contracts that were consumed would have provided a more accurate measure of the quality in the geographic area served by the consumed contract.

- ***Erosion of the integrity and utility of the tools used to measure quality.*** In addition to the misinformation and inaccurate information at the market level, contract consolidations affect evaluations of overall quality in MA. The National Committee for Quality Assurance prepares an annual State of Health Care Quality report, which evaluates changes in MA quality over the years based on the average HEDIS results from year to year, separately reported for HMOs and PPOs. The averages are of contract-level results, which is how MA quality data are currently reported in CMS and other data. Similarly, the Commission's yearly data book uses contract-level averages to track quality results over the years in MA. The Commission's status report on MA, included in the March reports, has compared "same-store" results, looking only at contracts that report a result for two consecutive years.

Contract consolidations distort these usual methods of evaluating overall MA performance. Between 2013 and 2018, for example, the number of local PPOs with star ratings fell 42 percent (dropping from 124 to 72, with 7 of the 72 being contracts entered into after 2013) (data not shown). In 2013, 291 MA HMOs had star ratings. In 2018, that number dropped to 282, including 56 for contracts entered into after 2013—effectively a 23 percent reduction in the number of HMOs with star ratings that could be compared across years.

- ***Providing an undue competitive advantage.*** One way in which a company's consolidation practices can affect unrelated companies is at the local market level. A high star rating is thought to encourage beneficiaries to choose a particular plan over one with a lower star rating. In our focus groups and discussions with brokers, we found that the star rating is less important in beneficiary decision making than the generosity of the benefit offerings. Since plans with ratings at or above 4 stars can provide richer benefits, a plan's ability to provide extra benefits can be viewed as a proxy measure of quality—resulting in higher rated plans having a competitive advantage over lower

rated plans in a given market. However, a bonus-level star rating gained solely by contract consolidation is not a proxy measure of quality. A consumed contract gains an undue competitive advantage in relation to both plans in the same market that are not at a bonus level and bonus-level plans in the market area whose star ratings are based on their performance in the local market area. The plans that should have the competitive advantage are the plans at bonus levels because of the quality of care rendered in their market area, not those that have acquired their bonus status through a contract consolidation.

### **Methods of addressing the issue**

To restore the integrity of the star rating system and improve MA quality reporting mechanisms, we propose an immediate action and a policy for future reporting. As an immediate action, for contract consolidations involving different geographic areas, CMS should freeze geographic reporting units based on preconsolidation configurations. MA organizations should continue to report quality data using the preconsolidation configuration, and CMS should continue to determine star ratings based on those configurations. While contracts can continue to be consolidated for administrative reasons, quality reporting and the determination of star ratings would continue as though the consolidation had not occurred. In the longer term, CMS should require MA organizations to report quality data by local market areas, and CMS should compute star ratings by local market areas. These steps would improve the accuracy of data reported to beneficiaries and would make the determination of star ratings fairer to MA organizations.

For contract consolidations involving different geographic areas, it is feasible to have MA organizations continue to report quality data based on preconsolidation configurations because the identity of the consumed contracts—in terms of the geographic areas they serve—is generally not lost.<sup>13</sup> The concept of having a company report quality data at a subcontract level is also not unprecedented. For example, companies already separately report quality indicators for SNPs that are subunits of contracts. More relevant perhaps is a practice that CMS has used when there have been past consolidations, which is to have a company submit separate reports on quality indicators by geographic area. Kaiser Permanente did so in 2001, when it combined 4 separate contracts in California, serving 31 counties, into 1 statewide contract for 2002 and thereafter. Kaiser submitted two separate sets of quality

data for several years after the consolidation, with one reporting unit identified as the Southern California unit and the other as the Northern California unit (for northern and central California).

The first recommendation directs the Secretary to ensure that consolidations involving different geographic areas will not result in unwarranted bonus payments. Star ratings and eligibility for bonuses would be based on preconsolidation geographic configurations.

#### RECOMMENDATION 13-1

**For Medicare Advantage contract consolidations involving different geographic areas, the Secretary should:**

- **For any consolidations effective on or after January 1, 2018, require companies to report quality measures using the geographic reporting units and definitions as they existed prior to consolidation, and**
- **Determine star ratings as though the consolidations had not occurred, and maintain the pre-consolidation reporting units until new geographic reporting units are implemented per Recommendation 13-2.**

#### RATIONALE 13-1

Over the past five years, MA organizations have used the consolidation process to move about 20 percent of MA enrollees from contracts in nonbonus status to bonus status. This artificial means of raising star ratings has led to unwarranted increased program expenditures, inaccurate information provided to beneficiaries, and degradation of the ability to evaluate quality in the MA program. For future contract consolidations, the recommendation directs the Secretary to continue to use preconsolidation geographic configurations for quality reporting. This practice and the determination of star ratings would continue until the Secretary designs appropriate geographic reporting units that reflect the care delivery patterns of local health care market areas, as described in the second recommendation (p. 386).

The first part of Recommendation 13-1 specifies the effective date as on or after January 1, 2018, and the policy would apply to all consolidations going forward as well the consolidations reflected in bids submitted in June 2017, which became effective January 1, 2018. The rationale for including consolidations occurring at the end of 2017 and effective on January 1, 2018, is that each contract consolidated at the end of 2017 has a current star rating that was determined based on preconsolidation data

on quality indicators. It is CMS's policy that any contract operating in October of a given year has a new star rating computed, regardless of whether the contract will continue to operate as a separate contract in the following year. When consolidations occur, even though separate updated star ratings are available, it is CMS's policy to immediately report the star rating of the surviving contract as the rating for all consumed contracts. For example, one consolidation occurring at the end of 2017 involved a surviving contract in Virginia being consolidated with a consumed contract operating in Missouri. Although both the Missouri and Virginia contracts had updated star ratings computed in October 2017, for residents of Missouri, the MPF in the October to December 2017 annual election period (AEP) immediately showed the Virginia contract's star rating as the rating applicable for beneficiaries deciding whether to enroll in a Missouri plan under this contract. For consolidations occurring at the end of 2017, the recommendation would require that CMS revert to the star ratings determined in October 2017 as the most accurate star rating for each geographic area affected by a consolidation. In the Virginia–Missouri example, for beneficiaries enrolling from January through September of 2018, the MPF would show the separate Virginia and Missouri star ratings rather than only the Virginia star rating.

The star ratings computed in October of each year serve two purposes. One is to update the public reporting in MPF and the other is their use in determining a contract's bonus status in the next round of MA bidding. Bids, which are submitted in June, use the preceding year's October star rating to determine bonus status. In the Virginia–Missouri example, based on current CMS policy, the October 2017 star rating of the Virginia contract (the surviving contract) will determine the bonus status of the Missouri contract (the consumed contract) for the June 2018 bids that determine 2019 payment rates. This outcome seems misguided since the Missouri contract had an October 2017 star rating that could be used as the basis for determining the bonus status of the Missouri plan(s) in the June 2018 bids for the 2019 payment year. The Commission's recommendation would require CMS to change its current policy and instead use the separate Virginia and Missouri star ratings to separately determine the bonus status of the plans in each of the two states.

With regard to new star ratings to be announced in October of 2018, it is our understanding that MA organizations are currently in the process of collecting and processing data for the 2017 measurement year, which are the data

that form the basis of the October 2018 star ratings. In our Virginia–Missouri example, the company is in the process of collecting and reporting on data for the combined service areas of the two states. If it is not possible to disaggregate the reported data so that separate updated star ratings can be computed for Virginia and Missouri in October 2018, CMS should continue to use the October 2017 star ratings for the separate geographic areas. The separate October 2017 Missouri and Virginia star ratings would be posted on MPF for the October to December 2018 AEP because they are more representative of the quality in each geographic area. If updated star ratings that would have been announced in October 2018 are not available in June 2019 for the separate geographic areas, CMS should also use the separate October 2017 star ratings of Virginia and Missouri to determine the bonus status of enrollees for bids submitted in June 2019 for the 2020 payment year. We recognize that this aspect of the recommendation represents a trade-off between having accurate but dated information about the quality of care a plan offers in a given market versus having a more up-to-date rating that is based on combined reporting, but which is not an accurate measure of quality at the local level.

The preconsolidation reporting units called for in the first recommendation would be in place until the Secretary designates appropriate geographic units for each local health care market, as described in the second recommendation (p. 386).

## IMPLICATIONS 13-1

### Spending

- Relative to current law, this recommendation would decrease Medicare spending by between \$250 million and \$750 million in 2019 and by between \$1 billion and \$5 billion over five years.

### Beneficiary and plan

- For beneficiaries, the recommendation improves the accuracy of information on plan quality but results in a lower level of extra benefits in some plans. Some plans will see a reduction in bonus payments, but there will be a more level playing field for competing plans.

### Other alternatives: Plan-level reporting, averaging

As we have seen with the wave of contract consolidations, the contract is no longer a valid reporting unit for quality. The plan, an already existing administrative unit, is a logical alternative to consider. Although CMS calculates star ratings at the contract level, the statute provides that, when there is a quality bonus payment, MA benchmarks

“shall be increased on a plan or contract level, as determined by the Secretary” (1853(o)(1) of the Social Security Act). The Bipartisan Budget Act of 2018 calls for the Secretary to determine the feasibility of reporting quality data at the plan level. Currently, SNPs report a subset of HEDIS measures and some additional measures at the plan level.

Plan reporting is feasible since each MA enrollee is in a unique plan that can be identified. The March 2010 report to the Congress examined the issues related to reporting at a unit smaller than the contract. The main issue is that, for HEDIS measures based on medical record sampling and for other measures collected through surveys, the sample sizes need to be increased to have valid results.

While plan reporting is feasible, using the plan as a reporting unit can result in the same issues that occur with the contract as a reporting unit. The defining features of a plan versus a contract are that a plan is the bidding unit, and the uniform benefit package rule applies at the plan level (though it may be applied at the county level, through the use of segments, under CMS’s proposed rule (Centers for Medicare & Medicaid Services 2017)). Like contracts, plans can span wide geographic areas. In 2017, there were 30 HMO plans with a service area of 10 or more metropolitan statistical areas (MSAs), and 35 local PPO plans served 10 or more MSAs. There is no requirement that plan service areas be contiguous. If the plan is the reporting unit for quality and the determination of stars, MA organizations could construct plans in such a way that the combination of counties under the plan maximizes star rating status for the greatest number of enrollees. In addition, allowing benefit-package variation by segment from county to county would facilitate the ability of MA organizations to design the most desirable geographic make-up of its plans for the purpose of maximizing star ratings.

An alternative way of measuring quality when contracts consolidate is to compute enrollment-weighted average results across combined contracts. CMS proposed this approach in its recent notice of proposed rulemaking (Centers for Medicare & Medicaid Services 2017), and it has now been enacted into law as a provision of the Bipartisan Budget Act of 2018. The Commission discussed issues with such an option in our March 2017 report to the Congress (Medicare Payment Advisory Commission 2017). The main concern is that the averaging method would give an accurate picture of quality in a given geographic area only if the two or more contracts



involved in a consolidation shared exactly the same service area or if the two or more contracts to be consolidated had the same level of performance in each contract for each quality measure. Otherwise, the averaging method distorts the quality information that is presented to beneficiaries. If two contracts of similar size are consolidated and one performs well and the other performs poorly, in the former case the performance is shown as worse than it actually is for the market area. In the poorly performing geographic area, MPF will indicate that the company has higher quality than is actually the case.

In the current cycle of contract consolidations (the end of 2017), there were 17 contract consolidations in which a contract below 4 stars was consumed by a contract at or above 4 stars. In only one of the cases was there any overlap of service areas (one company, which purchased another company, undertook a consolidation in which 3 of 13 counties were in the service areas of both contracts). Other combinations of service areas included state combinations such as Missouri and Virginia, Wisconsin and Kentucky, and Kentucky and New Hampshire. Given that the purpose of these consolidations was to substitute the higher quality rating of one geographic area for the lower rating in a different geographic area, an averaging approach would misrepresent the quality rating in both geographic areas—that of the consumed contract, where the averaging will raise the apparent performance level, and that of the surviving contract, where the averaging will lower the performance level below the actual performance level for the geographic area. MPF will show quality results that are lower than they should be in some areas and higher than they should be in other areas. Using the averaging method does a disservice to beneficiaries who should be provided with accurate information about plan performance in each geographic area where an MA organization operates.

In addition, the averaging method would continue to provide an incentive for organizations to use contract consolidation as a means of obtaining unwarranted bonus payments. For example, two contracts with equal enrollment, one with a 4.5-star rating and one with a 3.5-star rating, could be combined to result in what would likely be a 4-star rating of the consolidated contract. The averaging method forecloses certain types of combinations that have occurred in the past, but it does not fully address the concern about unwarranted program expenditures or inaccurate information provided to beneficiaries when there are consolidations.

## **The Commission's position on geographic areas for evaluating quality**

The Commission has endorsed a different reporting unit for quality measures (Medicare Payment Advisory Commission 2010), based on work that was done primarily to examine the appropriate geographic units for payment purposes (Medicare Payment Advisory Commission 2009, Medicare Payment Advisory Commission 2005). In its June 2005 report, the Commission recommended the use of MA payment areas consisting of MSAs (as long as they did not cross state boundaries) and, for nonmetropolitan counties, “payment areas should be collections of counties in the same state that are accurate reflections of health care market areas, such as National Center for Health Statistics health service areas” (Medicare Payment Advisory Commission 2005). We also recommended that the Secretary update health service areas (HSAs) before using them as payment areas in MA and that the Secretary make periodic updates to HSAs to reflect changes in health care market areas that occur over time. The National Center for Health Statistics (NCHS) HSAs—which are determined for both metropolitan and nonmetropolitan areas—were developed in 1991 and were based on the patterns of care that Medicare beneficiaries received.

We stand by our 2005 recommendation that the Secretary designate areas that accurately reflect health care market areas and to update these designations periodically to account for changing patterns of care. While an update of the NCHS HSAs would be especially useful for designating geographic units in both metropolitan and nonmetropolitan areas for purposes of reporting on quality in MA and FFS, other sources of information about patterns of care could be used to inform the decision-making process, such as Primary Care Service Areas and the Dartmouth Atlas service area designations. The goal is to have geographic units that accurately reflect local patterns of health care delivery.

### **RECOMMENDATION 13-2**

#### **The Secretary should:**

- **Establish geographic areas for Medicare Advantage quality reporting that accurately reflect health care market areas, and**
- **Calculate star ratings for each contract at that geographic level for public reporting and for the determination of quality bonuses.**

## RATIONALE 13-2

One of the purposes of a rating system for MA plans is to give beneficiaries information about the quality of care across the options available in their geographic area. The Commission supports the concept of having interplan comparisons and comparisons between MA plans and FFS Medicare in a given geographic area. However, with quality measures reported and star ratings determined at the contract level, the current approach to star ratings often does not give beneficiaries accurate information about the quality of care among MA plans in their geographic areas. Contract consolidations have increasingly led to combinations of noncontiguous, disparate geographic areas. Quality should be evaluated at the local market area level for both MA and FFS.

## IMPLICATIONS 13-2

### Spending

- Relative to current law, the spending effect is uncertain and would depend on the distribution of star ratings under the reformed reporting system.

### Beneficiary and plan

- For beneficiaries, the recommendation improves the accuracy of information on plan quality, and there will be a more level playing field for competing plans. Plans will also have an increased reporting burden for measures based on medical record sampling or member surveys.

### Issues with smaller geographic reporting units

While Recommendation 13-1 has companies revert to, or continue to use, reporting units that had already been in use (for example, Virginia and Missouri had already been reporting on a separate basis), Recommendation 13-2 requires additional reporting efforts on the part of MA organizations if a contract includes more than one of the newly designated geographic reporting units. For example, a number of HEDIS measures are reported based on a review of a sample of medical records. If the number of geographic reporting units increases, there will be a concomitant increase in burden and cost to health plans for reporting such measures if each geographic unit must have a sufficient sample to compute a valid HEDIS rate. Similarly, survey-based measures such as the Consumer Assessment of Healthcare Providers and Systems® and the Health Outcomes Survey would have to have samples drawn from each geographic unit. However, we believe it is appropriate to impose this additional burden given the

substantial cost to Medicare of unwarranted quality bonus payments and because of the need to provide beneficiaries with accurate information regarding the quality of their Medicare options.

In some cases, there may be a small-numbers issue. There may be too few enrollees in a given geographic area for there to be valid quality results (in the same way that there are 13 contracts in the 2018 star ratings—all with small enrollment—that have a star rating indicated as “not enough data” for both Part C and Part D). In our March 2010 report, the Commission discussed this issue of how to evaluate quality in MA and how it compares with FFS. The report suggested that the Secretary could develop alternative ways to evaluate and report on quality, such as by using multiyear rolling averages or otherwise aggregating data.

### Recent quality results in Medicare Advantage

In past years, the Commission has evaluated the state of health care quality in MA by examining year-to-year changes in quality indicators, using results reported at the contract level. To better gauge whether quality measures have improved or declined, we used the approach of making comparisons between contracts that existed in both years. This approach disregards results from new contracts (which tend to have lower performance); removes contracts that have left the program (which may also have had lower performance); and, at the measure level, does not include a contract that was unable to report a result in both of the two years examined. This approach gives a sense of whether, over time, MA organizations are able to improve their enrollees’ quality of care. However, because of the wave of contract consolidations, the two-year approach may no longer be suitable for assessing MA quality. Quality measures for a “surviving” contract with 5,000 enrollees that absorbs 700,000 enrollees from “consumed” contracts cannot be compared between the preconsolidation and postconsolidation periods.

Alternatives exist to the contract comparisons between years. One is to compare enrollment-weighted average results across all contracts. In this way, it is possible to glean useful information that gives a general picture of MA quality and changes from year to year because all enrollees are included in the data, even when there have been contract consolidations.

CMS publishes enrollment-weighted national average rates in the HEDIS public use files released in the late

**TABLE  
13-12****HEDIS® 2016 (measurement year 2015) results under different approaches**

	<b>Across the entire MA population or denominator for HEDIS measure</b>	<b>Contract enrollment-weighted average</b>	<b>Simple average</b>
HEDIS measures not based on sampling (entire population reported by all plans for members to whom the measure applies)			
Breast cancer screening (ages 50–74)	76.9%	76.4%	72.6%
Osteoporosis management in women with fracture (ages 67–85)	42.7	44.2	38.5
MA HMOs	46.5	48.4	41.0
Local PPOs	35.8	38.8	31.9
HEDIS measures based on sampling for some contracts and the enrollee universe for others			
Colorectal cancer screening (ages 50–75)*	84.4	73.3	67.6
HEDIS measure requiring all contracts to use sampling			
Control of blood pressure among people with hypertension (ages 18–85)	66.9	74.9	68.8

Note: HEDIS® (Healthcare Effectiveness Data and Information Set®), MA (Medicare Advantage), PPO (preferred provider organization).

\*For the colorectal cancer screening measure in measurement year 2015, 8 contracts used administrative data (the universe of enrollees to whom the measure applied) to report a rate, while the remaining 468 contracts reported a rate using medical record sampling. The rate among contracts using administrative data was 88 percent, compared with 77 percent for contracts using medical record sampling. Contracts using administrative data represented 79 percent of the denominator for the measure but were 7 percent of total member months in the HEDIS data.

Source: MedPAC analysis of HEDIS person-level data and CMS star cut points (which determine the star rating assigned to a given performance result).

summer or fall of each year. Using the most recent data—the 2017 HEDIS data for the 2016 “measurement year”—CMS reported on 57 measures that can be compared between the two years (because the measure specifications did not have major changes over the years). Unlike the star ratings CMS releases in October, the HEDIS files include HEDIS results for contracts that are to be consolidated. For example, the 2017 HEDIS public use files include data for both Humana contract H6609 and contract H5216, which consumed the H6609 contract as of January 1, 2018. The 2017 HEDIS data are the basis for the 2018 star rating of H5216—a star rating that is also applied to the consumed H6609 in the MPF data published in October 2017.

Using CMS data on weighted average HEDIS results and comparing data from the most recent year with the prior year’s data, the results are mixed, with a greater number of measures showing improvement compared with the number declining. Of the 57 measures, 14 (about one-quarter) improved by over 3 percent (including 3 of a suite

of 8 asthma medication measures). Eight measures (14 percent of measures) declined by over 3 percent (including three of a set of four statin adherence measures). The most noteworthy change was the level of improvement in a measure introduced in 2015, medication reconciliation after discharge from an inpatient facility. For that measure, the enrollment-weighted average rate doubled between the HEDIS 2016 and 2017 data, from 27 percent to 58 percent. The measure is a star measure as of 2017 (that is, in the 2018 stars announced in October 2017). The level of improvement is typical for a new measure, and its inclusion as a star measure elevated its importance to MA organizations.

Another alternative to reporting quality is to use MA-wide results—that is, tabulating the results across all plans for each measure for the universe of MA enrollees. This method would involve using the HEDIS person-level data that collect all the numerators and denominators for each of the measures. Of the 21 measures we were able to compare on this basis between the 2015 and 2016 measurement years, four improved and four declined.



Table 13-12 shows results computed on an MA-wide basis for several HEDIS measures and compares the results with enrollment-weighted results (i.e., weighted by the number of enrollees in each contract) and simple averages (averages of contract-level results). The table shows three categories of measures for which there are different reporting practices. In the case of the table's first two measures, all plans report on the full universe of enrollees to whom the measure applies. Thus, the MA-wide breast cancer screening (BCS) result pertains to the 3 million women between the ages of 50 and 74 in the 2015 HEDIS measurement year data for 18.8 million MA enrollees. The number of enrollees to whom the osteoporosis management measure applied was 103,000 women between the ages of 67 and 85 across all MA plans reporting HEDIS data. The results differ depending on the method used. Enrollment-weighted averaging yields results similar to the MA-wide result for BCS. For the osteoporosis management measure, however, enrollment weighting yields a higher result. For HMOs, for example, the enrollment-weighted result of 48.4 percent is 4 percent better than the MA-wide rate of 46.5 percent. Among local PPOs, enrollment weighting yields a result that is 8 percent better than the MA-wide rate (and each result is far higher than the simple average).

Two of the categories of HEDIS measures shown in Table 13-12 illustrate why it is preferable not to use an MA-wide computation for HEDIS measures that are reported based on a sample of medical records (generally 411 medical records per contract, to achieve a sampling result with a 95 percent confidence level). For the last measure shown in the table (control of blood pressure among enrollees ages 18 to 85 with hypertension), all plans are required to use medical record sampling to report their HEDIS results. For such measures, the simple average would yield a result similar to the MA-wide result because each contract's result contributes equally to the MA-wide result (though some contracts have a sample that is slightly higher than 411, and some contracts report on the full universe of enrollees with hypertension if the number is below 411). For the colorectal cancer screening measure, the reporting is a mix of contracts that use medical record sampling and contracts that use the universe of enrollees to whom the measure applies. Thus, in an MA-wide result, the contracts using administrative data would have a much larger number of enrollees to whom the measure applied compared with a contract in which the measure is reported based on results for 411 enrollees (because sampling

is used). In the CMS star rating system, the results for 9 of the 13 HEDIS measures are reported exclusively or primarily based on medical record sampling. These include the more heavily weighted intermediate outcome measures of blood pressure control among beneficiaries with hypertension and blood sugar control among diabetics.

In addition to the medical record sampling issue affecting the MA-wide approach, both the MA-wide approach and the enrollment-weighted approach share a further shortcoming. Each of the HEDIS effectiveness of care measures is limited to a given age range and can be limited to specific conditions, diseases, or member characteristics. Enrollees' age ranges, conditions, and other characteristics can vary significantly across contracts. When using a weighted average, plans with the highest enrollment dominate the results. In using an MA-wide approach for measures not involving medical record review, weighting is not by enrollment but, rather, by the number of enrollees to whom the measure applies.

Table 13-13 (p. 390) shows the top 10 MA contracts by enrollment in the HEDIS data for measurement year 2015, their share of the overall enrollment, and their share of the denominator for two measures not reported based on sampling—BCS and osteoporosis management in women who had a fracture (OMW). Although we use the term *MA-wide result* as shorthand, the table illustrates that it is more accurate to say “the result across all MA plans for a given measure”—which does not take into account variations in the population make-up across contracts. For example, Contract 1 is disproportionately represented in the BCS measure. The contract has 9.2 percent of the enrollees qualifying for inclusion under the measure, but it has only 5.7 percent of the overall MA enrollment. If Contract 1's performance on the BCS measure is exceptionally high, the MA-wide result will be higher than it might otherwise have been because of the greater weight Contract 1 has in determining the MA-wide result for this measure. Enrollment weighting gives less weight to the contract for this measure even though the measure applies to more of this contract's enrollees. In the case of Contract 3, its exceptionally poor performance on both the BCS and OMW measures will have less influence on the MA-wide results because the contract is underrepresented in the denominators for both those measures. The case of Contract 7 shows that a contract can be overrepresented in one measure (BCS) but underrepresented in another (OMW). If that contract is the highest performing contract

**TABLE  
13-13****Distribution of enrollment and HEDIS® denominators  
among the top 10 MA contracts, 2015 measurement year**

Contract	Share of all MA enrollment	Share in the BCS denominator	Share in the OMW denominator
1	5.7%	9.2%	6.2%
2	4.4	5.2	4.6
3	3.4	1.0	1.8
4	3.3	4.1	1.4
5	2.9	2.4	2.7
6	2.5	2.2	2.1
7	1.8	2.1	0.8
8	1.8	1.8	2.7
9	1.7	2.1	2.5
10	1.3	1.1	1.4
Total for the top 10 contracts	28.9	31.1	26.2

Note: HEDIS® (Healthcare Effectiveness Data and Information Set®), MA (Medicare Advantage), BCS (breast cancer screening), OMW (osteoporosis management in women who had a fracture).

Source: MedPAC analysis of HEDIS person-level data.

across all measures, it would raise the MA-wide result for BCS, but the MA program would appear to have poorer performance overall in the OMW measure. We also note that using an MA-wide result would not reveal much about intercontract variation in the measure results. (Intercontract variation can be substantial. For example, for the BCS results in HEDIS measurement year 2015, the enrollment-weighted 90th percentile value of contract-level results was 85.1 and the 10th percentile was 66.2.)

**Other quality indicators**

Another feature of past reports has been a table showing the distribution of overall contract star ratings by contract type (HMO, local PPO, etc.) with enrollment shares in each category. However, we continue to urge a degree of caution in interpreting overall star ratings as indicators of quality or as a basis for judging changes in the level of quality over the years. For example, the measures included in star rankings change over time, as do the relative weights; and the cut points for assignment into the five different star levels also change from year to year. For this year's report, given the extent of contract consolidation and its effect on star ratings, we do not see a value in presenting the star distributions. As noted, over 20 percent

of the enrollees in star-rated contracts are in a particular contract (the surviving contract) that is different from the individual's original contract at the time of enrollment (the consumed contract). A distribution of enrollment by star ratings would not give an accurate picture of the state of quality in MA.

**Summary of the state of quality reporting in MA**

The limitations of different approaches to reporting on quality in MA and the way in which contract consolidations have eroded the integrity of the star rating system underscore the need for quality data to be reported at the local market area level, as the Commission recommends. Reporting at the market level certainly has greater value for beneficiaries in choosing among plans and—when additional data on FFS quality become available—for beneficiaries comparing FFS with MA plans (see text box on comparing quality).<sup>14</sup> If there are to be financial rewards for better performing plans, market-level reporting would allow payment of bonuses based on performance in relation to the level of performance in the market area. Currently, bonuses can be based on an engineered configuration of contracts that enables

## Comparing quality among Medicare Advantage and other Medicare payment models

**T**he Commission believes that quality measurement should be patient oriented, encourage coordination across providers and time, and promote change in the delivery system. Medicare quality programs should include population-based measures such as outcomes, patient experience, and value measures. Providers may choose to use more granular measures to manage their own quality improvement.

Medicare can use a small set of population-based measures to compare quality of care across its three payment models—fee-for-service (FFS) Medicare, Medicare Advantage (MA), and accountable care organizations within a local market area (Medicare Payment Advisory Commission 2015a, Medicare Payment Advisory Commission 2014). Medicare’s use of the same set of measures across payment models may also promote multipayer alignment, which can reduce the burden providers face in tracking a diverse number of quality measures across payers.

In its March 2010 report to the Congress and in response to a directive in the Medicare Improvements for Patients and Providers Act of 2008, the Commission made a set of interconnected

recommendations about how Medicare could compare quality across FFS Medicare and MA within a defined geographic area. The report acknowledged that the major limitation on calculating outcome measures such as potentially preventable admissions and readmission rates for MA plans was the lack of claims data. The report recommended that CMS move as quickly as feasible to gather the data needed to calculate a set of population-based outcome measures (Medicare Payment Advisory Commission 2010). Because MA plans have been reporting encounter data to CMS since 2012, there may now be opportunities for Medicare to calculate and compare quality results—for example, of low-value care—across MA plans and FFS in local areas. Some measures, however, may not be entirely comparable between the two sectors. For example, the vast majority of MA plans waive Medicare’s three-day hospital stay requirement for skilled nursing facility admissions, which can affect an FFS-to-MA comparison of hospital admission and readmission rates. For many measures, risk adjustment is necessary. Even when risk adjustment is done properly, it can be complicated by differences in coding practices between the two sectors. ■

bonus payments in geographic areas where they are not warranted.

Market-level information for both MA and FFS would provide a better basis for policymakers to evaluate the state of quality in the MA program. Instead of reporting on the level of quality in the MA program as a whole, the evaluation of quality in MA could be phrased in geographic terms: For example, “60 percent of the Medicare population resides in an area in which the quality indicators in MA plans are better than those of FFS Medicare, 20 percent where the quality is the same, and 20 percent where MA quality is worse than FFS.” Instead, nationwide assessments of MA performance mask variations in performance by health care markets, in which

plans in some markets perform better and in other markets worse relative to FFS. Better market-level information, currently incomplete for FFS or with measures that are not comparable with MA measures, would help identify the best practices in either MA or FFS that could be promoted to improve quality. ■

## Endnotes

---

- 1 The analyses and figures in this chapter (except in the enrollment text box) do not include three other Medicare plan types that are not classified as MA plans: cost plans that are paid their reasonable costs under Section 1876 of the Social Security Act, Medicare–Medicaid Plans (MMPs) operating under the CMS financial alignment demonstration, and plans in the Program of All-Inclusive Care for the Elderly (PACE). None of these other plan types submits bids. MMPs and PACE plans have contracts with state Medicaid plans and provide both Medicare and Medicaid services. In November 2017, about 700,000 beneficiaries were enrolled in cost plans, about 400,000 were in MMPs, and about 40,000 were in PACE. Section 1876 cost plans arrange for the full range of Medicare services. Cost plans receive reasonable cost reimbursement for Part B physician and supplier services. However, the Medicare program directly pays providers for inpatient and outpatient institutional services. Enrollees of cost plans are not locked into the program. For example, an enrollee can use a non-network physician and the Medicare program will pay the physician under the physician fee schedule.
- 2 While all HMOs and PPOs have provider networks, PPOs cover out-of-network care while HMOs typically do not. Some HMOs offer a point-of-service option that covers some out-of-network care.
- 3 These plans are not available to most beneficiaries, do not submit bids, and are not classified as MA plans in law or in the rest of this chapter.
- 4 Previous Commission work has shown that partially dual-eligible beneficiaries are more likely to enroll in MA, but fully dual-eligible beneficiaries are less likely to do so. The Commission intends to further analyze these patterns in the future.
- 5 Cost plans currently serve substantial enrollment in Minnesota, North Dakota, and South Dakota. There are also some cost plans in other areas of the country. The statute calls for the phasing out of cost plans in areas in which there are at least two competing MA CCPs that meet a minimum enrollment requirement. The cost plans are expected to transition to MA plans, and some have already begun the transition.
- 6 Other possible sources of diagnostic information—such as encounters for home health, skilled nursing, ambulatory surgery, durable medical equipment, and hospice services—are not used to determine payment through the risk adjustment model, either because adding diagnoses from these sources does not improve the model’s ability to predict medical expenditures or because of concerns about the reliability and manipulability of the diagnoses.
- 7 In practice, the actual dollar amount a plan will receive for coding a new HCC depends on which version of the HCC coefficient will be applied for a beneficiary and factors that affect a plan’s base rate. The dollar-value coefficients are standardized relative to average FFS spending before being applied to each plan’s base rate, and a different version of the HCC coefficient will be applied depending on the beneficiary’s disability status and whether the beneficiary is partially, fully, or not eligible for Medicaid. Different versions of the HCC model also exist for beneficiaries who lack a full calendar year of diagnostic data, are institutionalized, or have end-stage renal disease. In addition, a plan’s base rate varies according to the plan’s bid and the benchmark for the local area.
- 8 In 2015, CMS combined RAPS data and encounter data for risk adjustment, meaning that plans were paid for HCCs identified through at least one of the two data sources they submitted to CMS.
- 9 Example cases include *United States v. Janke*, 2:09–cv–14044; *Sewell v. Freedom Health Inc. et al.*, 8:09–cv–01625; *United States ex rel. Swoben v. Secure Horizons et al.*, 09–5013; *United States of America ex rel. Benjamin Poehling v. UnitedHealth Group, Inc.*, No. 16–08697 (text online at <https://www.nytimes.com/interactive/2017/02/17/business/dealbook/document-Whistleblower-Lawsuit-Accuses-Insurer.html>).
- 10 FFS risk score growth matched MA risk score growth in 2016, which is the first occurrence of similar coding growth since the full implementation of the HCC model in 2007. If FFS and MA risk scores continue to increase at the same rate, MA risk scores will still be higher than FFS risk scores for comparable beneficiaries (because of prior differences in coding rates), but the overall difference between MA and FFS risk scores due to coding would be limited. To the extent that different types of FFS providers have open lines of communication about diagnostic information, more complete FFS coding could also be beneficial for managing FFS beneficiaries’ chronic conditions. CMS’s calculation of the risk score normalization factor, which functions to keep the average FFS risk score at 1.0 in each year, also showed evidence of faster FFS risk score growth in 2016 relative to prior years.
- 11 For risk adjustment data validation audits in 2011, CMS grouped all contracts into high, medium, and low levels of coding intensity and selected 20 high-level, 5 medium-level, and 5 low-level contracts at random.



- 12 In one situation, nearly 700,000 additional enrollees of employer group plans were affected by the equivalent of a contract consolidation to achieve a higher star rating at the end of 2014. In 2015, UnitedHealth Group expanded a 4-star contract that had previously served 4 counties in Maine and had 5,500 enrollees at the end of 2014 (contract H2001). For 2015, United added 3,341 counties (all U.S. counties and the territories) to the contract service area as areas where United would enroll employer group-sponsored members. In January 2015, the contract had 298,000 members, consisting primarily of new members of the employer group plans under contract H2001. If United had started an entirely new contract for the nearly 300,000 employer group enrollees in H2001, the contract would have received the star rating that was the average of all of United's ratings at that time—3.5 stars—rather than the 4-star rating achieved by using the star rating of H2001. This particular strategy of securing a 4-star rating would not have been revealed in the CMS cross-walk files showing contract changes between one year and the next. Another strategy that United used in the same period involved moving about 375,000 employer group enrollees under contract H1509—rated 3.5 stars—to H2001 (the 4-star contract). While we were able to track the movement of 45,000 enrollees of H1509, which was consolidated at the end of 2015 with contract H2228 (a 4.5-star contract), 18 employer group plans under H1509 were shown as terminated at the end of 2015—suggesting that the beneficiaries were disenrolled. Instead, these employer group members had already been moved to contract H2001.
- 13 Thus, while there might be only one surviving contract after a consolidation, the consumed contracts can be identified because, in most cases, they have different plan numbers, bids, and service areas. For example, in the previously reported case of the consolidation of three regional contracts into one contract cited in the March 2017 report, the number of plans remained the same—eight plans under a single contract—with the geographic make-up of the plans unchanged. However, in some situations, a consolidation results in the blending of two enrolled populations, and the separate identities of the contracts involved are lost, which can occur when two companies serving one county decide to merge. In such a case, a contract consolidation is appropriate for administrative simplicity (though the company could decide to continue separate contracts); and an averaging or proportional determination of bonus eligibility would be appropriate if the contracts are consolidated. If one of the contracts was in bonus status and the other was not and if each contract had the same number of enrollees, for 2018 (assuming only one plan is offered), the bonus status would apply to one-half of the projected enrollment in the plan bid. Similarly, the new star rating for 2018 could be based on a weighted average of the results for each of the contracts. Averaging is the approach that CMS advocates in its recent proposed rule, but the rule would apply to averaging all types of consolidations, including those combining separate geographic areas (Centers for Medicare & Medicaid Services 2017).
- 14 A recent study has compared MA quality with that of FFS in three large states (California, Florida, and New York) using 2012 data (Timbie et al. 2017). Using MA HEDIS results, FFS claims data, Part D data, and CAHPS (survey-based patient experience measures) results for FFS and MA, the authors found that MA performed better than FFS on all 16 clinical quality measures examined, with large differences for HEDIS measures and smaller differences for Part D measures. MA HMOs performed better than PPOs, and PPO performance was sometimes below that of FFS. In CAHPS patient experience measures, MA enrollees reported better experiences with their plan except on the measure of getting needed care, and no significant difference in the care coordination measure. The HEDIS analysis included both measures reported using administrative data, which generally can be directly compared with FFS claims data, and measures for which HEDIS reporting involves medical record review. For the latter type of measures, as the Commission discussed in the March 2010 report to the Congress, MA rates and FFS rates cannot be directly compared using only FFS claims. However, the authors do point out that even for the measures requiring medical record review, if claims-based analyses indicate a widening gap over time between MA and FFS, it can be indicative of improvement in MA. Because the authors used 2012 data (the first year of the MA quality bonus program), replicating the analysis in subsequent years may show that the quality bonus program contributed to improvement in MA quality. However, the ability to replicate the findings in years after 2012 is affected by the contract consolidations that have resulted in large contracts that would yield smaller numbers for MA measures requiring medical record review (a sample of 411 members drawn from each of 19 contracts, for example, would be 411 for a single contract). The authors also found that the differences between MA and FFS narrowed with a contract-level analysis that compared MA results with FFS results in the geographic areas of each contract. The authors comment that this narrowing of differences suggests that the “overall results may be driven by a small number of high-performing plans.” The authors’ finding of a narrowing of differences at the local geographic level serves to emphasize the importance of our recommendation that quality should be measured at the local geographic level.

## References

---

- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017. Medicare program; contract year 2019 policy and technical changes to the Medicare Advantage, Medicare cost plan, Medicare fee-for-service, the Medicare prescription drug benefit programs, and the PACE program. Proposed rule. *Federal Register* 82, no. 227 (November 28): 56336–56527.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014. Advance notice of methodological changes for calendar year (CY) 2015 for Medicare Advantage (MA) capitation rates, Part C and Part D payment policies and 2015 call letter. February 21. <http://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2016.pdf>.
- Congressional Budget Office. 2017. *Effects of Medicare Advantage enrollment on beneficiary risk scores*. Working paper 2017–08. Washington, DC: CBO.
- Geruso, M., and T. Layton. 2015. *Upcoding: Evidence from Medicare on squishy risk adjustment*. NBER working paper no. 21222. Cambridge, MA: National Bureau of Economic Research.
- Government Accountability Office. 2017. *Medicare Advantage: Limited progress made to validate encounter data used to ensure proper payments*. GAO–17–223. Washington, DC: GAO.
- Government Accountability Office. 2016. *Fundamental improvements needed in CMS's effort to recover substantial amounts of improper payments*. GAO–16–76. Washington, DC: GAO.
- Government Accountability Office. 2013. *Medicare Advantage: Substantial excess payments underscore need for CMS to improve accuracy of risk score adjustments*. Washington, DC: GAO.
- Kronick, R., and W. P. Welch. 2014. Measuring coding intensity in the Medicare Advantage program. *Medicare & Medicaid Research Review* 4, no. 2.
- Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2010. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2005. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2004. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Pope, G. C., J. Kautter, R. P. Ellis, et al. 2004. Risk adjustment of Medicare capitation payments using the CMS–HCC model. *Health Care Financing Review* 25, no. 4 (Summer): 119–141.
- Schulte, F. 2016. Medicare Advantage audits reveal pervasive overcharges. <https://www.publicintegrity.org/2016/08/29/20148/medicare-advantage-audits-reveal-pervasive-overcharges>.
- Timbie, J. W., A. Bogart, C. L. Damberg, et al. 2017. Medicare Advantage and fee-for-service performance on clinical quality and patient experience measures: Comparisons from three large states. *Health Services Research* 52, no. 6 (December): 2038–2060.



CHAPTER

# 14

---

**The Medicare prescription  
drug program (Part D):  
Status report**

---

## R E C O M M E N D A T I O N

- 14** The Congress should change Part D's coverage-gap discount program to:
- require manufacturers of biosimilar products to pay the coverage-gap discount by including biosimilars in the definition of "applicable drugs" and
  - exclude biosimilar manufacturers' discounts in the coverage gap from enrollees' true out-of-pocket spending.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

# The Medicare prescription drug program (Part D): Status report

## Chapter summary

In 2016, Medicare spending and enrollee premiums for Part D benefits totaled \$91.6 billion, accounting for over 13 percent of all Medicare outlays. Enrollee premiums made up \$12.7 billion of that total, and enrollees paid additional cost-sharing amounts. In 2017, 42.5 million individuals (72.5 percent of all Medicare beneficiaries) were enrolled in Part D plans; 59 percent were in stand-alone prescription drug plans (PDPs), and 41 percent were in Medicare Advantage–Prescription Drug plans (MA–PDs). In general, Part D plans are available to all Medicare beneficiaries.

Each year, the Commission provides a status report on the Medicare prescription drug benefit established under Part D that describes beneficiaries' access to prescription drugs: enrollment levels, plan benefit designs, and the quality of Part D services. The report also analyzes changes in plan bids, premiums, and program costs. The Commission makes recommendations as necessary, and this year's report includes a recommendation related to biosimilars. (See text box on p. 426 for background on biosimilars.)

For the past two years, the Commission has noted its concern that a growing share of program spending has been for high-cost enrollees—beneficiaries who reach the catastrophic phase of Part D's benefit. This year's status report provides further evidence that this trend has continued, and we point to factors that contribute to greater catastrophic spending. The Commission's June

## In this chapter

- Enrollment, plan choices in 2017, and benefit offerings for 2018
- Plan sponsors and their tools for managing benefits and spending
- Drug pricing
- Program costs
- Biosimilars in Medicare Part D
- Beneficiaries' access to prescription drugs
- Quality in Part D

2016 recommendations address concerns about Part D's financial sustainability and affordability for its enrollees while maintaining the program's market-based approach.

***Medicare beneficiaries' drug coverage in 2017 and benefit offerings for 2018—***

Among the 42.5 million individuals enrolled in Part D plans in 2017, 12.2 million received the low-income subsidy (LIS), while 30.3 million were enrolled in plans and did not receive the LIS. Three percent of all Medicare beneficiaries (1.6 million individuals) received drug coverage through employer-sponsored plans that received Medicare's retiree drug subsidy. The nearly 25 percent of Medicare beneficiaries not enrolled in a Part D plan or in an employer plan receiving the retiree drug coverage subsidy were divided roughly equally between those who had creditable drug coverage (i.e., benefits at least as generous as Part D) from other sources and those with no coverage or coverage less generous than Part D.

For 2018, plan sponsors are offering 782 PDPs and 2,003 MA-PDs, about 5 percent and 16 percent, respectively, more plans than in 2017. Beneficiaries continue to have broad choice among plans—between 19 and 26 PDPs to choose from, depending on where they live, as well as typically 10 or more MA options. MA-PDs continue to be more likely than PDPs to offer enhanced benefits, using some of their (non-Part D) MA payments to lower their deductibles and reduce Part D premiums. For 2018, 216 premium-free PDPs are available to enrollees who receive the LIS, a 6 percent decrease from 2017. With the exception of one region (Florida), all regions continue to have at least 3 and as many as 10 PDPs available at no premium to LIS enrollees.

In 2018, the 10 PDPs with the highest 2017 enrollment continue to use a 5-tier formulary with differential cost sharing among preferred generics, other generics, preferred brand-name drugs, nonpreferred drugs, and specialty-tier high-cost drugs. Over time, many plan sponsors have moved from charging fixed-dollar copayments to charging coinsurance for certain tiers. In fact, the top 10 PDPs by enrollment use coinsurance rather than fixed-dollar copayments for medications on nonpreferred tiers.

***Part D program costs—***Between 2007 and 2016, Part D program spending on an incurred basis increased from \$46 billion to \$79 billion (an average annual growth rate of about 6 percent). Medicare's reinsurance subsidy (which covers 80 percent of spending for enrollees who reach the catastrophic phase of the benefit) became the largest component of program spending in 2014 and has remained the fastest growing component, at an average annual growth rate of nearly 18 percent between 2007 and 2016. In 2016, a higher share of Medicare payments were retrospective,

cost-based reimbursement rather than prospective, risk-based payments—a result not contemplated in the original design of the program. Enrollees who incur spending high enough to reach the catastrophic phase of the benefit (high-cost enrollees) have been driving Part D program costs, accounting for 57 percent of gross spending in 2015, up from about 40 percent before 2011. Spending on a per enrollee basis for high-cost individuals grew by more than 10 percent per year between 2011 and 2015, and that growth was accounted for almost entirely by increases in the average price per prescription filled (reflecting both price inflation and changes in the mix of drugs used). Going forward, the pharmaceutical pipeline is shifting toward greater numbers of biologic products and specialty drugs, many of which have high prices. The use of high-priced drugs by Part D enrollees will likely grow and put significant upward pressure on Medicare spending for reinsurance and the LIS.

***Financial disincentives to use biosimilars in Part D***—Biologics make up a fast-growing segment in the biopharmaceutical sector and will continue to grow in importance. Biosimilars are expected to have lower prices than originator biologics. However, the take-up of biosimilars in Part D may be dampened by certain Part D policies. To rectify financial incentives that disadvantage biosimilars, the Commission recommends applying the same discount that manufacturers of originator biologics and brand-name drugs provide in the coverage gap to biosimilar products. Consistent with the Commission’s 2016 recommendations, discounts on biosimilars would not count as though they were an enrollee’s own out-of-pocket (OOP) spending for purposes of determining when an enrollee reached Part D’s catastrophic phase. (Subsequent to the Commission’s vote on this recommendation, the Bipartisan Budget Act of 2018 directed biosimilar manufacturers to, beginning in 2019, provide a discount on their products in the coverage gap. However, unlike the Commission’s recommendation, the discount amount would continue to count as though it were the enrollees’ own OOP spending.) To the extent that the adoption of the Commission’s set of recommendations results in net program savings, the Congress could consider enhancing protections for non-LIS enrollees facing high cost-sharing burdens.

***Access to prescription drugs***—Giving plans greater flexibility to use management tools could help ensure that prescribed medicines are safe and appropriate for the patient and could potentially reduce overuse or misuse. However, for some beneficiaries, those same tools could also limit access to needed medications. Plan sponsors must strike a balance between providing access to medications while encouraging enrollees to use lower cost therapies through their formulary designs. Medicare requires plan sponsors to establish coverage determination and appeals

processes with the goal of ensuring access to needed medications. Beneficiary advocates, prescribers, plan sponsors, and CMS have all noted frustrations with Part D coverage determinations, exceptions, and appeals processes. A more efficient approach would be to resolve such issues at the point of prescribing through e-prescribing and electronic prior authorization (ePA) rather than at the pharmacy counter, but there are obstacles to their full adoption. Perhaps the most essential requirement for adoption of ePA is clinician acceptance and use, which can require paying fees and embracing practice pattern change.

***Quality in Part D***—In 2018, the average star rating among Part D plans increased somewhat for PDPs and remained about the same for MA–PDs. The Commission supports the use of quality measurements that are patient oriented, encourage coordination across providers, and promote positive change in the delivery system. Because the provision of Part D prescription drug services is different from the provision of medical services, quality measures used currently for Part D may not help beneficiaries make informed choices among plan options. Part D plans are required to implement medication therapy management (MTM) programs to improve quality. In the past, the Commission has expressed concern about the effectiveness of plans’ MTM programs to improve the quality of pharmaceutical care. This year, program data and the Commission’s focus groups suggest some encouraging trends. For example, information provided by MTM programs helped some doctors address polypharmacy issues. However, we continue to be concerned that sponsors of stand-alone PDPs do not have financial incentives to engage in MTM. In 2017, Medicare began testing enhanced MTM programs by providing incentives for selected stand-alone PDPs to conduct medication reviews and tailor drug benefit designs that encourage adherence to appropriate drug therapies. Six Part D sponsors operating PDPs in five regions of the country are participating in CMS’s enhanced MTM model. ■



**TABLE  
14-1****Parameters of the defined standard benefit increase over time**

	2006	2017	2018	Average annual growth rate 2006–2018
Deductible	\$250.00	\$400.00	\$405.00	4.1%
Initial coverage limit	2,250.00	3,700.00	3,750.00	4.3
Annual out-of-pocket spending threshold	3,600.00	4,950.00	5,000.00	2.8
Total covered drug spending at annual out-of-pocket threshold	5,100.00	8,071.16*	8,417.60*	4.3
Minimum cost sharing above annual out-of-pocket threshold:				
Copayment for generic/preferred multisource drugs	2.00	3.30	3.35	4.4
Copayment for other prescription drugs	5.00	8.25	8.35	4.4

Note: \*An individual's total covered drug spending at the annual out-of-pocket threshold depends on each enrollee's mix of brand-name and generic drugs filled in the coverage gap. The amounts for 2017 and 2018 are estimated by CMS for an individual with an average mix of drugs who does not receive Part D's low-income subsidy and who has no other supplemental coverage.

Source: Centers for Medicare & Medicaid Services 2017c.

## Background

In 2017, 42.5 million Medicare beneficiaries were enrolled in Part D plans. Since 2006 (the year Part D began), the share of beneficiaries with drug coverage increased from 75 percent to 88 percent.<sup>1</sup> Part D generally has improved beneficiaries' access to prescription drugs, with plans available to all. Surveys indicate that Medicare beneficiaries enrolled in Part D continue to be satisfied with the Part D program and their plans (Healthcare Leadership Council 2017, Healthcare Leadership Council 2015).

Medicare subsidizes nearly three-quarters of the cost of a defined standard benefit or benefits with the same average value for Part D enrollees. (For additional background, see Part D payment basics (Medicare Payment Advisory Commission 2017b).) In 2016, Part D expenditures totaled \$91.6 billion on an incurred basis, accounting for over 13 percent of Medicare spending (Boards of Trustees 2017).<sup>2</sup> Part D enrollees paid \$12.7 billion of that amount in plan premiums, in addition to cost-sharing amounts. Each year, the Commission provides a status report on Part D that examines several performance indicators: enrollment patterns, plan benefit offerings, market structure, drug pricing, program costs, beneficiaries' access to medications, and quality. The Commission also makes recommendations as necessary, and this year's report includes a recommendation related

to biosimilars. (See text box on p. 426 for background on biosimilars.)

## Part D's approach

Medicare's payment system for Part D is different from payment systems under Part A and Part B. For Part D, Medicare pays competing private plans to deliver drug benefits to enrollees. Instead of setting prices administratively, Medicare's payments are based on bids submitted by plan sponsors. Part D pays for drug benefits whether beneficiaries enroll in a stand-alone prescription drug plan (PDP) or in a Medicare Advantage–Prescription Drug plan (MA–PD).

The design of the program is intended to give plan sponsors incentives to offer beneficiaries attractive prescription drug coverage while controlling growth in drug spending. Policymakers envisioned that plans would compete for enrollees based on premiums, benefit structure (e.g., deductible amounts), formularies, quality of services, and networks of pharmacies.

## The drug benefit

Medicare defines a standard Part D benefit with most parameters changing at the same rate as the annual change in beneficiaries' average drug expenses (Table 14-1). For 2018, the defined standard basic benefit includes a \$405 deductible and 25 percent coinsurance until the enrollee reaches \$3,750 in total covered drug spending. Enrollees

**TABLE  
14-2****Three-quarters of Medicare enrollees received drug coverage through Part D, 2017**

	Beneficiaries	
	In millions	Percent of Medicare enrollment
Medicare enrollment	58.6	100%
Part D enrollment*		
In Part D plans	42.5	72.5
In plans receiving RDS	<u>1.6</u>	<u>2.7</u>
Total Part D	44.1	75.2**

Note: RDS (retiree drug subsidy). Part D plan enrollment figures are based on enrollment as of April 1, 2017.

\*Excludes federal government and military retirees covered by either the Federal Employees Health Benefits Program or the TRICARE for Life program.

\*\*The remaining 24.8 percent of beneficiaries not enrolled in Part D were divided roughly equally between those who had creditable drug coverage from other sources (such as the Federal Employees Health Benefits Program, TRICARE for Life, and the Department of Veterans Affairs) and those with no coverage or coverage less generous than Part D.

Source: MedPAC based on Table IV.B7 and Table V.B4 of the Medicare Boards of Trustees' report for 2017 and monthly Part D enrollment data as of April 1, 2017.

with spending above that amount pay cost sharing higher than 25 percent in the so-called coverage gap until they reach a threshold of \$5,000 in out-of-pocket (OOP) spending. That amount excludes cost sharing paid by most sources of supplemental coverage such as employer-sponsored policies. Above the OOP threshold, enrollees pay the greater of 5 percent coinsurance or \$3.35 to \$8.35 per prescription.

Part D includes a low-income subsidy (LIS) that provides assistance with premiums and cost sharing for individuals with low incomes and assets. Individuals who qualify for this subsidy pay zero or nominal cost sharing set by statute. In 2018, most individuals receiving the LIS pay between \$0 and \$3.35 for generic drugs and between \$0 and \$8.35 for brand-name drugs.

Before 2011, enrollees exceeding the initial coverage limit were responsible for paying the full negotiated price of covered drugs (usually not reflecting manufacturers'

rebates) up to the annual OOP threshold. Part D's OOP threshold is also known as a "true OOP" cap because it excludes cost sharing paid on behalf of a beneficiary by most sources of supplemental coverage, such as employer-sponsored policies and enhanced benefits provided by Part D plans. The Patient Protection and Affordable Care Act of 2010 (PPACA) directed CMS to phase out the coverage gap between 2011 and 2020. In 2018, cost sharing for prescriptions filled during the gap phase is 35 percent for brand-name drugs and 44 percent for generic drugs.<sup>3</sup> An individual with no other source of drug coverage is estimated to reach the \$5,000 limit at just over \$8,400 in total drug expenses.<sup>4</sup> In 2020 and thereafter, in the defined standard benefit, beneficiaries will pay 25 percent cost sharing for all drugs between the deductible and the OOP threshold. Manufacturers of brand-name drugs and originator biologics must provide a 50 percent discount during the coverage-gap phase of the benefit as a condition for Part D to cover their drugs.<sup>5</sup> In addition, that discount is added to the enrollee's own spending for purposes of determining whether the enrollee has reached the OOP threshold.

Under current law, Part D's OOP threshold will increase by more in future years than it has in recent years. Because of a provision in PPACA that was intended to help close the coverage gap, Part D's OOP threshold has grown more slowly than the deductible and initial coverage limit (2.8 percent, compared with 4.1 percent and 4.3 percent, respectively (Table 14-1, p. 401)). As of 2018, cumulative growth in the OOP threshold was about 20 percentage points lower than the growth in the deductible and initial coverage limit. The law requires that, in 2020, the OOP threshold reverts to what it would have been had it grown at the same rate as other benefit parameters, meaning that, in 2020, Part D's OOP threshold will increase significantly and enrollees will remain in the coverage gap longer and could incur higher OOP costs. In their 2017 report, the Medicare Trustees projected that the OOP threshold would increase from \$5,250 in 2019 to \$6,650 in 2020 (Boards of Trustees 2017). In each year thereafter, the OOP threshold will increase by the rate of growth in per capita Part D spending—the same as for the deductible and initial coverage limit.

Most plan sponsors offer alternative benefit designs, such as a deductible lower than \$405 or tiered copayments rather than coinsurance. However, the alternative benefit must meet requirements for actuarial equivalence to demonstrate that they have the same average benefit value.

Once a plan sponsor offers a plan with basic benefits in a region, it can also offer up to two plans with additional drug coverage that supplements the standard benefit, called enhanced plans. Under current CMS guidance, plans must be “meaningfully different” from one another.<sup>6</sup>

## Two avenues of competition in Part D

Part D plan sponsors compete to attract enrollees through low premiums, but sponsors do not set their premiums directly. Instead, plan sponsors submit to CMS bids that represent their revenue requirements (including administrative costs and profit) for delivering basic benefits to an enrollee of average health. CMS then calculates a nationwide enrollment-weighted average among all the bid submissions. From this average, enrollees must pay a portion as a base beneficiary premium (\$35.02 in 2018) plus (or minus) any difference between their plan’s bid and the nationwide average bid (Medicare Payment Advisory Commission 2017b). If enrollees pick a plan that includes supplemental coverage, the enrollee must pay the full price for the additional coverage (i.e., Medicare does not subsidize it). This approach is designed to give sponsors the incentive to control enrollees’ spending so that they can bid low and keep premiums attractive. At the same time, sponsors must balance this incentive with beneficiaries’ desire to have access to medications. For example, a plan with a very limited number of covered drugs might not attract enrollees.

A second avenue of competition involves keeping plan premiums at or below regional LIS benchmarks.<sup>7</sup> Part D’s bidding process determines the maximum premium amount Medicare will pay on behalf of LIS enrollees. This amount is calculated separately for each of the 34 Part D geographic regions as the average premium among plans with basic benefits, weighted by each plan’s LIS enrollment in the previous year. The formula ensures that at least one stand-alone PDP in each region is available to LIS enrollees at no premium.

This approach to subsidizing LIS enrollees also provides incentives for plan sponsors to control drug spending and bid low. If sponsors do so, they can win or maintain market share without having to incur marketing expenses for LIS enrollees. Each year, there is some turnover in benchmark plans—plans that qualify as premium free for LIS enrollees. If LIS enrollees are in a plan with a premium above the benchmark and do not choose a plan themselves, CMS reassigns these enrollees randomly

to a new benchmark plan. Instead of accepting the new assignment, LIS enrollees may choose a plan themselves. However, if their selected plan has a premium higher than the benchmark, they must pay the difference between the plan’s premium and the benchmark amount. Once LIS enrollees select a plan themselves, CMS no longer reassigns them to a new plan. Instead, the agency sends beneficiaries letters about premium-free plan options in the enrollee’s region.

Much of Part D’s original structure from 2006 reflects a system of federal subsidies and regulations designed to encourage broad participation of enrollees and private plan sponsors. Today, participation in the market for prescription drug plans is healthy, but the financial sustainability of Part D is a growing concern because of sizable increases in program expenditures for high-cost enrollees (those who reach Part D’s OOP threshold). In June 2016, the Commission recommended a combination of changes designed to address concerns and improve Part D for the future while maintaining the program’s market-based approach (see text box on the Commission’s 2016 recommendations, pp. 404–405). In this chapter, the Commission’s recommendation would add to prior recommendations by removing financial disincentives that may keep plan sponsors from placing biosimilars on their formularies.

---

## Enrollment, plan choices in 2017, and benefit offerings for 2018

---

Over time, a growing proportion of Medicare beneficiaries has chosen to enroll in Part D partly because enrollment has shifted from retiree drug plans to Part D plans. Further, enrollment has grown faster in MA–PDs compared with stand-alone PDPs. In 2018, plan sponsors are offering 5 percent more PDPs and 16 percent more MA–PDs.

### In 2017, three-quarters of Medicare beneficiaries were in Part D plans or employer plans that received Medicare’s retiree drug subsidy

In 2017, 42.5 million individuals—72.5 percent of 58.6 million total Medicare beneficiaries—were enrolled in Part D plans (Table 14-2). An additional 2.7 percent of beneficiaries obtained drug coverage through employer-sponsored plans that received Medicare’s retiree drug subsidy (RDS) for being the primary provider.<sup>8</sup> The

## The Commission's 2016 recommendations to improve Part D

In our June 2016 report to the Congress, the Commission recommended changes to prepare the Part D program for the future (Medicare Payment Advisory Commission 2016a). Many new biopharmaceutical products in the development pipeline will have substantially higher prices than previous treatments, even when alternative therapeutic products are available. This trend will exert strong upward pressure on premiums, cost sharing, and program costs.

One set of changes would give plan sponsors greater financial incentives to manage the benefits of high-cost enrollees. Over a transition period, Medicare would significantly lower the amount of reinsurance it pays plans from 80 percent of spending above the out-of-pocket (OOP) threshold to 20 percent, and the insurance risk that plan sponsors shoulder for catastrophic spending would rise commensurately from 15 percent to 80 percent. Because plan sponsors would anticipate lower reinsurance payments from Medicare, they would submit higher bids. However, at the same time that Medicare reduced its reinsurance, the program would make larger capitated payments to plan sponsors. Medicare's subsidy of basic Part D benefits would remain unchanged at 74.5 percent, but plan sponsors would receive more of that subsidy through capitated payments instead of open-ended reinsurance. Because Part D's risk adjusters would become more important

as a tool for counterbalancing plan incentives for selection, CMS would need to take steps to recalibrate the risk adjustment system.

At the same time, sponsors would be given greater flexibility to use formulary tools. The Commission recommended removing protected status from two out of the six drug classes in which plan sponsors must now cover all drugs on their formularies (antidepressants and immunosuppressants for transplant rejection), streamlining the process for formulary changes, requiring prescribers to provide supporting justifications with more clinical rigor when applying for exceptions, and permitting plan sponsors to use selected tools to manage specialty drug benefits while maintaining appropriate access to needed medications (Medicare Payment Advisory Commission 2016a).

Other parts of the Commission's recommendations would exclude manufacturer discounts on brand-name drugs from counting as enrollees' true OOP spending, but would also provide greater insurance protection to all enrollees not receiving the low income subsidy (LIS) by eliminating cost sharing above the OOP cap (although some enrollees would incur higher OOP costs than they do today). To the extent that the adoption of the Commission's set of recommendations results in net program savings, the Congress could consider

*(continued next page)*

remaining 24.8 percent of Medicare beneficiaries were divided roughly equally between those who had creditable drug coverage from other sources and those with no coverage or coverage less generous than Part D.<sup>9</sup>

In recent years, enrollment has shifted into Part D plans from employer plans that had previously received the RDS (Figure 14-1, p. 406). This shift reflects changes made by PPACA that increased the relative generosity of the Part D benefit by eliminating the coverage gap and by altering the tax treatment of drug expenses covered by the RDS. Between 2010 and 2017, the number of beneficiaries whose employers received the RDS fell from 6.8 million

to 1.6 million. Over the same period, enrollment in Part D plans operated for employers and their retirees (employer group waiver plans, or EGWPs) grew from 2.4 million to 6.8 million.<sup>10</sup>

The share of Medicare beneficiaries covered under Part D has grown over time, as has the share of enrollees in plans that combine prescription coverage with medical benefits (MA-PDs). Between 2007 and 2017, the share of Medicare beneficiaries enrolled in Part D plans grew from about 54 percent to over 72 percent, an average rate of 6 percent annually (Table 14-3, p. 407). Enrollment in MA-PDs grew more rapidly than in PDPs (respectively, 9 percent vs.



## The Commission's 2016 recommendations to improve Part D (cont.)

enhancing protections for non-LIS enrollees facing high cost-sharing burdens. Because enrollees who receive the LIS pay nominal cost-sharing amounts that provide little incentive to use lower cost drugs and biologics, the recommended improvements would also moderately increase financial incentives by directing the Secretary of Health and Human Services to modify some LIS copayments. The Commission's 2016 recommendations concerning Part D are as follows:

### The Congress should change Part D to:

- **transition Medicare's individual reinsurance subsidy from 80 percent to 20 percent while maintaining Medicare's overall 74.5 percent subsidy of basic benefits,**
- **exclude manufacturers' discounts in the coverage gap from enrollees' true out-of-pocket spending, and**
- **eliminate enrollee cost sharing above the out-of-pocket threshold.**

### The Congress should change Part D's low-income subsidy to:

- **modify copayments for Medicare beneficiaries with incomes at or below 135 percent of poverty to encourage the use of generic drugs, preferred**

**multisource drugs, or biosimilars when available in selected therapeutic classes;**

- **direct the Secretary to reduce or eliminate cost sharing for generic drugs, preferred multisource drugs, and biosimilars; and**
- **direct the Secretary to determine appropriate therapeutic classifications for the purpose of implementing this policy and review the therapeutic classes at least every three years.**

### The Secretary should change Part D to:

- **remove antidepressants and immunosuppressants for transplant rejection from the classes of clinical concern,**
- **streamline the process for formulary changes,**
- **require prescribers to provide standardized supporting justifications with more clinical rigor when applying for exceptions, and**
- **permit plan sponsors to use selected tools to manage specialty drug benefits while maintaining appropriate access to needed medications. ■**

4 percent annually). In 2017, 41 percent of Part D enrollees were in MA-PDs compared with 30 percent in 2007. This trend in MA-PD enrollment is consistent generally with more rapid growth in MA enrollment than in fee-for-service (FFS) Medicare (see Chapter 13).

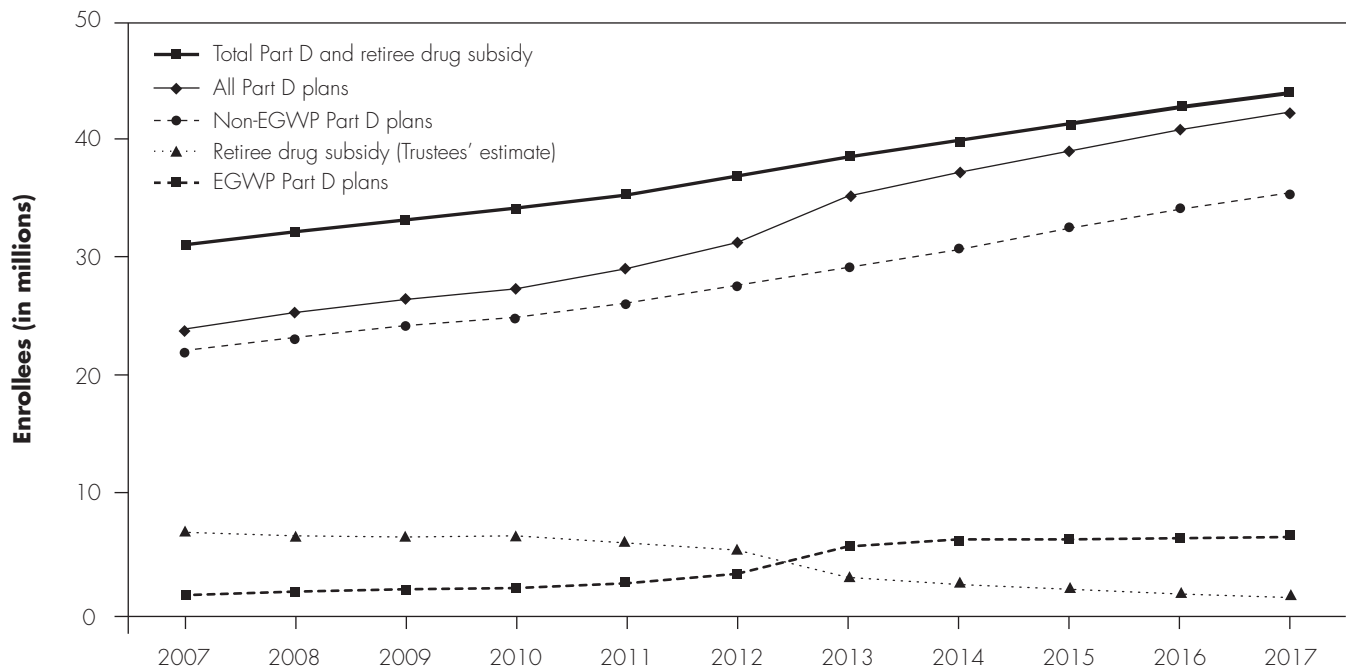
In 2017, 12.2 million beneficiaries with incomes at or below 150 percent of the federal poverty level (29 percent of Part D enrollees) received the LIS (data not shown). Of these individuals, nearly 8 million were dually eligible for Medicare and Medicaid. The remaining LIS enrollees qualified either because they received benefits through the Medicare Savings Programs or Supplemental Security

Income program or because they were eligible after they applied directly to the Social Security Administration. Compared with non-LIS enrollees, LIS enrollees are more likely to be female; more than twice as likely to be African American, Hispanic, or Asian; and over four times more likely to be under age 65 (Medicare Payment Advisory Commission 2017a).

Between 2007 and 2017, enrollment growth for Part D enrollees who received the LIS was slower (3 percent per year) than for non-LIS enrollees (7 percent per year) (data not shown). The faster growth in enrollment of non-LIS enrollees is partly attributable to the recent growth

**FIGURE  
14-1**

**Enrollment in Part D plans has increased over time, with fewer employers receiving Medicare's retiree drug subsidy**



Note: EGWP (employer group waiver plan).

Source: MedPAC based on CMS Part D enrollment data and Table IV.B7 of the 2017 annual report of the Boards of Trustees of the Medicare trust funds.

in EGWPs that shifted beneficiaries to Part D plans from employer plans that had previously received the RDS. Consequently, the share that received the LIS fell from 39 percent to 29 percent. About 64 percent of LIS enrollees (7.8 million) were in PDPs; the rest were in MA-PDs (data not shown). Most individuals receiving the LIS are enrolled in traditional Medicare rather than MA. If these individuals do not choose a Part D plan themselves, CMS autoassigns them randomly to benchmark plans, all of which are PDPs. However, LIS enrollment in MA-PDs (including special needs plans, or SNPs) has grown as some individuals have selected these plans or joined them through the Medicare-Medicaid financial alignment initiative.

### **Beneficiaries' enrollment decisions in 2017**

Most Part D enrollees are in plans that differ from Part D's defined standard benefit; these plans are actuarially equivalent to the standard benefit or are enhanced in some way. Actuarially equivalent plans have the same average benefit value as defined standard plans but a different

benefit structure. For example, a plan may use tiered copayments (e.g., charging \$5 per generic drug and \$50 for a brand-name drug) that can be higher or lower for a given drug compared with the 25 percent coinsurance under the defined standard benefit. Alternatively, a plan may exempt certain types of prescriptions such as preferred generics from the deductible, or use a cost-sharing rate higher than 25 percent rather than having a deductible at all. Once a PDP sponsor offers at least one plan with basic benefits in a region, it can also offer a plan with enhanced benefits by including, for example, lower cost sharing, coverage for drugs filled during the gap (beyond what is required by PPACA), or an expanded drug formulary.

### **MA-PD enrollees are more likely to be in enhanced plans than PDP enrollees**

In 2017, 59 percent of PDP enrollees had basic coverage that was actuarially equivalent to the defined standard benefit, most with tiered copayments (Table 14-4). Another 41 percent of PDP enrollees had enhanced



**TABLE  
14-3****Part D plan enrollment trends, 2007–2017**

	2007	2010	2014	2015	2016	2017	Average annual growth rate 2007–2017
Total Part D enrollment (in millions)	24.2	27.6	37.4	39.2	41.0	42.5	6%
Percent of Medicare beneficiaries	54.4%	57.8%	69.2%	70.7%	72.1%	72.5%	N/A
Enrollment by type (in millions)							
PDP	16.9	17.6	23.4	24.0	24.7	25.1	4
MA–PD	7.2	10.0	14.1	15.3	16.3	17.4	9
Percent in MA–PD	30%	36%	38%	39%	40%	41%	N/A

Note: N/A (not applicable), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Figures are based on enrollment as of April 1 of each year with the exception of 2007 (enrollment as of July 1, 2007) and 2008 (enrollment as of May 1, 2008).

Source: MedPAC based on Part D enrollment data and Table IV.B7 and Table V.B4 of the Medicare Boards of Trustees' report for 2017.

benefits—the typical enhancement being a lower deductible rather than additional benefits in the coverage gap. No PDP enrollees were in defined standard benefit plans because plan sponsors offered none. MA–PD enrollees were predominantly in enhanced plans with no deductible or a deductible smaller than that used for Part

D's defined standard benefit. In PDPs and MA–PDs, 47 percent of enrollees and 46 percent, respectively, had no deductible in their plan's benefit design.

Under the MA payment system, MA–PDs may use a portion of their MA (Part C) payments to supplement their

**TABLE  
14-4****MA–PD enrollees more likely to be in enhanced plans, 2017**

	PDP		MA–PD	
	Number of enrollees (in millions)	Percent	Number of enrollees (in millions)	Percent
Total	20.5	100%	11.9	100%
Type of benefit				
Defined standard	0.0	0	0.1	1
Actuarially equivalent*	12.2	59	1.3	11
Enhanced	8.4	41	10.5	89
Type of deductible				
Zero	9.7	47	5.5	46
Reduced	1.5	7	5.5	46
Defined standard**	9.4	46	1.0	8

Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), PDP (prescription drug plan). The MA–PD enrollment described here excludes employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B–only plans. Components may not sum to stated totals due to rounding.

\*Includes actuarially equivalent standard and basic alternative benefits.

\*\*Deductible of \$400 in 2017.

Source: MedPAC analysis of CMS landscape, plan report, and enrollment data.

**TABLE  
14-5****Changes in average Part D premiums, 2007–2017**

	Average monthly premium weighted by enrollment (in dollars)						Average annual growth rate 2010–2017
	2007	2010	2014	2015	2016	2017	
All plans (any coverage)	\$23	\$30	\$29	\$30	\$31	\$32	1.0%
PDPs							
Basic coverage	24	34	30	28	29	31	–1.1
Enhanced coverage	40	50	49	48	53	54	1.2
All types of coverage	27	37	38	37	39	41	1.2
MA–PDs, including SNPs*							
Basic coverage	17	26	25	21	22	26	0.3
Enhanced coverage	9	13	13	16	17	18	4.6
All types of coverage	10	14	16	18	18	19	4.3

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), SNP (special needs plan). The premium amounts do not include monthly adjustment amounts paid by beneficiaries who are subject to income-related premiums or the late enrollment penalty. Figures exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, demonstrations, and Part B–only plans. The average premium for any PDP coverage increased, on average, between 2010 and 2017 despite a decrease in the average for basic PDPs because, over time, more beneficiaries enrolled in PDPs with enhanced coverage.

\*Reflects the portion of Medicare Advantage plans' total monthly premium attributable to Part D benefits for plans that offer Part D coverage. MA–PD premiums reflect Part C rebate dollars that were used to offset Part D premium costs.

Source: MedPAC analysis of CMS landscape, plan report, and enrollment data.

Part D drug benefits (such as by lowering deductibles) or to lower Part D premiums.<sup>11</sup> Many MA–PDs also use some of their MA rebate dollars to provide additional Part D benefits in the coverage gap. In 2017, 53 percent of MA–PD enrollees (6.3 million beneficiaries) were in plans offering some additional gap coverage (data not shown). By comparison, only 14 percent of PDP enrollees (2.9 million beneficiaries) were in plans that offered benefits in the coverage gap beyond what is required by PPACA. However, 31 percent of PDP enrollees (7.8 million of 25.1 million) received the LIS, which effectively eliminates any coverage gap.

### Average enrollee premiums remained flat in 2017

Despite significant growth in catastrophic benefits, average premiums for basic Part D benefits have remained low. (This largely reflects the effects of Medicare's reinsurance subsidy, which has offset benefit spending that would otherwise have increased plan sponsors' bids.) In 2017, monthly beneficiary premiums averaged about \$32 across all plans, and average premiums have remained at or near \$30 per month since 2010 (Table 14-5). However, underlying that average is wide variation, ranging from \$0

for a number of MA–PDs to \$179 for one PDP offering enhanced coverage (data not shown).

On average, premiums were lower for beneficiaries enrolled in MA–PDs compared with those enrolled in PDPs, in part reflecting plan sponsors' use of Part C rebate dollars.<sup>12</sup> Among PDP enrollees, individuals in plans with enhanced coverage paid, on average, \$23 more per month than those in plans with only basic coverage (\$54 vs. \$31, respectively). In contrast, beneficiaries enrolled in MA–PDs, on average, paid lower premiums for enhanced coverage than for basic coverage alone (\$18 vs. \$26, respectively). Between 2010 and 2017, MA–PD premiums grew at a faster average annual rate than PDP premiums—4.3 percent, compared with 1.2 percent (Table 14-5).

Two other factors affect the premium amounts paid by a given enrollee. First, higher income beneficiaries have a lower federal subsidy of their Part D benefits. In 2017, 2.8 million Part D enrollees (7 percent) were subject to the income-related premium (Liu 2017). As with the income-related premium for Part B, the higher Part D premiums apply to individuals with an annual adjusted gross income

**TABLE  
14-6****MA-PDs are more likely to offer enhanced benefits than PDPs, 2018**

	PDP		MA-PD	
	Number of plans	Percent	Number of plans	Percent
Total	782	100%	2,003	100%
Type of benefit				
Defined standard	0	0	22	1
Actuarially equivalent*	361	46	101	5
Enhanced	421	54	1,880	94
Type of deductible				
Zero	291	37	908	45
Reduced	88	11	988	49
Defined standard**	403	52	107	5
Some drugs covered in the coverage gap	274	35	703	35

Note: MA-PD (Medicare Advantage–Prescription Drug [plan]), PDP (prescription drug plan). The MA-PD enrollment described here excludes employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B–only plans. Components may not sum to stated totals due to rounding.

\*Includes actuarially equivalent standard and basic alternative benefits.

\*\*Deductible of \$405 in 2018.

Source: MedPAC analysis of CMS landscape, plan report, and enrollment data.

greater than \$85,000 and to couples with an adjusted gross income greater than \$170,000. A beneficiary whose income exceeds these levels pays an income-related monthly adjustment amount in addition to the Part D premium paid to a plan. In 2018, the adjustment amount ranges from \$13.00 to \$74.80 per month, depending on income.

Second, individuals enrolling in Part D outside their initial enrollment period must have proof that they had drug coverage as generous as the standard benefit under Part D (i.e., creditable coverage) to avoid the late enrollment penalty (LEP). The LEP amount depends on the length of time an individual goes without creditable coverage and is calculated by multiplying 1 percent of the base beneficiary premium by the number of full, uncovered months an individual was eligible but was not enrolled in a Part D plan and went without other creditable coverage.

### Benefit offerings for 2018

Beneficiaries are encouraged to reexamine plan options each year during an open enrollment period that runs from October 15 until December 7. In addition to changes in

plan availability and premiums, most plans make some changes to their benefit offerings—such as deductible amounts and plan formularies—that can affect access to and OOP costs of medications.

### Beneficiaries have a variety of plan options

For 2018, plan sponsors are offering 782 PDPs and 2,003 MA-PDs, about 5 percent and 16 percent, respectively, more plans than in 2017. Beneficiaries continue to have broad choice among plans; options range from 19 PDPs in Alaska to 26 PDPs in the Pennsylvania–West Virginia region, along with MA-PDs in most areas. The number of MA plans available to a beneficiary varies by the county of residence, with an average county having 10 MA plans (20 plans when weighted by Medicare population). A small percentage of beneficiaries have no MA plans available.<sup>13</sup>

MA-PDs are much more likely to offer more generous coverage than PDPs. For example, 94 percent of MA-PDs include enhanced coverage beyond basic benefits, compared with 54 percent of PDPs (Table 14-6). Among plans with basic benefits, the 2018 marketplace includes no PDPs and just 1 percent of MA-PDs (excluding special

**TABLE  
14-7****Change in 2018 premiums for PDPs with high 2017 enrollment**

Plan name	2017 enrollment (in millions)	Weighted average monthly premium*		Change in weighted average monthly premium	
		2017 premium	Projected 2018 premium	Dollar	Percent
SilverScript Choice	4.2	\$29.05	\$26.39	-\$2.66	-9%
AARP MedicareRx Preferred	2.8	71.66	83.68	12.02	17
Humana Walmart	2.4	16.81	20.21	3.40	20
Humana Preferred	1.9	27.24	31.33	4.09	15
Aetna Medicare Rx Saver	1.2	31.33	29.68	-1.65	-5
AARP MedicareRx Saver Plus	1.1	37.22	45.26	8.04	22
WellCare Classic	1.1	29.21	30.37	1.16	4
Humana Enhanced	0.9	64.17	75.82	11.65	18
First Health Part D Value Plus	0.8	44.91	56.46	11.55	26
Cigna-HealthSpring Rx Secure	0.5	27.77	35.18	7.41	27
Top 10 PDPs combined	16.7	37.46**	41.58**	4.12**	11
All PDPs	20.4	39.90	43.48	3.58	9

Note: PDP (prescription drug plan). Components may not sum to stated totals due to rounding.

\*Reflects the average of all PDPs offered under the same plan name in each region of the country, weighted by 2017 enrollment. Note that the projected weighted average premium for 2018 does not reflect any enrollment switching among plans.

\*\*Average weighted by 2017 enrollment.

Source: Cubanski et al. 2017.

needs plans) with the standard benefit design. A larger share of MA-PDs than PDPs charges no deductible (45 percent vs. 37 percent, respectively), and 52 percent of PDPs use the same \$405 deductible as the defined standard benefit. The same share of PDPs and MA-PDs (35 percent) includes some additional coverage in the gap phase. Our analysis of MA plan bids suggests that, on average, MA-PDs allocated about the same share of MA rebate dollars for Part D benefits in 2018 as in 2017 (33 percent, or nearly \$32 per enrollee per month, split about equally between basic and enhanced benefits) (data not shown).

Among the most popular stand-alone PDPs in 2017, many have substantially higher monthly premiums in 2018 (Table 14-7). Premiums for the 10 plans with the highest enrollment rose by a weighted average of \$4 per month (11 percent), ranging from about \$20 per month for the Humana Walmart plan to nearly \$84 per month for AARP

MedicareRx Preferred. Premiums for AARP MedicareRx Preferred, Humana Enhanced, and First Health Part D Value Plus plans rose by about \$12 per month. Premiums for SilverScript Choice and Aetna Medicare Rx Saver plans are lower by an average of nearly \$3 per month and about \$2 per month, respectively.

Although cost-sharing requirements in Part D plans have generally risen over the years, PDPs with the highest enrollment have a mixture of cost-sharing increases and decreases for 2018 (data not shown). The top 10 PDPs (ranked by 2017 enrollment) continue to use a 5-tiered formulary with differential cost sharing between preferred and nonpreferred drugs, as well as a specialty tier for high-cost drugs. Over time, many plan sponsors have moved from charging fixed-dollar copayments to coinsurance for certain tiers. In fact, the top 10 PDPs in 2018 use coinsurance rather than fixed-dollar copayments for medications on nonpreferred drug tiers, charging 35 percent to 50 percent of each prescription's negotiated

price (Cubanski et al. 2017). By charging enrollees a share of the price of their prescriptions rather than a flat copayment, plan sponsors share some of the risk of drug price increases with beneficiaries. Another reason for the move to coinsurance is that some plan sponsors have combined certain brand and generic drugs on the same cost-sharing tier, e.g., for all nonpreferred drugs. When the same tier includes both low- and high-priced drugs, plan sponsors may find it difficult to set a fixed-dollar copayment amount that provides a comparable value of benefit.

### **Qualifying PDPs**

In 2018, PDPs available to LIS enrollees with no premium (“qualifying PDPs”) decreased 6 percent from 2017 levels to 216 plans—the lowest number since Part D began.<sup>14</sup> One region, Florida, has two qualifying PDPs available. However, all other regions have at least 3 PDPs available, while the Arizona region and the Washington, DC–Delaware–Maryland region have 10 such PDPs.

About 1.4 million LIS enrollees (about 1 in 5 LIS enrollees in PDPs) were enrolled in plans during 2017 that have 2018 premiums higher than 2018 regional benchmarks (Cubanski et al. 2017). However, 62 percent of those beneficiaries paid a premium in 2017, meaning they selected a plan rather than accepting Medicare’s random assignment to a benchmark plan.<sup>15</sup> Once an LIS enrollee selects a plan, the enrollee is no longer eligible for reassignment. The remaining 38 percent (more than 0.5 million LIS enrollees) were potentially subject to reassignment. CMS estimated that the agency randomly reassigned 160,000 individuals to new plans (Lyons 2017).

---

### **Plan sponsors and their tools for managing benefits and spending**

---

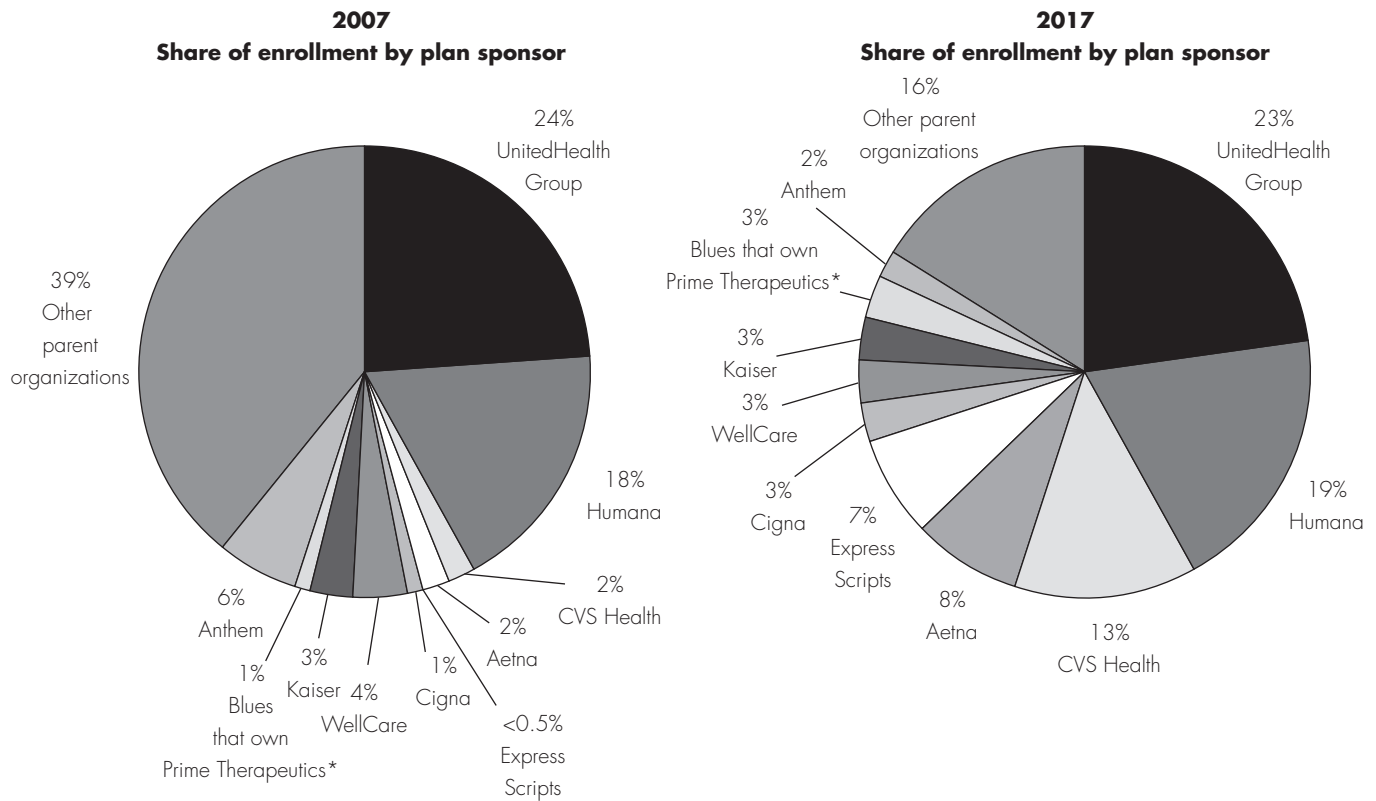
Nearly 300 organizations sponsor Part D plans—both insuring and administering outpatient drug benefits. Plan sponsors carry out marketing, enrollment, customer support, claims processing, coverage determinations, and appeals and grievance processes. Sponsors also either contract with a commercial pharmacy benefit manager (PBM) or perform those functions themselves through an in-house PBM. Sponsors that do not use an in-house PBM must negotiate with their PBM over the amount the PBM retains for its services. By law, the Medicare program is prohibited from becoming involved in negotiations among plan sponsors, drug manufacturers, and pharmacies.

### **Concentrated enrollment among plan sponsors**

Having large numbers of enrollees and managing their benefits with formularies and tiered cost sharing are the central means by which sponsors and PBMs can exert bargaining leverage with drug manufacturers and pharmacies. Having many enrollees can also lead to economies of scale that lower other costs. Part D enrollment is concentrated among a small number of large organizations. Combined, the two largest plan sponsors, UnitedHealth Group and Humana, have accounted for about 40 percent of the Part D market each year since 2007 (Figure 14-2, p. 412). Over time, other sponsors have expanded their enrollment and market shares. In 2017, the top 9 organizations ranked by enrollment and a group of 14 Blue Cross and Blue Shield companies that collectively own their own PBM (Prime Therapeutics) together accounted for 84 percent of Part D enrollment. By comparison, in 2007, those same organizations had a combined 61 percent of enrollment.

Plan sponsors’ organizational structures differ in the degree to which each company integrates clinical and health plan services, PBM services, and dispensing. Most of the largest sponsors are insurers whose core business function is to offer commercial and MA health plans with combined medical and pharmacy benefits. However, over two-thirds of Medicare beneficiaries remain in the FFS program and thus obtain Part D benefits through stand-alone PDPs (if they choose to enroll). Because PDPs remain an important market opportunity, the insurers serving as MA sponsors also offer PDPs in many or all regions. Other sponsors—Express Scripts and CVS Health—have core business models that focus primarily on pharmacy benefit management and dispensing, and they offer only PDPs.<sup>16</sup> They also serve as PBMs under contract to other Part D sponsors. Further, most top sponsors offer employer group plans, which can take the form of MA–PDs or PDPs.

Enrollment among beneficiaries who receive Part D’s LIS is also concentrated. In 2017, CVS Health had more LIS enrollees than any other sponsor: a total of 2.4 million, or 20 percent of all LIS enrollees. Once a sponsor has a sizable number of LIS enrollees, its bid can influence LIS benchmarks because the benchmarks are calculated as a regional average premium weighted by LIS enrollment. At the same time, should the sponsor miss a regional benchmark by bidding too high, it would stand to lose potentially sizable numbers of LIS enrollees and market share.

**FIGURE  
14-2****A number of plan sponsors have gained Part D market share over time**

Note: Market shares are based on Part D enrollment, including both stand-alone prescription drug plans and Medicare Advantage prescription drug plans. Employer group waiver plans are included.

\*Prime Therapeutics is a pharmacy benefit manager that, in 2017, was owned by and operated on behalf of the following plans: Blue Cross and Blue Shield (BC/BS) of Alabama, BC/BS of Kansas, BC/BS of Minnesota, BC/BS of Nebraska, BC/BS of North Carolina, BC/BS of North Dakota, BC/BS of Rhode Island, BC/BS of Wyoming, Florida Blue, and Health Care Services Corporation. BC/BS of Alabama, BC/BS of North Carolina, and BC/BS of Rhode Island were not owners in 2007, and their enrollment numbers are included within "Other parent organizations" rather than "Blues that own Prime Therapeutics" for that year.

Source: MedPAC based on enrollment data from CMS.

## Tools for managing benefits and spending

Over the first decade of Part D, the use of plan tools and fortuitous timing of patent expirations led to the expanded use of generics. In 2015, about 87 percent of prescriptions filled under Part D were for generics, compared with 61 percent in 2007. Today, generic substitutions may have reached a saturation point, and increasingly plan sponsors are focused on managing use of specialty drugs and biologics for conditions such as cancer, rheumatoid arthritis, and hepatitis C. These treatments are often injectable or infusible biologics, but some are oral tablets or inhalable medicines.<sup>17</sup> Dispensing specialty drugs can

sometimes raise challenging logistical issues, and patients who take them may require closer clinical management. Specialty drugs also have very high prices, some with annual costs of treatment per person in the tens of thousands of dollars or more.

Sponsors use several key tools to manage pharmacy benefits, including formulary design, manufacturer rebates, design of pharmacy networks, and use of specialty pharmacies. However, law and regulations limit how sponsors may manage their Part D populations compared with how the same organizations manage their commercial populations.



## Formulary design and management

Formularies remain plan sponsors' most important tool for managing drug benefits. Sponsors decide which drugs to list on their formulary, which cost-sharing tier is appropriate for each drug, and whether a drug will be subject to prior authorization or other forms of utilization management. Those decisions require that plan sponsors strike a balance between providing access to medications while encouraging enrollees to use preferred therapies. Decisions about formulary design also affect plan sponsors' bargaining leverage with manufacturers over rebates.

Within constraints, plan sponsors have tightened formularies modestly in recent years. Similarly, the use of utilization management tools in Part D—quantity limits, step therapy, and prior authorization—has grown. Sponsors apply such tools for drugs that are expensive, potentially risky, or subject to abuse, misuse, and experimental use. These tools are also intended to encourage the use of lower cost therapies.

## Manufacturer rebates

In classes that have competing drug therapies, sponsors and their PBMs negotiate with manufacturers of brand-name drugs for rebates that are paid after a prescription has been filled. Individual negotiations can vary. For example, producers of brand-name drugs with no therapeutic substitutes might not provide any rebates.

Generally, manufacturers pay larger rebates when plan sponsors position a drug on their formulary in ways that increase the likelihood that the manufacturer will win market share over competitors. For example, a manufacturer might pay a rebate for placing its product on a plan's formulary (rather than excluding the drug), but somewhat larger rebates for putting the drug on a preferred cost-sharing tier or for not applying prior authorization requirements. Data on manufacturers' individual rebate amounts are highly proprietary.

The share of a drug product's gross price rebated to PBMs and payers can be high when there are close substitutes in the product's drug class. For example, across all payers for Sanofi's insulin product Lantus, the implied rebate—the share of gross drug sales offset by rebates and other discounts—grew from around 10 percent in 2009 to nearly 60 percent by the second quarter of 2016 (*Indianapolis Business Journal* 2016). The extent to which rebates and discounts offset price increases varies across

manufacturers, driven primarily by the mix of products in their portfolios and the competitive pressures they face (Credit Suisse 2015).

## Pharmacy networks

Plan sponsors try to encourage enrollees to use pharmacies that dispense prescriptions at lower cost. For example, for some non-Medicare employer plans, enrollees are required to fill prescriptions within an exclusive network of retail pharmacies, refill prescriptions by mail rather than through retail pharmacies, and fill prescriptions with a 90-day rather than a 30-day supply.

Part D law and CMS guidance limit plan sponsors in using some approaches. Most notably, plan sponsors must permit within their networks any pharmacy that is willing to accept the sponsors' terms and conditions; that is, plan sponsors cannot use exclusive pharmacy contracts.<sup>18</sup> However, sponsors can designate a subset of network pharmacies that offer preferred (lower) cost sharing. The strategy of designating certain "preferred cost-sharing pharmacies" has the potential to lower costs for Medicare and enrollees if it encourages enrollees to fill prescriptions at more efficient pharmacies. Differences between cost sharing at preferred pharmacies and other network pharmacies can vary substantially among plans (Medicare Payment Advisory Commission 2016b). Tiered networks as a management tool have been controversial because of past concerns that some enrollees do not have adequate access to preferred pharmacies with lower cost sharing. In addition, if LIS enrollees have less opportunity to use preferred pharmacy networks, the tiered network strategy could lead to higher Medicare spending since Medicare pays for most or all of LIS enrollees' cost sharing. Out of these concerns, CMS guidance permits plans to offer lower cost sharing at preferred pharmacies only if the approach does not raise Medicare payments (Centers for Medicare & Medicaid Services 2015a, Centers for Medicare & Medicaid Services 2014b).

When setting up pharmacy networks, plan sponsors negotiate additional price concessions and incentive payments, which must be reported to CMS as "other direct and indirect remuneration (DIR)," called "pharmacy DIR fees." As with rebates from drug manufacturers, DIR fees are collected after the point of sale. They can include amounts that are a condition for participating as a preferred cost-sharing pharmacy, "true-up" payments related to drug reimbursement rates, and performance fees that are assessed on quality measures (Fein 2016).<sup>19</sup>

Pharmacy DIR fees have grown dramatically in recent years, particularly after 2012 (Centers for Medicare & Medicaid Services 2017g). CMS information about the total amount of DIR reported to the agency and the amount attributable to manufacturer rebates suggests that, in 2014, pharmacy DIR fees could have been on the order of \$1 billion (Centers for Medicare & Medicaid Services 2017f, Centers for Medicare & Medicaid Services 2016a).

### Specialty pharmacies

Because specialty drugs are now driving growth in overall drug spending, commercial payers typically try to dispense them through a narrower or exclusive network of specialty pharmacies. Specialty pharmacies can help ensure that patients meet specific clinical criteria through their plans' prior authorization process before dispensing the prescription. They can also reduce waste by, for example, initially dispensing a 7- or 14-day supply and observing the patient for side effects, treatment effectiveness, and adherence before providing a 30-day supply.

A variety of ownership types have evolved to dispense specialty drugs. Owners of specialty pharmacies include pharmacy chains, PBMs, health plans, drug wholesalers, hospital systems, and prescriber practices, or the pharmacy can operate as an independent business. Although most manufacturers do not own specialty pharmacies, a number of drug makers pay fees to specialty pharmacies and have contracts that limit which specialty pharmacies may dispense their drug. These relationships can result in specialty pharmacies with financial incentives that align with manufacturers'. Most specialty pharmacies fill prescriptions through home delivery or send deliveries to a convenient location. Specialty pharmacies also play a role in patient education, patient monitoring, and data reporting. For example, they often employ nurses to provide counseling by telephone about side effects and monitor adherence. Before an initial prescription is dispensed, specialty pharmacies address prior authorization requests from the patient's PBM and typically facilitate outreach to patient assistance programs.<sup>20</sup>

In Part D, plan sponsors cannot set up a narrower network of specialty pharmacies. With a few exceptions, Part D's convenient access standards apply to the dispensing of all types of drugs, including specialty drugs. Unless dispensing a drug requires "extraordinary specialty handling, provider coordination, or patient education that cannot be met by a network pharmacy," the sponsor cannot

restrict access to a subset of network pharmacies (Centers for Medicare & Medicaid Services 2011). An exception is made if a manufacturer uses a limited distribution network: In this situation, the Part D enrollee would be able to fill that prescription at only one of the designated specialty pharmacies. As with general retail pharmacies, Part D plan sponsors negotiate agreements with specialty pharmacies that include DIR fees that are typically collected after the prescription has been filled.<sup>21</sup>

---

### Drug pricing

---

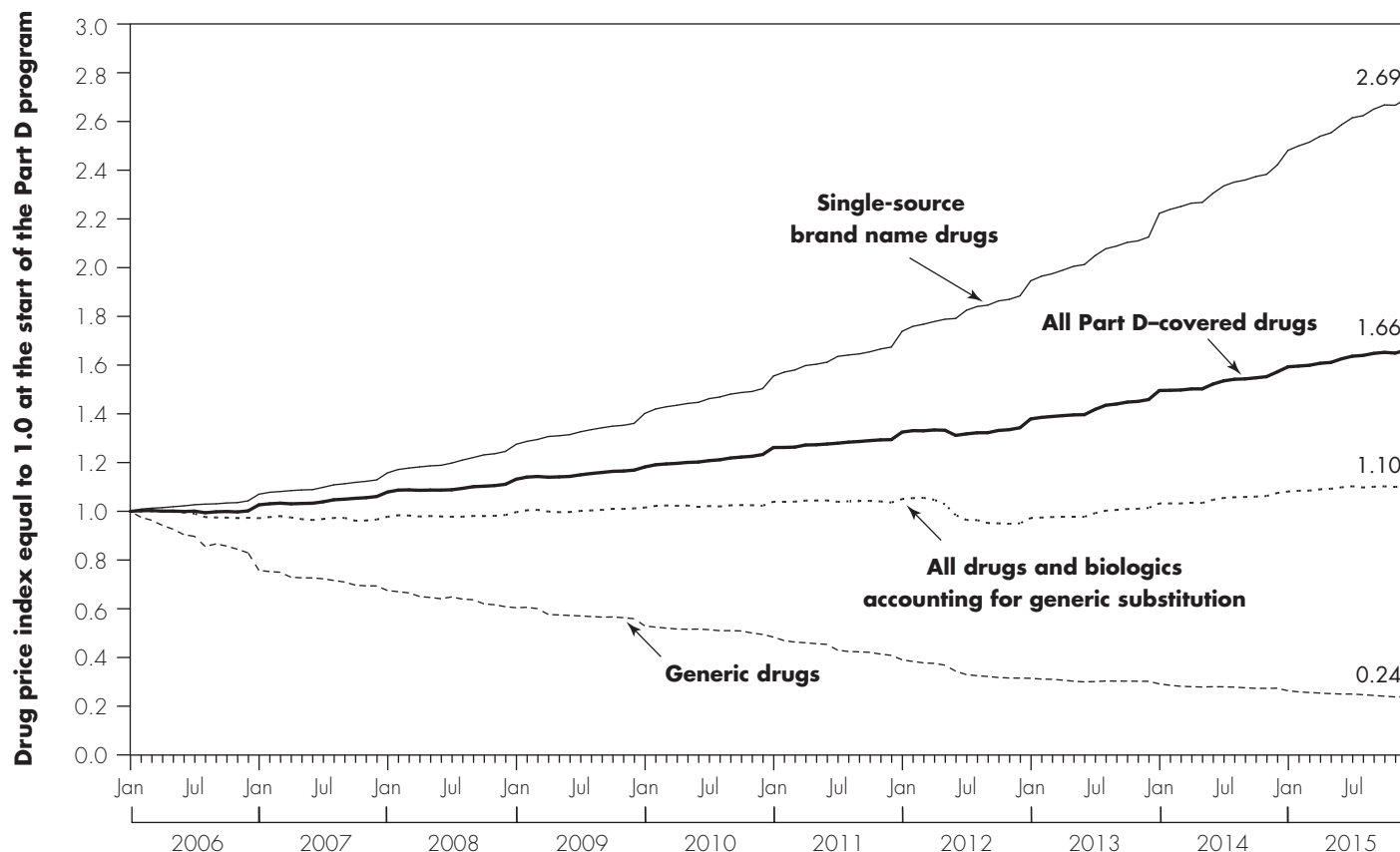
With generics making up nearly 90 percent of all U.S. prescriptions, there is diminishing opportunity for new generic savings (Fein 2017b). At the same time, a pipeline shift toward higher cost medications, combined with changes in the market dynamics of the supply and distribution channels that have increased reliance on price inflation for revenue growth, have put upward pressure on both prices and rebates (Cahn 2017, Fein 2017a, Lopez 2016, Sell 2015). The result has been aggressive growth in prescription prices at the point of sale (POS), which determines gross Part D spending, and a growing divergence between POS prices and prices net of postsale rebates and discounts from manufacturers and pharmacies (net prices).

The aggregate amount of rebate payments in Part D has been growing. Using plan sponsors' assumptions about rebates from their 2016 bids, the Medicare Trustees estimated that Part D DIR—made up predominantly of manufacturers' rebates—amounted to 22 percent of total drug costs (averaged across all drugs, including those for which plans do not receive any rebates) (Boards of Trustees 2017). This amount is a significant increase from DIR of about 9.6 percent in 2007, and even from 2015, when the intensified competition in the hepatitis C drug market resulted in higher DIR (18.2 percent) than expected (Boards of Trustees 2017). This phenomenon is not limited to the Part D program. According to one estimate, in 2016, net prices were 28 percent below total spending based on invoice (list) prices (IQVIA Institute for Human Data Science 2017).<sup>22</sup>

The cost of providing the Part D benefit is affected by both POS prices and net prices that reflect rebates and discounts. The former affects patient cost sharing and the rate at which patients reach the catastrophic phase of the benefit, the point after which Medicare pays 80 percent of

**FIGURE  
14-3**

**Price increases for brand-name drugs continue to overwhelm the effects of using lower priced generics**



Note: Chain-weighted Fisher price indexes.

Source: Acumen LLC analysis for MedPAC.

the costs in individual reinsurance. For this reason, from beneficiaries' and Medicare's perspectives, prices paid at the pharmacy are an important indicator of Part D's costs. The latter—net prices—affects premiums and plan profits (see text box on prices, pp. 416–417).

### Prices paid at the point of sale

The Commission has contracted with Acumen LLC for many years to construct a series of volume-weighted price indexes. The indexes do not reflect retrospective rebates or discounts from manufacturers and pharmacies; rather, they reflect total amounts paid to the pharmacies, including ingredient costs and dispensing fees (i.e., POS prices).

### In 2015, price increases for brand-name drugs continued to overwhelm the effects of using lower priced generics

Measured by individual national drug codes (NDCs) and excluding manufacturers' rebates, between 2006 and 2015, Part D drug prices rose by an average of 66 percent cumulatively (an index value of 1.66) (Figure 14-3).<sup>23</sup> As measured by a price index that takes the generic substitution into account, Part D prices increased by 10 percent cumulatively.<sup>24</sup> The uptick in this price index from 2013 to 2015 is a shift from prior years when increased generic use had kept overall prices stable by offsetting increases in prices of brand-name drugs.

## Effects on the Part D program of growing rebates and the divergence between point-of-sale prices and net prices

The issue of rebates in drug pricing has garnered attention because of its implications for beneficiary cost sharing and for Medicare's program costs. CMS noted that the increase in rebates and the resulting disparity between point-of-sale (POS) prices and net prices lowers costs for plan sponsors while increasing costs to beneficiaries through higher cost sharing and to Medicare through higher reinsurance and low-income cost-sharing subsidies (Centers for Medicare & Medicaid Services 2017g).

In theory, plan sponsors could apply manufacturer rebates in one of two ways. They could:

- reduce the price of the prescription that generated the rebate at the point of sale or
- offset aggregate benefit costs with the aggregate amount of rebate payments.

Under the first approach, enrollees who use drugs for which a rebate is negotiated would benefit from the price discount. Under the second approach, the aggregate amount of rebate payments would be used to lower a plan's premium for all enrollees. Enrollees

who must pay cost sharing in the form of coinsurance would pay an amount based on the drug's undiscounted price (i.e., not reflecting rebates). Coinsurance can be especially burdensome for those who require high-priced specialty drugs.

The first approach is not always practical if, for example, the amount of rebate payment is determined retroactively based on performance goals or the magnitude of price increases. In addition, plans and their pharmacy benefit managers overwhelmingly use the second approach because beneficiaries evaluate premiums closely when comparing Part D plans, and premiums are the basis on which plans qualify as premium free to low-income subsidy (LIS) enrollees.

The way in which plan sponsors apply rebates to aggregate benefits affects Medicare program spending in different ways. Using rebates to reduce plan premiums lowers Medicare program spending because (1) Medicare retains a portion of aggregate rebates to offset a share of program payments for individual reinsurance, and (2) the rebates lower the subsidies Medicare pays for a portion of plan premiums for all

*(continued next page)*

On average, prices of generic drugs are 75 percent to 90 percent lower than the prices of brand-name drugs, and generic prices tend to decline over time (Government Accountability Office 2016). However, in recent years, several analysts have noted that certain generic medications now have high prices or have experienced sharp price increases (Dave et al. 2017, Loftus 2017, Thomas 2016). A number of factors associated with decreased market competition explain price increases for generics, such as drug shortages, disruptions in the supply of drugs, and consolidations among manufacturers of generic drugs (Alpern et al. 2014, Dave et al. 2017). Overall, generic prices decreased at a slower rate between 2012 and 2015 compared with 2006 and 2012. Still, between 2006 and 2015, prices of generic drugs decreased to 24 percent of the average price observed at the beginning of 2006 (Figure 14-3, p. 415).

In comparison, prices of single-source, brand-name drugs (drugs with no generic substitutes, although some may have generic alternatives in the same therapeutic class) grew by a cumulative 169 percent during the same period. Despite accounting for a small share of prescriptions (about 13 percent in 2017), price increases for brand-name drugs overwhelmed the effects of using lower priced generic drugs. The continued strong growth in POS prices suggests that Part D spending will increasingly be affected by high-priced brand-name drugs.

### **Aggressive growth in prices of brand-name drugs reflects both price inflation and the shift toward more expensive products**

Prices have grown rapidly for drugs with few or no generic or biosimilar alternatives. For example, between 2007 and 2015, our price index for insulin (to treat diabetes)



## Effects on the Part D program of growing rebates and the divergence between point-of-sale prices and net prices (cont.)

enrollees. However, an offsetting effect is that a higher proportion of enrollees reach Part D's out-of-pocket threshold—the point at which Medicare pays for 80 percent of benefits. Additionally, Medicare's subsidy for low-income cost sharing would be higher because it is based on POS prices.

In the Commission's March 2017 report, we highlighted how Part D's unique benefit design, Medicare's reinsurance payments, and plan sponsors' focus on premium competition can affect plan incentives regarding their formulary decisions (Barnhart and Gomberg 2016, Medicare Payment Advisory Commission 2017c). That is, the current Part D construct provides a financial advantage to plan sponsors when they select high-cost, high-rebate drugs over lower cost alternatives. CMS has expressed concerns about this issue, noting that, under Part D's risk corridors, any rebates received above the projected amount contribute primarily to plan profits (Centers for Medicare & Medicaid Services 2017g).

In recent years, plan sponsors have negotiated additional “price-protection” provisions. Under these

agreements, if a drug's list price increases above a specified threshold, the manufacturer rebates any incremental increase above the threshold to the plan sponsor (Kaczmarek 2015, Pharmacy Benefit Management Institute 2017). Sponsors negotiate ceiling prices because manufacturers' midyear price increases may result in benefit costs that are higher than they expected.

While price-protection rebates give more predictability to sponsors, that protection could allow manufacturers to increase their POS prices with less resistance from plan sponsors. In turn, it could contribute to the greater divergence between POS and net prices, potentially worsening the shift in costs toward beneficiaries and the Medicare program that occurs under the current Part D construct. Higher POS prices tend to increase the number of beneficiaries who reach the catastrophic phase of the benefit and thereby increase Medicare's reinsurance payments. Enrollees who pay coinsurance are not protected from price increases. Similarly, to the extent that Medicare pays coinsurance on behalf of LIS enrollees, Part D's low-income cost-sharing subsidy does not benefit from price-protection rebates. ■

grew a cumulative 227 percent (Figure 14-4, p. 418). During the same period, our price index for therapies to treat conditions such as rheumatoid arthritis and multiple sclerosis grew by a cumulative 142 percent and 203 percent, respectively.

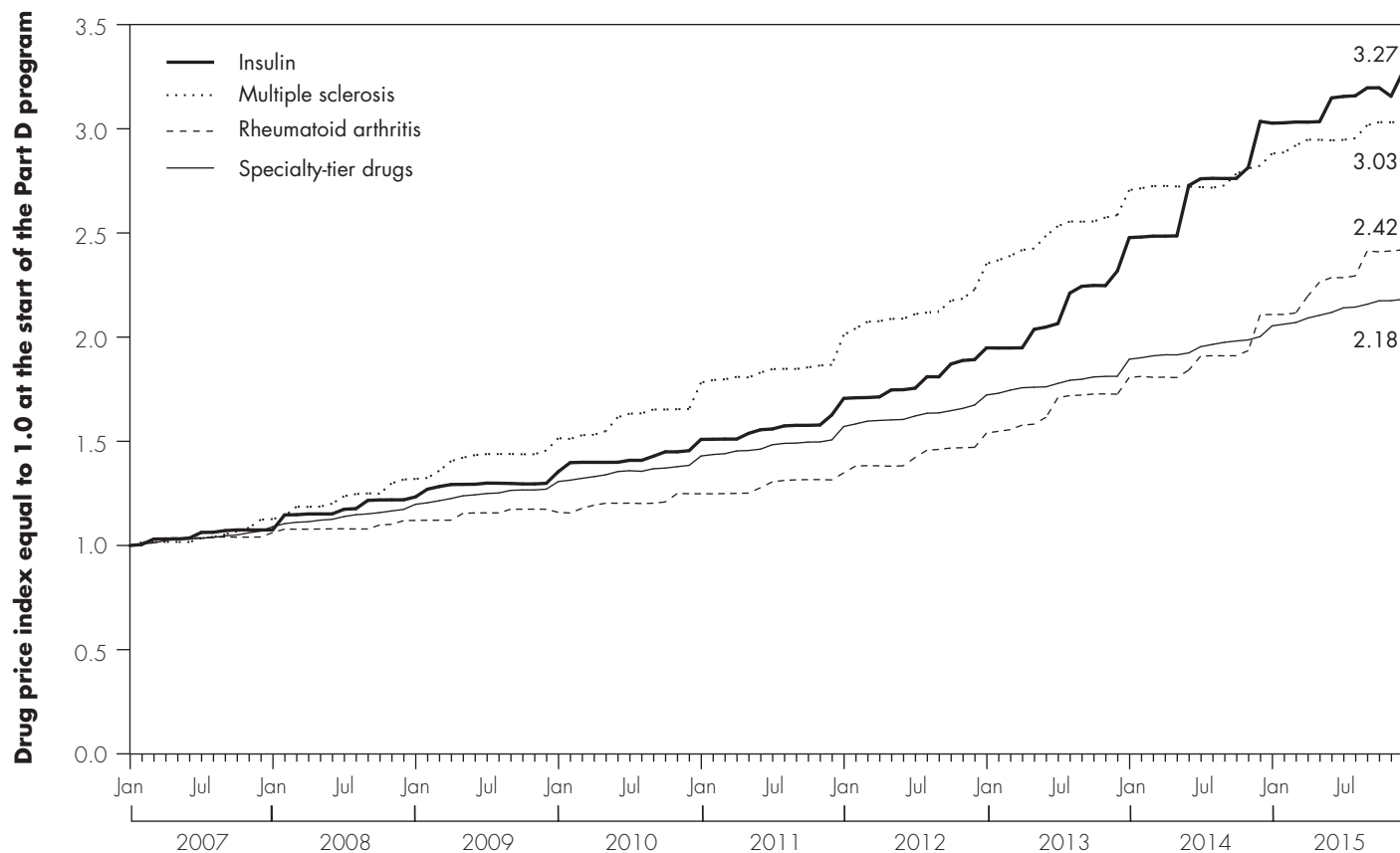
In recent years, a number of biopharmaceutical manufacturers have transformed their research and development (R&D) strategies toward markets for orphan drugs (special status given to drugs under development to treat rare diseases or conditions) and targeted therapies (EvaluatePharma 2017). Food and Drug Administration (FDA) approvals of innovative medicines in the last few years have included an increasing number of biologics and specialty drugs, with new medicines focused on treatments for a range of cancers, viral infections, and autoimmune diseases, among others (Blair and Cox 2016,

Frey 2017).<sup>25</sup> Many of these new entrants command higher prices than existing therapies and generally have few or no lower cost alternatives. Although manufacturers must provide clinical trial data to the FDA to demonstrate safety and effectiveness, comparative clinical effectiveness information for the Medicare population is often not available.

This shift in biopharmaceutical R&D is likely behind the aggressive growth in prices of single-source brand-name drugs. For example, between 2011 and 2015, gross Part D spending on specialty-tier drugs (which, by definition, have high prices because of the cost threshold set by CMS) grew by 40 percent per year, on average.<sup>26</sup> As a result, specialty-tier drugs now account for over 20 percent of overall gross drug spending in Part D, up from about 6 percent to 7 percent before 2010. Our price index

**FIGURE  
14-4**

**Aggressive growth in prices of brand-name drugs reflects both price inflation and a shift toward more expensive products**



Note: Chain-weighted Fisher price indexes.

Source: Acumen LLC analysis for MedPAC.

for specialty-tier drugs grew by a cumulative 118 percent (index value of 2.18) between 2007 and 2015 (Figure 14-4)—much higher than 62 percent growth across all drugs and biologics covered under Part D during the same period.

## Program costs

The costs of providing Part D benefits are shared by Medicare and its enrollees. Medicare pays plan sponsors two major subsidies on behalf of each enrollee in their plans:

- **Direct subsidy**—A monthly prospective amount set as a share of the national average bid for Part D basic benefits, adjusted for the risk of the individual enrollee.
- **Reinsurance**—Reimbursement to plans for 80 percent of drug spending above an enrollee's annual OOP threshold. Plans receive prospective payments for reinsurance that are reconciled after the end of the benefit year to reflect actual spending for each enrollee who reached the OOP threshold.

Combined, the direct subsidy and expected reinsurance payments aim to cover 74.5 percent of the expected cost of basic benefits. Today, a much larger share of this



overall subsidy takes the form of reinsurance (cost-based reimbursement) rather than the direct subsidy (capitated payments). In addition to reinsurance, Medicare shares risk with plan sponsors by adjusting direct-subsidy payments to reflect the expected costliness of a plan's enrollees and limiting each plan's overall losses or profits through risk corridors if actual benefit spending is much higher or lower than the plan sponsor anticipated in its bid.

Beneficiary premiums are designed to cover the remaining 25.5 percent of the expected cost of basic benefits. Part D enrollees also pay any cost sharing required by plan sponsors. Medicare pays plans cost sharing and premiums for their LIS enrollees.

### **Higher effective subsidy rates increase overall program costs**

Data on program spending give a mixed picture of the success of Part D plans at containing costs. In the Commission's June 2015 report to the Congress, we noted regular patterns in Medicare's reconciliation payments with plans (Medicare Payment Advisory Commission 2015). First, many plan sponsors bid too low on the amount of benefit spending they expected above Part D's catastrophic threshold relative to their enrollees' actual catastrophic spending. Second, plan sponsors bid too high on the rest of benefit spending other than catastrophic benefits.

This pattern of bidding provides financial advantage to plan sponsors. By underestimating catastrophic spending, plan premiums are lower than they would have been had they reflected actual costs. Additionally, to the extent that actual costs ultimately are lower than what was estimated in plan bids, the structure of Part D's risk corridors allows plan sponsors to keep most of the difference as profits (Centers for Medicare & Medicaid Services 2017g).

Spending for competitively derived, direct-subsidy payments on which sponsors bear the most insurance risk has grown slowly, while benefit spending on which sponsors bear no insurance risk (low-income cost sharing) or limited risk (the catastrophic portion of the benefit, for which Medicare provides 80 percent reinsurance) has grown much faster (Medicare Payment Advisory Commission 2015).

Between 2009 and 2015, the majority of plan sponsors returned a portion of their prospective payments to Medicare through risk corridors.<sup>27</sup> Actuaries interviewed by Commission staff suggested that there is significant

uncertainty behind the assumptions they make when projecting drug spending for their bids. At the same time, we suggested that Part D's risk-sharing mechanisms may provide incentives to bid too low on catastrophic spending and too high on spending for the remainder of the Part D benefit. This dynamic and the open-ended nature of retrospective payments for reinsurance have resulted in Medicare subsidy rates for Part D that, in effect, have been higher than 74.5 percent in most years.

### **Trends in program subsidies and costs**

Between 2007 and 2016, program spending (including expenditures for the RDS) rose from \$46.2 billion to \$78.9 billion (Table 14-8, p. 420), or an average 6.1 percent per year. In 2016, Medicare paid \$16.3 billion for direct subsidies, \$34.8 billion for individual reinsurance, \$26.7 billion for the LIS, and \$1.1 billion for the RDS (Boards of Trustees 2017).

In 2016, premiums paid by Part D enrollees (not including the premiums paid by Medicare on behalf of LIS enrollees) totaled \$12.7 billion (Boards of Trustees 2017). That amount has grown by an average of 13.4 percent per year since 2007, reflecting both growth in enrollment, particularly among beneficiaries who do not receive the LIS, and increases in benefit costs.

In addition to monthly premiums, most enrollees are responsible for paying cost sharing as set by plan sponsors or, in the case of LIS enrollees, amounts set in law. (On behalf of LIS enrollees, Part D's low-income cost-sharing subsidy pays for the difference between cost sharing set by plan sponsors and the nominal amounts they pay out of pocket.)

### **Cost-based reimbursement rather than risk-based payments now accounts for most of Medicare's payments for Part D benefits**

Medicare payments for individual reinsurance have grown faster than other components of Part D spending. Between 2007 and 2016, payments for individual reinsurance increased at an annual average of 17.7 percent (Table 14-8, p. 420). This growth accelerated in recent years, expanding at an annual average of over 24 percent between 2010 and 2015 compared with about 12 percent for 2007 through 2010 (data not shown). Reinsurance spending became the largest component of Part D spending in 2014. Growth in spending for reinsurance decelerated to about 5 percent between 2015 and 2016, reflecting slower growth in spending for hepatitis C and diabetes drugs (Hartman et al.

**TABLE  
14-8****Medicare's reimbursement amounts for Part D**

	2007	2010	2012	2013	2014	2015	2016	Average annual growth rate 2007-2016
Reimbursement amount (in billions):								
Direct subsidy*	\$17.6	\$19.6	\$19.7	\$19.6	\$18.5	\$18.1	\$16.3	-0.8%
Reinsurance	<u>8.0</u>	<u>11.2</u>	<u>15.5</u>	<u>19.2</u>	<u>27.2</u>	<u>33.2</u>	<u>34.8</u>	<u>17.7</u>
Subtotal, basic benefits	25.6	30.8	35.2	38.8	45.7	51.3	51.1	8.0
Low-income subsidy	16.7	21.1	22.5	23.2	24.3	25.6	26.7	5.4
Retiree drug subsidy	<u>3.9</u>	<u>3.9</u>	<u>3.0</u>	<u>1.7</u>	<u>1.3</u>	<u>1.2</u>	<u>1.1</u>	<u>-13.1</u>
Total	46.2	55.8	60.7	63.7	71.3	78.1	78.9	6.1
Enrollee premiums	4.1	6.7	7.8	9.3	10.5	11.5	12.7	13.4
Reinsurance as a share of basic benefits	31%	36%	44%	49%	60%	65%	68%	N/A

Note: N/A (not applicable). Numbers above reflect reconciliation. Components may not sum to stated totals due to rounding.

\*Net of risk-sharing payments using Part D's risk corridors.

Source: MedPAC based on Table IV.B10 of the 2017 annual report of the Boards of Trustees of the Medicare trust funds.

2018). However, reinsurance continues to grow as a share of total spending. In 2016, a higher share of Medicare payments were retrospective, cost-based reimbursement rather than prospective, risk-based payments—a result not contemplated in the original design of the program.

Changes in the national average monthly bid amount also reveal higher growth in individual reinsurance. Between 2007 and 2018, plans' expected total benefit spending per enrollee grew from \$103 per month to \$137 per month, a modest annual growth rate of 2.7 percent (Figure 14-5). However, over that same period, the direct subsidy amount per enrollee fell from about \$50 per month to \$23 per month (nearly 7 percent annually), while expected reinsurance grew from \$26 per month to \$79 per month (nearly 11 percent annually).

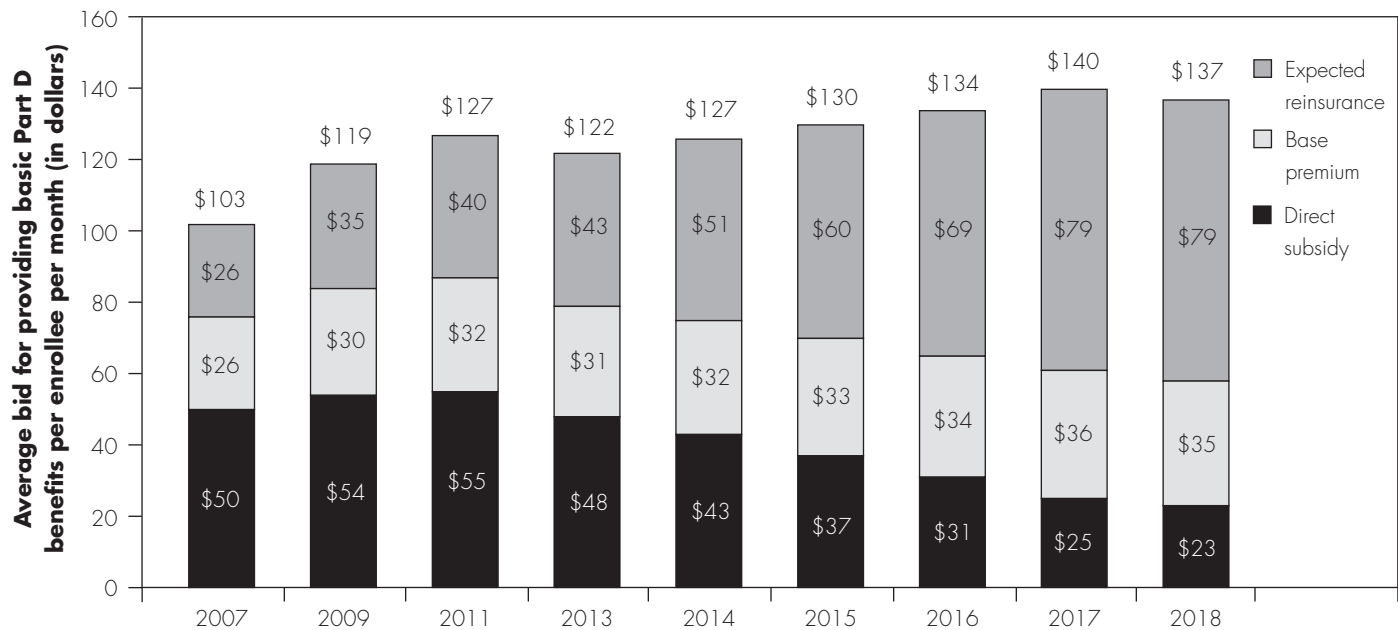
A combination of factors has contributed to faster growth in reinsurance. POS prices have grown rapidly for brand-name drugs and new medicines such as hepatitis C therapies (Hartman et al. 2018). Higher prices, accompanied by increasing dollar amounts of postsale rebates and discounts, likely exacerbate the current bidding incentives that keep Part D's premiums and direct

subsidy low while increasing reinsurance costs. Changes made by PPACA also contributed to reinsurance growth. For example, enrollees may be more likely to use brand-name drugs than generics because of the 50 percent discount that manufacturers provide in the coverage gap. Moreover, for non-LIS enrollees, the coverage-gap discount is counted as though it were their own OOP spending. In addition, PPACA constrained growth in the OOP threshold over the 2014 to 2019 period, effectively reducing the size of the coverage gap.

Because of these factors, since 2010, there has been a double-digit increase in the number of non-LIS enrollees who reached the catastrophic phase of the benefit. In turn, larger numbers of high-cost enrollees have led to growth in Medicare's reinsurance (see text box on the coverage gap, pp. 422-423).

### High-cost enrollees drive overall Part D spending growth

Aggregate spending for high-cost enrollees (i.e., not just their catastrophic spending) has grown from about 40 percent of all Part D spending before 2011 to 44 percent in 2011 to 57 percent in 2015. As that share has grown,

**FIGURE  
14-5****National average plan bid for basic Part D benefits**

Note: The averages shown are weighted by the previous year's plan enrollment. Amounts do not net out subsequent reconciliation amounts with CMS. Components may not sum to stated totals due to rounding.

Source: MedPAC based on data from CMS.

high-cost enrollees have increasingly affected spending averaged across all Part D enrollees. Between 2010 and 2015, Part D per capita spending grew an annual 4.6 percent (Table 14-10, p. 424). That reflects an annual 10.4 percent increase for high-cost enrollees and an annual 2.1 percent decrease for enrollees who did not reach the OOP threshold.

**Most spending growth for high-cost enrollees was due to higher prices**

Rapid growth in the average price of prescriptions filled by high-cost enrollees is the single most important factor explaining overall growth in their spending. In turn, that growth reflects not only price inflation but also greater availability of higher priced drugs and biologics and other changes in the mix of medications they were prescribed.

Between 2010 and 2015, the average price per standardized, 30-day prescription for high-cost enrollees grew an annual 10.4 percent, while the number of prescriptions filled per enrollee per month remained flat (Table 14-10, p. 424). This pattern is in stark contrast

to enrollees who did not reach the OOP threshold. The average price of their prescriptions fell by an annual 3.4 percent, while the number of prescriptions they used grew by a modest 1.3 percent per year.

High-cost enrollees tend to use more brand-name drugs. For example, in 2015, the average generic dispensing rate (GDR) among high-cost enrollees was slightly less than 74 percent, or nearly 13 percentage points below the overall Part D average. Some of this GDR difference reflects situations in which brand-name medications are the dominant standard of care within a therapeutic class. Prices of brand-name drugs that do not have generic substitutes are typically much higher and grow more rapidly compared with other drug products. However, many of the drugs used by high-cost enrollees are in drug classes with generic substitutes that are also heavily used by other Part D enrollees. For example, antihypertensive therapy agents for high blood pressure and antihyperlipidemics to treat high cholesterol are both classes of drugs commonly used by all Part D enrollees, including those who reach the OOP threshold. We have

## Beneficiaries who reach the coverage gap or catastrophic phase

In 2015, 10.7 million, or 26 percent, of Part D enrollees incurred spending high enough to reach the coverage gap (Figure 14-6). Of those, 3.6 million, or about 9 percent, of Part D enrollees had additional spending high enough to reach the catastrophic phase of the benefit. We refer to individuals who reach the catastrophic phase as high-cost enrollees.

### Most high-cost enrollees received the LIS, but numbers of non-LIS enrollees with high costs grew faster

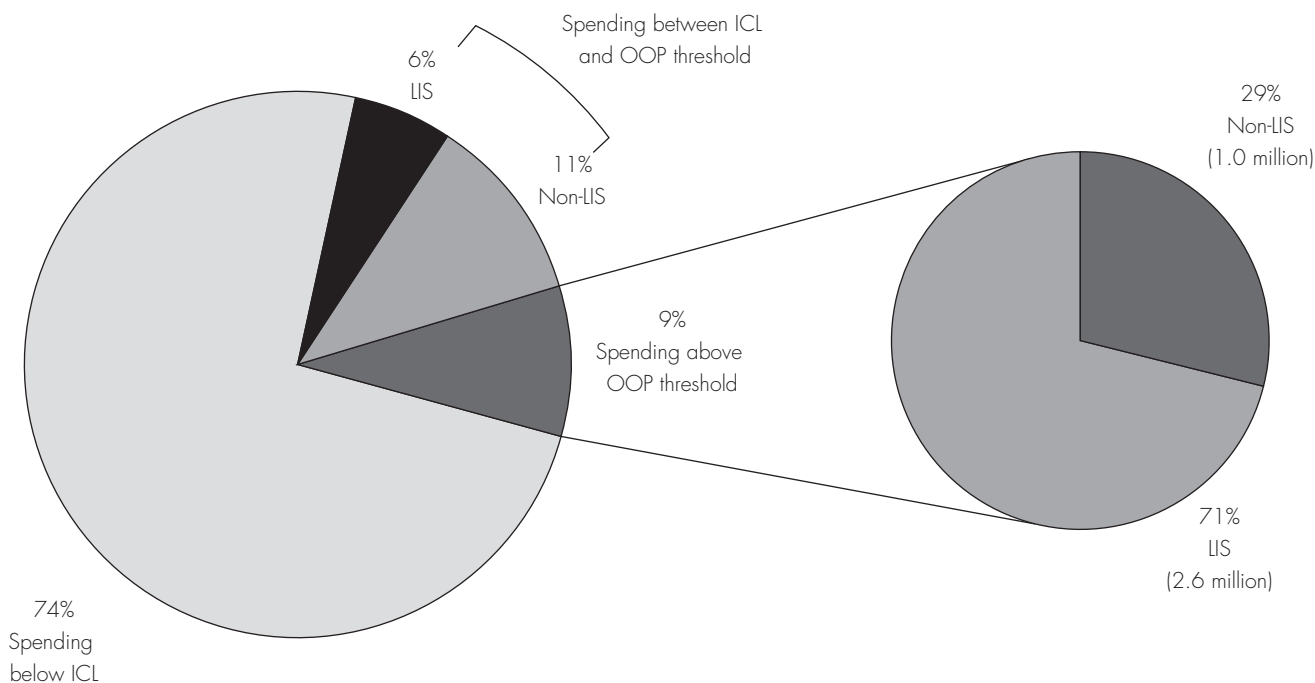
In 2015, more than 2.6 million individuals, or 71 percent of high-cost enrollees, received Part D's low-

income subsidy (LIS) (Figure 14-6). Nearly 20 percent of LIS enrollees are high cost compared with less than 4 percent of non-LIS enrollees (data not shown). Because all LIS enrollees are more likely to be enrolled in stand-alone prescription drug plans (PDPs) than Medicare Advantage–Prescription Drug plans (MA–PDs), 73 percent of high-cost LIS enrollees were in PDPs compared with about 69 percent for non-LIS enrollees with high costs (data not shown). High-cost enrollees were more likely to reside in a long-term care facility and were more likely to be minority, disabled, and under age 65, compared with other enrollees (data not shown).

(continued next page)

**FIGURE  
14-6**

**Part D enrollees with spending in the coverage gap and catastrophic phase, 2015**



Note: ICL (initial coverage limit), OOP (out-of-pocket), LIS (low-income subsidy). Enrollees with spending between the ICL and the OOP threshold fall within Part D's coverage gap. LIS enrollees do not face a coverage gap because Medicare's low-income cost-sharing subsidy pays for what otherwise would be enrollee cost sharing. In 2015, Part D enrollees reached the ICL at \$2,960 in gross drug spending. With no supplemental coverage, an enrollee reached the threshold at \$4,700 of OOP spending or qualifying drug spending made on behalf of the beneficiary, including the 50 percent discount paid for by pharmaceutical manufacturers for brand-name drugs. Some non-LIS enrollees who reached the catastrophic phase of the benefit may have had some gap coverage.

Source: MedPAC analysis of Part D prescription drug event data and Part D denominator file from CMS.

## Beneficiaries who reach the coverage gap or catastrophic phase (cont.)

The number of high-cost enrollees has been rising since 2010, growing at an annual rate of 9 percent between 2010 and 2015, compared with 1 percent annually before 2010 (Table 14-9). Gross spending above the catastrophic (i.e., out-of-pocket) threshold also grew more rapidly during that period, rising at an annual 26.6 percent, compared with an annual 12 percent before 2010 (data not shown). Growth in the number of high-cost enrollees between 2010 and 2015 has been more rapid among non-LIS enrollees compared with LIS enrollees—21 percent annually compared with 6 percent annually, respectively.

Prices at the pharmacy affect enrollee cost sharing and the rate at which enrollees reach the catastrophic phase of the benefit. An uptick in prices observed after 2012 was accompanied by an increase in the number of high-cost enrollees, particularly among those who do not receive the LIS. Growth of employer group waiver plans and changes made by the Patient Protection and Affordable Care Act of 2010 have contributed to rapid growth in the number of non-LIS enrollees with high costs.<sup>28</sup> ■

**TABLE  
14-9**

**Part D enrollees reaching the benefit's catastrophic phase, 2007-2015**

	2007	2010	2011	2012	2013	2014	2015	Average annual growth rate	
								2007-2010	2010-2015
<b>In millions</b>									
LIS	1.9	2.0	2.1	2.1	2.2	2.5	2.6	1%	6%
Non-LIS	0.4	0.4	0.5	0.5	0.7	0.9	1.0	-2	21
All	2.3	2.4	2.6	2.6	2.9	3.4	3.6	1	9
Percent of all									
Part D enrollees	8.8%	7.9%	8.4%	7.7%	7.6%	8.6%	8.7%	N/A	N/A

Note: LIS (low-income subsidy), N/A (not applicable). Growth rates were calculated using figures before rounding was applied.

Source: Enrollee counts from 2007 are based on published figures from CMS. Enrollee counts from 2010 to 2015 are based on MedPAC analysis of Part D prescription drug event data.

consistently found that high-cost enrollees tend to use more brand-name drugs than other enrollees, even in classes with generic alternatives (Medicare Payment Advisory Commission 2016a). This lower GDR is due, in part, to the fact that most high-cost enrollees receive the LIS. The cost-sharing subsidy, while helping these beneficiaries to afford medications, also minimizes or eliminates the financial incentives plans create to encourage the use of lower cost drugs. One of the Commission's June 2016 recommendations was intended to encourage LIS enrollees to use lower cost alternatives

(including generic drugs and biosimilars) when they are available through moderate changes to financial incentives (see text box on the Commission's 2016 recommendations, pp. 404-405).

### Patterns of spending differ between high-cost enrollees with and without the LIS

Among high-cost enrollees, patterns of drug spending vary depending on LIS status. For example, in 2015, drugs in two classes typically associated with specialty-tier drugs (antineoplastics and multiple sclerosis agents) accounted

**TABLE  
14-10****Spending for high-cost enrollees drove overall Part D spending, 2010–2015**

	2010	2015	Average annual growth rate, 2010–2015
<b>High-cost enrollees</b>			
Average price per 30-day prescription	\$118	\$193	10.4%
Prescriptions per enrollee per month	<u>9.5</u>	<u>9.5</u>	0.03
Gross drug spending per enrollee per month	\$1,117	\$1,831	10.4
<b>Lower cost enrollees</b>			
Average price per 30-day prescription	\$41	\$34	–3.4%
Prescriptions per enrollee per month	<u>3.7</u>	<u>4.0</u>	1.3
Gross drug spending per enrollee per month	\$151	\$136	–2.1
<b>All Part D enrollees</b>			
Average price per 30-day prescription	\$55	\$65	3.3%
Prescriptions per enrollee per month	<u>4.2</u>	<u>4.5</u>	1.3
Gross drug spending per enrollee per month	\$231	\$290	4.6

Note: Spending includes all payments to pharmacies, including payments by drug plans, Medicare’s low-income subsidy, and beneficiary out of pocket. Changes in the average price per prescription reflect both price inflation and changes in the mix of drugs used. Multiplication of components may not match the figures shown due to rounding.

Source: MedPAC analysis of Part D prescription drug event data and denominator file from CMS.

for about 10 percent of high-cost LIS enrollees’ total spending, compared with over 30 percent of spending for the other high-cost enrollees. This pattern is reflected in their higher average spending: In 2015, high-cost enrollees without the LIS had spending of \$272 per prescription and \$27,052 per year compared with \$166 per prescription and \$19,482 per year for high-cost LIS enrollees (Table 14-11).

High-cost LIS enrollees pay much lower cost sharing out of pocket than the other high-cost enrollees. In 2015, average annual OOP spending for high-cost LIS enrollees was \$113, compared with \$2,958 for other high-cost enrollees. One might expect average annual OOP spending for high-cost enrollees without the LIS to be higher than Part D’s OOP threshold in 2015, at \$4,700. However, the average amount is lower primarily because those enrollees were permitted to count the 50 percent discount provided by brand-name manufacturers in the coverage gap as their own OOP spending.

### Use of higher cost drugs poses challenges for Part D

The use of higher cost drugs and biologics has grown rapidly. For example, in 2015, drugs with average monthly prices of \$1,000 or more accounted for two-thirds of spending in the catastrophic phase of the benefit, compared with just one-third in 2010 (Office of Inspector General 2017). At the same time, the phase-out of the coverage gap (including the requirement that brand manufacturers provide a 50 percent discount) has reduced the cost sharing of non-LIS enrollees. Average annual OOP spending by high-cost enrollees without the LIS decreased from more than \$4,000 before 2011 to less than \$3,000 in 2011 and subsequent years.

Drugs with very high prices pose a particular challenge for Part D because they tend to be concentrated in treatment classes that are prevalent in the Medicare population. As more expensive therapies become available, larger



**TABLE  
14-11****High-cost enrollees and their prescription use and spending, 2015****High-cost enrollees**

	All	LIS status	
		LIS	Non-LIS
Beneficiaries, in millions	3.6	2.6	1.0
Share of total for high-cost enrollees		71%	29%
Total gross spending, in billions of dollars	\$78.9	\$50.8	\$28.2
Share of total for high-cost enrollees		64%	36%
Total numbers of 30-day prescriptions, in millions	408.8	305.5	103.3
Share of total for high-cost enrollees		75%	25%
Gross annual spending per enrollee, in dollars	\$21,642	\$19,482	\$27,052
Average number of prescriptions per enrollee	112	117	99
Average price per prescription, in dollars	\$193	\$166	\$272
Average annual OOP spending per enrollee	\$925	\$113	\$2,958

Note: LIS (low-income subsidy), OOP (out-of-pocket). Components may not sum to totals due to rounding. A beneficiary is classified as "LIS" if that individual received Part D's LIS at some point during the year. Numbers of prescriptions are standardized to a 30-day supply.

Source: MedPAC analysis of Part D prescription drug event data and denominator file from CMS.

numbers of beneficiaries will reach the catastrophic phase of the benefit, when Medicare pays for 80 percent of the costs through reinsurance. Coinsurance on high-priced medicines will become increasingly burdensome for enrollees without the LIS as well as for Medicare's low-income subsidy program. At the same time, Medicare's generous reinsurance subsidy and the expanded use of rebates may create incentives for plan sponsors that are not always aligned to encourage the use of lower cost products.

The Commission's 2016 recommendations would help to address the challenges of higher cost treatments. Under the recommendations, Medicare's subsidy of basic Part D benefits would remain unchanged at 74.5 percent, but plan sponsors would receive more of the subsidy through capitated payments and less through open-ended reinsurance. Lowering Medicare's reinsurance from 80 percent to 20 percent of catastrophic spending while providing plan sponsors with greater flexibility to use formulary tools to manage benefits would give plan sponsors stronger incentives to manage the drug spending for high-cost enrollees.

**Biosimilars in Medicare Part D**

Biologics make up a fast-growing segment of spending and will continue to grow in importance. Some biologics offer beneficiaries important new treatment options. However, many biologics have high prices that raise concerns about their cost burden on patients and the Medicare program. Biosimilars are expected to have lower prices than originator biologics: Enrollees' take-up could introduce price competition and improve patient access (see text box on biologics and biosimilars, p. 426). However, regulatory approval and market entry have been slow. As of December 2017, the FDA had approved just nine biosimilars and had not yet designated any as interchangeable. Among those products, only three have entered the commercial market. The key reasons for delay relate to patent litigation and the fact that some manufacturers of originator biologics use "patent walls," reverse-payment agreements, and contracts that require payers to exclude biosimilars from their formularies as a condition for rebates.<sup>29</sup> Other hurdles—including some Part D policies—may also affect take-up. This year,

## Biologics and biosimilars

The term *biologics* includes therapies such as insulins and therapeutic proteins that are used to treat diabetes, cancer, rheumatoid arthritis, multiple sclerosis, and other diseases. While most traditional drugs are synthesized chemically, biologics are manufactured through biological processes. Many biologics have more complex molecular structures, and their manufacturing processes can directly affect their structure.

Biosimilars are follow-on products that are highly similar to an originator biologic. Unlike generics, biosimilars are not exact replicas of the originator biologic.<sup>30</sup> *Interchangeable* products are a subset of biosimilars that, under federal law, may be substituted for the originator without the intervention of the prescriber. However, some state laws require not only interchangeability but also other measures such as prescriber and patient notification before a pharmacy can automatically substitute a biosimilar for its originator product.

Medicare pays for biologics in both Part B (for provider-administered medicines) and Part D (through outpatient pharmacy benefits). Historically, more of Medicare's spending for noninsulin biologics has been covered under Part B than Part D. However, Part D spending for biologics is growing rapidly, and a number of biologic products in the development pipeline will be self-injectable and covered under Part D.

Some biologics have prices that cost several thousands of dollars or more annually, and Part D plans often place biologic therapies on specialty tiers. For specialty-tier products, enrollees pay coinsurance ranging from 25 percent to 33 percent. Beneficiaries who use drugs or biologics on a specialty tier are likely to incur spending high enough to reach Part D's out-of-pocket threshold, after which Medicare pays 80 percent of costs through individual reinsurance and the enrollee pays 5 percent. Through Part D's low-income subsidy, the program pays for most or all cost sharing on behalf of individuals who are eligible and enrolled. ■

the Commission recommends Part D changes to rectify policies that put biosimilars at a financial disadvantage relative to originator biologics.

### Spending on biologics

Part D spending for biologics grew rapidly between 2011 and 2015, from less than \$7 billion (8 percent of all Part D spending) to \$18.7 billion (nearly 14 percent) (Table 14-12). Biologics covered under Part D fall into two broad categories. The first group includes older molecules such as insulin, human growth hormone, and other hormones that have relatively lower prices than the second group. Some of these therapies, such as insulin, are used by large patient populations. The second group includes more complex molecules such as monoclonal antibodies and other therapeutic proteins that tend to have much higher prices and are used by relatively smaller populations.

In 2015, insulin was the largest class of biologics in Part D, accounting for \$11.2 billion (nearly 60 percent) of

biologics spending (Table 14-13, p. 428). Between 2011 and 2015, insulin accounted for nearly 90 percent of all prescriptions for biologics, and insulin's share of biologics spending grew from 55 percent to 60 percent (data not shown). Other therapeutic categories that follow insulin in terms of spending include inflammatory diseases (e.g., rheumatoid arthritis, psoriasis, and Crohn's disease) and therapies for multiple sclerosis, which accounted for 19 percent and about 7.5 percent of biologic spending, respectively, in 2015. Between 2011 and 2015, these three classes combined accounted for over 80 percent of biologics spending in any given year and about 88 percent of the spending growth for biologics.

Consistent with the Commission's Part D indexes, rapid increases in prices per prescription have driven spending growth for the three largest classes of biologics. For each of those classes, between 2011 and 2015, the average price per prescription (before rebates) grew by 16 percent to 20 percent annually, explaining half or more of each class's growth in gross spending (Table 14-13, p. 428). In

**TABLE  
14-12****Spending and use of biologics in Part D, 2011–2015**

	Growth 2011–2015						Average annual rate
	2011	2012	2013	2014	2015	Cumulative	
Gross spending on biologics (in billions)	\$6.8	\$8.9	\$12.0	\$15.4	\$18.7	\$11.9	29%
As a share of all Part D	8.0%	9.9%	11.6%	12.7%	13.6%		
Number of biologic prescriptions (in millions)	25.3	28.7	32.8	35.0	37.0	11.7	10%
As a share of all Part D	1.7%	1.8%	1.7%	1.7%	1.7%		

Note: Biologic products were identified using an approval pathway for biologics (Biologics License Applications, or BLA) reported by the First DataBank and based on specific national drug codes for products not approved under the BLA. Spending does not reflect any retrospective rebates, discounts, or fees paid by manufacturers and pharmacies to Part D plans. Prescriptions are standardized to a 30-day supply.

Source: MedPAC analysis of Part D prescription drug event data.

comparison, prices per prescription for all other biologics combined had an average annual growth of 5 percent over the same period.

### Financial disincentives to use biosimilars in Part D

The degree to which biosimilars will temper growth in Part D spending is uncertain. Over the next decade, approval and market entry of more biosimilars may lead to greater price competition. However, multiple factors affect when manufacturers may launch biosimilars and whether prescribers and patients will use those products. Many of those factors are outside of Medicare's purview, such as product naming conventions, FDA requirements for demonstrating interchangeability, state laws that limit substitution of biosimilars for originator biologics, and competitive tactics among manufacturers. However, Medicare policy also plays a role. We focus on Part D policies that directly affect financial incentives faced by beneficiaries and plan sponsors.

### Beneficiary disincentives to use biosimilars

Differential cost sharing across formulary tiers is a fundamental tool used by plan sponsors to encourage enrollees to use lower cost options. However, the 12 million beneficiaries who receive Part D's LIS either have no cost sharing or they pay nominal amounts. Currently, because biosimilars do not meet CMS's definition of a

generic or multisource drug, enrollees who receive Part D's LIS pay the same maximum cost-sharing amount for either a biosimilar or its originator biologic. As a result, even if a plan sponsor were to cover both a biosimilar and its originator product on its formulary and place the biosimilar on a preferred tier with lower cost sharing, LIS enrollees would not have any financial incentive to use the biosimilar. In CMS's recent proposed rule, the agency would treat biosimilars as generics solely for purposes of determining LIS cost sharing and cost sharing for other enrollees who reach the catastrophic phase (Centers for Medicare & Medicaid Services 2017g).

In its June 2016 report to the Congress, the Commission recommended that the Congress modify Part D's LIS copayments to encourage the use of generics, preferred multisource drugs, and biosimilars when available in selected therapeutic classes (see text box on the Commission's 2016 recommendations on pp. 404–405). Increasing the use of biosimilars by LIS beneficiaries could increase price competition among biologic products.

Incentives for beneficiaries without the LIS to use biosimilars can depend on the amount of spending they expect to incur in a given year. If a plan sponsor places a biosimilar on a preferred cost-sharing tier, some beneficiaries may respond to that financial incentive and use the biosimilar rather than the originator product. However, because of how Part D's coverage-gap discount

**TABLE  
14-13****Increase in prices drove growth in Part D spending  
for the largest classes of biologics, 2011-2015**

	Growth 2011-2015			
	2011	2015	Cumulative	Average annual rate
<b>Insulin</b>				
Average price per prescription	\$165	\$343	\$178	20%
Number of prescriptions, millions	<u>22.7</u>	<u>32.6</u>	9.8	9
Gross spending, billions	\$3.7	\$11.2	\$7.4	31
<b>Therapy for inflammatory diseases</b>				
Average price per prescription	\$1,966	\$3,486	\$1,520	16
Number of prescriptions, millions	<u>0.6</u>	<u>1.0</u>	0.4	14
Gross spending, billions	\$1.2	\$3.6	\$2.4	32
<b>Therapy for multiple sclerosis</b>				
Average price per prescription	\$3,029	\$5,292	\$2,263	16
Number of prescriptions, millions	<u>0.2</u>	<u>0.3</u>	0.03	3
Gross spending, billions	\$0.7	\$1.4	\$0.7	19
<b>All others</b>				
Average price per prescription	\$659	\$801	\$142	5
Number of prescriptions, millions	<u>1.7</u>	<u>3.1</u>	1.4	16
Gross spending, billions	\$1.1	\$2.5	\$1.4	22

Note: Biologic products were identified using an approval pathway for biologics (Biologics License Applications, or BLA) reported by the First DataBank and based on specific national drug codes for products not approved under the BLA. "All others" includes all biologics excluding insulin, therapies for inflammatory diseases, and therapies for multiple sclerosis. Spending does not reflect any retrospective rebates, discounts, or fees paid by manufacturers and pharmacies to Part D plans. Prescriptions are standardized to a 30-day supply. Cumulative growth amounts may be affected by rounding.

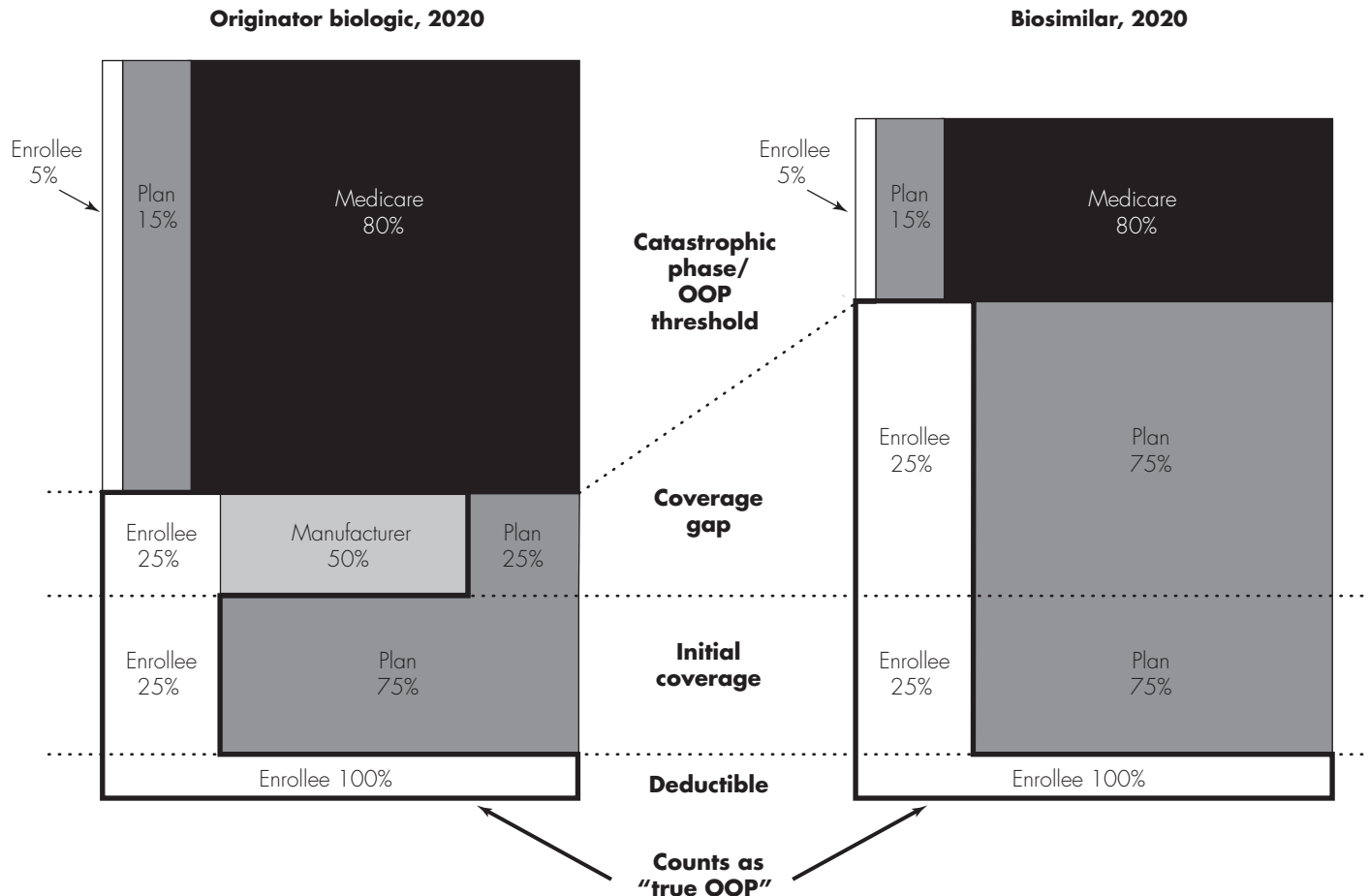
Source: MedPAC analysis of Part D prescription drug event data.

program is structured, beneficiaries who incur high spending could find that using a biosimilar leads to higher OOP spending than using an originator biologic.

Under Part D's coverage-gap discount, enrollees with spending above the initial coverage limit but less than the OOP threshold receive a 50 percent discount from manufacturers of brand-name drugs and originator biologics. Manufacturers must provide that discount as a condition for having their products covered by Part D. However, current law excludes most biosimilars from this discount.<sup>31</sup> Before 2020, an enrollee would pay a higher coinsurance rate for the biosimilar product than

for the reference biologic. This unequal treatment distorts beneficiaries' financial incentives and has an effect similar to a copayment coupon: By replacing their cost-sharing liability, the beneficiary has greater incentive to use brand-name drugs even when lower cost options are available (Maggs and Kesselheim 2014).

The coverage gap is scheduled to be phased out by 2020. Even so, Medicare will continue to track the range of spending at which the coverage gap would otherwise apply, and brand manufacturers will continue to provide the 50 percent discount. In 2020 and thereafter, the Part D benefit will cover 25 percent of covered brand-name drug

**FIGURE  
14-7****Counting manufacturers' 50 percent discount on an originator biologic as if it were enrollee's OOP spending disadvantages biosimilars**

Note: OOP (out-of-pocket). "True OOP" refers to Part D spending counted toward the enrollee's OOP threshold. Under current law, the 50 percent discount provided by manufacturers of brand-name drugs and originator biologics in Part D's coverage gap are counted as though they were the enrollee's OOP spending. Biosimilar manufacturers are currently excluded from the coverage-gap discount.

Source: MedPAC.

spending in what is now the coverage gap, the enrollee will pay 25 percent cost sharing, and brand manufacturers will continue to provide a 50 percent discount on price (Figure 14-7). Beginning in 2020, the enrollee would also pay 25 percent cost sharing for the biosimilar.

Even after 2020, a separate provision could lead to higher OOP spending if the beneficiary used a biosimilar. Generally, only cost sharing paid by the enrollee counts toward the OOP threshold—known as Part D's "true OOP" provision. Currently, however, the 50 percent discount is added to the enrollee's own spending for

purposes of determining whether the enrollee has reached the OOP threshold. As a result, patients who take an originator biologic would be likely to reach the OOP threshold more quickly (i.e., with lower OOP spending) than if they took the biosimilar. (For this reason, in Figure 14-7, the catastrophic phase of the originator product begins at a lower level of spending than for the biosimilar.)

In turn, this treatment of the discount affects Medicare's spending for reinsurance. Once enrollees reach the OOP threshold, they pay 5 percent coinsurance, the plan pays 15 percent, and Medicare pays for 80 percent through



individual reinsurance. The number of enrollees without the LIS who reached Part D's catastrophic phase has grown more rapidly since 2010, the year the coverage-gap discount provisions became law. Because of distortions the discount policy creates in relative prices, in 2016, the Commission recommended that the Congress change Part D law to exclude manufacturer discounts in the coverage gap for calculating enrollees' true OOP spending (see text box on the Commission's 2016 recommendations, pp. 404–405).

### **Disincentives for plans to place biosimilars on their formulary**

Generally, sponsors want to encourage their enrollees to use lower cost products to keep plan premiums low, and many analysts anticipate that biosimilars will have lower prices than their originator biologics. However, for enrollees without the LIS, 50 percent of coverage-gap spending for an originator biologic would be financed with the manufacturer's discount. As a result, the plan would be responsible for proportionately less spending. In 2020, the plan would pay for 25 percent of coverage-gap spending for the originator biologic, compared with 75 percent for the biosimilar (Figure 14-7, p. 429).<sup>32</sup> Moreover, because an enrollee would reach the OOP threshold at a lower level of spending for the originator product, Medicare reinsurance would further reduce what the plan must cover from 25 percent to 15 percent. As a result, plan sponsors may find it financially advantageous to include originator biologics on their formularies rather than the lower priced biosimilars.

### **RECOMMENDATION 14**

Changes in policy are needed to correct the disincentives for using biosimilars that exist under current law and to help promote greater price competition among biologic products. For this reason, the Commission's recommendation would require Part D's coverage-gap discount to apply to biosimilars in the same manner that it now applies to originator biologics. The policy fits within the construct of the Commission's 2016 recommendations to improve Part D because it would also exclude biosimilar manufacturers' discounts in the coverage gap from counting as enrollees' true OOP spending. (Online Appendix 14-A, available at <http://www.medpac.gov>, provides a numeric example of the effects of the Commission's recommendation.) Specifically, the Commission makes the following recommendation:

### **The Congress should change Part D's coverage-gap discount program to:**

- **require manufacturers of biosimilar products to pay the coverage-gap discount by including biosimilars in the definition of "applicable drugs" and**
- **exclude biosimilar manufacturers' discounts in the coverage gap from enrollees' true out-of-pocket spending.**

(Subsequent to the Commission's vote on this recommendation, the Bipartisan Budget Act of 2018 directed biosimilar manufacturers to, beginning in 2019, provide a discount on their products in the coverage gap. However, unlike the Commission's recommendation, the discount amount would continue to count as though it were the enrollees' own OOP spending. The text that follows reflects current law prior to this change.)

### **RATIONALE 14**

Under current law, manufacturers of brand-name drugs and originator biologics must provide a 50 percent discount to "applicable enrollees" (i.e., beneficiaries who do not receive the LIS) while they are in the coverage-gap phase of the benefit. However, by law, biosimilars are excluded from this coverage-gap discount. This unequal treatment of biosimilars and originator biologics distorts financial incentives, favoring originator products by making them appear less expensive to plan sponsors and beneficiaries. The recommendation would apply the coverage-gap discount equally to remove this distortion in price signals and promote price competition between originator products and biosimilars.

The second part of the recommendation would treat biosimilar manufacturers' new coverage-gap discount in a way that is consistent with the Commission's 2016 recommendations. The earlier recommendations call for discontinuing the policy of crediting brand-name manufacturers' discounts toward an enrollees' OOP spending threshold, as if the enrollee paid that amount out of pocket. By counting the discount amount toward the threshold, current policy both lowers the relative price of brand-name drugs and originator biologics and quickens the pace at which an enrollee reaches the OOP threshold (the point at which Medicare begins paying for 80 percent of benefits through reinsurance). Instead, the 2016 recommendation would discontinue that practice, thereby placing OOP spending for brand-name and generic drugs on more equal footing. Similarly, this recommendation



would treat OOP spending in the coverage gap for originator biologics and biosimilars equivalently.

The Commission makes this recommendation in conjunction with its standing Part D recommendations from 2016, which include eliminating enrollee cost sharing above the OOP threshold. In other words, this recommendation serves as an amendment to the package of changes discussed in 2016 rather than a recommendation that stands on its own. In general, the policy change to no longer count manufacturer discounts toward the OOP threshold would increase cost sharing for enrollees who use brand-name drugs, originator biologics, or biosimilars and have spending high enough to reach the coverage gap. To address the issue of a higher cost-sharing burden, the Commission's 2016 recommendations would provide real insurance protection to enrollees against catastrophic OOP spending. To the extent that the adoption of the Commission's set of recommendations results in net program savings, the Congress could consider enhancing protections for non-LIS enrollees facing high cost-sharing burdens.

## IMPLICATIONS 14

### Spending

- Because the Commission considers this recommendation an addition to its standing 2016 recommendations for Part D, we asked the Congressional Budget Office (CBO) to provide one combined estimate inclusive of the new biosimilar component. In 2016, CBO estimated that the Commission's overall package of recommendations (described in the text box on pp. 404–405) would lead to one-year program savings of more than \$2 billion relative to baseline spending and more than \$10 billion in savings over five years. CBO now estimates that the combined savings—including the newer recommendation—would remain at more than \$2 billion in one year and more than \$10 billion over five years. Few biosimilars that would be covered under Part D are as yet available on the market, so additional near-term savings are unlikely to be large. Over the longer term, however, program savings could be significant if the recommendation led to price competition between biosimilars and originator biologics.

### Beneficiaries and providers

- Because the recommendation would apply the coverage-gap discount equally to biosimilars and originator biologics, plan sponsors would be more

likely to place biosimilars (which we expect to have lower prices than originators) on their formularies. At the same time, excluding coverage-gap discounts from enrollees' true OOP spending would tend to increase plan sponsors' liability for benefit spending. With fewer enrollees reaching the OOP threshold, plan sponsors would receive a larger proportion of Medicare's 74.5 percent subsidy through direct-subsidy payments and less through reinsurance payments.

Manufacturers of brand-name drugs and biologics would pay more in coverage-gap discounts under the recommendation. Biosimilar manufacturers, which are not now eligible to participate in the coverage-gap discount program, would begin providing discounts. The recommendation could also spark greater price competition between manufacturers of originator biologics and biosimilars.

Relative to current-law spending, the recommendation would have offsetting effects. On the one hand, to the extent that plan sponsors place lower priced biosimilars on their formularies and those biosimilar manufacturers provide a coverage-gap discount, beneficiaries who take those medicines may see reduced cost sharing per prescription. However, because the recommendation would exclude manufacturer discounts from true OOP spending, enrollees would remain in the coverage gap longer. In other words, they would reach the OOP threshold at a higher level of total drug spending. However, the Commission's 2016 recommendations would eliminate cost sharing above the OOP threshold, thereby providing greater protection for beneficiaries with the highest drug spending.

## Beneficiaries' access to prescription drugs

A key goal for the Part D program is to provide Medicare beneficiaries with good access to clinically appropriate medications while remaining financially sustainable to taxpayers. That goal involves finding a balance between managing medication therapies to encourage adherence to drugs with good therapeutic value while being judicious about whether the overall number and mix of medicines prescribed is beneficial to a particular patient (Medicare Payment Advisory Commission 2016a). Formulary

management is one of the most important tools used by plan sponsors to strike this balance.

Greater flexibility to use management tools could help ensure that prescribed medicines are safe and appropriate for the patient, potentially reducing overuse and misuse. However, for some beneficiaries, those same tools could potentially limit access to needed medications. To ensure beneficiary access, CMS reviews and approves each plan's formulary to check that it provides access to a wide range of therapeutic classes used by the Medicare population. Part D law also requires sponsors to have a transition process to ensure that new enrollees, as well as current members whose drugs are no longer covered or are subject to new restrictions, have access to the medicines they have already been taking.<sup>33</sup> Medicare also requires plan sponsors to establish coverage determination and appeals processes.

### **Part D's exceptions and appeals process**

Online Appendix 14-B, available at <http://www.medpac.gov>, provides an overview and detail about Part D's exceptions and appeals process. The process begins when an enrollee's prescription is rejected at the pharmacy because the drug is not listed on the plan's formulary or because of a plan's utilization management requirements. The pharmacy is required to provide the enrollee with written information on how to obtain a detailed written notice from the enrollee's plan about why the benefit was denied and the right to appeal. The enrollee must contact the plan for the basis of the denial of benefits and initiate a request for a coverage determination with supporting justification from the prescriber.

Part D requires quicker adjudication time frames than for Medicare Advantage medical benefits because "the majority of Part D coverage requests involve prescription drugs an enrollee has not yet received, which increases the risk of adverse clinical outcomes if access to the drug is delayed" (Centers for Medicare & Medicaid Services 2016b, Centers for Medicare & Medicaid Services 2016c). Plan sponsors must make a decision about exceptions and coverage determination within 72 hours of a request or within 24 hours for expedited requests. If the plan contacts the prescriber but is not able to obtain the supporting information needed to make a coverage determination within the allotted time, the plan must issue a denial and then process any subsequent information it receives as a redetermination. If the enrollee is dissatisfied with the outcomes of those steps, he or she may appeal the decision

to an independent review entity (IRE) and potentially to higher levels of appeal.

Part D plan sponsors report to CMS some data on pharmacy claims that are rejected at the point of sale, as well as outcomes of coverage determinations and redeterminations.<sup>34</sup> In 2015, only about 4 percent of prescriptions were rejected at the pharmacy for reported reasons—most commonly because the drug was not on the plan's formulary, followed by plan requirements for prior authorization, quantity limits, or step therapy (see online Appendix 14-B, available at <http://www.medpac.gov>). In that same year, only about 9 percent of reported rejections proceeded to a plan coverage determination, and, further, 9 percent of these determinations were subsequently appealed or sent on automatically for plan redeterminations. Although outcomes vary considerably among plans, in 2015, 64 percent and 70 percent of determination and redetermination decisions, respectively, were fully favorable to the enrollee. Rates per 1,000 enrollees at which individuals sought coverage determinations and redeterminations have both increased in recent years. This trend may indicate that enrollees and prescribers are more aware of or willing to make use of the appeals process or that their prescriptions are increasingly subject to utilization management requirements.

CMS also reports on the decisions in the IRE step of the appeals process and uses these data for one measure in Part D plans' star ratings. In 2015, only about 5 percent of redeterminations were appealed or automatically forwarded to an IRE. CMS has noted considerable gaps in data reporting for IRE appeals for the majority of plans. However, when data were reported and validated, the IRE agreed with the plans' redetermination decisions most of the time.

CMS continues to find that a significant share of audited plans has difficulties in the areas of Part D transition fills, coverage determinations, appeals, and grievances. For example, a common shortfall is that many plans provide enrollees with too little information about the rationale for a coverage denial or do not demonstrate that they have reached out to prescribers for additional information to make a coverage decision (Centers for Medicare & Medicaid Services 2016d). At the start of benefit year 2016, CMS applied intermediate sanctions against several Part D plan sponsors for failure to comply with regulations in multiple areas, including Part D formulary and benefit administration and Part D coverage determinations, appeals, and grievances (Centers for Medicare & Medicaid

Services 2017i). The sanctions imposed immediate suspension of marketing to and enrollment of Medicare beneficiaries, and they remained in effect until corrective actions were taken.

At the same time, exceptions and appeals that routinely overturn plans' coverage decisions could undermine plans' efforts to manage drug spending. A plan sponsor's representative described for us the sponsor's experience in which the plan's decisions denying coverage of drugs because they were not on the plan's formulary were routinely overturned at the IRE level of appeal. The plan sponsor was generally not successful in appealing IRE decisions, which were typically denied on the grounds that supporting statements provided by prescribers proved the medical necessity for the drug—even when those statements were extremely general such as, “this is the right drug for the patient.” Because a Part D plan's star rating includes how often its coverage decisions are overturned by the IRE, such cases can have a chilling effect on a plan's willingness to use formulary tools—including on-formulary or off-formulary status—to manage the use of expensive medications. That reluctance to use formulary tools, in turn, can affect the rebate negotiations with pharmaceutical manufacturers.

Several beneficiaries who participated in the Commission's focus groups described learning that a drug prescribed by their provider was not covered by insurance or was much more expensive than they expected (Summer et al. 2017). If a prescription drug was too expensive or not covered, beneficiaries generally seemed familiar with the process of working with their pharmacy and their physician to either get a new prescription or go through the necessary prior authorization, step therapy, or appeal process. This familiarity is a notable change from several years ago, when beneficiaries in our focus groups were less aware of available options to resolve this type of problem and would sometimes report that they walked away from the pharmacy without a prescription.

A more efficient approach would be to resolve any issues at the point of prescribing rather than at the pharmacy counter through real-time formulary checks, e-prescribing, and electronic prior authorization (ePA). Such tools could reduce the need for coverage determinations and appeals and increase the likelihood that beneficiaries receive an appropriate medicine at the pharmacy. Automated processes could also lower the administrative burden and lead to a more uniform approach for beneficiaries,

prescribers, and plans (American Medical Association 2015). Part D plan sponsors are required to support electronic prescribing, but e-prescribing and electronic prior authorization are optional for physicians and pharmacies.<sup>35</sup> While beneficiary advocates are generally supportive of such steps, some contend that they would not be sufficient to address persistent challenges (Medicare Rights Center 2016). Perhaps the most essential requirement for adoption of ePA is clinician acceptance and use, which can require paying fees and embracing practice pattern change.

---

## Quality in Part D

---

CMS collects quality and performance data to monitor sponsors' operations. A subset of data is used to rate plans in a 5-star system, from which CMS determines MA quality bonus payments (quality bonus payments do not apply to stand-alone PDPs). Quality data are also made available to the public to help beneficiaries evaluate their plan options during Part D's annual open enrollment. CMS also requires plan sponsors to carry out medication therapy management (MTM) programs to improve the quality of the pharmaceutical care for high-risk beneficiaries. Although the Commission supports CMS's goal of improving medication management, we have ongoing concerns about the effectiveness of plans' MTM programs. In 2017, CMS began a new enhanced MTM model. We plan to examine the effectiveness of the new MTM program once additional information becomes available.

## Measuring plan performance

CMS collects Part D plan quality and performance data from several sources—the Consumer Assessment of Healthcare Providers and Systems<sup>®</sup> (CAHPS<sup>®</sup>) survey, agency monitoring of plans, data furnished by plan sponsors, and claims information (Centers for Medicare & Medicaid Services 2017e). Selected performance measures are available on the Plan Finder at [www.medicare.gov](http://www.medicare.gov) to help beneficiaries evaluate their plan options during Part D's annual open enrollment. The lowest rated plans are flagged to caution beneficiaries about choosing those plans. The highest rated plans can enroll beneficiaries outside the annual open enrollment period. In addition, for MA-PDs, Part D performance data affect the MA program's overall plan ratings to determine the amount of bonus payment.



For 2018, Part D plan ratings are based on up to 14 metrics that measure plan performance on intermediate outcomes, patient experience and access, and process (Centers for Medicare & Medicaid Services 2017b). Intermediate outcome measures (three metrics, e.g., adherence to selected class of medications) each receive a weight of 3, while the eight measures related to patient experience and access (e.g., CAHPS survey results on ease with which plan members get needed medicines) each receive a weight of 1.5. Two process measures (e.g., accuracy of drug prices posted on the Plan Finder) receive a weight of 1. Finally, drug plan quality improvement, a measure reflecting changes in drug plans' performance from one year to the next, is assigned the highest weight (5). Most MA-PDs are rated on up to 34 measures that assess the quality of medical services provided under the MA program, in addition to the 14 measures used to assess the quality of prescription drug (Part D) services provided. CMS aggregates individual scores for each measure (14 for PDPs and 48 for MA-PDs) on the Plan Finder in a 5-star system; 5 stars reflects excellent performance, and 1 star reflects poor performance.

Among PDPs, the average star rating for 2018 (weighted by 2017 enrollment) increased to 3.62 from 3.55 a year earlier (Centers for Medicare & Medicaid Services 2017b). About 47 percent of PDP enrollees (based on the 2017 enrollment) are in contracts with 4 or more stars. Among MA-PDs offered for 2018, the average star rating (for Part D metrics) remained stable at about 4. (See Chapter 13 for a discussion of star ratings for MA plans and MA-PDs.) Seventy-three percent of MA-PD enrollees are in contracts with 4 or more stars.

Star ratings could provide useful information when enrollees are choosing among plan options with similar costs or when plan sponsors are evaluating certain areas for improvement. However, none of the beneficiaries who participated in the Commission's focus groups mentioned using the Medicare star ratings as a source of information to choose a health plan (Summer et al. 2017). The Commission supports the use of quality measurements that are patient oriented, encourage coordination across providers, and promote positive change in the delivery system. Because the provision of prescription drug services is different from the provision of medical services, quality measures currently used for Part D may not help beneficiaries make informed choices among plan options.

For example, all three intermediate outcome measures rate plans based on member adherence to select classes of medications. Because outcome measures are weighted more heavily than patient access and process measures, the three adherence measures have a disproportionate impact on plan ratings. However, for prospective enrollees, the medication adherence of current members may not be an important factor when choosing among plan options. Additionally, plans may not be in the best position to assess whether the prescribed medications were clinically appropriate. At the same time, measuring plans on member adherence to medications could encourage plans to structure benefits in a way to provide better access. In the future, we plan to look into the characteristics of quality measures that reflect plan performance in a way that is meaningful for beneficiaries when they compare their plan options.

### **Medication therapy management programs**

Part D plans are required to implement MTM programs to improve the quality of pharmaceutical care for beneficiaries who are at risk for adverse drug events, including adverse drug interactions. These programs are intended to optimize therapeutic outcomes and reduce adverse drug events through improved medication use among beneficiaries who have multiple chronic conditions, take multiple medications, and are likely to have annual drug spending that exceeds the annual cost threshold for MTM (\$3,967 for 2018). Our earlier review of MTM programs revealed wide variations in eligibility criteria and the kinds of interventions provided to enrollees (Medicare Payment Advisory Commission 2009).

Plan sponsors are required to enroll, with opt-out provisions, all eligible enrollees in their MTM programs. At a minimum, MTM programs must offer a comprehensive medication review (CMR) at least annually and a targeted medication review (TMR) at least quarterly for ongoing monitoring and follow-up of any medication-related issues.<sup>36</sup> CMS has changed the criteria for plans' MTM programs over time to broaden eligibility. Currently, plan sponsors can no longer set narrower eligibility criteria than requiring beneficiaries to have more than three chronic conditions or use more than eight medications (Centers for Medicare & Medicaid Services 2017h).

While there continues to be variation across MTM program characteristics and eligibility criteria, trends in eligibility and participation have moved upward (Centers

for Medicare & Medicaid Services 2017a). For example, in 2015, nearly 13 percent of Part D enrollees were eligible for MTM services, up from 12.4 percent in 2013 (Centers for Medicare & Medicaid Services 2017d). The share of MTM program enrollees receiving a CMR increased from about 13 percent (about 2 percent of Part D enrollees) in 2013 to over 25 percent (about 3 percent of Part D enrollees) in 2015.

In focus groups convened for the Commission during 2017, the physicians we spoke with were more aware of medication management conducted by the plans, particularly the CMRs, compared with previous years (Summer et al. 2017). Some physicians reported receiving notices stemming from CMRs. A couple of primary care doctors gave examples of cases in which an insurer had caught polypharmacy problems. Multiple physicians talked about the importance of care coordinators for medication reconciliation after a hospital stay.

At the same time, we continue to be concerned that sponsors of stand-alone PDPs do not have financial incentives to engage in MTM or other activities that, for example, increase adherence to appropriate medications. CMS's analysis of the MTM data consistently finds PDPs to be lagging behind MA-PDs in terms of the rate CMRs are provided to MTM enrollees. Further, the effectiveness

of the current MTM services in improving the quality of overall patient care is unclear and may, according to CMS, “fall short of their potential to improve quality and reduce unnecessary medical expenditures” (Centers for Medicare & Medicaid Services 2015b, Marrufo et al. 2013).

In 2015, CMS announced its intent to implement an enhanced MTM model to test whether payment incentives and greater regulatory flexibility in designing MTM programs will “achieve better alignment of PDP sponsor and government financial interests, while also creating incentives for robust investment and innovation in better MTM targeting and interventions” (Center for Medicare & Medicaid Innovation 2015). Six Part D sponsors operating PDPs in five regions of the country are participating in the enhanced MTM model over a five-year period that began on January 1, 2017 (Medicare Payment Advisory Commission 2017c). Regulatory flexibility combined with financial incentives provided under the model have the potential to address some of the Commission's concerns regarding coordination with a beneficiary's care team and plans' incentive to offer MTM programs (Medicare Payment Advisory Commission 2014). We will continue to monitor how well the current MTM program is working and report on the new enhanced MTM model as more information becomes available. ■

## Endnotes

---

- 1 The prescription drug coverage that beneficiaries had before 2006 may not have been as generous as the Part D benefit. Since 2006, 88 percent of beneficiaries have had drug coverage that is as generous as Part D's basic benefit.
- 2 Table II.B.1 of the Medicare Trustees' 2017 report lists Part D expenditures for 2016 as \$99.5 billion (Boards of Trustees 2017). That larger amount includes reconciliation payments made during 2016 between Medicare and plan sponsors for benefits delivered in previous years.
- 3 In 2018, the Part D benefit provides gap coverage of 15 percent for brand-name drugs, in addition to a 50 percent discount provided by drug manufacturers, reducing cost sharing in the gap to about 35 percent (Centers for Medicare & Medicaid Services 2017c). Cost sharing for brand-name drugs depends on the dispensing fee charged since the 15 percent covered by Part D applies to both the ingredient cost and the dispensing fee, while the 50 percent manufacturer discount applies only to ingredient costs.
- 4 Beneficiaries' level of drug spending at the OOP threshold depends on the mix of brand-name and generic prescriptions they fill in the coverage gap. CMS estimates that for a non-LIS enrollee with an average mix of drugs and no supplemental coverage, the amount would be \$8,417.60.
- 5 Even though enrollees will no longer see a coverage gap as of 2020, Medicare will continue to track the range of spending at which the coverage gap would otherwise apply, and manufacturers will continue to provide a discount.
- 6 The goal of CMS's meaningful difference policy is to help beneficiaries distinguish among plan options more clearly. To be considered meaningfully different for 2018, a beneficiary's expected OOP costs between basic and enhanced plans must differ by at least \$20 per month. If a sponsor is offering two enhanced PDPs in the same service area, the second plan must have a higher value than the first, with an OOP difference of at least \$37 per month. Some plan sponsors have criticized the meaningful difference policy as one that restricts choice because it prevents sponsors from offering additional plan options. CMS has proposed removing meaningful-difference requirements in 2019 when plan sponsors offer two enhanced plans. However, the requirement would remain in place to distinguish between basic and enhanced plans (Centers for Medicare & Medicaid Services 2017g).
- 7 CMS's de minimus policy (codified under Section 3303(a) of PPACA) allows plan sponsors to voluntarily waive the portion of the monthly adjusted basic beneficiary premium that is above the low-income subsidy benchmark for a subsidy-eligible individual, up to a de minimus amount. The de minimus amount for 2018 is \$2.
- 8 If an employer agrees to provide primary drug coverage to retirees with an average benefit value equal to or greater than Part D (called "creditable coverage"), Medicare provides a tax-free subsidy to the employer for 28 percent of each eligible retiree's drug costs that fall within a specified range of spending. Under PPACA, employers still receive the RDS tax free, but as of 2013, they can no longer deduct drug expenses for which they receive the subsidy as a cost of doing business. However, they can still deduct prescription drug expenses not covered by the subsidy.
- 9 Other sources of creditable coverage include the Federal Employees' Health Benefits Program, TRICARE for Life, and the Department of Veterans Affairs.
- 10 EGWPs are Part D plans sponsored by employers that contract directly with CMS or with an insurer or a pharmacy benefit manager to administer a drug benefit on the employer's behalf. EGWPs differ from employer plans that receive the RDS in that they are considered Part D plans; that is, Medicare Part D is the primary payer rather than the employer. However, unlike other Part D plans, EGWPs are offered only to Medicare-eligible retirees of a particular employer (i.e., the requirement that anyone be allowed to enroll in such a plan is waived).
- 11 Under the MA payment system, a portion of the difference between the plan's benchmark payment and its bid for providing Part A and Part B services is referred to as *MA rebate dollars*. The rebate dollars can be used to supplement benefits or lower premiums for services provided under MA or Part D.
- 12 MA-PD premiums reflect Medicare Advantage plans' total monthly premium attributable to Part D benefits for plans that offer Part D coverage. The premiums are net of Part C rebate dollars that were used to offset Part D premium costs.
- 13 Most MA plans are MA-PDs, offering combined medical and outpatient drug benefits. However, a small share of MA plans (including Medicare Medical Savings Account plans) do not offer prescription drug coverage.
- 14 That number includes 14 plans that had premiums within \$2 of their regional LIS threshold. The plan sponsors chose to waive the "de minimus" premium amount so that LIS enrollees would pay no premium in those plans.



- 15 About half of LIS enrollees who paid a premium in 2017 were in enhanced plans (Cubanski et al. 2017).
- 16 CVS Health has announced that it plans to purchase Aetna, pending a federal antitrust review (Small 2017).
- 17 Some specialty drugs fall under a health plan's *medical* benefit—typically because they are administered by a provider. For example, a patient undergoing chemotherapy might receive regular infusions in a physician's office or hospital outpatient department while monitored by a provider. In Medicare, that type of drug would be reimbursed under Part B because it would be related to clinical services. Other specialty drugs that can be self-administered are usually reimbursed under outpatient pharmacy benefits, and in Medicare, those drugs generally fall under Part D. There are some exceptions, however. For example, as some older chemotherapy drugs became available in oral form, the Congress decided to cover under Part B oral chemotherapy and antiemetic drugs that are exact replacements for covered infusible drugs.
- 18 Some pharmacies choose not to contract with certain plans because they do not like the terms and conditions the plans offer. Plan sponsors are not obligated to cover prescriptions at an out-of-network pharmacy, except under certain circumstances.
- 19 Critics contend that the way in which plan sponsors and their PBMs calculate pharmacy DIR fees is not transparent and that plan sponsors ignore or understate DIR fees when preparing Part D bids, leading to enrollee premiums that are too high (National Community Pharmacists Association 2016). PBMs and sponsors that support the use of pharmacy DIR fees counter that they are a means to encourage greater use of generics and reduce enrollees' premiums and OOP spending (Holtz-Eakin 2014). To the extent that beneficiaries select plans with tiered networks and use preferred pharmacies that are more efficient, the approach may also lower Medicare spending (Kaczmarek et al. 2013).
- 20 Part D enrollees may apply to bona fide independent charity patient assistance programs (PAPs) for help with cost sharing. Pharmaceutical manufacturers can provide cash donations to independent charity PAPs without invoking anti-kickback concerns if the charity is structured properly. Guidance from the Department of Health and Human Services Office of Inspector General states that independent charity PAPs must provide assistance to broad rather than narrow disease groups, manufacturers must not exert direct or indirect control over the charity, and the PAP must not limit assistance to a subset of available products (Office of Inspector General 2014). The Internal Revenue Service is investigating the relationship between certain patient assistance charities and several major pharmaceutical manufacturers (Sagonowsky 2017).
- 21 The growing dollar amounts of those fees, their retrospective nature, and the criteria plan sponsors use for setting performance-based fees have led to criticism from independent specialty pharmacies (Seeking Alpha 2016).
- 22 IQVIA Institute (formerly IMS) defines invoice prices as the amounts paid to distributors by their pharmacy or hospital customers, which is different from gross spending reflected in Part D's prescription drug event data (total payments to pharmacies before accounting for any rebates or discounts pharmacies retain). Net prices measure the amount received by pharmaceutical manufacturers and therefore reflect rebates, off-invoice discounts, and other price concessions made by manufacturers to distributors, health plans, and intermediaries.
- 23 An individual NDC uniquely identifies the drug's labeler, drug, dosage form, strength, and package size.
- 24 For this index, Acumen grouped NDCs that are pharmaceutically identical, aggregating prices across drug trade names, manufacturers, and package sizes. As a result, brand-name drugs are grouped with their generics if they exist, and the median price more closely reflects the degree to which market share has moved between the two.
- 25 Although there is no consistent definition of specialty drugs, they tend to be characterized as high cost and are used to treat a rare condition, require special handling, use a limited distribution network, or require ongoing clinical assessment. Most biologics are a subset of specialty drugs (*American Journal of Managed Care* 2013).
- 26 These figures are based on the Acumen analysis for the Commission of Part D prescription drug event data. Most plans use specialty tiers for drugs and biologic products. Beginning in 2007, CMS began setting a cost threshold per month (\$670 in 2017) for drugs that may be placed on a specialty tier. A specialty-tier drug is different from a specialty drug in that it is identified based on its placement on a plan's specialty tier and varies across plans. Typically, plans charge enrollees coinsurance of 25 percent to 33 percent for drugs placed on specialty tiers.
- 27 For benefits delivered in 2014 and 2015, the majority of the plan sponsors received additional individual reinsurance payments from Medicare at reconciliation, much of which was because of higher than anticipated spending on new hepatitis C therapies and continued growth in costs of specialty drugs (Boards of Trustees 2016). Even with that unexpectedly higher spending, most plan sponsors made risk-corridor payments to Medicare.
- 28 The Patient Protection and Affordable Care Act of 2010 changed the tax treatment of Medicare's retiree drug subsidy

and made the Part D benefit more generous by gradually closing the coverage gap. To close the gap, the law called for (1) a 50 percent manufacturer discount on brand-name drugs filled during the coverage gap; (2) a gradual reduction in cost sharing during the coverage-gap phase; and (3) slower increases to Part D's OOP threshold over the 2014 to 2019 period. These changes likely motivated many employers that had previously provided primary drug coverage to former workers to set up Part D employer group waiver plans for their retirees.

- 29 For example, biosimilars to Humira—AbbVie's treatment for rheumatoid arthritis and other autoimmune diseases—have been among the most widely anticipated. The FDA approved two biosimilars to Humira (Amjevita and Cyltezo), but as of January 2017, neither had entered the market. Even though AbbVie's main patent on the composition of Humira expired in 2016, the company holds more than 70 newer patents covering formulations and uses as well as manufacturing processes (Pollack 2016). In September 2017, AbbVie signed a settlement agreement with Amgen, maker of Amjevita, to delay the biosimilar's U.S. launch until 2023 (Sagonowsky 2017). When reverse payments are used to delay market entry of a generic, manufacturers must report the settlement agreement to the Federal Trade Commission and may be subject to antitrust litigation. However, no such reporting requirements exist for settlement agreements between manufacturers of originator biologics and biosimilars licensed under the Biologics Price Competition and Innovation Act (Richardson 2013).
- 30 Originator biologics can also experience differences in their molecular structures—for example, batch to batch variation when the manufacturer makes changes to its production line.
- 31 Specifically, the law excludes products licensed under Section 351(k) of the Public Health Services Act, which is the main abbreviated approval pathway for biosimilars.
- 32 For most LIS enrollees, Part D's low-income cost-sharing subsidy fills in the coverage gap. For this reason, LIS enrollees do not receive coverage-gap discounts. In 2020,

when the coverage gap is fully phased out, plans will pay 75 percent for all drugs and biologics filled by LIS enrollees in the coverage gap. By comparison, for the other Part D enrollees, plans will be responsible for paying only 25 percent of the price of brand-name prescriptions in the coverage-gap phase, but 75 percent for biosimilars and generics.

- 33 The transition fill is a temporary one-time supply provided within the first 90 days of coverage in a new plan or the new contract year for existing enrollees. Each year since 2012, CMS has conducted a transition monitoring program analysis to evaluate whether plan sponsors are following Part D transition requirements. In 2016, 6 percent of Part D contracts exceeded CMS's thresholds of noncompliance (Centers for Medicare & Medicaid Services 2016e).
- 34 Sponsors are not required to report all rejections, but must report rejections associated with nonformulary claims, prior authorizations, step therapy, quantity limits, and certain high-cost edits. The plan-reported and IRE data are incomplete and should be interpreted with caution. Not all Part D plan data must be reported, and some that are reported do not pass data validation requirements. See online Appendix 14-B, available at <http://www.medpac.gov>, for more detail.
- 35 The exception is New York, which mandates electronic prescribing.
- 36 CMRs must include an interactive person-to-person or telehealth consultation performed by a pharmacist or other qualified provider and a written summary of the review that includes a medication list and action plan, if any, provided to beneficiaries in CMS's standardized format. A TMR is distinct from a CMR because it is focused on specific medication-related problems, actual or potential. A TMR can be conducted person to person or be system generated, and interventions can be delivered by mail or faxed to the beneficiary or the prescriber, as appropriate (Centers for Medicare & Medicaid Services 2014a).

## References

---

- Alpern, J. D., W. M. Stauffer, and A. S. Kesselheim. 2014. High-cost generic drugs—Implications for patients and policymakers. *New England Journal of Medicine* 371, no. 20 (November 13): 1859–1862.
- American Journal of Managed Care. 2013. The growing cost of specialty pharmacy: Is it sustainable? Published online February 18. <http://www.ajmc.com/payer-perspectives/0213/The-Growing-Cost-of-Specialty-PharmacyIs-it-Sustainable#sthash.JGUiDV3K.dpuf>.
- American Medical Association. 2015. *Prior authorization: The current landscape*. Chicago, IL: AMA.
- Barnhart, A., and J. Gomberg. 2016. *The AIDS Institute: Financial incentives in Medicare Part D*. Brookfield, WI: Milliman.
- Blair, W., and C. Cox. 2016. Current landscape of antiviral drug discovery. *F1000Research* 5 (February 22): 1–7.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2017. *2017 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2016. *2016 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Insurance Trust Funds*. Washington, DC: Boards of Trustees.
- Cahn, L. 2017. Hey, Amazon: As a pharmacy benefit manager, you could create real competition for drug prices. *STAT*, November 15.
- Center for Medicare & Medicaid Innovation, Department of Health and Human Services. 2015. Announcement of Part D Enhanced Medication Therapy Management Model Test. <https://innovation.cms.gov/Files/x/mtm-announcement.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017a. 2017 Medicare Part D medication therapy management (MTM) programs. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/CY2017-MTM-Fact-Sheet.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017b. *2018 Part C and D plan ratings*. Fact sheet. Baltimore, MD: CMS. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/PerformanceData.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017c. Advance notice of methodological changes for calendar year (CY) 2018 for Medicare Advantage capitation rates, Part C and Part D payment policies and 2018 call letter. February 1. <https://www.cms.gov/medicare/health-plans/medicareadvtspecratestats/downloads/advance2018.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017d. *Analysis of calendar year 2015 Medicare Part D reporting requirements data*. Baltimore, MD: CMS.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017e. *Medicare 2018 Part C & D star rating technical notes*. September 28. Baltimore, MD: CMS. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/PerformanceData.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017f. Medicare Part D: Direct and indirect remuneration (DIR). Press release. January 19. <https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2017-Fact-Sheet-items/2017-01-19-2.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017g. Medicare program; contract year 2019 policy and technical changes to the Medicare Advantage, Medicare cost plan, Medicare fee-for-service, the Medicare prescription drug benefit programs, and the PACE Program. Proposed rule. *Federal Register* 82, no. 227 (November 28): 56336–56527.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017h. Medication therapy management. <https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/MTM.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017i. Part C and Part D enforcement actions. <https://www.cms.gov/Medicare/Compliance-and-Audits/Part-C-and-Part-D-Compliance-and-Audits/PartCandPartDENforcementActions-.html>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016a. 2014 Part D rebate summary for all brand-name drugs. [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Information-on-Prescription-Drugs/2014\\_PartD\\_Rebates.html](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Information-on-Prescription-Drugs/2014_PartD_Rebates.html).

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016b. Advance notice of methodological changes for calendar year (CY) 2017 for Medicare Advantage capitation rates, Part C and Part D payment policies and 2017 call letter. <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Advance2017.pdf>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016c. Announcement of calendar year (CY) 2017 Medicare Advantage capitation rates and Medicare Advantage and Part D payment policies and final call letter. <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2017.pdf>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016d. Civil money enforcement actions for 2015 program audits. [https://www.cms.gov/Medicare/Compliance-and-Audits/Part-C-and-Part-D-Compliance-and-Audits/Downloads/HPMS\\_Memo-2015\\_Program\\_Audit\\_CMPs.pdf](https://www.cms.gov/Medicare/Compliance-and-Audits/Part-C-and-Part-D-Compliance-and-Audits/Downloads/HPMS_Memo-2015_Program_Audit_CMPs.pdf).

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016e. Memo to all Medicare Part D sponsors regarding the Part D transition monitoring program, December 29.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015a. Announcement of calendar year (CY) 2016 Medicare Advantage capitation rates and Medicare Advantage and Part D payment policies and final call letter. Note from Sean Cavanaugh, Deputy Administrator, Centers for Medicare & Medicaid Services, and Jennifer Lazio, Director, Parts C & D Actuarial Group, Office of the Actuary, to Medicare Advantage organizations, prescription drug plan sponsors, and other interested parties, April 6. <http://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2016.pdf>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015b. Part D Enhanced Medication Therapy Management Model fact sheet. <https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2015-Fact-sheets-items/2015-09-28.html>.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014a. CY 2015 Medication Therapy Management Program guidance and submission instructions. Memo from Jennifer R. Shapiro, MPH, Acting Deputy Director, Medicare Drug Benefit and C & D Data Group. May 7.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014b. Medicare program; contract year 2015 policy and technical changes to the Medicare Advantage and the Medicare prescription drug benefit programs. Proposed rule. *Federal Register* 79, no. 7 (January 10): 1918–2073.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2011. *Prescription Drug Benefit Manual. Chapter 5: Benefits and beneficiary protections*. Baltimore, MD: CMS. [http://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/MemoPDBManualChapter5\\_093011.pdf](http://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/MemoPDBManualChapter5_093011.pdf).

Credit Suisse. 2015. Global pharma. Equity research. May 1. [https://doc.research-and-analytics.csfb.com/docView?language=ENG&format=PDF&source\\_id=csplusrsearchcp&document\\_id=1047911451&serialid=hfXhzuK6sK6xRrBsMZZLqZ96QT17v2YM0kkwWJRGRVU%3D](https://doc.research-and-analytics.csfb.com/docView?language=ENG&format=PDF&source_id=csplusrsearchcp&document_id=1047911451&serialid=hfXhzuK6sK6xRrBsMZZLqZ96QT17v2YM0kkwWJRGRVU%3D).

Cubanski, J., A. Damico, J. Hoadley, et al. 2017. *Medicare Part D: A first look at prescription drug plans in 2018*. Issue brief. Washington, DC: Kaiser Family Foundation.

Dave, C. V., A. S. Kesselheim, E. R. Fox, et al. 2017. High generic drug prices and market competition: A retrospective cohort study. *Annals of Internal Medicine* 167, no. 3 (August 1): 145–151.

EvaluatePharma. 2017. *World preview 2017, outlook to 2022*. London: EvaluatePharma. <http://www.evaluategroup.com/public/reports/EvaluatePharma-World-Preview-2017.aspx>.

Fein, A. 2017a. McKesson's profit shortfall: How wholesalers benefit from rising drug list prices. *Drug Channels* blog. January 26. <http://www.drugchannels.net/2017/12/the-cvs-aetna-deal-five-industry-and.html#more>.

Fein, A. 2017b. The CVS-Aetna deal: Five industry and drug channel implications. *Drug Channels* blog. December 5. <http://www.drugchannels.net/2017/12/the-cvs-aetna-deal-five-industry-and.html#more>.

Fein, A. 2016. Behind Diplomat Pharmacy's plunge: A primer on DIR fees in Medicare Part D. *Drug Channels* blog. November 8. <http://www.drugchannels.net/2016/11/behind-diplomat-pharmacys-plunge-primer.html>.



- Frey, P. 2017. CDER new drugs program: 2017 update. Presentation during the Food and Drug Administration/Centers for Medicare & Medicaid Services Summit, December 5. <https://www.fda.gov/downloads/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/UCM587690.pdf>.
- Government Accountability Office. 2016. *Generic drugs under Medicare: Part D generic drug prices declined overall, but some had extraordinary price increases*. GAO-16-706. Washington, DC: GAO.
- Hartman, M., A. B. Martin, N. Espinosa, et al. 2018. National health care spending in 2016: Spending and enrollment growth slow after initial coverage expansions. *Health Affairs* 37, no. 1 (January): 150–160.
- Healthcare Leadership Council. 2017. New survey: Nearly 9 in 10 seniors satisfied with Medicare Part D. <https://www.hlc.org/news/new-national-survey-nearly-9-in-10-seniors-satisfied-with-medicare-part-d/>.
- Healthcare Leadership Council. 2015. Nearly nine of 10 seniors satisfied with Medicare Part D prescription drug coverage, national survey finds. <https://www.hlc.org/news/nearly-nine-of-10-seniors-satisfied-with-medicare-part-d-prescription-drug-coverage-national-survey-finds/>.
- Holtz-Eakin, D. 2014. CMS is at it again . . . increasing Rx costs for seniors. American Action Forum Insight. <https://www.americanactionforum.org/insight/cms-is-at-it-again-increasing-rx-costs-for-seniors/#ixzz4TftJKC4m>.
- Indianapolis Business Journal. 2016. Analysis: Diabetes drug price war likely to claim more casualties. September 30. <http://www.ibj.com/articles/60623-analysis-diabetes-drug-price-war-likely-to-claim-more-casualties>.
- IQVIA Institute for Human Data Science. 2017. *Medicines use and spending in the U.S.* Parsippany, NJ: IQVIA.
- Kaczmarek, S. 2015. Pharmacy manufacturer rebate negotiation strategies: A common ground for a common purpose. <http://www.milliman.com/insight/2015/Pharmacy-manufacturer-rebate-negotiation-strategies-A-common-ground-for-a-common-purpose/>.
- Kaczmarek, S., A. Sheldon, and D. Liner. 2013. *The impact of preferred pharmacy networks on federal Medicare Part D costs, 2014–2023*. Windsor, CT: Milliman.
- Liu, D. L., Centers for Medicare & Medicaid Services, Office of the Actuary. 2017. Personal e-mail communication with author, December 8.
- Loftus, P. 2017. Prescription-drug shortages help push up prices of similar drugs. *Wall Street Journal*, April 12.
- Lopez, L. 2016. These companies you’ve never heard of are about to incite another massive drug price outrage. *Business Insider*, September 12.
- Lyons, K., Centers for Medicare & Medicaid Services, Office of the Actuary. 2017. Personal e-mail communication with author, December 11.
- Maggs, L., and A. Kesselheim. 2014. The short-term and long-term outlook of drug coupons. *Health Affairs* blog, November 12. <http://healthaffairs.org/blog/2014/11/12/the-short-term-and-long-term-outlook-of-drug-coupons/>.
- Marrugo, G., A. Dixit, D. Perlroth, et al. 2013. *Medication therapy management in a chronically ill population: Interim report*. Prepared for the Centers for Medicare & Medicaid Services by Acumen LLC. Contract no. HHSM-500-2011-00012I/TOT0001. Baltimore, MD: CMS.
- Medicare Payment Advisory Commission. 2017a. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2017b. *Payment basics: Part D payment system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2017c. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2015. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2014. Letter to Ms. Marilyn Tavenner, Administrator, Centers for Medicare & Medicaid Services, regarding request for comments on the “Medicare program; contract year 2015 policy and technical changes to the Medicare Advantage and the Medicare prescription drug benefit programs, proposed rule.” February 28.
- Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Rights Center. 2016. Comments to CMS on the 2017 advance call letter, March 4.

National Community Pharmacists Association. 2016. Letter to Dr. Francis Crosson, Chair, Medicare Payment Advisory Commission, regarding Medicare Part D considerations for March 3–4, 2016, MedPAC meeting. February 29.

Office of Inspector General, Department of Health and Human Services. 2017. *High-price drugs are increasing federal payments for Medicare Part D catastrophic coverage*. Washington, DC: OIG.

Office of Inspector General, Department of Health and Human Services. 2014. Supplemental special advisory bulletin: Independent charity patient assistance programs. *Federal Register* 79, no. 104 (May 30): 31120–31123.

Pharmacy Benefit Management Institute. 2017. *Trends in drug benefit design*. Plano, TX: PBMI. <http://www.pbmi.com/PBMI/Research/Store/BDR.aspx>.

Pollack, A. 2016. Makers of Humira and Enbrel using new drug patents to delay generic versions. *New York Times*, July 15.

Richardson, E. 2013. *Biosimilars*. Health policy brief. Washington, DC: *Health Affairs*/Robert Wood Johnson Foundation.

Sagonowsky, E. 2017. IRS investigates patient charity as a possible ‘conduit’ for Big Pharma sales. *Fierce Pharma*, June 29. <https://www.fiercepharma.com/pharma/irs-probes-whether-patient-charity-acted-as-a-conduit-for-big-pharma>.

Seeking Alpha. 2016. Diplomat Pharmacy’s (DPLO) CEO Phil Hagerman on Q3 2016 results: Earnings call transcript. <http://seekingalpha.com/article/4018624-diplomat-pharmacys-dplo-ceo-phil-hagerman-q3-2016-results-earnings-call-transcript>.

Sell, D. 2015. Expect higher prices for generic drugs, says drug wholesaler. *Philadelphia Inquirer*, September 17.

Small, L. 2017. 5 things to know about the CVS-Aetna deal. *Fierce Healthcare*, December 4. <https://www.fiercehealthcare.com/payer/5-things-to-know-about-cvs-aetna-deal>.

Summer, L., E. Hargrave, M. Hertel, et al. 2017. *Final report: Beneficiary and provider perspectives on Medicare and other issues: Findings from 2017 focus groups in Richmond, Seattle, and Indianapolis*. Study conducted by staff from NORC at the University of Chicago for the Medicare Payment Advisory Commission. Washington, DC: MedPAC.

Thomas, K. 2016. 20 states accuse generic drug companies of price fixing. *New York Times*, December 15.



C H A P T E R

# 15

---

**Moving beyond the  
Merit-based Incentive  
Payment System**

---

## R E C O M M E N D A T I O N

**15** The Congress should:

- eliminate the current Merit-based Incentive Payment System; and
- establish a new voluntary value program in fee-for-service Medicare in which:
  - clinicians can elect to be measured as part of a voluntary group; and
  - clinicians in voluntary groups can qualify for a value payment based on their group's performance on a set of population-based measures.

**COMMISSIONER VOTES: YES 14 • NO 2 • NOT VOTING 0 • ABSENT 1**

## Moving beyond the Merit-based Incentive Payment System

### Chapter summary

Recognizing that an enacted public policy is not fulfilling its intended goals and therefore calling for its elimination is complex and must be carefully considered. For example, the sustainable growth rate (SGR) system, which was intended to limit growth in Medicare fee schedule spending to a formula based on gross domestic product, started in 1999, was repeatedly overridden by the Congress between 2003 to 2014 and was not eliminated until the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA). The Commission supports the elements of MACRA that repealed the SGR and encouraged comprehensive, patient-centered care delivery models such as advanced alternative payment models (A-APMs).

Notwithstanding that specific support, the Commission has concluded that one part of MACRA, the Merit-based Incentive Payment System (MIPS), will not fulfill its goals and therefore should be eliminated. The Commission did not reach this conclusion hastily. We first examined options for improving MIPS as it was implemented, and we provided constructive feedback as CMS established rules for the first two years of the program (Medicare Payment Advisory Commission 2017a, Medicare Payment Advisory Commission 2016a, Medicare Payment Advisory Commission 2016b). However, as we continued to explore the issue in a deliberative process laid out in several Commission reports to the Congress, we determined that, from the Commission's perspective, the basic design of MIPS is fundamentally

### In this chapter

- MIPS will not be successful
- MIPS should be eliminated
- A new direction for rewarding clinician quality: A voluntary value program
- Conclusion and recommendation
- Appendix: Design elements for a voluntary value program: An illustrative model

incompatible with the goals of a beneficiary-focused approach to quality measurement (Medicare Payment Advisory Commission 2017b, Medicare Payment Advisory Commission 2016c).

The basic design principle of MIPS is that clinician quality of care and payment adjustments for quality can and should be determined primarily at the individual clinician level, based on measures that clinicians themselves choose to report. But a system built on this design will be inequitable because clinicians will be evaluated and compared on dissimilar measures. In addition, many clinicians will not be evaluated at all because, as individuals, they will not have a sufficient number of cases for statistically reliable scores. (In fact, CMS estimates that over half of clinicians will be exempt from MIPS reporting and payment adjustments.) Further, the design is at odds with the fact that quality outcomes for patients—the principal objective of any value improvement program—are determined primarily through the combined efforts of many providers rather than by the actions of any one clinician.

It is this underlying conception of how best to improve quality that is most essential. It is a core Commission principle for value-based purchasing programs that clinical outcomes, patient experience, and cost must be evaluated together and that these measures are dependent on the totality of the delivery system that produces them. It can be difficult to put this principle in operation given the uncoordinated nature of fee-for-service (FFS) payment, but it can be done. However, MIPS, by design, does not satisfy this principle. The Commission believes that the MIPS program impedes the movement toward high-value care. MIPS will not succeed in helping beneficiaries choose clinicians, in helping clinicians collectively change practice patterns to improve value, or in helping the Medicare program to reward clinicians based on value.

Much of the design of MIPS is based on predecessor Medicare programs that have generally not been successful at improving population outcomes or substantively improving care processes. In addition:

- MIPS imposes a significant reporting burden on clinicians (estimated by CMS as over \$1.3 billion in the first year).
- MIPS scores are not comparable among clinicians because each clinician's composite MIPS score will reflect a mix of different, self-chosen, measures.
- MIPS is complex and inequitable, with different rules for clinicians depending on location, practice size, and other factors; it exempts more clinicians than will participate.

- MIPS-based payment adjustments will be small in the first years, providing little incentive, and then arbitrary and possibly very large in the later years, creating significant financial uncertainty for clinicians.

Moreover, MIPS will encourage clinicians to focus on selecting measures on which they expect to do well (rather than focusing on improving patient outcomes) and to remain in traditional FFS in bonus-only payment models that will increase their probability of getting high MIPS scores (instead of joining meaningful A-APMs with both risk and reward).

For these reasons, the Commission recommends that the Congress eliminate the current MIPS program as soon as possible. At the same time, the Commission believes that traditional Medicare FFS payment should have a value-based payment component. Thus, we recommend creating a new clinician value-based purchasing program—a voluntary value program, or VVP—to take its place. The VVP recommendation reflects a conceptual direction (not yet a detailed design) for rewarding clinician quality in Medicare FFS according to the core quality principle developed by the Commission; however, we are prepared to engage in a more detailed development of a VVP should the Congress pursue these recommendations.

Some have argued that a new program such as MIPS should be given a chance to succeed and that clinicians and CMS have already invested considerable resources in preparing for it. However, the Commission believes that MIPS cannot succeed in meeting the goal of reliably measuring and rewarding clinician quality, in part because it is based on predecessor Medicare clinician incentive systems and measures that did not work in the past and are not likely to work in the future. MIPS will continue to consume limited CMS and clinician time and resources, and the burden of MIPS will outweigh its value to Medicare beneficiaries, the Medicare program, and clinicians. Progress in a more useful direction is feasible. MIPS should be eliminated, and a VVP should be established to encourage clinicians to move in a more productive direction. ■





---

## Background

---

From 1999 to 2015, payment updates under Medicare’s physician fee schedule were governed by the sustainable growth rate (SGR) system, which set updates so that total spending would not increase faster than a target—a function of input costs, fee-for-service (FFS) enrollment, gross domestic product (GDP), and changes in law and regulation. Because annual spending generally exceeded these SGR parameters, payments to clinicians were scheduled to be reduced by ever-growing amounts starting in 2002. The Congress overrode these negative cuts in all but the first year they were scheduled.

Because of these overrides and volume growing in excess of per capita GDP, the resulting potential update reduction grew to a scheduled 21 percent in 2015, carrying with it a significant budgetary cost of either a continued override or repeal. The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) repealed the SGR system and created a fixed set of statutory updates for clinicians, which relieved the uncertainty clinicians faced under the SGR system.

MACRA also created two new policies—an incentive payment for qualifying participants in advanced alternative payment models (A-APMs) and the Merit-based Incentive Payment System (MIPS). CMS refers to these two programs collectively as the Quality Payment Program (QPP).

MACRA’s incentive payments for clinicians participating in A-APMs were intended to encourage clinicians to move toward these models. A-APMs generally require participating entities to assume financial risk for their patients, which creates incentives for providers to improve care coordination and quality while controlling cost growth.<sup>1</sup> The Commission generally supports this and other elements of MACRA designed to move toward comprehensive, patient-centered care delivery models.

Under the QPP, clinicians remaining in traditional FFS Medicare (i.e., not joining an A-APM) are subject to additional reporting and payment requirements through MIPS. MIPS is a system that calculates individual clinician-level or group-level payment adjustments based on four areas—quality, advancing care information (ACI—or meaningful use of electronic health records), clinical practice improvement activities (CPIA), and cost. In MIPS, CMS assesses clinician performance for the first three MIPS categories using measures that clinicians themselves choose and report (Table 15-1, p. 450). Cost is calculated by

CMS. Performance scores are then used to adjust payments two years later. For example, each clinician (or group) will receive a composite score based on 2017 performance in these four areas (although cost will be weighted at zero), and that score will be used to adjust the clinician’s total Part B revenue for the 2019 payment year.

The Bipartisan Budget Act of 2018 (BBA) made a number of changes to MIPS, including continued flexibility for CMS to set performance thresholds and adjust weights for the first five years of the program. The text below was drafted before the BBA was enacted and so does not reflect those changes.

The upward and downward MIPS payment adjustments are capped but grow over time, starting at  $\pm 4$  percent in 2019 and increasing to  $\pm 9$  percent by 2022. Payment increases may be larger than these percentages due to a scaling factor (to make the basic MIPS adjustments budget neutral) and an exceptional performance bonus. The basic MIPS adjustments are budget neutral, but MACRA also appropriated an additional \$500 million in annual funding for exceptional performance in MIPS.

MIPS repurposes the prior Physician Quality Reporting System (PQRS), physician value-based payment modifier (VM), and meaningful use of electronic health record (EHR) programs into one program. Specifically, the MIPS quality measures are largely the same as those used in PQRS and the VM, and MIPS’s ACI category is substantively similar to the prior EHR meaningful use program (Figure 15-1, p. 451). The Physician Quality Reporting Initiative (PQRI) and the EHR incentive payment programs were positive payment incentive programs. The e-prescribing and PQRS programs were initially payment incentives that became payment penalty programs. EHR meaningful use was a penalty program only. The value-based payment modifier was budget neutral.

---

## MIPS will not be successful

---

A major effort is underway by CMS, clinicians, medical societies, quality improvement organizations, and EHR vendors to fulfill the MIPS requirements. But over the past two years, the Commission has come to the conclusion that MIPS is profoundly flawed. It will not succeed at its stated goals of increasing payment for high-value clinicians or reducing payment for low-value clinicians. Nor will it succeed as an incentive program designed to improve clinician practice patterns. With the sheer

**TABLE  
15-1****MIPS reporting requirements and weights in 2017 and 2018 reporting years**

<b>MIPS category</b>	<b>Required measures</b>	<b>Weight in 2017 (2019 payment year)</b>	<b>Weight in 2018 (2020 payment year)</b>
<b>Quality</b>	6 measures chosen by clinician (from MIPS measure set of approximately 300 items) plus optional patient experience survey for large group practices	60%	50%
<b>ACI</b>	Clinician attestation of 11 to 15 activities done using certified EHR	25	25
<b>CPIA</b>	Clinician attestation of 4 activities (2 activities if certain circumstances apply)	15	15
<b>Cost</b>	Calculated from claims (Medicare spending per beneficiary, total per capita costs (plus 10 episode-based cost measures for 2017 only))	0 (Clinicians will receive feedback, but measures will not be used for payment)	10 (Medicare spending per beneficiary and total per capita costs)

Note: MIPS (Merit-based Incentive Payment System), ACI (advancing care information), CPIA (clinical practice improvement activities), EHR (electronic health record). The ACI category in 2018 includes a set of hardship exemptions, pursuant to the 21st Century Cures Act.

Source: Centers for Medicare & Medicaid Services. Quality Payment Program Year 2 final rule overview. <http://qpp.cms.gov>.

complexity of the system, MIPS will be unlikely to present a true, objective assessment of clinician quality and thus may be worse than no measurement at all. Nevertheless, MIPS will create significant costs for both clinicians and the Medicare program.

Our concerns about MIPS are shared by others. Clinician and provider organizations have requested delays of various MIPS requirements (American Medical Association 2017). Researchers and other observers have echoed the concern that MIPS will not ultimately improve care for beneficiaries (Frakt and Jha 2017, Ginsburg and Patel 2017, McWilliams 2017, Schneider and Hall 2017). With greater specificity below, the Commission concludes that MIPS will not be successful and because of its underlying design cannot be fixed.

### **MIPS replicates flaws of prior value-based purchasing programs in Medicare**

The predecessor programs in Medicare repurposed for MIPS have generally not been successful at improving population outcomes or at substantively improving care processes. For example, two recent studies of the VM (which started applying to very large clinician groups

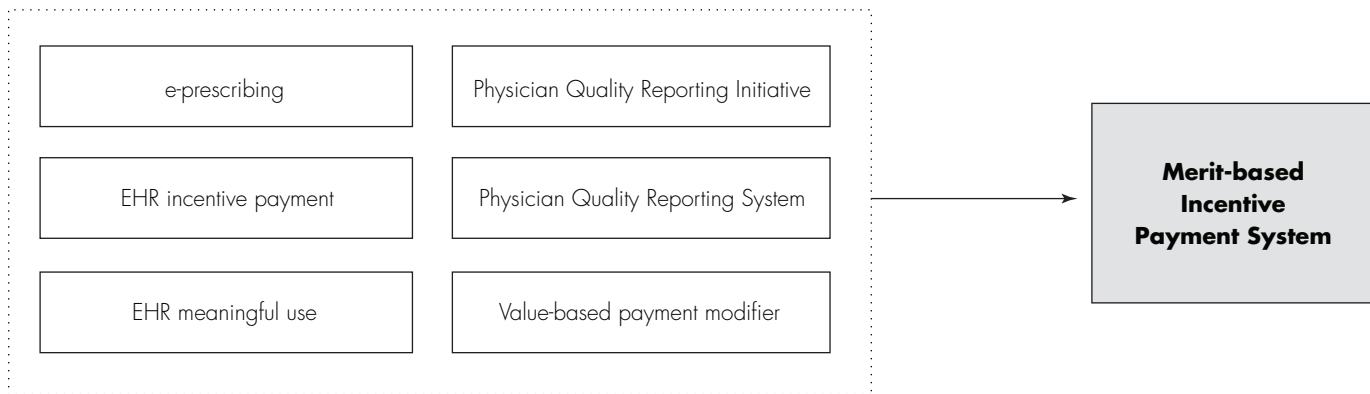
in 2015 and solo clinicians and groups of all sizes in 2017) found that its introduction was not associated with improvements in program measures (Joynt Maddox et al. 2017, Roberts et al. 2017).

A meta-analysis performed under contract to CMS's Office of the National Coordinator for Health Information Technology did not find persuasive evidence that the predecessor EHR meaningful use and EHR incentive payment programs led to quantifiably improved patient outcomes or reduced costs. Positive outcomes, when they occurred, were highly dependent on the type of information technology implemented and its functioning. Studies that evaluated EHR on the basis of efficacy (cost) were the least likely to find positive results (Rahurkar et al. 2015, Shekelle et al. 2014). On this basis, CMS does not assume that the MIPS requirements for clinicians to meet the ACI objectives will result in quantifiable improvements in quality or reductions in cost (Centers for Medicare & Medicaid Services 2017c).

CMS's estimate of clinician compliance costs with these predecessor programs is comparable with the first year of MIPS reporting—on the order of at least a billion dollars per year. But the effect on quality and cost were negligible.

**FIGURE  
15-1**

**Medicare's prior value-based purchasing programs for clinician services**



Note: EHR (electronic health record).

Source: Centers for Medicare & Medicaid Services.

This negligible effect represents a significant outlay of expenditures and clinician time for programs that have not fundamentally improved the quality of care provided to Medicare beneficiaries.

It is unlikely that MIPS can succeed when prior efforts that used the same underlying structure have been unsuccessful. Further, none of the value-based purchasing program designs used in predecessor Medicare programs and repurposed for MIPS have been able to overcome the issue of small numbers of cases for measuring individual clinicians, a perennial issue in value-based purchasing for clinician services because it can make the results at the individual clinician level unreliable.

### **MIPS is burdensome and complex**

MIPS requires clinicians to report multiple quality measures, in addition to attesting to their activity in two categories: ACI and CPIA.<sup>2</sup> Clinicians can report to MIPS using five different reporting tools (plus an optional survey tool).<sup>3</sup>

The burden of this reporting on clinician practices is significant and quantifiable. For 2017, CMS estimated a total cost burden of \$1.3 billion for clinicians (Centers for Medicare & Medicaid Services 2016).<sup>4</sup> For 2018, CMS first estimated a burden of \$857 million and finalized

a burden estimate of \$694 million (primarily because more clinicians will be exempt from MIPS) (Centers for Medicare & Medicaid Services 2017c, Centers for Medicare & Medicaid Services 2016). In other words, in the first two years of the program, clinicians will spend \$2 billion implementing MIPS. And the burden will continue as long as MIPS is in place because it will continue to require substantial clinician reporting. This burden is especially notable because CMS has adopted a phased approach for QPP reporting in 2017 and 2018 that allows clinicians to report minimal amounts of quality, ACI, or CPIA data to avoid a penalty.

The Commission's quality principles hold that quality reporting for the Medicare program should not be burdensome for providers. But all measures used in MIPS for the quality, ACI, and CPIA categories require clinicians to report information to CMS; no data are extracted from claims.

Coupled with the burden for clinicians are the administrative requirements for CMS to collect and validate this information, calculate benchmarks, apply multiple special rules, apply special scoring, combine performance across multiple categories, reweight MIPS categories if necessary, and derive a composite performance score for each of the half a million clinicians subject to a MIPS adjustment each year.

## **MIPS information is unlikely to be meaningful**

The Commission believes that Medicare's value-based purchasing programs should address three areas of concern for the Medicare program: clinical quality, patient experience, and cost/value. The measures should be patient oriented, encourage coordination across providers and over time, and promote change in the delivery system. The measures used in MIPS do not meet these criteria. (The Commission believes that providers may choose to use more granular measures to manage their own quality improvement.)

The measures in MIPS are variable in their clinical appropriateness, their association with meaningful outcomes, and their emphasis on patient experience of care. In the MIPS measure set, only 31 percent of the measures and reporting method combinations are outcome measures, whereas 65 percent are process measures (4 percent are structure or efficiency measures). Many measures (of all types) have compressed performance—of the 403 total MIPS measures and reporting method combinations in 2017, 113 meet CMS's definition of topped-out measures (Centers for Medicare & Medicaid Services 2017a).<sup>5</sup> But because in MIPS every clinician must report at least six measures, CMS has generally been reluctant to remove topped-out measures.

As an example, CMS will address only six topped-out measures in 2018 (by adjusting the scoring for these measures). CMS is proposing a four-year process for removing the remaining 107 topped-out measures from the MIPS measure set. This long time line is meant to avoid disadvantaging certain clinicians who would be reporting these measures. But in the meantime, additional clinicians can elect to report these measures.

In addition to the problem of topped-out measures, 145 of the 403 measure and reporting combinations have no benchmarks at all, meaning that clinician performance on these measures cannot be compared with a baseline performance level (Centers for Medicare & Medicaid Services 2017a). Furthermore, the MIPS measure set does not include many important aspects of quality. For example, the set lacks comprehensive measures assessing low-value care. And while Medicare beneficiaries face a particular vulnerability in transitioning across providers and settings, few quality measures used by the prior Medicare programs (and replicated in MIPS) assess these

transitions (Medicare Payment Advisory Commission 2012).

Finally, the measures that clinicians have been reporting to Medicare do not help patients choose among clinicians. Although CMS has been collecting self-reported quality data from clinicians for over a decade, Medicare's Physician Compare website contains very little quality information available to the public at the individual clinician (or group) level.

For the new category, CPIA, clinicians can choose from a list of 93 activities that clinicians attest to doing to get full credit. Some of the CPIA activities reflect basic standards of care (e.g., training in care coordination) or lack evidence to demonstrate that they will improve quality of care. Some activities also overlap with the quality component of MIPS. For example, one of the activities is participation in the Consumer Assessment of Healthcare Providers and Systems® (CAHPS®) patient experience survey.<sup>6</sup> As a result, clinicians could use some activities to satisfy multiple MIPS requirements. Other activities such as participating in a medical home have mixed evidence on their effectiveness (Friedberg et al. 2014, Schwenk 2014).

## **MIPS performance scores will not be easily interpreted or comparable across clinicians**

CMS will derive composite performance scores for each measure in each category based on the distribution of performance scores only for other clinicians who reported the same measure using the same method (subject to a minimum case size for calculating the benchmark and the performance score). In other words, clinicians who achieve the same performance level on the same quality measure can receive a different score based on the method with which they choose to report (e.g., by means of a registry or EHR). In addition to being inequitable, this design further exacerbates the small-numbers problem for any given measure and adds to the overall complexity of the program. Each clinician will get a composite MIPS score reflecting a mix of different measures because clinicians choose which six measures to report. By construction, the composite quality score will not be comparable across clinicians.

## **MIPS contains many special rules, and a significant share of clinicians are exempt**

CMS has established special rules for how many measures must be reported (and the resulting scoring of those



measures) for the following clinicians and clinician groups:

- participants in certain Center for Medicare & Medicaid Innovation (CMMI) models deemed to be “MIPS Alternative Payment Models (APMs),”<sup>7</sup>
- small practices (15 or fewer clinicians),
- practices in health professional shortage areas,
- non-patient-facing clinicians,
- clinicians in rural areas,
- clinicians practicing primarily in facilities,
- clinicians who report measures without benchmarks, and
- clinicians who report measures below the minimum size threshold.

Separately, CMS has also established policies to increase total performance scores for clinicians:

- with complex patients (measured by both average hierarchical condition category (HCC) score and the share that are dually eligible for both Medicare and Medicaid);
- in rural areas;
- in small practices (15 or fewer clinicians);
- who improve their composite quality or cost performance score over time (which can be achieved by reporting different quality measures each year); and
- who report high-priority quality measures, use certain EHR technology, report to public health agencies or clinical data registries, or are in certain types of medical homes.

While there may be good reasons to consider the issues raised above, we believe that the effect of all of these special rules and performance increases will be a MIPS score that has very little connection to value and is not comparable across clinicians.

In addition, clinicians in certain categories are exempt from MIPS reporting: clinicians in the first year of Medicare participation, clinicians in certain specialties that have been excluded from prior value-based purchasing programs (such as podiatrists), and clinicians meeting a

low-volume threshold. CMS has used this low-volume threshold to exempt a significant share of clinicians from MIPS reporting and payment adjustments altogether. In total, a higher number of Medicare-billing clinicians are exempted in the second year as compared with the first (Table 15-2, p. 454). In other words, some clinicians who would have been required to report in 2017 may no longer be required to report in 2018.

### **MIPS scores will be very high for most clinicians, limiting CMS’s ability to differentiate performance**

Under the current MIPS scoring mechanism, clinicians have an incentive to select quality measures that they believe can maximize their score. Although the details of the scoring methodology vary by year, this maximizing could be accomplished, for example, by reporting topped-out measures, reporting measures through relatively less commonly used reporting methods, or reporting measures with no benchmarks.<sup>8</sup> CMS has also made explicit decisions elsewhere in the program to help clinicians receive very high performance scores. For example:

- For clinicians who report more than six quality measures, CMS will count the six highest-scoring measures.
- For clinicians who could qualify for facility-based scoring, CMS will allow clinicians to see their scores first and then elect whether to use the facility scoring.
- CMS will select the higher of the two scores for participants reporting through two group practices (for example, a clinician billing under two taxpayer identification numbers).
- The MIPS scoring methodology allows points to total over 100 percent in three out of four MIPS categories in 2018 (and CMS will cap each MIPS category score at 100 percent).

### **Low thresholds in the first two years of the program will result in minimal payment adjustments**

Despite the significant effort involved to report (and the resulting complexity of CMS’s calculation of MIPS scores), most clinicians in 2017 and 2018 will receive minimal payment adjustments. This result is attributed to two factors: the maximized performance scores and CMS’s decision to set the MIPS performance threshold

**TABLE  
15-2****Estimated number of clinicians subject to and exempt from MIPS, 2017 and 2018 reporting years**

	2017	2018
Total number of Part B–billing clinicians	1,380,000	1,548,000
Exempt: Low volume	384,000 <i>(Less than \$30,000 in Medicare payments per year or fewer than 100 patients)</i>	540,000 <i>(Less than \$90,000 in Medicare payments per year or fewer than 200 patients)</i>
Exempt: A–APM-qualifying participants	70,000 to 120,000	185,000 to 250,000*
Exempt: Other reasons	285,000	315,000
Required to participate in MIPS	600,000 to 640,000	445,000 to 510,000*

Note: MIPS (Merit-based Incentive Payment System), A–APM (advanced alternative payment model). This table has been updated to reflect CMS's final rule for the 2018 reporting year. By statute, clinicians in the first year of Medicare participation and clinicians in certain specialties are exempt from MIPS.

\*In the regulatory impact analysis included in the 2018 final rule, CMS estimates that 71,000 clinicians would be exempt because they are A–APM participants in 2018 but states that, based on future administrative action, it expects the number of A–APM-qualifying participants in 2018 to total 185,000 to 250,000 clinicians. Therefore, the number of clinicians required to participate in MIPS in this table is calculated from other numbers in the table and differs from the figure shown in CMS's regulatory impact analysis.

Source: Centers for Medicare & Medicaid Services 2017c; Centers for Medicare & Medicaid Services 2016.

at a very low level for the first two years (i.e., 3 and 15 points, respectively, out of 100), well below where most clinicians' scores are expected to be.

As a result, almost everyone—95 percent in 2017 and 97 percent in 2018—in the first two years of the program will receive either a neutral or positive adjustment (Table 15-3) (Centers for Medicare & Medicaid Services 2017c, Centers for Medicare & Medicaid Services 2016). Because the basic MIPS adjustments are budget neutral, if there is a small penalty pool that must be spread across a significant number of clinicians who cleared the bar, the overall positive increases will be minimal—much less than 1 percent.

**In later years, small differences in performance will be magnified into large differences in payment adjustments**

In subsequent years, small differences in MIPS scores will be magnified into substantial differences in payment adjustments. The statute requires that CMS set the MIPS performance threshold at the mean or median in the 2019

reporting year—that is, much higher than the levels in the first two years. In addition, the maximum negative adjustment rises from –4 percent in the 2017 reporting year to –9 percent in the 2019 reporting year. As a result, many more clinicians will pay a penalty, and the penalty will be larger. Because the base MIPS adjustments are budget neutral and proportionally fewer clinicians will receive positive adjustments than in the first two years, the positive adjustments will also increase.

Given that many clinicians are likely to have extremely high MIPS scores, small differences in MIPS performance scores will result in large differences in payment adjustments. For example, if the mean or median MIPS performance score is 90 points out of 100, clinicians with a score of 90 points would receive no payment adjustment, and clinicians with a score of 100 points would receive the maximum MIPS payment adjustment (in 2019) of 7 percent, plus the maximum MIPS exceptional performance bonus. In other words, a clinician with a score just 10 points higher than average could receive a payment adjustment that could be as high as 22 percent, including the exceptional performance bonus.<sup>9</sup>



**TABLE  
15-3****Performance thresholds and estimated impact  
for MIPS clinicians, 2017 and 2018 reporting years**

	2017	2018
<b>Regulatory performance thresholds (points out of 100)</b>		
MIPS performance threshold	3 points	15 points
MIPS exceptional performance threshold	70 points	70 points
<b>Estimated impact for MIPS clinicians</b>		
Share receiving a negative adjustment	5%	3%
Share receiving a neutral or positive adjustment	95	97
Share of those receiving a positive adjustment also receiving MIPS exceptional performance bonus	N/A	74

Note: MIPS (Merit-based Incentive Payment System). CMS did not publish an estimate of the share of MIPS participants receiving the exceptional performance bonus in 2017. CMS did not release an estimate of clinicians receiving positive versus neutral adjustments.

Source: Centers for Medicare & Medicaid Services 2017c; Centers for Medicare & Medicaid Services 2016.

Because of the way that MIPS adjustments are to be derived and calculated after 2018, small changes in performance that are clinically irrelevant could result in large changes in payment. This feature also raises a significant policy concern: The potential for positive adjustments in MIPS may be so high that staying in FFS appears more attractive for clinicians than moving to A-APMs. This concern is not theoretical. Under Medicare's current value-based payment modifier, certain clinician practices received very large payment adjustments; in 2017, 69 practices received payment bonuses equivalent to over 77 percent of their FFS payments.

### **MIPS should be eliminated**

The Commission concludes, based on this analysis, that MIPS impedes the movement toward high-value care (Medicare Payment Advisory Commission 2017a, Medicare Payment Advisory Commission 2017b, Medicare Payment Advisory Commission 2016a, Medicare Payment Advisory Commission 2016b, Medicare Payment Advisory Commission 2016c). MIPS will not succeed in helping beneficiaries choose clinicians, helping clinicians change practice patterns to improve value, or helping the Medicare program reward clinicians based on value.

Our critique of MIPS should not be misinterpreted. The Commission understands the importance of individual-level clinician performance measurement and the importance of process measures. Process improvement activities can have a significant impact on overall health outcomes. There continues to be a role for process measures, individual-level performance assessment, and measures that vary by clinician practice or specialty. All these elements are key to quality improvement programs run by clinician groups and others, and they can help patients choose a clinician consistent with their preferences.

However, we do not believe that individual-level process measures should be used by the national Medicare program to move trust fund dollars among individual Medicare clinicians. There is a different standard for data completeness, comparability, lack of bias, and universality if the measures are being used for internal quality improvement, confidential reporting, or public reporting. But when measures are used to allocate funding, they must be comparable, statistically robust, and universal. MIPS fails to meet these standards. More fundamentally, from the Commission's perspective, the central tenets of MIPS are fundamentally incompatible with the goals of a beneficiary-focused approach to quality measurement. MIPS assumes that clinician quality can and should be

determined primarily at the individual clinician level. This orientation sends the wrong signals about quality and value. It treats quality of care as isolated and siloed, rather than what it generally is today—the result of the combined efforts of multiple clinicians.

The Commission does not come to this conclusion lightly. After MACRA was passed, we raised concerns about MIPS and spent a significant amount of time attempting to identify ways to substantively improve the system within its current framework (Medicare Payment Advisory Commission 2017a, Medicare Payment Advisory Commission 2016a, Medicare Payment Advisory Commission 2016b). However, as CMS has issued regulations implementing the first two years of the program, the true complexity and unworkability of MIPS has become clear.

As a result, the Commission recommends that the current MIPS be eliminated. This recommendation addresses only MIPS—not the other parts of MACRA that repealed the SGR, established statutory updates, and created an incentive payment for A-APM participation.

Time is of the essence for eliminating MIPS. Clinicians are reporting and participating in activities in 2018 that will affect the 2019 and 2020 payment years, and more clinicians may be subject to its requirements in future years. And while CMS has used its flexibilities to phase in requirements for the first two years, provider groups have requested that these flexibilities continue for an additional three years (American Medical Association 2017). But CMS will still be calculating scores and making payments during this time (although the base MIPS adjustments would likely be smaller on average than they would be otherwise, as they are in 2017 and 2018).

If history is any guide, once the apparatus for MIPS is established and up and running, the process will have its own momentum, and it will become even more difficult to substantially change or improve the program. Furthermore, the longer the program continues, the signals that MIPS sends will continue. We do not agree with those signals: that clinicians should pick measures to report on which they expect to do well (rather than focusing on the totality of patient care), that quality measures should emphasize processes (instead of outcomes), that clinicians should join bonus-only payment models that would increase their possibility of scoring highly (rather than joining meaningful models with risk and reward), and

that completing check-the-box activities is a reasonable performance measure (instead of adopting meaningful practice improvements that work for clinicians' practices and improve care for their patient populations).

---

## **A new direction for rewarding clinician quality: A voluntary value program**

---

The Commission has determined that MIPS should be replaced by a value component for clinician services in Medicare FFS. Such a program should conform to the Commission's principles for measuring quality: It should encourage coordination across providers and time, promoting change in the delivery system; include population-based measures such as outcomes, patient experience, and value; and give rewards based on clear, absolute, and prospectively set performance targets. In addition, the program should not be overly burdensome for providers.

The Commission believes that all parties in the health care delivery system have a role in improving the quality of care provided to Medicare beneficiaries. In addition, there should be a value component at every level of Medicare payment so that all providers—including clinicians—face an aligned set of signals across the program. Consistent signals are especially important in FFS payment, which emphasizes the individual activities that providers engage in and places less emphasis on the totality of patient outcomes, cost, and experience.

Yet the very nature of Medicare's payment system for clinician services complicates the creation of a value-based purchasing program. To a unique extent in traditional Medicare, clinician services are isolated, with, in most cases, no single decision maker (such as an accountable care organization (ACO) governing board or large multispecialty practice) assuming responsibility for the totality of the patient's experience. (By contrast, within institutional episodes, a single entity does assume responsibility for the discrete episode of care for a patient.)

Recognizing these challenges, the Commission's approach is to allow clinicians to self-organize into groups that collectively assume responsibility for their patients' outcomes. This voluntary value program (VVP) is based on the premise that patient outcomes rely on the combined

contributions of clinicians and emphasizes that quality improvement is a collective effort. A VVP would reorient incentives so that all clinicians (of all specialties) would face an incentive to improve population-based outcomes. There is precedent for assessing clinician performance at the group level—many clinicians already participate in MIPS as a group.

A VVP would measure all clinicians based on the same set of measures: clinical quality, patient experience, and value. Since these measures assess the health care of a population (and generally do not make sense at the individual clinician level), the program would encourage clinicians to address care across time and across settings.

A VVP's penalties and rewards might not be significant enough to meaningfully change clinician behavior. However, the intent is to get clinicians comfortable with being measured in a manner similar to the way they would be in A-APMs. With that experience, clinicians would be positioned to form or join robust A-APMs, under which the risk and reward is more meaningful and the potential for true delivery system reform is within reach. Over time, if additional incentives are needed to help clinicians move to A-APMs, the parameters of a VVP could be modified.

### **A VVP is an illustrative policy; its goals could be achieved in a number of ways**

The Commission's recommendation is an illustrative policy that emphasizes that clinicians should be subject to the same quality incentives as the rest of the Medicare program, and that, in reality, most clinicians are part of a system of care (formal or informal) that has responsibility for the entirety of a patient's experience across time and settings and through the care continuum.

However, the recommendation language for a VVP is broad and conceptual because there are a number of ways that the goals outlined above could be achieved. Some design elements in a VVP are the ability of clinicians to self-organize for the purposes of quality measurement; the measures (in the categories of clinical quality, patient experience, and cost); the minimum voluntary group size (sufficient to detect meaningful differences in performance); and the form and size of the payment adjustments. Appendix 15-A (p. 460) illustrates one approach for defining these elements.

However, no matter how the VVP is structured, there would be three important features that would distinguish it from MIPS:

- Clinicians would be eligible to receive a payment adjustment at a voluntary group level. A VVP would require only minimal administrative structure (clinicians would just elect to be measured as a voluntary group) and would entail less risk and reward than is required in A-APMs.
- These voluntary groups would be assessed on a uniform set of population-based measures that align with the Commission's quality principles.
- Clinicians would no longer need to report quality data to Medicare because all measures would be calculated by CMS from claims and surveys.

A VVP could incorporate certain policy elements designed to further the effectiveness of the program as an incentive and ameliorate the risk of unintended consequences. For example, to minimize the uncertainty of downward and upward payment adjustments and remove the possibility of inappropriate windfalls or significant penalties, a VVP policy could include a cap on the negative payment adjustment and a cap on the total payment increase (so that it is less attractive than the A-APM incentive payment).

Consistent with other value programs in Medicare, a VVP could be designed to be budget neutral. Payment reductions for poorly performing voluntary groups of clinicians and for clinicians who do not participate would be used to finance payment increases for high-performing voluntary clinician groups.

Two key benefits would arise from using claims-calculated and centrally administered survey information to calculate performance. First, as the program evolves, CMS could, through notice and comment rulemaking, modify the measures, scoring, or payment adjustment calculation without requiring clinicians to change their reporting process. Thus, this approach would be flexible, allowing Medicare to react in a timely way to changes in clinical practice, input from stakeholders, and the needs of the Medicare population. Second, relying on claims-based measures removes a significant, demonstrable cost and time burden of clinician reporting. Further, using established and uniformly applied measures would remove the incentive for clinicians to measure (and report on)

things they do well, instead of areas of quality needing improvement. Infrastructure requirements for a VVP are minimal; that is, clinicians would only need to elect to be measured as a voluntary group. However, if groups then wished to substantively improve performance, they would likely need to make additional investments to achieve that goal.

Medicare would no longer require tools for reporting such as registries, EHRs, and other quality-data reporting methods. However, these tools could be used for internal quality improvement at the voluntary group level to improve performance and by other payment models such as A-APMs. Efforts to improve quality measures could continue, including developing methods to add clinical data (such as lab values) to claims, enhancing interoperability between registries and EHRs, and improving claims-calculated measures. To the extent that Medicare pursued policies regarding EHRs (such as interoperability), those requirements could either be addressed by the Office of the National Coordinator for Health IT or be considered as a condition of participation in Medicare.

Under a VVP, the Medicare program could provide feedback to the voluntary groups on their performance relative to others. Other parties in the health care system (e.g., a group practice, ACO, or specialty society) could measure individual clinician performance as desired using individual quality measures for public reporting purposes as well as individual quality improvement efforts.

### **Transitioning to a new voluntary value program**

Although it is urgent to eliminate MIPS as soon as possible, a VVP could be phased in over time. If policymakers decided to phase in a VVP, this process could occur in several ways while building confidence in the measures and results and building support from the clinician community. The flaws of MIPS should not be replicated in a VVP. The Commission would engage in more detailed development of a VVP should the Congress pursue this recommendation.

Operational details would be developed in notice and comment rulemaking, which would leverage CMS expertise on technical issues and give stakeholders a chance to respond. Other policy considerations (such as calculating the voluntary group's composite score, weighting measures and domains, and setting benchmarks)

could leverage CMS's experience with other value-based purchasing programs in Medicare.

One approach would be to begin with current measures and easily defined groups. For example, CMS could build on several of its proposals for defining groups. CMS could leverage its work on facility-based measurement and tie all clinicians with a facility site of service on their claims to that facility (for example, all clinicians with either inpatient or outpatient claims from a given hospital). That clinician group could then be scored on quality measures used in Medicare's hospital quality programs, such as mortality, readmissions, patient experience, and Medicare spending per beneficiary. This approach would accustom the clinicians to considering themselves part of a group that influences patients' health outcomes and to using those measures. At first, no money would be attached to the scores; they would be strictly informative.

Similarly, clinicians participating in Medicare Shared Savings Program Track 1 ACOs and other models that are not A-APMs could be measured as groups on the quality measures for their APMs. Those measures would be fully transitioned to include more population measures over time. Any clinicians involved with A-APMs would have access to their measure results and other groups connected with the A-APM. Because no money would be at stake, participating in multiple groups would not be an issue and could inform clinicians as to which groups they would want to eventually choose to be associated with. CMS, through the Quality Improvement Organization Program or similar tools, could provide technical assistance to groups on understanding their results and how to affect their performance. Yet other clinicians could choose to form voluntary groups and be measured on population outcomes, again for their information and without any monetary outcomes.

Through these processes, CMS would gain experience with the measures and be able to derive reliability and other factors to set minimum voluntary group size requirements. Because the measures would not require clinician reporting, CMS would have the ability to modify the measures as necessary. At that point, clinicians could start forming voluntary groups, payment could be attached, and a VVP could start in earnest. The size of the penalties or rewards could be increased over time as confidence in the program increased, as long as the maximum amount did not encourage clinicians to stay in a VVP rather than progress to A-APMs.



## Conclusion and recommendation

The Commission, based on our analysis, concludes that MIPS will not succeed in helping beneficiaries choose clinicians, in helping clinicians change practice patterns to improve value, or in helping the Medicare program reward clinicians based on value. MIPS is based on predecessor Medicare programs that have generally not been successful at improving population outcomes or substantively improving care processes. In addition, MIPS imposes a significant reporting burden on clinicians; scores are not comparable across clinicians; it is administratively complex and produces inequitable results; and its small payment adjustments in the first years will be followed by subsequent arbitrary and possibly very large payments in later years, creating financial uncertainty for clinicians.

At the same time, the Commission believes that, consistent with the policy goals of MIPS, all clinicians operating in traditional FFS Medicare should be subject to a value-based payment component, and we recommend a path forward for that component—a voluntary value program. The program could be designed to emphasize the role of all clinicians in quality improvement and to align incentives for providers across the Medicare FFS delivery system as well as with A-APMs.

### RECOMMENDATION 15

#### The Congress should:

- **eliminate the current Merit-based Incentive Payment System; and**
- **establish a new voluntary value program in fee-for-service Medicare in which:**
  - **clinicians can elect to be measured as part of a voluntary group; and**
  - **clinicians in voluntary groups can qualify for a value payment based on their group's performance on a set of population-based measures.**

## Spending

- Payment increases would be designed to offset payment decreases in a VVP. In any given year, if the maximum positive payment adjustments were capped and the targets set prospectively, a VVP could incur a small cost or small savings but would be designed to be budget neutral in every year.

A VVP would thus produce savings over current law. Under MIPS, an additional \$500 million is appropriated each year from 2019 to 2024 for exceptional performance (or \$3 billion over that time frame). However, the Commission's current intent is not to produce budget savings but to consider policies that would reinvest these funds elsewhere in Medicare clinician payment so that, in total, the policies together would be budget neutral.

## Beneficiary and provider

- The recommendation would be unlikely to affect beneficiaries' access to care. It would significantly reduce provider burden by eliminating all quality measures and ACI and CPIA reporting to the Medicare program.
- Providers could incur some administrative cost in creating or joining voluntary groups, but the burden would be significantly less than current policy. In designing a process for clinicians to elect voluntary groups, CMS could leverage the infrastructure they have been developing for both facility-based measurement and virtual groups.
- The recommendation would eliminate extremes in payment by setting lower and upper bounds on adjustments. Overall, a VVP would be budget neutral (in contrast to the current MIPS program). Some clinicians would see a payment reduction; others, a payment increase. ■

# 15-A

APPENDIX

---

**Design elements for a  
voluntary value program:  
An illustrative model**

---



**TABLE  
15-A1**

**Key differences between current-law MIPS policy  
and an illustrative voluntary value program**

	<b>Current-law MIPS</b>	<b>Illustrative voluntary value program</b>
<b>Covered clinicians</b>	All clinicians except those in the following groups: qualified A-APM participants (or partial-qualifying A-APM participants); clinicians in certain specialties; those below the low-volume threshold; or those in their first year of Medicare participation	All clinicians not participating in an A-APM who choose to participate
<b>Maximum negative adjustment</b>	Set in statute for clinicians who do not report any MIPS information and for very low performers (reaches 9% by 2022)	Set at a fixed amount as a prospective withhold (e.g., 2%)
<b>Maximum bonus</b>	Potential upside reaches 37% by 2022 (scaling factor of 3 times maximum bonus of 9%, plus 10% exceptional performance bonus)	Capped so that the maximum bonus is smaller than potential from participating in A-APMs
<b>Measures that clinicians need to report</b>	If subject to MIPS, report at least 6 quality measures (plus voluntary CAHPS®), all ACI information, and 6 (or 9) CPIA activities (option for hospital-based assessment if hospital-based specialty; special reporting rules for MIPS APM participants)	None
<b>Clinician election</b>	Clinicians can elect either hospital-based assessment (if hospital-based specialty) or virtual group measurement	Clinicians can elect to be measured with a voluntary group sufficiently large for performance assessment on all measures
<b>Level of performance measurement</b>	Individual clinician (TIN/NPI) or group (TIN) level	Voluntary group level
<b>Performance assessment based on:</b>	Self-selected quality measures, attested ACI and CPIA measures, cost (starting in 2021)	Uniform set of measures in three categories: outcomes, patient experience, and value (cost/value); measures would be patient centered, comparable with measures used to assess A-APM performance and to assess quality across time and the delivery system
<b>Application of quality score</b>	TIN/NPI (or TIN if group reporting)	Each clinician in voluntary group, same score across group

Note: MIPS (Merit-based Incentive Payment System), A-APM (advanced alternative payment model), CAHPS® (Consumer Assessment for Healthcare Providers and Systems®), ACI (advancing care information), CPIA (clinical practice improvement activities), MIPS APM (Merit-based Incentive Payment System Alternative Payment Model), TIN/NPI (taxpayer identification number/national provider identifier).

As stated in the chapter, the Commission's recommendation outlines the broad policies of a value component in fee-for-service (FFS) Medicare. However, during the Commission's deliberation, many design elements were discussed in some detail, and this appendix gives a detailed illustration of one potential design for a voluntary value program (VVP) (Table 15-A1).

For example, a VVP could entail a withhold applied to all clinicians' payments to fund a pool of potential value payments. An alternative policy is to make upward and downward payment adjustments concurrently. At this point, clinicians would make one of three choices:

- voluntarily elect to be measured with other clinicians in a group of sufficient size to be measured on

population outcome measures and be eligible to receive a value payment;

- join an advanced alternative payment model (A-APM) and have their full withhold refunded (in addition to any payment adjustments under the A-APM design); or
- make no election and lose their withhold.

The most salient design elements in a VVP would include selection of measures that focus on clinical quality, patient experience, and cost; size and formation of the voluntary groups; the role of specialists; the withhold and value payment; and attribution of beneficiaries to the group.

---

## Measures

---

Consistent with the Commission’s quality principles, VVP measures should focus on population-based outcomes, patient experience, and value and would be patient oriented, encourage coordination across providers and time, and promote delivery system change. In addition, measures should not be unduly burdensome for providers (e.g., would use claims or survey data), and they would have scientifically acceptable properties such as:

- reliability and validity, using a defined minimum number of cases and beneficiaries;
- ability to distinguish meaningful differences among groups; and
- ability to adjust appropriately for patient health risks.

Also deriving from the Commission’s principles, a VVP should reward performance based on clear, absolute, and prospectively set performance targets. Rates for all measures would be risk adjusted for beneficiary health characteristics (e.g., by using hierarchical condition categories).

Separately, the payment adjustments resulting from the population-based measures in a VVP should take into account, as necessary, differences in the social risk factors for each voluntary group’s population. This process could include using a peer-grouping approach or other approaches as necessary so that a voluntary group of clinicians who treat a disproportionate number of low-income or otherwise high-risk patients is not unduly

financially disadvantaged, but under which there is still incentive to improve.

CMS also has significant experience creating composite quality scores and setting benchmarks in other value-based purchasing (VBP) programs and in A-APMs. The measure concepts presented in Table 15-A2, meant to be illustrative, follow our general principles and are used in other Medicare VBP programs and in A-APMs.

---

## Size and formation of voluntary groups

---

Under the VVP, CMS would determine the minimum size of a voluntary group so that each group could be scored on all of the population-based outcome measures. Beyond this technical requirement, there could be no limit on the shape or size of clinician entities for assessing value.

Many clinicians already are in some kind of group that could meet the definition of a voluntary group: clinicians affiliated with hospitals or health systems, independent practice associations, local medical societies, large multispecialty practices, and accountable care organizations (ACOs). Forty percent of clinicians are presently in practices with hospital or health system affiliation (Medicare Payment Advisory Commission 2017b). CMS could also provide technical assistance to clinicians by identifying virtual referral networks consisting of other clinicians that their patients see. In general, voluntary groups would need to include a range of clinicians to have a sufficient number of attributed beneficiaries for all the population-based measures on which they would be assessed.

The formation of and administrative process for voluntary groups could build on the work CMS has done thus far to develop virtual groups for the Merit-based Incentive Payment System (MIPS), which allows groups of clinicians without a formal financial arrangement to elect to be measured as a group. CMS’s proposal to allow certain clinicians to request that their performance be assessed using their hospital’s VBP score also could provide a foundation for forming some groups and assessing performance using population-based measures. The population-based measures used in the hospital VBP, as described by CMS, show a meaningful distribution of performance scores (Centers for Medicare & Medicaid Services 2017b). In the Commission’s September 2017

**TABLE  
15-A2****Illustrative VVP measures and their use in other Medicare VBP programs and A-APMs**

Domain	Measure	Used in VBP programs	Used in A-APMs
<b>Clinical quality</b>	Readmissions	HRRP, physician VM	All ACOs (ESCOs, NG, MSSP)
	Mortality	Hospital VBP	ESCOs
	Inpatient hospitalization use <sup>a</sup>	Physician VM	CPC+, OCM, All ACOs (ESCOs, NG, MSSP)
	Emergency department use <sup>b</sup>	N/A	CPC+, OCM
<b>Patient experience</b>	Consumer Assessment of Healthcare Providers and Systems <sup>®c</sup>	Physician VM, hospital VBP	All A-APMs (CCJR, CPC+, ESCOs, NG, MSSP, OCM <sup>d</sup> )
<b>Value</b>	Medicare spending per beneficiary	Physician VM, hospital VBP	N/A
	Total cost of care per beneficiary	Physician VM, QRURs	Similar to shared savings benchmarks CPC+, OCM, All ACOs (ESCOs, NG, MSSP, OCM)
	Relative resource use (episodes) <sup>e</sup>	Physician VM, QRURs (no longer used)	Similar to CCJR episode cost
	Low-value care	N/A	N/A

Note: VVP (voluntary value program), VBP (value-based purchasing), A-APM (advanced alternative payment model), HRRP (Hospital Readmissions Reduction Program), VM (value-based payment modifier), ACO (accountable care organization), ESCO (ESRD [end-stage renal disease] Seamless Care Organization), NG (Next Generation [ACO model]), MSSP (Medicare Shared Savings Program [Tracks 2 and 3]), CPC+ (Comprehensive Primary Care Plus), OCM (Oncology Care Model), CCJR (Comprehensive Care for Joint Replacement [payment model]), QRURs (Quality and Resource Use Reports).

<sup>a</sup>Risk-adjusted or standardized measures of observed-to-expected acute inpatient discharges or proportion of patients with hospital admissions. This concept can include the Prevention Quality Indicator (PQI) ambulatory sensitive condition acute composite (acute and chronic) measures. PQI measures were initially used in the VM but are not included in MIPS.

<sup>b</sup>Risk-adjusted measures of observed-to-expected emergency department visits or proportion of patients with an emergency department visit.

<sup>c</sup>Consumer Assessment of Healthcare Providers and Systems<sup>®</sup> (CAHPS<sup>®</sup>) is a registered trademark of the Agency for Healthcare Research and Quality. CAHPS is a standardized survey tool used to evaluate patient experiences with health care. CAHPS surveys are designed for a specific setting (e.g., hospitals, clinician groups, dialysis facilities), but incorporate the same core elements (e.g., rating of care, communication) across the survey types.

<sup>d</sup>OCM collects patient-reported experience of care results based on the CAHPS core elements.

<sup>e</sup>CMS is presently developing a new set of episode-based resource use/cost measures.

Source: Centers for Medicare & Medicaid Services.

comment letter, we commended CMS's efforts to develop both policies as providing a foundation for future iterations of clinician value-based payment (Medicare Payment Advisory Commission 2017a).

A key question is how large a voluntary group would have to be for CMS to detect performance on the types of population-based measures envisioned in a VVP. First, the set of measures would need to be selected. Then, the size of the voluntary group required would be determined

by the measure requiring the largest minimum number of cases or beneficiaries.

For each measure, CMS would have to determine a minimum number of beneficiaries or cases to represent an accurate estimate of the group's performance and to reliably detect the group's performance as distinguishable from the performance of other groups.<sup>10</sup> CMS has made such determinations for prior programs. Often there is a trade-off between setting a smaller number—thus

**TABLE  
15-A3****Minimum cases or beneficiaries for selected illustrative measures**

Measure	Minimum cases or beneficiaries
Clinician Group–CAHPS®	750 patients (to get 300 surveys)
Value-based payment modifier: MSPB	125 cases
Value-based payment modifier: 30-day all-cause readmissions	200 cases
Value-based payment modifier: All other measures	20 cases
Potentially preventable admissions/ED visits	1,000 beneficiaries
MSSP total spending benchmark	5,000 attributed beneficiaries
Next Generation/Pioneer total spending benchmark	10,000 attributed beneficiaries

Note: CAHPS® (Consumer Assessment for Healthcare Providers and Systems®), Medicare spending per beneficiary (MSPB), emergency department (ED), Medicare Shared Savings Program (MSSP).

Source: Centers for Medicare & Medicaid Services, Agency for Healthcare Research and Quality, 3M.

including more providers in the program—and setting a larger number—thus achieving greater confidence in accuracy and reliability.

This policy trade-off will be influenced by the VVP's design. For example, under a VVP, each measure's score could be a function of how much observed performance diverges from baseline performance. Scores from each measure could then be combined and an overall score calculated. The overall score would move a small amount of payment.

In contrast, for an ACO, the difference between actual spending and the benchmark can translate directly to a dollar-for-dollar payment change. Much greater accuracy and reliability of performance is thus required in the ACO case. Table 15-A3 gives some examples of the minimum number of cases or beneficiaries CMS and others have determined is necessary for some measures. Under CMS's value modifier, there appears to have been a preference for small minimum case sizes to include as many clinicians as possible; under a VVP, these minimums could be increased to improve reliability. Two measures—Medicare Shared Savings Program (MSSP) total spending benchmarks and Next Generation/Pioneer total spending benchmarks—are used in ACOs and would not be used in the same manner (e.g., for calculating precise shared

savings or losses) for a VVP. They are given to provide a reference for other minimums.

An added benefit of using claims-calculated measures over clinician-reported measures is the ability to replace samples of clinicians' performance (e.g., self-reported process measures for selected cases over a limited time period) with a full census of clinicians' Medicare FFS performance because the program would use data from all claims for the full year.

The creation of an incentive for clinicians to join voluntary groups has the potential to increase the trends toward consolidation, although the effect may be modest. First, the market for clinician services has already consolidated considerably (clinician practices have merged and hospitals and health systems have purchased clinician practices) (Medicare Payment Advisory Commission 2017b, Neprash et al. 2017). Second, clinician groups consolidate (or pursue vertical integration) for several reasons, including more favorable payment policies, more flexibility in accommodating lifestyles and schedules, greater efficiency, and greater negotiating power with private payers. Third, clinicians in our focus groups have cited quality reporting and electronic health record requirements repeatedly as a reason for joining a

practice owned by a hospital or health system (Summer et al. 2017). In other words, the requirement to report MIPS quality, advancing care information, and clinical practice improvement activities information can make being acquired by a hospital or health system look more attractive to clinicians. The elimination of these requirements for Medicare (by eliminating MIPS) could lessen that factor.

---

## The role of specialists

---

A VVP could include a mix of measures with direct relevance to a range of specialties. For example, readmissions or a measure assessing 30-day resource use after a hospitalization would link to surgical or hospital-based specialties. Patient experience and total per capita cost measures would link to all specialties. And avoidable hospitalizations or emergency department visits would link to clinicians involved in seeing patients in the outpatient setting (e.g., clinicians specializing in internal medicine, family practice, cardiology, or endocrinology).

Many specialists are currently involved in alternative payment models. For example, based on our analysis of the 2015 ACO public use file, about twice as many specialists as primary care providers were in MSSP ACOs—even though attribution to MSSP ACOs is predominantly dependent on primary care visits.<sup>11</sup> In addition, three out of seven models identified by CMS as A-APMs for the 2017 reporting year focused on conditions generally treated by specialists (other than primary care).

---

## Amount of the withhold and the value payment

---

For illustrative purposes, we have described a VVP with a withhold. The amount of the withhold or penalty is a policy decision; it could be larger or smaller or could grow over time. A relatively small withhold could be appropriate if a VVP's goal were to get clinicians comfortable with the idea of joining with others to be accountable for population outcomes. Keeping the withhold and rewards relatively modest would also help address the criticism that these population outcome measures are the result of

a variety of factors (including, but not solely, clinician behavior).

A 2 percent withhold, for example, is likely not large enough to motivate comprehensive clinician practice redesign. A larger withhold might be enough to motivate behavioral change but could end up replicating the A-APM structure if the risk and reward grew too large. Another option is a withhold that ramps up over time as clinicians grow familiar with joining voluntary groups.

---

## Attributing beneficiaries

---

CMS currently uses several methods to attribute cost and quality outcomes to clinicians. For example, the attribution process used in many ACO models attributes beneficiaries to clinicians based on the plurality of a subset of evaluation and management (E&M) visits. There are two key variables with respect to attribution: whether the measure is attributed to one clinician (or group) or multiple clinicians (or groups) and whether attribution is based on all claims or a subset (e.g., only E&M claims).

Single attribution, in which an outcome of interest is attributed to one clinician (or group), implicitly identifies a key decision maker for all the care provided related to that outcome. Multiple attribution acknowledges that a variety of unrelated clinicians contribute to the patient's care. A common multiple attribution method is to allocate the measure proportionally, based on each clinician's relative frequency of visits or amount of spending for the patient.

In prior work by the Commission on attribution methodologies, we have found that no one attribution method was statistically superior to others, but each had characteristics that could be desirable in certain contexts. We found that multiple attribution (based on total dollars) resulted in more episodes being attributed to specialty clinicians than did single attribution based on E&M spending (Medicare Payment Advisory Commission 2009). Therefore, a multiple attribution approach might be most appropriate in a VVP to emphasize that each clinician in a voluntary group is jointly accountable with all other clinicians involved in a patient's care for that patient's outcome. In contrast, single attribution may be more appropriate in the context of ACOs because the ACO takes responsibility for all of a beneficiary's spending. ■



## Endnotes

---

- 1 A-APMs are a subset of CMS payment models that must meet certain criteria set out in the MACRA statute. CMS reviews all potential models for A-APM eligibility on a rolling basis. In 2017 (the reporting year for the 2019 payment year), the seven A-APMs are the Medicare Shared Savings Programs, Tracks 2 and 3; the Comprehensive Care for Joint Replacement model; the ESRD [end-stage renal disease] Seamless Care Organization model (risk-bearing track); the Oncology Care Model (risk-bearing track); the Comprehensive Primary Care Plus model; and the Next Generation ACO (accountable care organization) model.
- 2 ACI examples include electronic prescribing (e-prescribing) and immunization registry reporting. CPIA examples include depression screening, co-location of primary care and mental health services, and patient coaching practices between visits.
- 3 CMS supports six tools for MIPS quality reporting, plus the collection of ACI and CPIA information. The six reporting methods include no-pay claims, qualified registries, Qualified Clinical Data Registries, EHR, web interface, plus a CMS-approved survey vendor for the Consumer Assessment of Healthcare Providers and Systems® (CAHPS®) if group practices elect to conduct the CAHPS.
- 4 The total burden estimated by CMS for the 2017 reporting year (\$1.311 billion) includes \$805 million for the six ways of reporting quality information, \$308 million for ACI, and \$198 million for CPIA.
- 5 For the first year of the QPP (2017), CMS defines “topped-out measures” as follows: “For each process measure, a measure is topped out if the median performance rate is 95 percent or higher (non-inverse measure) or is 5% or lower (inverse measures). For each non-process measure, a measure is topped out if the truncated coefficient of variation is less than 0.10 and the 75th and 95th percentiles are within 2 standard errors.”
- 6 CAHPS is a registered trademark of the Agency for Health Care Research and Quality.
- 7 The current list of MIPS APMs includes Track 1 Medicare Shared Savings Program ACOs, the bonus-only ESRD [end-stage renal disease] Seamless Care Organization model, the bonus-only Oncology Care Model, the Vermont Medicare ACO initiative, and the Medicare–Medicaid Accountable Care Organization Model. In addition, all seven approved A-APMs are also classified as MIPS APMs.
- 8 For the first two years of QPP, each clinician’s performance is set relative to all other clinicians that reported that measure, even for topped-out measures. Therefore, a clinician reporting 100 percent for a topped-out measure with a median performance score of 100 percent would still score 10 points out of 10 for that measure.
- 9 MACRA appropriated an additional \$500 million each year for exceptional performance in MIPS from the 2019 through the 2024 payment years. *Exceptional performance* is defined as performance at or above the 25th percentile above the mean (or median) of performance scores. The maximum total bonus is capped at 22 percent in 2019, 25 percent in 2020, 31 percent in 2021, and 37 percent in 2022 and later.
- 10 The size could also depend on the makeup of the voluntary group (e.g., the mix of primary care, specialist, or non-patient-facing clinicians).
- 11 The ratio could be slightly less if many specialists participate in multiple ACOs. File available at <https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/SSPACO>.



## References

---

- American Medical Association. 2017. Letter to Chairman Walden and Ranking Member Pallone on MACRA, October 2. <http://www.aafp.org/dam/AAFP/documents/advocacy/payment/medicare/LT-Congress-MACRA-EAC-100217.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017a. 2017 quality benchmarks. <https://www.cms.gov/Medicare/Quality-Payment-Program/Resource-Library/2017-Quality-Benchmarks.zip>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017b. Medicare program: CY 2018 updates to the Quality Payment Program. Proposed rule. *Federal Register* 82, no. 125 (June 30): 30010–30050.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017c. Medicare program; CY 2018 updates to the Quality Payment Program; and quality payment program: Extreme and uncontrollable circumstance policy for transition year. Final rule with comment period. *Federal Register* 82, no. 220 (November 16): 53568–54229.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016. Medicare program: Merit-based Incentive Payment System and Alternative Payment Model Incentive under the physician fee schedule, and criteria for physician-focused payment models. Final rule. *Federal Register* 81, no. 214 (November 4): 77008–77831.
- Frakt, A. B., and A. K. Jha. 2017. Face the facts: We need to change the way we do pay for performance. *Annals of Internal Medicine* (November 28).
- Friedberg, M. W., E. C. Schneider, M. B. Rosenthal, et al. 2014. Association between participation in a multipayer medical home intervention and changes in quality, utilization, and costs of care. *Journal of the American Medical Association* 311, no. 8 (February 26): 815–825.
- Ginsburg, P. B., and K. K. Patel. 2017. Physician payment reform: Progress to date. *New England Journal of Medicine* 377, no. 3 (July 20): 285–292.
- Joynt Maddox, K. E., A. M. Epstein, L. W. Samson, et al. 2017. Performance and participation of physicians in year one of Medicare’s Value-Based Payment Modifier Program. *Health Affairs* 36, no. 12 (December): 2175–2184.
- McWilliams, J. M. 2017. MACRA: Big fix or big problem? *Annals of Internal Medicine* 167, no. 2 (July 18): 122–124.
- Medicare Payment Advisory Commission. 2017a. MedPAC comment on CMS’s proposed rule on CY 2018 updates to the Quality Payment Program, August 18.
- Medicare Payment Advisory Commission. 2017b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2016a. Comment on CMS’s proposed rule on the Merit-based Incentive Payment System and alternative payment models, June 15. <http://www.medpac.gov/docs/default-source/comment-letters/medpac-comment-on-cms-s-proposed-rule-on-the-merit-based-incentive-payment-system-and-alternative-pa.pdf?sfvrsn=0>.
- Medicare Payment Advisory Commission. 2016b. MedPAC comment on CMS’s proposed rule on episode payment models and the cardiac rehabilitation incentive payment model, September 30.
- Medicare Payment Advisory Commission. 2016c. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2012. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2009. *Report to the Congress: Improving incentives in the Medicare program*. Washington, DC: MedPAC.
- Neprash, H. T., M. Chernew, and J. M. McWilliams. 2017. Little evidence exists to support the expectation that providers would consolidate to enter new payment models. *Health Affairs* 36, no. 2 (February): 346–354.
- Rahurkar, S., J. R. Vest, and N. Menachemi. 2015. Despite the spread of health information exchange, there is little evidence of its impact on cost, use, and quality of care. *Health Affairs* 34, no. 3 (March): 477–483.
- Roberts, E. T., A. M. Zaslavsky, and J. M. McWilliams. 2017. The value-based payment modifier: Program outcomes and implications for disparities. *Annals of Internal Medicine* (November 28).
- Schneider, E. C., and C. J. Hall. 2017. Improve quality, control spending, maintain access: Can the Merit-based Incentive Payment System deliver? *New England Journal of Medicine* 376, no. 8 (February 23): 708–710.

Schwenk, T. L. 2014. The patient-centered medical home: One size does not fit all. *Journal of the American Medical Association* 311, no. 8 (February 26): 802–803.

Shekelle, P., S. Jones, R. Rudin, et al. 2014. *Health information technology: An updated systematic review with a focus on meaningful use functionalities*. Report prepared for the Office of the National Coordinator for Health Information Technology, Department of Health and Human Services Santa Monica, CA: RAND Corporation.

Summer, L., E. Hargrave, M. Hertel, et al. 2017. *Final report: Beneficiary and provider perspectives on Medicare and other issues: Findings from 2017 focus groups in Richmond, Seattle, and Indianapolis*. Study conducted by staff from NORC at the University of Chicago for MedPAC. Washington, DC: MedPAC.

C H A P T E R

# 16

---

**Mandated report:  
Telehealth services and  
the Medicare program**

---

## R E C O M M E N D A T I O N

Vote to forward telehealth report to Congress.

**COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1**

## Mandated report: Telehealth services and the Medicare program

### Chapter summary

Medicare currently covers telehealth services—a variety of health care services delivered through a range of online, video, telephone, and other communication methods—under the program’s several payment systems. Growing interest in telehealth has led some to seek an expansion of Medicare’s coverage of these services. Interest in telehealth services has been growing for several years among some payers and employers and among the many telehealth vendors and manufacturers. However, interest has not been uniform across providers and patients. Much of the debate about Medicare’s coverage of telehealth has focused on Medicare’s fee-for-service (FFS) fee schedule for physicians and other health professionals (referred to as the physician fee schedule, or PFS), but the Medicare Advantage (MA) program and accountable care organizations (ACOs) have also become implicated in this debate. Advocates of telehealth services assert that these services can expand access to care, increase convenience to patients, improve quality, and reduce costs relative to in-person care. Others caution that telehealth services in their many forms may not succeed in accomplishing these aims in all cases and instead may act as a supplement to in-person services rather than a substitute, thereby increasing utilization and spending for payers and patients.

The 21st Century Cures Act of 2016 mandates that the Commission provide, by March 15, 2018, information about (1) the extent to which the Medicare FFS program covers telehealth services, (2) the extent to which commercial

### In this chapter

- Introduction
- Background
- Medicare payment for telehealth services
- Commercial insurance plan coverage of telehealth services varied in 2017
- Comparison of commercial plan coverage and Medicare coverage
- Commercial insurers do not provide a complete or consistent model for further incorporating telehealth services into the Medicare program
- Implications for future policymaking

insurance plans cover telehealth services, and (3) ways in which the telehealth coverage policies of commercial insurance plans might be incorporated into the Medicare FFS program.

Medicare's coverage of telehealth services is broad and flexible, though somewhat limited under the PFS, under which providers bear little financial risk for increasing service use. By contrast, coverage of telehealth by commercial insurance plans was variable in 2017, with few plans covering a comprehensive set of services. Similar to Medicare, commercial use was low and often involved routine physician office visits and mental health services. Plans cited competitive pressures from employers and other insurers rather than cost reduction as the primary motivation for covering telehealth.

In general, commercial plans have not found strong evidence that telehealth services reduce costs or improve outcomes. Therefore, policymakers should take a measured approach to further incorporating telehealth into Medicare by evaluating individual telehealth services to assess their capacity to address the Commission's three principles of cost reduction, access expansion, and quality improvement. Under the PFS, telehealth services that show evidence of balancing the principles could be considered for incorporation and those that do not could be considered for testing through the Center for Medicare & Medicaid Innovation (CMMI). The Commission provides examples of how this evaluation could be conducted for the services most commonly covered by commercial plans. Under the other Medicare FFS payment systems, providers currently have the flexibility to use and evaluate individual telehealth services. In addition, entities in Medicare that bear financial risk, such as MA plans and two-sided ACOs, could be permitted greater flexibility to use and evaluate individual telehealth services.

### **Medicare coverage of telehealth services**

(As this report was being finalized, the Congress passed the Bipartisan Budget Act of 2018, which contained changes to the coverage of telehealth services under Medicare. In general, the Bipartisan Budget Act of 2018 expanded the coverage of telehealth services under the physician fee schedule to include the treatment of strokes in urban areas, permitted Medicare Advantage plans to include some of the costs of telehealth services in their annual plan bid amounts, and permitted accountable care organizations that accept financial risk to bill Medicare for telehealth services originating from the patient's residence and urban areas.) In 2018, Medicare coverage of telehealth services is broad and flexible under payment systems in which providers or payers bear some degree of financial risk, but is more limited under the PFS. The PFS covers telehealth services originating at rural medical facilities and offices, and certain telehealth services are paid for as a part of



a bundle of services delivered in both urban and rural areas. Under Medicare's other FFS payment systems (e.g., hospital inpatient and home health), providers receive a fixed payment for patient encounters and are able to use telehealth services that best serve beneficiaries under the fixed payment. Under the MA program, plans must cover all telehealth and non-telehealth services included in the basic Medicare FFS benefit, but plans can also offer extra telehealth benefits that are supplemental to the basic FFS benefit. MA plans must use rebate dollars or additional premiums to finance extra benefits. Under CMS's CMMI, some entities bearing financial risk (e.g., Next Generation ACOs) have waivers from PFS rules to use telehealth in urban areas or from a patient's residence.

The use of telehealth services under the PFS has grown rapidly in recent years but remained low in 2016. Between 2014 and 2016, telehealth visits per beneficiary increased 79 percent. In 2016, 108,000 beneficiaries accounted for over 300,000 telehealth visits totaling \$27 million in spending. These amounts were 0.3 percent of Medicare FFS Part B beneficiaries and 0.4 percent of Medicare PFS spending. These services were most commonly used for basic physician office and mental health services. Use was concentrated among a small group of clinicians and beneficiaries. Beneficiaries using telehealth services tended to be under age 65, disabled, and dually eligible for Medicare and Medicaid; to reside in rural areas; and to disproportionately have chronic mental health conditions. In addition, an analysis of physician claims for Medicare services suggests that some portion of telehealth claims are supplemental rather than a substitute for in-person services.

## **Commercial insurance plan coverage of telehealth**

The coverage of telehealth services by commercial insurance plans in 2017 was variable. In general, most plans we surveyed covered some form of telehealth service, but few covered a comprehensive set of services. Several plans covered direct-to-consumer (DTC) virtual visits, available to enrollees 24 hours per day using either a telehealth vendor or their own employed clinicians. Plans consistently covered telehealth in both urban and rural areas, but only half covered telehealth from the patient's residence. Telehealth services were most commonly used for basic physician office and mental health services. Commercial insurers often test telehealth using pilot programs before implementation.

In general, cost reduction does not appear to be a significant consideration in plans' decisions to cover telehealth services. Plan representatives with whom we spoke cited competitive pressures from employers or other insurers rather than cost reduction as the primary rationale for covering telehealth services. Except for one insurer, which found that DTC services cost less than urgent care center

and emergency department visits, insurers have not yet determined that telehealth reduces costs or improves outcomes. Cost-sharing levels ranged above and below levels of in-person cost-sharing, suggesting the industry is divided about telehealth's potential value. Overall, the use of telehealth services under commercial plans has been low, at less than 1 percent of plan enrollees.

### **Expanding Medicare coverage of telehealth services**

The Congress mandated that the Commission consider ways in which telehealth services covered under commercial plans might be incorporated into the Medicare FFS program. However, our analysis of a sample of commercial insurers found a lack of uniformity in how these insurers covered telehealth services. Plan coverage varied both in terms of the scope of services covered and the ways in which the coverage was administered (e.g., vendors or other). Commercial insurers thus do not provide a complete or consistent model for further incorporating telehealth services into the Medicare program. In addition, we found that cost is not a significant consideration in commercial insurers' adoption of telehealth services, but, as a public payer, Medicare is obligated to consider costs to the program, beneficiaries, and taxpayers in determining whether to expand coverage of telehealth. Therefore, this report does not make recommendations about specific telehealth services. Instead, the Commission recommends that policymakers use a set of principles (cost, access, and quality) to evaluate individual telehealth services separately before adoption into Medicare coverage. The Commission's principle-based approach can be applied to telehealth services commonly used by commercial plans today and for telehealth services developed or considered for coverage in the future.

Several of the most commonly implemented and tested services by commercial insurers include telestroke services, telehealth services for beneficiaries with disability-related treatment-intensive conditions, tele-mental health services, DTC services, telehealth for nursing home residents, and remote patient monitoring. The majority of these services are currently covered under the Medicare PFS in rural areas at clinical originating sites. In cases where evidence exists that these services balance the cost, access, and quality principles, policymakers could consider adopting them more broadly under Medicare. However, when such evidence is lacking, before adoption, policymakers should consider pilot testing these services through CMMI, just as several commercial insurers test telehealth services before their implementation. Under the Medicare FFS payment systems other than the PFS, providers maintain adequate flexibility to evaluate and use telehealth services. MA plans and risk-bearing ACOs could be granted greater flexibility to use telehealth services because, in bearing financial risk, they have the financial incentive to assess the value of these services. ■

## Mandate: Section 4012 of the 21st Century Cures Act

(b) **Provision of information by MedPAC**—Not later than March 15, 2018, the Medicare Payment Advisory Commission established under section 1805 of the Social Security Act (42 U.S.C. 1395b–6) shall, using quantitative and qualitative research methods, provide information to the committees of jurisdiction of the House of Representatives and the Senate that identifies—

1. the telehealth services for which payment can be made, as of the date of enactment of this Act, under the fee-for-service program under parts A and B of title XVIII of such Act;
2. the telehealth services for which payment can be made, as of such date, under private health insurance plans; and
3. with respect to services identified under paragraph (2) but not under paragraph (1), ways in which payment for such services might be incorporated into such fee-for-service program (including any recommendations for ways to accomplish this incorporation). ■

### Introduction

In Section 4012 of the 21st Century Cures Act of 2016, the Congress mandated that the Commission conduct a study of telehealth services and submit a report by March 15, 2018 (see text box on the mandate). The mandate specifically directs the Commission to provide information to the Congress examining: (1) telehealth services covered under the Medicare fee-for-service (FFS) program under Part A and Part B, (2) telehealth services covered under commercial health insurance plans, and (3) ways in which payment for services covered under commercial health insurance plans might be incorporated into the Medicare FFS program.<sup>1</sup>

The term *telehealth* includes a variety of modalities and services, and the definition continues to evolve. Broadly defined, telehealth services are the exchange of medical information from one site to another by means of electronic communications to improve a patient's clinical health status (American Telemedicine Association 2016). Telehealth modalities can include online two-way video, telephone, smart phone, e-mail, text, or other Internet-enabled devices. Telehealth is used for services such as basic medical care (primary care), specialty care (e.g., stroke, cardiology, dermatology, and mental health), patient monitoring (e.g., in intensive care units or at a patient's residence), case management, education, and off-site interpretation of medical images.

Interest in telehealth services has increased in recent years, and there is broad debate about its efficacy. Advocates assert that telehealth services can expand access to care, increase convenience for patients, improve quality, and reduce costs relative to in-person care. Others contend that telehealth services have the potential to increase use and spending under an FFS payment system because of the incentive providers have to increase volume. Therefore, some believe telehealth is better suited for capitated or bundled payment settings where financial risk is shared by providers or payers. A key element of this debate is whether individual telehealth services are a substitute for or a supplement to in-person services. With regard to Medicare, much of the debate has focused on the coverage of telehealth under Medicare's FFS fee schedule for physicians and other health professionals (referred to as the physician fee schedule, or PFS), but the Medicare Advantage (MA) program and accountable care organizations (ACOs) are also implicated.

In its June 2016 report, the Commission concluded that, under Medicare's PFS, the coverage of telehealth is largely limited to rural areas and certain services; its use by Medicare beneficiaries is low but growing; its use is also low among other payers; evidence is mixed about the efficacy of telehealth services; and any coverage expansion of telehealth should consider the various financial incentives that exist under different payment models (Medicare Payment Advisory Commission 2016).

## Analytical approach

To identify the extent to which telehealth services are covered under Medicare, the Commission gathered information from CMS and analyzed Medicare claims data from 2006 to 2016. To identify the extent to which commercial insurers cover telehealth services, we worked with a contractor to gather documentation from 48 commercial insurance plans operated by 40 managed care organizations (MCOs) describing their telehealth coverage policies. Plan documentation pertained to coverage in 2017 and included documents such as coverage policy memorandums, evidence of coverage documents, and statement of benefits documents.<sup>2</sup> Documentation for each plan was obtained online through the National Committee for Quality Assurance's Health Insurance Plan Ratings 2016–2017 tool; through one of two industry advocacy groups (America's Health Insurance Plans and the Alliance of Community Health Plans); or from MCOs directly. Our sample included some plans chosen randomly and others chosen because we were aware of telehealth coverage in their benefits portfolio. Plans in our sample varied in size (member enrollment); service area scope; profit status; commercial line of business (federal employees and nonfederal employees); and system type (integrated delivery systems with insurance plans and standard insurers). The sample also included plans covering patients in all 50 states and self-insured plans. Care was taken to select plans based in states with and without telehealth parity laws and with state-operated and federally operated marketplace insurance exchanges. (See online Appendix 16-A, available at <http://www.medpac.gov>, for more detail on the characteristics of our sample.)

Additionally, we conducted semi-structured interviews with 14 of the 40 MCOs in our review to identify their rationale for covering (or not covering) telehealth services, their coverage approach, telehealth utilization patterns, and outcomes. Of the 14 chosen, 12 were selected because of their unique coverage of telehealth services, and 2 were selected because they did not cover telehealth services. In 2017, these 14 MCOs had a combined enrollment of approximately 28 million individuals, were geographically diverse, included both large national and small state-level plans, and included both integrated delivery systems with insurance plans and standard insurers. Overall, we believe our analysis is representative of general trends in commercial insurance plans in 2017.

To identify ways in which telehealth services covered by commercial insurance plans might be incorporated into

the Medicare FFS program, we identified differences in the coverage of telehealth between Medicare and commercial plans. We then developed a set of principles for policymakers to use in guiding their evaluation of individual telehealth services to determine whether these services add value to the program. We also constructed a set of examples to illustrate how the Commission's principles can be used to evaluate commercial insurers' commonly covered telehealth services.

To supplement these analyses, we conducted several site visits and focus groups to solicit the opinions and experiences of beneficiaries, physicians, hospitals, home health agencies, payers, and health systems using or offering telehealth services (Summer et al. 2017). In 2017, we conducted site visits and focus groups in Richmond, VA; Charlottesville, VA; Seattle, WA; and Indianapolis, IN and focus groups specific to home health agencies in New Jersey, Maine, and Pennsylvania. We also conducted interviews with 20 telehealth experts and stakeholders representing universities, patients, telehealth vendors and manufacturers, payers, government agencies, and state medical boards regarding telehealth services and Medicare's telehealth coverage.

---

## Background

---

### Telehealth services exist in many forms and are evolving

Telehealth services encompass a large multidimensional group of services and modalities. Overall, telehealth services are used for a variety of clinical applications and are delivered using several modalities (e.g., telephone, e-mail, text, online two-way video, and online remote monitoring devices).<sup>3</sup> In addition, telehealth applications and modalities continue to evolve as providers, payers, and technology firms develop new uses for telehealth services. A more detailed description of telehealth services is included in our June 2016 report but, for the purposes of this chapter, we narrowed our focus to three general types of telehealth: direct-to-consumer (DTC), provider-to-provider (PTP), and remote patient monitoring (RPM). DTC services are patient-initiated telephone or two-way video virtual visits with clinicians from any location with devices such as smartphones, tablets, and computers. DTC services can include routine physician visits, mental health visits, dermatology visits, and other types of services, but are not typically associated with the patients' primary



care provider. PTP services involve a clinician at an originating site—in the presence of a patient—initiating communication with a clinical specialist at a distant site. RPM involves a patient at home being monitored by a clinician from a remote location using two-way video or an electronic device.

### **Impact of telehealth services on access, quality, and costs**

Research to date offers a mixed picture of the efficacy of the various types of telehealth services. A more detailed description of telehealth-related literature is included in our June 2016 report. Highlighting some of the research from our previous report and other recent research, we found that some researchers have asserted that certain types of telehealth services can expand access to care, make care more convenient, improve the quality of care, reduce costs, substitute for in-person visits, and reduce the use of high-cost care such as hospitalizations and emergency department visits. For example, one study concluded that telehealth services used by a small care management program for chronically ill patients reduced spending and led to better quality outcomes (Baker et al. 2011). Another concluded that switching from on-call to telehealth physician coverage in nursing homes could reduce hospitalizations and generate cost savings to payers (Grabowski and O'Malley 2014). A study of Teladoc® services in California concluded that the services expanded access to primary care services to patients who were not previously connected with a primary care physician (Uscher-Pines and Mehrotra 2014). Another study concluded that telehealth services for primary care were a lower cost alternative to care administered in emergency departments (EDs), urgent care facilities, and retail clinics, with similar rates of subsequent follow-up care and lowered rates of lab testing and medical imaging (Gordon et al. 2017).

Other researchers caution policymakers that the process of expanding access and the convenience of telehealth could harm the quality of patient care or drive increases in health care spending by increasing utilization or promoting unnecessary use (Mehrotra 2014, Schwamm 2014). Specifically:

- A 2017 study of primary care telehealth services concluded that these services can increase utilization and health care spending in the process of expanding access and creating convenience. The authors estimated that among the telehealth visits used by

patients with respiratory conditions in California, about 12 percent of their visits substituted for in-person visits and 88 percent of visits represented new utilization (Ashwood et al. 2017).

- A study of more than 100,000 patients over a 6-year period at a large health care system found that the adoption of primary care telehealth visits resulted in a 6 percent increase in all office visits without a measurable improvement in the quality of care. The study also concluded that the added telehealth visits limited physicians from accepting new patients (Bavafa et al. 2017).
- A study of 1,700 patients who received treatment for respiratory infections found that antibiotics were prescribed as frequently among doctors providing care through telemedicine appointments as among physicians who saw patients in person, but the types of antibiotics prescribed by means of telehealth were more expensive and could increase antimicrobial resistance (Uscher-Pines et al. 2015).
- A study of a small group of older adults with multiple health issues who were given access to RPM services concluded that patients with access to RPM had similar levels of hospitalizations as, and higher mortality rates than, patients who did not receive RPM (Takahashi et al. 2012).
- A study of Medicare beneficiaries' use of telehealth services for mental health care concluded that these services generally supplemented—rather than substituted for—in-person services and did not widely expand access to mental health care in rural areas beyond a small group of beneficiaries (Mehrotra et al. 2017).
- A 2016 report by the Agency for Healthcare Research and Quality (AHRQ) examined 58 peer-reviewed articles concerning telehealth and found mixed results regarding access, quality, and costs. AHRQ did not find strong evidence supporting the economic benefits and cost savings of telehealth use but concluded that telehealth can produce positive health outcomes for RPM patients, for certain chronic conditions, and for psychotherapy (Totten et al. 2016).

Some argue that telehealth is similar to retail health clinics in that it improves the convenience of care. If the convenience created by telehealth is comparable to that of retail clinics, then studies of retail clinics may

serve as a proxy for telehealth services. For example, a 2012 analysis of retail clinics suggests that the greater convenience they offer to patients may increase use and spending (Mehrotra and Lave 2012). It is unclear whether a similar increase in use and spending would also apply to all types of telehealth services. In addition, a recent study of commercial insurance claims found that 58 percent of retail clinic visits for low-acuity conditions represented new utilization and that retail clinic use was associated with an increase in spending of \$14 per person per year (Ashwood et al. 2016).

## Issues affecting telehealth

Issues affecting telehealth implementation include the passage of telehealth parity laws in some states, variation in state licensing of clinicians, and variation in coverage and payment for telehealth across government payers.

### Telehealth parity laws

As of July 2017, 35 states and the District of Columbia have telehealth parity laws that require private insurers to cover or pay for telehealth services to some degree on a basis equal to in-person health care services (American Telemedicine Association 2017a). These laws vary widely by state with respect to service coverage, payment methodology, eligible patients and providers, authorized technologies, and patient consent (Trout et al. 2017). Some state parity laws limit coverage to certain modalities of telehealth. Other states limit telehealth parity to certain health conditions. The variation in these parity laws has been cited by some payers and vendors as a barrier to the expansion of telehealth (American Telemedicine Association 2017b). (For more information on telehealth parity laws, see the Commission's June 2016 report to the Congress, available at <http://www.medpac.gov>.)

### State-level licensing of clinicians

Telehealth programs operating across state lines must adhere to strict state-level physician and nurse licensing rules. Clinicians must be licensed in the state in which the patient they are treating is located, and each state has its own licensure requirements that typically do not permit partial or temporary licensure. Gaining state licensure is often a lengthy and time-consuming process. Therefore, advocates of telehealth coverage expansion cite state licensure as a significant barrier to greater use of these services. (For more information on state-licensing issues, see the Commission's June 2016 report to the Congress, available at <http://www.medpac.gov>.)

## Government payers and telehealth coverage and payment policy

Several government entities have established coverage and payment policies related to telehealth services. These policies vary widely across state Medicaid programs and the Department of Veterans Affairs (VA).

**Medicaid programs** State governments have established a variety of telehealth coverage policies for their Medicaid programs. CMS does not limit the use of telehealth in Medicaid; therefore, states individually determine whether to cover telehealth and how to cover it (Government Accountability Office 2017c). Payment for telehealth services provided under Medicaid FFS largely resembles how telehealth services are paid for under Medicare FFS, with physician-based telehealth services paid for on an item-by-item basis and facility-based telehealth services incorporated in the fixed payment for a unit of care. However, compared with Medicare, more Medicaid beneficiaries are in managed care (60 percent of Medicaid enrollees vs. 30 percent of Medicare beneficiaries) (Medicaid and CHIP Payment and Access Commission 2016, Medicare Payment Advisory Commission 2017). It is unclear what share of the Medicaid population uses telehealth services, but 49 of the 51 state or District of Columbia Medicaid programs covered some form of telehealth service in 2017. Elements of coverage that were relatively consistent across Medicaid programs include the coverage of telehealth in urban areas (48 programs), tele-mental health services (49 programs), telehealth using two-way video (48 programs), and telehealth from the patient's residence (40 programs). Elements of coverage that were less consistent include RPM services (22 programs), any type of clinician bill for telehealth (19 programs), coverage of asynchronous services (13 programs), and complete parity between telehealth and in-person services (9 programs).

**Department of Veterans Affairs** The VA has had telehealth programs in place for over a decade. Most of its use has been in rural areas. In fiscal year 2015, the VA's telehealth programs served 12 percent of VA beneficiaries (736,000 veterans) (Department of Veterans Affairs 2017, Government Accountability Office 2017b). In fiscal year 2014, 55 percent of VA telehealth visits were for veterans living in rural areas (Department of Veterans Affairs 2014). The VA has three categories of telehealth programs: clinical video telehealth (CVT), home telehealth (HT), and store-and-forward telehealth (SFT). VA staff stated that the VA's telehealth programs are possible, in part, because the VA is an integrated delivery system in which each of their 21



Veterans Integrated Service Networks (VISNs) receives a capitated annual budget to use toward health care planning and resource allocation for the facilities and veterans within its geographic areas (Oliver 2007, Veterans Health Administration 2016).<sup>4</sup> VISNs have the incentive to use telehealth if it lowers costs. The VA sets telehealth cost sharing at either a level equal to in-person services or \$0, depending on the service. (For more detail on VA telehealth activities, see the Commission's June 2016 report to the Congress, available at <http://www.medpac.gov>.)

**Department of Defense** The Department of Defense (DoD) uses telehealth services in its system for active-duty service members and its TRICARE system for military families and retired service members. In 2016, roughly 1 percent of active service members (13,000 individuals) received care through telehealth (Government Accountability Office 2017a). In 2015, across both DoD's active-duty and TRICARE components, roughly 0.3 percent of members (25,000 individuals) received care through telehealth. The most commonly offered telehealth services were behavioral health/psychiatry services, which accounted for 80 percent of that year's telehealth encounters, followed by dermatology, cardiology, and pediatric services (Government Accountability Office 2017b). DoD largely relies on two-way video to share DoD resources and connect patients with providers not accessible in their local area.

In the TRICARE and active-military systems, telehealth services are either provided through direct care (by DoD-employed providers) or purchased care (by civilian providers), with the use of telehealth generally more flexible under direct care. Under direct care, payment for telehealth services is incorporated into a global budget that the facility or installation receives. There are few restrictions on the types of telehealth services and the originating sites permitted. In 2016, DoD approved the patient's residence as an originating site as long as the provider's distant site is in a military treatment facility (Department of Defense 2016). DoD also permits the use of RPM for patients with diabetes and heart conditions, but this use has occurred largely as a part of DoD pilot programs (Government Accountability Office 2017b). There is no cost sharing for telehealth services under the active-military system, and cost sharing is equal to in-person services under the TRICARE system. By contrast, under the purchased care component of DoD health care, payment for telehealth services is made on an FFS basis, and the types of services are limited to basic clinical services such as consultations, office visits,

individual psychotherapy, psychiatric diagnostic exams, pharmacologic management, and end-stage renal disease (ESRD) services.

---

## Medicare payment for telehealth services

---

(As this report was being finalized, the Congress passed the Bipartisan Budget Act of 2018, which contained changes to the coverage of telehealth services under Medicare. In general, the Bipartisan Budget Act of 2018 expanded the coverage of telehealth services under the physician fee schedule to include the treatment of strokes in urban areas, permitted Medicare Advantage plans to include some of the costs of telehealth services in their annual plan bid amounts, and permitted accountable care organizations that accept financial risk to bill Medicare for telehealth services originating from the patient's residence and urban areas.) In 2018, Medicare coverage of telehealth services is broad and flexible under payment arrangements in which providers or payers bear some financial risk, but more limited under the PFS. Under the PFS, Medicare covers a limited set of telehealth services in rural locations, but providers have the incentive to use these services without regard to the impact on total spending (Table 16-1, p. 480).<sup>5</sup> Under Medicare's other FFS payment systems (e.g., inpatient hospitals and home health agencies), providers receive fixed payments for patient encounters (e.g., hospital admissions, 60 days of home health services), and telehealth services are contemplated as a part of the fixed payment. Under CMS's Center for Medicare & Medicaid Innovation (CMMI), organizations in programs such as the Next Generation ACO initiative and the Comprehensive Care for Joint Replacement (CCJR) model have waivers to use telehealth services beyond the limitations of the PFS.<sup>6</sup> Under the MA program, payments to plans are capitated. Plan coverage must include the telehealth services covered under the PFS, but plans can finance the coverage of additional telehealth services of their choice through supplemental premiums or rebate dollars. (These supplemental benefits may not be built into the plan bid amount.)

## Fee schedule for physicians and other health professionals

Section 1834(m) of the Social Security Act specifies that, under the PFS, Medicare covers a limited set of telehealth services, modalities, and providers, and only in rural locations. Medicare coverage of telehealth services

**TABLE  
16-1**

**Coverage of telehealth services across Medicare payment systems, 2018**

Medicare payment system	Total program spending		Telehealth coverage	Description of payment for telehealth services	Provider/plan incentives for telehealth use
	Dollars (in billions)	Percent			
Fee-for-service: Physician fee schedule	\$70	12%	Limited to rural locations, certain services, and two-way video; originating sites must be facilities	Separate payment for each discrete service	Increase use without explicit incentive to control costs
Fee-for-service: IPPS/OPPS hospital, IRF, LTCH, ESRD, ASC, SNF, HH, hospice	\$269	46	Flexibility to use telehealth services that best treat the patient	Payment contemplated as a part of a fixed payment for each patient encounter	Use telehealth if it reduces costs; at risk if cost of encounter exceeds fixed payment
Medicare Advantage	\$170	29	Must mirror Medicare FFS coverage and have flexibility to offer services beyond the PFS	Capitated payment includes telehealth services covered under PFS, but extra telehealth services must be financed with supplemental premiums or rebate dollars	Use telehealth if it reduces costs; at risk if annual beneficiary costs exceed payment
ACOs (two-sided risk)	N/A	N/A	Waiver to provide telehealth services in urban locations and from patients' homes	Separate payment for each discrete service, but receive a bonus payment if annual costs are lower than spending target	Use telehealth if it reduces costs; will not receive bonus payment if annual beneficiary costs exceed target

Note: IPPS (inpatient hospital prospective payment system), OPFS (outpatient hospital prospective payment system), IRF (inpatient rehabilitation facility), LTCH (long-term care hospital), ESRD (end-stage renal disease), ASC (ambulatory surgical center), SNF (skilled nursing facility), HH (home health), FFS (fee-for-service), PFS (physician fee schedule; also referred to as the fee schedule for physicians and other health professionals), ACO (accountable care organization), N/A (not applicable). Total system spending includes payment for all services. Percentages of spending across the Medicare payment systems do not sum to 100 percent because Medicare Part D (\$80 billion in 2015) is not shown. Therefore, the denominator used to calculate the percentages in the third column includes spending for the PFS, all other FFS systems, Medicare Advantage, and Part D. ACO-related spending is included in the two FFS payment system categories. Home health agencies and hospices are not permitted to include the cost of telehealth services in their annual cost reports; as a result, these costs are not built into their payment rates.

Source: MedPAC analysis of CMS claims data files and and fiscal year/calendar year 2018 final rule regulations.

under the PFS began in 2001 with the enactment of the Balanced Budget Act of 1997 and has evolved since then. Since the Balanced Budget Act of 1997, the Congress expanded telehealth coverage by increasing the list of approved providers, modifying the payment structure, and expanding the definition of rural areas. CMS has increased the number of permissible telehealth services through regulation by increasing the number of billing codes. (See online Appendix 16-B for a list of PFS telehealth billing codes in 2018, available at <http://www.medpac.gov>.)

Currently, the originating site—where the patient is located—receives a PFS telehealth facility fee payment of about \$26, and the clinician or critical access hospital

(CAH) at the distant site receives the full PFS payment rate (Table 16-2). Originating sites are required to be in rural areas, defined as those in rural health professional shortage areas (HPSAs) or in a county outside of a metropolitan statistical area (MSA), and they can only be physician offices, hospitals, CAHs, rural health centers, skilled nursing facilities (SNFs), federally qualified health centers, community mental health centers, or hospital-based dialysis facilities.<sup>7</sup> Medicare also permits entities participating in some federal telehealth demonstration programs to bill for telehealth services occurring in urban areas from a beneficiary's residence. In addition, clinicians are not required to be present at the originating site with the beneficiary unless it is medically necessary. By

**TABLE  
16-2**

**Medicare physician fee schedule requirements for telehealth services, 2018**

Requirement	Description
Payment	<i>Originating site:</i> fixed telehealth facility fee of about \$26, subject to standard Part B cost-sharing rules <i>Distant site:</i> full PFS facility-based payment rate, subject to standard Part B cost-sharing rules
Geographic limitations	<i>Originating sites:</i> rural locations (a county outside of an MSA, rural HPSA, or HPSA that falls within an MSA but in a rural census tract) <i>Distant sites:</i> none
Types of sites	<i>Originating sites:</i> hospitals, CAHs, physician offices, FQHCs, rural health centers, SNFs, community mental health centers, and hospital-based dialysis centers <i>Distant sites:</i> physicians and other health professionals and CAHs
Services covered	<i>General services:</i> E&M visits, subsequent care in the hospital or SNF, annual wellness visits, general consultations (inpatient, emergency department, or outpatient setting), and transitional care management <i>Kidney disease:</i> kidney disease education (individual and group), diabetes self-management training (individual and group), and ESRD-related services <i>Mental health:</i> health and behavior assessment and interventions, psychotherapy (individual and family), psychoanalysis, psychiatric diagnostic interviews, depression screening, neurobehavioral status exams, and behavioral counseling to prevent sexually transmitted infection <i>Substance abuse:</i> assessments and interventions, alcohol misuse screening and counseling, smoking cessation <i>Nutrition therapy</i> (individual and group) <i>Pharmacological management</i> <i>Cardiovascular disease behavioral therapy</i> <i>Obesity counseling</i>
Modality of telehealth	Two-way video conferencing (all states) Asynchronous store-and-forward technology (only in Alaska and Hawaii)
Beneficiary cost sharing	20 percent of the originating site amount and 20 percent of the distant site amount after meeting the deductible
Limitations on use	One E&M visit per day, one subsequent hospital care service every 3 days, and one subsequent nursing facility care service every 30 days

Note: PFS (physician fee schedule; also referred to as the fee schedule for physicians and other health professionals), MSA (metropolitan statistical area), HPSA (health professional shortage area), CAH (critical access hospital), FQHC (federally qualified health center), SNF (skilled nursing facility), E&M (evaluation and management), ESRD (end-stage renal disease).

Source: CMS fiscal year 2018 final rule regulation for the fee schedule for physicians and other health professionals.

contrast, at distant sites—where the provider is contacted remotely—clinicians must be present.<sup>8</sup>

Coverage of telehealth services is limited by modality and service type (Table 16-2). Statute has limited the modality of Medicare telehealth coverage to live two-way video, with one exception. In Alaska and Hawaii,

asynchronous store-and-forward technology (e.g., e-mailing a saved diagnostic image or video) is permitted. The list of telehealth services Medicare covers has grown incrementally for several years. Many covered telehealth services are defined in statute, but CMS also has expanded coverage to some services through regulation. The services currently covered include certain general health

care services (e.g., evaluation and management visits and annual wellness visits) and those related to kidney disease, behavioral health, substance abuse, smoking cessation, nutrition therapy, pharmacological management, and cardiovascular disease behavioral therapy. Among other recently added codes, CMS added a new critical care service code intended for the use of telestroke services in 2017. CMS made another notable change to telehealth policy in 2017 by beginning to pay providers for distant-site telehealth services using the lower paying facility-based practice expense relative value unit (RVU) rates rather than nonfacility rates.<sup>9</sup> As a result, a distant-site telehealth visit for a midlevel office visit in 2017 would receive a payment of \$52 under the facility-based rate rather than \$74 under the office-based rate.

Beneficiary cost-sharing responsibilities for telehealth services are the same as for other Part B services, and the same rules apply to both the originating and distant site components of the encounter. Therefore, after meeting the deductible, beneficiaries must pay 20 percent of the Medicare-allowed originating site amount and 20 percent of the Medicare-allowed distant site amount (Table 16-2). However, because most Medicare beneficiaries have supplemental coverage, they are likely shielded from these cost-sharing responsibilities.

Three utilization limitations apply to telehealth services under the PFS (Centers for Medicare & Medicaid Services 2017a). Similar to the limitation on in-person service use, physicians can bill Medicare for only one visit per day. Medicare limits the number of subsequent hospital care services conducted using telehealth to one visit every three days. Medicare limits the number of subsequent nursing facility services conducted using telehealth to 1 visit every 30 days (Table 16-2).

### **Coverage of telehealth services bundled into management codes**

The PFS includes several service codes that bundle beneficiary care management services in a fixed payment in which telehealth services are incorporated. In 2013, CMS instituted separate monthly payments for transitional care management (TCM) services for beneficiaries who require moderate- or high-complexity medical decision making. TCM services are intended to pay providers for managing a beneficiary's care for 30 days after discharge from certain institutional settings such as an inpatient acute care hospital, inpatient psychiatric hospital, or skilled nursing facility. Telehealth services can be used to fulfill the payment requirements for services billed

under TCM codes, and payment for any telehealth service used as a part of these codes is contemplated in the fixed payment for the bundle of management services.<sup>10</sup> In 2015, Medicare began paying separately through the PFS for monthly chronic care management (CCM) services that are not provided in person. Similar to TCM codes, telehealth services can be used to fulfill the payment requirements for services billed under CCM codes, and payment is contemplated in the fixed payment for the bundle of CCM services. In 2018, CMS also began paying clinicians for the interpretation of medical information collected through RPM technology. CMS will pay clinicians to review and interpret these data, but will not pay clinicians for two-way video visits using RPM.<sup>11</sup> This service can be billed by the clinician once every 30 days. The PFS limitations on telehealth use (i.e., urban vs. rural) do not apply to TCM, CCM, or RPM.<sup>12</sup> Telehealth services can also be billed under several other PFS management codes.<sup>13</sup>

### **Coverage of remote interpretation of tests, cardiac monitoring, and retinal imaging**

Medicare covers many services under the PFS that involve a practitioner's remote interpretation of a diagnostic test and some services that involve remote patient monitoring, although CMS does not define these as telehealth services. Medicare covers diagnostic tests in which a practitioner reviews and interprets a visual image (e.g., X-ray, MRI) related to the patient's condition, even if the practitioner performs this service in a location different from the patient's location (Centers for Medicare & Medicaid Services 2016c). To receive payment, these services must be provided within the United States and the practitioner must be licensed in the state in which the patient is located. Medicare also covers remote cardiac monitoring services and remote monitoring of implantable cardiac devices, plus remote imaging for the detection of retinal disease and remote imaging for monitoring and management of active retinal disease.

### **Medicare FFS payment systems other than the PFS**

Under the Medicare FFS payment systems other than the PFS (including Medicare's payment systems for inpatient and outpatient hospitals, SNFs, inpatient rehabilitation facilities, long-term care hospitals, ESRD care, home health care, and hospice), facilities are permitted to use telehealth services if they believe it is an efficient way to treat patients. These payment systems differ from the PFS because facilities receive a fixed payment for all services—including telehealth services—in the



beneficiary encounter. Therefore, telehealth services are contemplated in the fixed payment. Thus, generally, hospitals can use telehealth services to treat beneficiaries in the inpatient intensive care unit (ICU) but do not receive a separate payment for the originating site fee for these services because the hospital's all-inclusive payment is based on the Medicare severity–diagnosis related group corresponding to the patient's condition. This payment approach is true of hospitals located in both urban and rural areas. However, with regard to the PFS payment for the telehealth services in this ICU example, the distant site physician can bill for the telehealth consultation services they are providing to the ICU patient when the case originates in a rural hospital, but not in an urban hospital.

### **Medicare Advantage**

There are three avenues through which MA plans can provide telehealth to their enrollees. The first is through the telehealth services that are specified in Medicare's basic FFS benefit. MA plans must cover all services covered by the basic FFS benefit, and these services are subject to the same limitations as telehealth services covered under the PFS. For example, MA plans must cover telehealth physician office visits and telehealth psychotherapy visits for MA enrollees in rural areas. In addition, MA plans must cover institutional providers' (e.g., hospitals' or SNFs') use of telehealth services during a Medicare-covered stay in which, under the applicable FFS payment systems, the telehealth service would be included in the fixed payment for that admission.

The second avenue for receiving telehealth services is through services that are adjunct to the delivery of services that are covered under Medicare FFS. In Medicare FFS, providers do not bill separately for services that are considered adjunct to or complementary to PFS services. Instead, adjunct services are closely linked to certain PFS services and therefore considered part of the basic Medicare FFS benefit that MA plans must cover. For example, e-mail communication between physicians and patients are part of the basic FFS benefit, even though the communication takes place before or after a Medicare-covered office visit (Centers for Medicare & Medicaid Services 2016a). A beneficiary discussing a lab test result with a clinician by e-mail or telephone can also be viewed as an adjunct service.

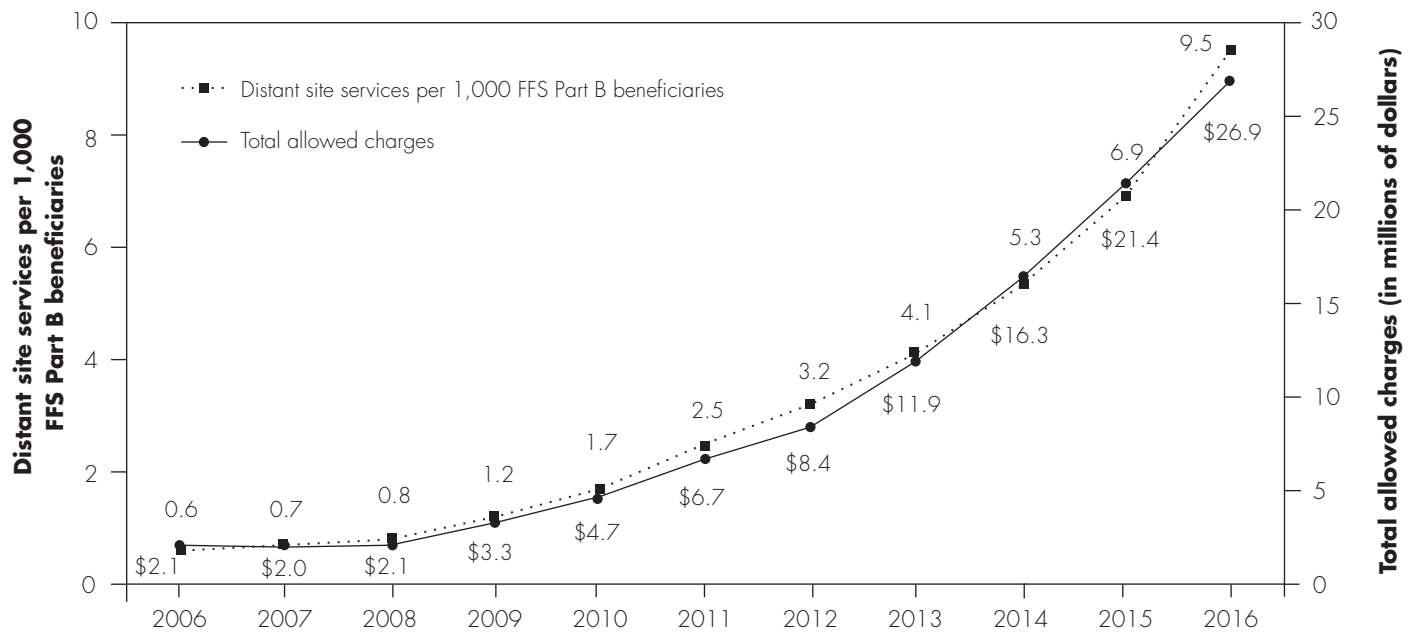
The third avenue for receiving telehealth services is through an MA plan's supplemental, or extra, benefits—that is, benefits that plans can provide in addition to the

basic Medicare FFS benefit. CMS conducts reviews of supplemental benefit packages to ensure that these benefits do not substitute for in-person services included in the Medicare FFS benefit and are optional for beneficiaries to use and that the plan continues to meet CMS's network adequacy standards without relying on telehealth services (Centers for Medicare & Medicaid Services 2014). For example, a plan could offer RPM for urban patients with multiple chronic conditions as an extra benefit because it is not covered as a basic FFS benefit and does not substitute for a basic FFS service. MA plans consider the cost of providing a supplemental benefit during the standard plan bidding process. As a part of this process, MA plans submit an annual bid to CMS for the cost of providing all Part A and Part B services. If the bid is below a local benchmark of relative FFS Medicare spending, the plan receives a rebate based on the difference between the bid and the benchmark. If the bid is above the benchmark, a plan must charge beneficiaries a supplemental premium to cover the difference. The bid does not cover the cost of any supplemental benefits. To finance the cost of a supplemental benefit package, MA plans can use their rebate dollars (if their bid is below the local benchmark) or charge beneficiaries a supplemental premium (if the rebate dollars do not cover the cost of the supplemental benefit or if their bid is above the benchmark). The assumption is, all else being equal, offering the supplemental benefit may reduce the use of medical services in the aggregate, resulting in lower costs, lower premiums, and thus higher rebates from future below-benchmark bids.

Some MA plans offered supplemental telehealth benefits in 2017, generally in two categories of telehealth services. For plan year 2017, CMS reports that 219 MA plans (8 percent of plans) covered RPM services and 2,115 plans (77 percent of plans) covered “remote access technologies”—a broad category of services CMS defines as services including e-mail, two-way video, and nurse call-in telephone lines (Centers for Medicare & Medicaid Services 2016b). Between 2016 and 2017, the share of MA plans covering RPM was unchanged, and the share covering remote access technologies increased from 73 percent to 77 percent.

### **Several CMMI models allow telehealth service use**

Several of the delivery and payment models currently being tested by CMMI allow for expanded use of telehealth services in Medicare. These models bear financial risk and include the CCJR model, the Next Generation ACO Model, the Bundled Payments for Care

**FIGURE  
16-1****Utilization of Medicare physician fee schedule distant site telehealth visits per 1,000 FFS Part B beneficiaries and total allowed charges for telehealth visits, 2006 to 2016**

Note: FFS (fee-for-service).

Source: CMS Carrier file claims data.

Improvement (BPCI) initiative, State Innovation Models, and Health Care Innovation Awards. In total, 27 CMMI initiatives are testing telehealth service use.

- The Next Generation ACO model includes ACOs that assume higher levels of financial risk (often referred to as two-sided risk) compared with ACOs in other initiatives (e.g., the Medicare Shared Savings Program) (Centers for Medicare & Medicaid Services 2016c). Next Generation ACOs have a waiver to use telehealth services at urban originating sites and from the beneficiary's residence. To date, the use of telehealth services under this model has been low (Government Accountability Office 2017b). It is unclear whether evidence of low use is the result of actual low use or the failure of providers to appropriately identify telehealth services on claims, which could complicate the evaluation of these services.
- The CCJR model tests bundled payment and quality measurement for an episode of care associated with hip and knee replacements. Under this model, providers accepting financial risk have a waiver to use telehealth services at urban originating sites and from the beneficiary's residence (Centers for Medicare & Medicaid Services 2015b).
- The BPCI is a voluntary program testing whether bundled payments for posthospital discharge episodes can reduce Medicare spending while maintaining or improving the quality of care. Providers participating in BPCI are allowed to use telehealth from urban originating sites (Lewin Group 2015). To date, the use of telehealth under this program has been low (Government Accountability Office 2017b).
- The 18 Health Care Innovation Awards (HCIAs) are relatively small initiatives with a diverse set of clinical and strategic goals. A few HCIAs incorporate telehealth services; none focus exclusively on telehealth. A recent meta-analysis of the HCIAs concluded that those HCIAs that include telehealth



**TABLE  
16-3****Medicare physician fee schedule distant site telehealth services, by type, 2016**

Type of service	Number of services	Share of distant site services	Percent change in the number of distant site services from 2014 to 2016
Office or other outpatient visits (E&M)	183,996	58%	59%
Psychotherapy	55,859	18	180
Follow-up inpatient telehealth consultations	17,959	6	129
Psychiatric diagnostic interview examination	17,091	5	32
Telehealth consultations, emergency department or initial outpatient	13,711	4	80
Subsequent nursing care services	12,115	4	263
Subsequent hospital care services	9,463	3	93
Pharmacological management	4,384	1	148
End-stage renal disease–related services	1,978	1	83
Other telehealth services	2,025	1	226
Total	318,581	100	81

Note: E&M (evaluation and management). Components may not sum to totals due to rounding.

Source: CMS Carrier file claims data.

services did not generate cost savings (Smith et al. 2017). However, it is unclear how to interpret this finding specifically with regard to telehealth services because many of these HCIAAs include telehealth services within a larger package of non-telehealth services, such as care management services.

### Medicare physician fee schedule telehealth volume and spending are low but increasing

The use of telehealth services under the Medicare PFS remains relatively low, but has increased rapidly in recent years. On a per beneficiary basis, in 2016, Medicare beneficiaries used 9.5 telehealth distant site services per 1,000 FFS Part B beneficiaries (Figure 16-1). By contrast, in the same year, Medicare beneficiaries had 7,800 total physician visits per 1,000 FFS Part B beneficiaries. Between 2014 and 2016, the number of telehealth services used per beneficiary increased 79 percent. During that time, the number of unique Medicare beneficiaries using telehealth services increased 57 percent, from 68,000 beneficiaries (0.2 percent of all FFS Part B beneficiaries) to 108,000 beneficiaries in 2016 (0.3 percent of all FFS Part B beneficiaries or 0.8 percent of rural part B beneficiaries) (data not shown). Overall, in 2016, these beneficiaries accounted for 319,000 distant site telehealth services and 175,000 originating site services (Table 16-3).<sup>14</sup> Between

2014 and 2016, spending associated with both originating and distant site telehealth services increased 65 percent, from \$16.3 million to \$26.9 million (Figure 16-1).

### Types of telehealth services provided under the physician fee schedule

The most common types of telehealth services in 2016 were basic physician office services (i.e., evaluation and management (E&M) services) and mental health services (Table 16-3). E&M services accounted for 58 percent of all telehealth services, while psychotherapy visits accounted for 18 percent of services. In 2016, 99 percent of Medicare's telehealth services were synchronous (two-way video); less than 1,000 services were asynchronous (e.g., interpretation of images saved and transmitted electronically) (data not shown). Telestroke services—a service in which ED clinicians consult with stroke specialists in distant locations to diagnose and treat patients suspected of experiencing a stroke—accounted for approximately 2,000 services, which may be an underestimate due to anecdotal suggestions that telestroke providers may not bill Medicare for all of these services. Between 2014 and 2016, the volume of telehealth visits billed under the PFS increased most rapidly for services such as follow-up inpatient and nursing care, psychotherapy, and medication management. Growth rates

**TABLE  
16-4****Telehealth users by chronic condition and use, 2016**

Chronic condition category	Percent of users		Number of telehealth claims per beneficiary
	Telehealth	Non-telehealth	
All users	100%	100%	2.5
Any of 20 chronic conditions	92	79	N/A
Hypertension	44	43	2.6
Depression	37	12	2.8
Diabetes	24	19	2.7
Schizophrenia and other psychotic disorders	19	2	2.9
Bipolar disorder	18	2	2.8
Obesity	14	8	2.6
Chronic obstructive pulmonary disorder	14	8	2.7
Congestive heart failure	12	8	2.9
Stroke	4	2	3.1

Note: N/A (not applicable). The assignment of chronic condition categories for beneficiaries is conducted by CMS. The 20 chronic conditions used for this analysis are diabetes, depression, congestive heart failure, rheumatoid arthritis, Alzheimer's disease, chronic obstructive pulmonary disease, bipolar disorder, obesity, dual eligibility, schizophrenia and other mental disorders, stroke, hypertension, hyperlipidemia, ischemic heart disease, kidney disease, asthma, Alzheimer's disease-related disorders, atrial fibrillation, osteoporosis, and cancer. Beneficiaries can be classified in more than one chronic condition category.

Source: Medicare claims data and Master Beneficiary Summary File.

for many individual services were high over this two-year period because levels of use were extremely low in 2014.

**Providers and clinicians using telehealth under the physician fee schedule**

A relatively small group of providers billed Medicare for telehealth services in 2016, both for originating site claims and distant site claims. Among clinicians providing telehealth services from distant sites, 10 percent accounted for 72 percent of distant site telehealth claims. About 2 percent of those clinicians (105 clinicians) provided two or more distant site telehealth claims per working day. Among clinicians providing telehealth services from the originating site, 10 percent accounted for 70 percent of originating telehealth claims. Nearly 3 percent of those clinicians (61 clinicians) provided 2 or more originating site telehealth claims per day.

Physician offices were the most common originating and distant site locations, and physicians and nurse practitioners specializing in mental health services were the most common clinicians. Some 5,400 unique distant sites and 2,400 unique originating sites billed Medicare for a telehealth service. Of the distant sites in 2016, 59 percent were physician offices and 10 percent were

community health centers. Among the originating sites, 80 percent were physician offices and 14 percent were hospital outpatient departments (including EDs). At both distant and originating sites, more than 50 percent of clinicians conducting telehealth visits were physicians and 20 percent were nurse practitioners. Other clinicians using telehealth included clinical psychologists, social workers, nurses, and physician assistants. Among these clinicians, 55 percent were behavioral health clinicians.<sup>15</sup>

**Geographic characteristics of telehealth use under the physician fee schedule**

In 2016, Medicare telehealth visits occurred in all 50 states and the District of Columbia, but recent growth was more pronounced in certain states with large rural populations. Overall use of telehealth services was highest in Iowa, North Dakota, and South Dakota, where more than 40 telehealth services were provided per 1,000 FFS beneficiaries. The 10 states with the highest use of these services have large rural populations and collectively accounted for 34 percent of Medicare's PFS telehealth services. By contrast, the 10 states with the lowest use of telehealth services have large urban populations and collectively accounted for 3 percent of Medicare's telehealth services. The rate of growth in telehealth

**TABLE  
16-5****Medicare physician fee schedule evaluation and management service use for telehealth users and non-telehealth users, 2016**

Type of beneficiary	Average number of E&M claims per beneficiary			Telehealth claims as a percent of non-telehealth E&M claims
	Telehealth	Non-telehealth	All	
Telehealth users with midlevel risk scores	1.6	6.6	8.2	24%
Non-telehealth users with midlevel risk scores	0.0	6.6	6.6	N/A

Note: E&M (evaluation and management), N/A (not applicable). Telehealth users were defined as those with at least one claim containing a telehealth E&M service in 2016. Non-telehealth users were defined as those without a telehealth E&M claim and at least one claim containing a non-telehealth E&M service in 2016.

Source: Medicare claims data and Master Beneficiary Summary File.

services between 2014 and 2016 was higher in the 10 high-use states (91 percent per beneficiary) than in the 10 low-use states (75 percent per beneficiary). In addition, in 2016, 11 percent of telehealth services involved a patient in one state consulting with a clinician at a distant site in a different state.

**Beneficiary utilization of telehealth services under the physician fee schedule**

A small share of beneficiaries accounted for much of the telehealth use. In 2016, 108,000 FFS beneficiaries (0.3 percent) used telehealth services at a rate of 3 services per person per year. Ten percent of the telehealth users (10,800 beneficiaries) accounted for 46 percent of telehealth services. These users had an average of 17 claims in 2016 and \$714 in Medicare payments for their telehealth services. The 100 most frequent users of telehealth services accounted for 4 percent of services and averaged 135 services and \$4,200 in Medicare payments. These high users most commonly used telehealth for office visits, psychotherapy, and inpatient follow-up.

Beneficiaries using telehealth services in 2016 tended to be under age 65, eligible for Medicare through disability, and dually eligible for Medicare and Medicaid. In 2016, beneficiaries under age 65 accounted for 56 percent of telehealth services. However, across all Medicare beneficiaries in 2015, those under age 65 accounted for just 17 percent of beneficiaries (Centers for Medicare & Medicaid Services 2015a). In 2016, 53 percent of telehealth users were eligible for Medicare through disability and 62 percent were dually eligible for Medicare

and Medicaid. By contrast, dually eligible beneficiaries account for roughly 20 percent of the Medicare population. These dual-eligible beneficiaries accounted for 71 percent of telehealth claims. Among all telehealth users in 2016, 57 percent resided in rural locations and 43 percent in urban locations.<sup>16</sup>

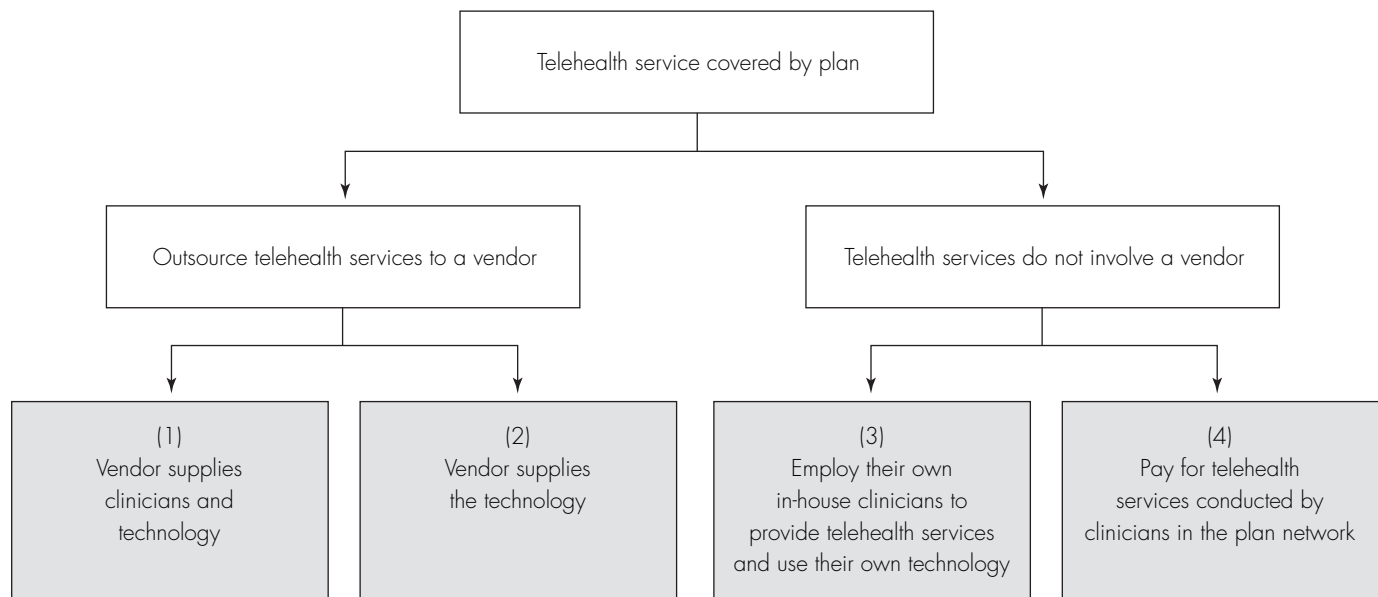
The vast majority of Medicare's telehealth users (92 percent) were categorized in at least 1 of CMS's 20 chronic condition categories, compared with 79 percent of non-telehealth users (Table 16-4). Telehealth users most commonly had hypertension (44 percent) and depression (37 percent), compared with 43 percent and 12 percent of nonusers, respectively. A disproportionate share of telehealth users were classified in the schizophrenia (19 percent) and bipolar disorder (18 percent) categories, compared with non-telehealth users. Across all claims that included a telehealth service, the average telehealth user had 2.5 telehealth claims in 2016, but beneficiaries with chronic conditions such as schizophrenia (2.9 claims), congestive heart failure (2.9 claims) and stroke (3.1 claims) had a higher number of claims.

**Telehealth E&M claims appear to supplement in-person E&M claims**

Controlling for patient risk, we found that telehealth users in 2016 used non-telehealth E&M physician services at rates similar to non-telehealth users. Beneficiaries with midlevel risk scores—both telehealth users and non-users—had an average of 6.6 E&M claims that were not telehealth (Table 16-5).<sup>17</sup> In addition to these E&M claims, telehealth users had an average of 1.6 telehealth

**FIGURE  
16-2**

**Four telehealth delivery pathways of commercial insurance plans**



E&M claims. These findings suggest that, for telehealth users, as much as 24 percent of all their E&M claims, or 100 percent of their telehealth E&M claims, were supplemental to rather than substitutional for in-person claims.

### **Commercial insurance plan coverage of telehealth services varied in 2017**

The coverage of telehealth services by commercial insurance plans was not uniform in 2017. Plans have generally been motivated to offer these services because of competitive pressure from employers and other insurers rather than because of anticipated or actual cost reduction. The use of the telehealth services by commercially insured patients has been low to date, and insurers report little evidence of telehealth reducing costs or improving outcomes. However, they report that telehealth has improved patients' access to services. Our analysis evaluated the 2017 coverage of a diverse sample of 48 plans and was followed by interviews with 14 MCOs.

Many of the 48 commercial plans in our sample offered some form of telehealth coverage to enrollees in 2017, but this coverage varied widely. Most plans covered one or two types of telehealth services; only a few covered a comprehensive set of services. The most frequently covered telehealth services were basic E&M physician visits. These telehealth physician visits were often conducted through DTC, delivered by clinicians contracted through a telehealth vendor or employed by the MCO directly to act as an additional source of care. Therefore, the DTC clinician is positioned between the patient enrollee and the enrollee's typical primary care clinician. Most plans also offered at least one type of PTP telehealth service, such as mental health services or pharmacological management services. Most plans covered both urban and rural telehealth originating sites, and half of plans covered the patient's home as an originating site. Patient cost-sharing levels varied by plan and type of service, with some plans trying to incentivize use with lower cost sharing and others passing any additional costs of vendor-based services to patients. Some plans also included policies in their telehealth coverage intended to limit overuse. Several plans were actively testing, through pilot

**TABLE  
16-6****Number of plans covering or not covering telehealth service in 2017**

Coverage features	Covered	Not covered	No information
<b>Any type of telehealth service</b>	45	3	0
1 to 2 types of telehealth services	23	N/A	N/A
3 to 5 types of telehealth services	15	N/A	N/A
6 or more types of telehealth services	7	N/A	N/A
<b>Category of telehealth</b>			
Synchronous	38	1	6
Asynchronous	14	22	9
<b>Type of service</b>			
Evaluation & management physician visit	26	1	18
Mental health services	22	4	19
Pharmacological management	21	7	17
Emergency services	16	11	18
Non-mental health counseling	13	6	26
Discharge follow-up	10	8	27
Remote patient monitoring	8	9	28
Transitional care	8	5	32
Provider-initiated e-mails	4	19	22
Educational materials	2	15	28

Note: N/A (not applicable). Analysis of 48 plans offered by 40 managed care organizations.

Source: MedPAC analysis of data collected from a sample of commercial insurance plans.

programs, telehealth services that they were cautious about implementing on a wider scale.

### Delivery pathways

The commercial plans in our sample covered telehealth services using one of four delivery pathways. Many plans outsourced telehealth services to a telehealth vendor, where the vendor supplied clinicians to care for patients through two-way video or telephone as well as the technology needed to enable communication (Figure 16-2). A second, smaller group of plans outsourced just the technological component of telehealth services to a vendor. For example, these plans hired a vendor to install and operate telehealth software and functionality for communications between patient and clinicians employed by the MCO or practicing in the community. A third, smaller group of plans employed their own clinicians to provide telehealth services as well as their own technology to facilitate communication. Some of these plans were

part of integrated delivery systems. A fourth group of plans covered telehealth services through reimbursement policies for telehealth services rather than through vendors or MCO-employed clinicians.

### Services

Among the 48 plans in our sample, 45 plans (94 percent), according to their coverage documentation, covered some type of telehealth service in 2017 (Table 16-6). This coverage varied, with some plans covering a comprehensive set of telehealth services and others covering only one or two services. Overall, 7 plans covered 6 or more types of service, 15 covered 3 to 5 types of service, and 23 plans covered 1 to 2 types of service. In general, plans more commonly covered synchronous telehealth services (38 plans) than asynchronous telehealth services (14 plans). Only seven plans covered both synchronous and asynchronous services, and none covered asynchronous services only (data not shown). Among



plans covering telehealth, we identified coverage for 10 types of telehealth service. The most commonly covered telehealth services were basic physician E&M visits (26 plans), mental health services (22 plans), pharmacological management services (21 plans), and emergency services (16 plans). The least frequently covered telehealth services were RPM (8 plans), transitional care services (8 plans), provider-initiated e-mails (4 plans), and patient education (2 plans). Although we were able to categorize plan coverage into 10 types of telehealth categories, plan documentation often did not specifically define which services within these categories would be covered.

Basic E&M physician visits were frequently covered as DTC services. Representatives from the 12 MCOs we interviewed indicated that all of the MCOs covered basic E&M physician visits through a DTC system, 7 outsourced DTC services to a vendor for both clinical and technological services, and 5 delivered DTC services using their own clinicians and technology they developed themselves. Across our larger sample of 45 plans covering telehealth services, 22 plans (according to their coverage documentation) outsourced some telehealth services to a vendor. Representatives from 9 of the 12 MCOs stated that the most common type of PTP service they covered was mental health. None of these MCOs outsourced this service to a vendor, eight established a reimbursement policy and covered the service if it met the regulations and requirements for reimbursement (the fourth delivery pathway in Figure 16-2, p. 488), and one covered PTP using its own employed-clinician call center.

### **Originating sites**

Commercial plans generally permit originating sites in both rural and urban areas, but coverage of the patient's home (or residence) as an originating site is more variable. Nearly all of the representatives of MCOs we interviewed stated that their MCOs covered telehealth services with no distinction between urban and rural originating site location. Only one of the MCOs limited the telehealth coverage of mental health services to rural areas. By contrast, half of the 45 plans in our sample covered the patient's home (or residence) as an originating site, according to their coverage documentation. MCO representatives we interviewed explained that their coverage of the patient's home depended on the service being provided, and some excluded the home as an originating site to mitigate overuse. In general, plans using vendors for DTC were more willing to cover the

patient's home as an originating site and less likely to cover patients' homes for PTP specialty services. In addition, plans often covered the patient's residence as an originating site if the vendor's clinician, but not a community physician, provided the telehealth services. Thus, some plans pay for patients to contact a vendor for care but do not pay for patients to contact their own primary care physician. A small set of plans limit originating sites to certain types of medical facilities to mitigate the risk of overuse.

### **Providers**

Most plans permit a variety of clinicians to bill for telehealth services, but some plans make a distinction between clinicians that are intended to solely provide telehealth services and typical in-network clinicians like primary care clinicians. The plans in our sample all require clinicians to be licensed in the state in which the patient is located. Only 6 of the 45 plans covering telehealth limited telehealth services to only physicians. A few plans that outsource DTC services to vendors limited telehealth services to vendor-employed clinicians and excluded regular in-network primary care clinicians from conducting telehealth services.

### **Eligible patients**

Only a few plans limited telehealth coverage to certain groups of enrollees. A few plans required patients to have a preexisting relationship with a clinician. Two plans excluded children. One plan excluded high-use patients. Another plan excluded patients receiving hospice care. Several MCO representatives stated that they targeted patients with certain chronic conditions (e.g., chronic obstructive pulmonary disease and congestive heart failure) for PTP services or pilot programs.

### **Cost sharing**

Patient cost-sharing levels for telehealth services varied across commercial plans, suggesting plans are not uniform in their assessment of the potential value of telehealth. Some plans incentivized telehealth use with cost-sharing levels lower than cost sharing for in-person visits; others did the opposite. Cost sharing also varied by state because certain state parity laws require equivalent cost sharing for in-person and telehealth visits. Roughly half of the 45 plans in our sample covering telehealth services reported cost-sharing levels equal to in-person services. MCO representatives stated that cost sharing for telehealth and



in-person visits tends to be equal for PTP services and more variable for DTC services. Among the 12 MCOs we interviewed:

- Four set cost-sharing levels for DTC services above in-person visits. For example, two MCOs set DTC cost-sharing levels between the lower cost-sharing levels for physician office visits and the higher cost-sharing levels for ED services. Two others require patients to pay the vendor visit fee (\$39 or \$49) but waive the patients' standard cost sharing (which is less than the vendor fee) for in-person visits.
- Five set cost-sharing levels for DTC services equal to in-person cost sharing.
- Three set cost-sharing levels for DTC services below in-person visits. For example, two MCOs that were part of integrated delivery systems and provided their own clinicians required no cost sharing from patients for DTC services. Another MCO charged the patient \$10 to \$15 per DTC visit (less than in-person cost sharing).

### Utilization control policies

Several MCO representatives stated that utilization control policies specific to telehealth were uncommon. In general, plans use the same utilization control policies to limit the overuse of telehealth services as they use for in-person services. A few plans had patient-related policies in place that capped the number of telehealth visits that can be used, required a preexisting relationship with the clinician, or required prior authorization for certain services. Other plans had clinician-related policies in place that required clinicians to complete a questionnaire to attest to being a telehealth clinician, required originating site clinicians to receive training in providing telehealth services, or conducted prepayment claim audits.

### Pilot programs

Representatives from half of the MCOs we interviewed stated that they used pilot programs to test certain telehealth services they were cautious about implementing. Representatives of these MCOs stated that pilot programs are a part of their benefit development process and are implemented to determine which benefits enrollees will use, work out kinks in the care delivery process, assess outcomes, and assess how to set cost-sharing levels. In addition, one MCO representative stated that the employer requested that DTC services be pilot tested. The pilot programs identified by these representatives included testing:

- remote patient monitoring for patients with chronic conditions, patients with mental health conditions plus other medical conditions, or high-use patients;
- mental health services provided by a vendor or mental health services for patients in rural areas;
- call centers using chat messaging technology;
- specialty services;
- the use of different vendor-based DTC services for different populations; and
- vendor-based postdischarge follow-up consultations.

Some MCOs also use a “soft launch” approach to implement telehealth coverage, whereby they first make certain coverage available to a subset of their enrollees or to their enrollees in certain geographic areas within their market.

### Rationale for implementing telehealth coverage

MCO representatives reported a variety of rationales for implementing telehealth coverage. The two most common were that employers demanded convenient care for their employees and that the competitive pressures of the plan's market required them to cover the service. None of the MCOs cited cost reduction, clinician demand, or patient demand as their primary motivation for implementing telehealth coverage. In addition, most of these MCOs implemented DTC services within the last three years. The following were provided as primary and secondary rationales for implementing telehealth coverage.

#### Primary rationales:

- **Employers:** Some MCOs stated that employers seek to provide convenient care for their employees to reduce employees' time away from work. Employers are requesting 24/7 access to basic medical care, such as vendor-based DTC services. One MCO representative stated that telehealth has become a necessary component of plan coverage packages for insurers to win employers' business.
- **Competitive pressure:** Some MCOs felt pressure to remain competitive with other insurers in their market. Insurers who have implemented telehealth coverage are viewed as having an advantage in recruiting new employer business.

## Secondary rationales:

- **Convenience:** About half of the MCOs stated that telehealth services allowed them to offer more consumer-centric care options and convenience for the members. Some view DTC services as a tool to help triage acute routine illnesses and offer 24/7 access to care. Others associated with integrated delivery systems stated that telehealth services are a logical extension of their existing care delivery pathways.
- **Access and quality:** Some MCOs asserted that telehealth enables them to improve access to mental health services in rural areas and augment clinical staff in rural facilities. Several believe expanding access will result in improvements in quality and outcomes.
- **Telehealth parity laws:** Several MCOs began offering telehealth coverage because of the requirements of recent state telehealth parity laws mandating that commercial insurers cover telehealth services and in-person services equally.
- **Cost reductions:** Some MCOs anticipate telehealth coverage will generate cost reductions because telehealth visits substitute for urgent care and ED visits. Others intend to improve efficiency in the practice of medicine, which they believe could produce cost reductions over the long term.

## Use patterns

MCO representatives consistently reported lower than expected use of telehealth services, with the majority of MCOs reporting that less than 1 percent of their plan enrollees used some form of telehealth service during the year.<sup>18</sup> While the majority of representatives we interviewed reported approximately 1 percent of their enrollees using telehealth services in 2016, one reported use as high as 5 percent of enrollment. Several representatives stated that the actual use of telehealth services was lower than expected because the original contracts they signed with telehealth vendors overestimated the number of telehealth services patients used, resulting in insurers renegotiating contracts with vendors to include fewer visits in subsequent years. To explain the low use of telehealth services, some MCOs cited patient unfamiliarity or discomfort with the virtual interaction. They also reported that women were more frequent telehealth users than men, and the average age of patients using telehealth was under 40 years. The

most frequent use occurred on days in the middle of the week as opposed to after normal business hours or on weekends.

## Outcomes

Only one MCO representative asserted clear cost reductions as a result of telehealth use, but most asserted it has improved access to care and increased convenience. Several predicted cost reductions will occur as telehealth services become more widely used and as it becomes a larger part of the standard practice of medicine. Several representatives stated that they anticipate cost reductions are likely to stem from telehealth services substituting for ED and urgent care visits. Others anticipate that the long-term per patient costs could decrease even if there is no one-to-one reduction in in-person visits. The reasoning is that an individual who receives care earlier could avoid a subsequent hospitalization.

---

## Comparison of commercial plan coverage and Medicare coverage

---

The critical difference between the coverage of telehealth services by commercial plans and that by Medicare's PFS is the payment settings in which they exist. In a managed care environment, commercial plans can control patients' use and providers' volume incentives through tools such as limiting provider networks, requiring prior authorization, and increasing cost sharing for patients. By contrast, under the PFS, taxpayers are not indemnified against the incentive for patients and providers to increase volume (Table 16-7). This difference has direct implications that make commercial plans more likely to cover telehealth services than the Medicare PFS. Another key difference is that commercial plans cover urban originating sites and sometimes the patient's residence as an originating site, while the PFS limits telehealth coverage to rural originating sites. Patient cost sharing for telehealth services among the commercial plans in our sample tended to be equal to or above in-person services, while cost sharing under the PFS is equal to in-person services; further, beneficiaries are typically shielded from cost sharing because they possess supplemental medigap insurance. Many commercial plans cover patient-initiated DTC services available 24/7, while DTC is not covered under the PFS.

**TABLE  
16-7****Comparison of telehealth coverage by commercial plans and the Medicare PFS, 2017**

Policy issue	Commercial plans	Medicare PFS
Payment incentives	Plans can use various tools to control volume incentives	Taxpayers not indemnified against patient/provider volume incentives
Originating sites	Urban, rural, and patient's residence	Rural
Cost sharing for telehealth	Generally equal to or above in-person services	Equal to in-person services, but most beneficiaries shielded by medigap
DTC services	Common among several plans	No coverage
Types of services used	Basic physician and mental health visits	Basic physician and mental health visits
Experience to date	Low use and unclear outcomes	Low use and unclear outcomes*

Policy issue	Commercial plans	Other areas of Medicare
Managed care	Telehealth benefits financed the same as other benefits	Under Medicare Advantage, extra telehealth benefits financed from rebates or supplemental premiums
Testing/pilot programs	Several test telehealth in pilot programs	Limited amount of testing of telehealth in pilot programs

Note: PFS (physician fee schedule; also referred to as the fee schedule for physicians and other health professionals), DTC (direct-to-consumer).

\*Data are from 2016.

Source: MedPAC analysis of CMS documentation and a sample of 48 commercial insurance plans.

Despite these differences, similarities exist between commercial plans and the PFS with regard to telehealth. Both commercial plans and the PFS focus their coverage of telehealth services on basic physician and mental health visits. To date, both commercial plans and the Medicare PFS have experienced extremely low use of telehealth services and generally have not seen definitive outcomes derived from their implementation of telehealth coverage.

Beyond the Medicare PFS program, the coverage of telehealth services differs in two distinct ways between commercial plans and other Medicare payment systems. Commercial plans finance telehealth benefits the same as non-telehealth benefits, but MA plans must finance extra telehealth benefits that go beyond the standard FFS benefit using rebates or supplemental premiums. In addition, several commercial plans have used pilot programs to test telehealth coverage, while CMS, through CMMI, limits the testing of telehealth services to selected services that are embedded within broader programs.

### **Commercial insurers do not provide a complete or consistent model for further incorporating telehealth services into the Medicare program**

The Congress mandated that the Commission consider ways in which telehealth services covered under commercial plans might be incorporated into the Medicare FFS program. However, our analysis of a sample of commercial insurers found a lack of uniformity in how these insurers covered telehealth services. Plan coverage varied both in terms of the scope of services covered and the ways in which the coverage was administered (e.g., vendors or other). Commercial insurers thus do not provide a complete or consistent model for further incorporating telehealth services into the Medicare program. In addition, we found that cost is not a significant consideration in commercial insurers' adoption of telehealth services, but consideration of the costs to Medicare as a public program, its beneficiaries, and

taxpayers who fund it must be a critical component of policymakers' decision making. Therefore, in this report, we do not make prescriptive recommendations about specific telehealth services. Rather, the Commission recommends that policymakers use a set of principles (cost, access, and quality) to evaluate individual telehealth services separately before adoption into Medicare coverage. The Commission's principle-based approach can be applied to telehealth services commonly used by commercial plans today and for telehealth services developed or considered for coverage in the future.

Under the PFS, telehealth services that balance these principles should be considered for incorporation, and those that do not should be tested through CMMI. The Commission provides examples of how this evaluation may be conducted for the services most commonly used or discussed by commercial plans. Under other Medicare FFS payment systems, providers currently have the flexibility to use and evaluate individual telehealth services. Under non-FFS Medicare payment arrangements in which entities bear financial risk, such as MA plans and certain ACOs, greater flexibility could be granted to use and evaluate individual telehealth services.

## **Principles of evaluation for telehealth services**

The Commission has developed three principles that should be used as the basis for evaluating the value of individual telehealth services for potential expansion into Medicare coverage. These principles are cost, access to care, and the quality of care.

### **Cost**

As a first principle, policymakers should consider the cost of telehealth services. Cost estimates are likely to vary (e.g., increase or decrease spending) by type of telehealth service and short term versus long term. Costs could increase in the short term if a given telehealth service increases access to care or supplements (rather than substitutes for) other in-person services. In addition, over the long term, costs could increase if a given service increases the use of additional, related services (e.g., lab tests, imaging, or specialty physician consultations). By contrast, cost decreases could result in the short term if a given telehealth service substitutes for more expensive in-person services (e.g., urgent care or emergency department visits) or in the long term if the telehealth service decreases the use of other services in the long term (e.g., reducing long-term disability among patients who would otherwise require relatively

more services). Unlike commercial insurers, cost rather than maintaining or increasing market share is a central principle for the Commission.

### **Access to care**

A second principle, access to care, could be achieved in three ways. Access could be expanded if telehealth (1) enables a service or provider to become more widely available to beneficiaries, (2) helps medical services to be delivered more promptly, or (3) makes care more convenient (e.g., by reducing obstacles to care). In the case of prompt delivery, telehealth could enable a beneficiary with an urgent medical need in the ED to access specialist care more rapidly if the specialist clinician can be brought in using two-way video from his or her own medical office. In the case of greater convenience, telehealth could reduce a beneficiary's travel time to a medical care site.

### **Quality of care**

A third principle, quality of care, would involve care that is patient oriented and includes coordination across providers (i.e., the right care, at the right time, in the right setting). Improved quality of care can be assessed using clinical outcome measures (e.g., readmission rates or stroke-related disability), patient experience (e.g., communication with the patient), and overall value. Certain telehealth services could result in lower readmission rates or improvements in patient experience, or they could reduce a patient's potential complications from unneeded care.

## **Application of the principles to services covered under the physician fee schedule**

In response to the mandate, the Commission examined how the three principles can be applied in the PFS regarding telehealth services commonly used or considered by commercial insurers. The Commission also examined Medicare's other FFS payment systems that currently possess adequate flexibility to use telehealth services and have the ability to apply the evaluation principles to individual telehealth services themselves. Similarly, other entities bearing financial risk under the Medicare program, such as MA plans and ACOs, could warrant greater flexibility to use telehealth services because of built-in incentives to assess the value of services relative to the financial risk for covering them.

Policymakers should evaluate the potential for expanding telehealth coverage in the PFS on a service-by-service basis, and they should do so using the Commission's three principles. The primary reason the Commission does not



**TABLE  
16-8**

**Illustrative examples of evaluating the value of individual telehealth services or conditions using the Commission's principles**

Telehealth service	Possible expansion of physician fee schedule policy	Three principles of evaluation			
		Cost	Access	Quality	Evidence
Telestroke	Cover in urban areas	Small increase (small pool of users)	Expanded (short supply of stroke specialists)	Improved (more timely care)	Clear
Physically disabling treatment-intensive conditions	Cover in urban areas or from a patient's residence	Small increase (small pool of users)	Expanded (improved convenience)	Improved (ability to access needed care)	Clear
Tele-mental health	Cover in urban areas	Large increase (large pool of users, potential misuse)	Expanded (improved convenience)	Some improvement, but outcomes unclear	Less clear
Direct to consumer	Cover in urban areas or from a patient's residence	Very large increase (very large pool of users, potential misuse)	Expanded (improved convenience)	Unclear	Unclear
Nursing homes	Cover in urban areas	Decrease (fewer emergency department visits)	Unclear	Unclear	Unclear
Remote patient monitoring	Cover in urban areas	Very large increase (very large pool of users, potential misuse)	Expanded (improved convenience)	Improved (ability to access needed care)	Unclear

Source: MedPAC analysis.

support Medicare PFS's wholesale expansion of telehealth services to urban areas is that the variability of commercial insurers' coverage in these locations does not provide sufficient guidance and because cost implications need to be considered separately for each telehealth service since they vary by type of service.

Below are six examples illustrating how the Commission's three principles can be used to evaluate telehealth services commonly used by commercial plans (Table 16-8). The six examples are organized into three groups.

- Services demonstrating clear evidence related to each of the three principles may be potential candidates for policymakers to consider for incorporating into the PFS. For example, telestroke services appear to demonstrate that the potential cost increases are balanced by strong evidence of access expansion and quality improvement.
- Services demonstrating less clear evidence related to the three principles may be potential candidates for policymakers to consider incorporating into the PFS; however, they may require careful monitoring, different cost sharing, or utilization control policies. Services in this group, such as tele-mental health services, distinguish themselves from the prior group (clear evidence) because the evidence of quality improvement or expansion of access—while present—may not outweigh the potential cost of expanding coverage.
- Services where the evidence related to the three principles is unclear may be better suited for further testing by the Medicare program through CMMI. Services in this group distinguish themselves from the prior group (less clear evidence) because the combination of the three principles are more significantly out of balance. For example, DTC

services have the potential to significantly increase costs, but there is neither evidence that the supply of routine care clinicians is in short supply nor evidence that these services improve outcomes. In general, the Commission voiced support for CMS expanding their efforts to test specific telehealth services such as these through CMMI before implementation, similar to commercial insurers' practice.

### Examples of services with clear evidence

**Telestroke** Expanding coverage of telestroke services—a service in which ED clinicians consult with stroke specialists in distant locations to treat patients suspected of experiencing a stroke—to urban originating sites would increase program costs, but these extra costs could be justified by the potential improvements to beneficiary access and quality. The Medicare program currently permits telestroke services from rural originating sites, and some 2,000 of these services were billed for Medicare beneficiaries in 2016. Health systems in several markets view telestroke programs in urban and rural areas as successful and state that commercial insurers are paying for these services. For example, the University of Virginia (UVA) implemented a telestroke program that began as a rural effort and expanded to urban areas (Rheuban 2017). UVA representatives assert that grant funding is no longer needed to sustain the program because commercial insurers and others are willingly paying for these services.

- **Cost:** Cost increases are likely to occur because Medicare would begin paying for a new service in urban areas. However, these increases could be relatively small because strokes are a severe and nondiscretionary condition that most beneficiaries do not experience in a given year. This relatively small pool of users would likely limit the risk of potential misuse. In addition, telestroke could generate long-term program savings by reducing physical disabilities resulting from untreated strokes (Nelson et al. 2011, Switzer et al. 2013).
- **Access:** Access to stroke specialists is likely to expand. In the markets we studied, telestroke services appeared to expand access to neurologists where their numbers were limited. For example, neurologists geographically on one side of a market or state are treating cases in hospitals on the opposite side of the market or state (Del Zoppo et al. 2009, Muthana et al. 2015).

- **Quality:** Evidence to date suggests that telestroke services may improve the quality of care by getting more patients the care they require (Demaerschalk and Levine 2016, Kepplinger et al. 2016, Madhavan and Karceski 2016). The overall quality of care received by beneficiaries is likely to improve because the timeliness of stroke treatment could be improved. By making stroke care specialists more widely available, more beneficiaries in need of stroke care are likely to receive care that will save their lives or reduce long-term disability. Telestroke services could also reduce the volume of hospital-to-hospital transfers, which can delay treatment or impair quality. Representatives of health systems we interviewed stated that telestroke programs had a large impact on retaining patients at local hospitals, making local physicians more comfortable with administering stroke procedures they had little experience with, and decreasing “door-to-needle” times, which improved outcomes for those stroke patients.

### Physically disabling and treatment-intensive conditions

Expanding the coverage of telehealth services to beneficiaries with physically disabling and treatment-intensive conditions, such as ESRD or Parkinson's disease, would increase program costs, but these extra costs could be justified by potential access expansion and quality improvement. Such enhancements might include permitting these beneficiaries to use the telehealth services currently covered by the PFS at urban originating sites or at the patient's residence. Commercial insurers we studied stated their interest in permitting patients with certain chronic conditions to use telehealth services.

- **Cost:** Cost increases are likely to occur because Medicare would begin allowing a group of urban beneficiaries to use PFS telehealth services. Cost increases would be mitigated by the relatively uncommon and nondiscretionary nature of the conditions identified for coverage and therefore would apply to a relatively small pool of potential users. The risk of misuse of these services is also lower because of the small pool of users. The cost impact would likely be greater if policymakers expanded coverage to the beneficiary's residence because beneficiaries would have more direct access to providers and vice versa. The risk of misuse would also increase.
- **Access:** Beneficiaries with these conditions would likely experience expanded access. These beneficiaries are likely to require care more frequently and have



difficulty accessing care, and they would benefit from the greater convenience of clinical care because their physical limitations make it more difficult to travel to clinical visits. In addition, a policy permitting urban originating sites would improve access by allowing beneficiaries to travel to their primary care physician's office to conduct specialty visits with other clinicians in their area. By contrast, a policy permitting the beneficiary's residence to be an originating site would significantly reduce travel time to medical appointments.

- **Quality:** The quality of care received by these beneficiaries is likely to improve because care would be more accessible and beneficiaries would likely better adhere to treatment protocols.

### Example of service with less clear evidence

**Mental health services** Expanding the coverage of tele-mental health services (the use of two-way video to conduct counseling, psychotherapy, or psychiatric evaluations) at urban originating sites (e.g., community mental health centers) or at a beneficiary's residence could increase program costs substantially with expanded access to care, and it is unclear whether the quality of care beneficiaries receive would improve. Mental health services could be a good match for telehealth since mental health services largely do not require the clinician to have physical contact with the patient. Medicare currently permits tele-mental health services from rural originating sites, and it was among the most commonly used telehealth services in 2016. Commercial insurers we studied generally cover tele-mental health services in both rural and urban settings, but most do not permit its use from the patient's residence.

- **Cost:** Cost increases would likely result from the expansion of tele-mental health services because mental health services are commonly used and the pool of potential users is large. In 2013, 20 percent of beneficiaries had claims for treatment of bipolar or paranoid disorders or depression. A CMS analysis of 2012 data from the Medicare Current Beneficiary Survey found that 30 percent of beneficiaries self-reported a mental health condition (Centers for Medicare & Medicaid Services 2013). In addition, tele-mental health services are among the most common telehealth services used under the current rural-focused Medicare PFS program. Similar to E&M visits, costs would also likely increase as a

result of this service's vulnerability to misuse. These cost increases would likely be more pronounced if coverage were expanded to the beneficiary's residence because beneficiaries would have more direct access to mental health clinicians and vice versa, and the risk of misuse would be higher. For example, under current rules, beneficiaries in rural areas must travel to an approved originating site, such as their rural primary care physician's office or rural ED, to receive tele-mental health services. Requiring that services occur at certain originating sites could mitigate cost increases. A policy change expanding tele-mental health services to urban originating sites would continue to require that care originates at one of these clinical locations, and the beneficiary's access to mental health clinicians would still indirectly flow through the originating site. Alternatively, policymakers could choose to permit tele-mental health services at certain urban facilities, such as community mental health centers or hospitals, rather than at all urban facilities. By contrast, expanding tele-mental health services to the patient's residence would remove the originating site from the process and allow more direct access to mental health clinicians at the distant site. Beneficiaries and providers could theoretically contact one another more easily.

Cost increases related to the expansion of tele-mental health coverage to urban areas may be mitigated by the relative lack of supply of mental health clinicians. A 2016 report by the U.S. Department of Health and Human Services (HHS) found that shortages exist for all types of mental health clinicians, and these shortages are expected to increase in the future (Health Resources and Services Administration 2016). The use of tele-mental health services would be limited to the supply of available clinicians.

- **Access:** Tele-mental health coverage could expand access to mental health clinicians, a specialty HHS maintains is in limited supply. Thus, the extent to which access would be expanded would be constrained by the supply of these clinicians as well as the extent to which these clinicians participate in Medicare. The greater convenience of mental health services could enable beneficiaries to circumvent the stigma associated with mental health services. The Commission has consistently expressed concerns about beneficiaries' access to mental health

services and the relatively low participation rates of psychiatrists in Medicare. The use of telehealth could be one way to expand access to these services. Health system representatives stated that, of all telehealth services, tele-mental health services had the most immediate impact on patients because they improved clinical staffing shortages, ED wait times, and patient access in general.

- **Quality:** It is unclear whether expanded access to tele-mental health services would improve the quality of care patients receive. Quality could be improved for beneficiaries who did not receive this care previously—by making medication management more accessible, by improving the timeliness of services for urgent mental health needs, and by improving care coordination between mental health clinicians and primary care clinicians. However, it remains unclear whether expanding access to mental health services would result in broad improvements in health care outcomes.

### Examples of services with unclear evidence

**Direct-to-consumer telehealth services** Despite expanding access to care, covering DTC services under the PFS could result in significant cost increases without clear evidence that the quality of care would be improved. DTC telehealth services are commonly covered by commercial insurance plans. Plans make these services available to all their enrollees and assert that DTC improves access and convenience and replaces ED visits. However, in our focus groups, patients expressed concerns over losing the “hands-on approach” and incurring any added cost sharing, and physicians expressed concern about losing revenue to competing DTC services and the difficulty of integrating telehealth services into their practice.

- **Cost:** Significant cost increases would likely result from covering DTC services across urban and rural areas for all beneficiaries. The pool of potential users is large, and the services used as a part of DTC are common. Further, DTC is a patient-initiated service, available 24 hours per day, and the barriers to receiving care would be reduced and increase the likelihood of misuse. To mitigate costs resulting from overuse or misuse, policymakers could consider testing DTC services for beneficiaries with certain conditions, testing DTC in certain states, or implementing utilization control policies such as a visit cap. DTC could have the potential to reduce costs

by substituting for care in more expansive settings, but the literature to date suggests that DTC supplements rather than substitutes for services.

- **Access:** DTC services would expand access to basic medical care, and beneficiaries would benefit from the greater convenience to clinical care.
- **Quality:** It is unclear whether this service would improve the quality of care and outcomes.

**Nursing home-based telehealth services** The evidence of the benefits of using telehealth services for patients residing in nursing homes is unclear and in need of further testing. Some evidence demonstrates cost reductions when two-way video is used to contact outside physicians to replace physician on-call services and prevent beneficiaries from returning to the hospital. However, the impact on access and quality is unclear. This service is currently covered by Medicare in rural nursing homes, but use has been low. These services could be expanded to urban nursing facilities. Commercial insurers largely did not identify this service as common, but we have seen some evidence of its use in a few markets.

- **Cost:** Initial research on this service indicates that it has the potential to reduce hospitalizations and costs for payers (Grabowski and O’Malley 2014); however, the scope of this analysis was small. The extent to which this service could be vulnerable to misuse by nursing homes or other providers remains unclear.
- **Access:** It is unclear whether this service would expand access to needed services. In the absence of a physician working inside the nursing home, patients are often transported to hospital EDs for urgent care. It is unknown whether beneficiaries lack access to any care when physicians are on call, but it is reasonable to assume that accessing care in these situations would be made more convenient for beneficiaries if two-way video consultations were used to eliminate transports to the hospital.
- **Quality:** The evidence is unclear as to whether this service would improve the quality of care and outcomes. It is reasonable to assume that in cases in which the beneficiary is transported to the hospital, they are at greater risk of harm due to the transport. However, it is unknown whether the beneficiary’s medical needs can be met sufficiently by the clinicians contacted through two-way video.

**Remote patient monitoring services** Although it would increase access to care, covering RPM services as a telehealth service and using it for two-way video visits (as opposed to the current non-telehealth Medicare policy of data interpretation once every 30 days) could result in a significant increase in program costs without clear evidence that quality of care would be improved. Relative to DTC services, RPM services are likely to be more frequent and to originate from the patient's residence. Some commercial insurers are pilot testing RPM for patients with multiple chronic conditions, but most of the plans we studied have not implemented RPM. Some home health agencies have found that RPM for posthospital patients with greater than average chronic disease burdens and moderate-to-severe congestive heart failure improved access, quality, and convenience and lowered readmissions.

- **Cost:** Significant cost increases would likely result from covering RPM services under the PFS as a telehealth service in both urban and rural areas. This cost increase would be driven by the large potential pool of users (all FFS beneficiaries) and the fact that the service is patient initiated, available 24 hours per day, and occurs inside the beneficiary's residence. Cost could also increase because RPM used for two-way video visits and frequent monitoring is vulnerable to misuse by patients and providers. To mitigate costs resulting from overuse or misuse, policymakers could consider testing RPM for beneficiaries with chronic conditions or in certain states or regions.
- **Access:** RPM would expand access to basic medical care by providing 24-hour monitoring by clinicians. This service would also offer greater convenience and reduce travel times to medical appointments.
- **Quality:** RPM could improve quality of care for some beneficiaries. For example, home-bound and extremely ill patients would likely benefit from having more direct and frequent contact with clinicians.

### **Other FFS payment settings have flexibility to use telehealth services**

Medicare's other FFS payment systems (e.g., hospital inpatient and home health) adequately incorporate the flexibility for providers to use telehealth services that best treat the beneficiary because these services are contemplated as a part of each system's fixed payment. In receiving a fixed payment for each Medicare beneficiary they treat, these providers currently have the discretion to independently assess the value of individual telehealth services.

### **Entities under risk-bearing payment arrangements should have greater flexibility to use telehealth**

The Commission suggests that entities bearing financial risk under the Medicare program, such as MA plans and risk-bearing ACOs, warrant greater flexibility to use telehealth services. These entities may currently use telehealth services but in ways that are somewhat limited because they are tied to the PFS telehealth coverage rules. It is reasonable for Medicare to delegate the principle-based evaluation of telehealth to MA plans and ACOs since they have a financial incentive to use these services judiciously.

#### **Medicare Advantage**

The Commission supports expanding telehealth coverage in MA beyond the current level. At this time, MA plans must cover the telehealth services included in basic FFS coverage. In addition, MA plans have the option to offer extra telehealth services that are supplemental to the basic FFS benefit, financed by a rebate for plans that bid below the local benchmark or by charging an additional premium for plans that bid above the benchmark or do not have enough funding through their rebate. The Commission suggests expanding MA coverage of telehealth in two phases.

First, policymakers would need to decide whether and how telehealth should be expanded in FFS Medicare. MA coverage and bidding policy is based on the FFS Medicare benefit package, so any expansions of telehealth in the basic FFS benefit would translate equally into expansion of telehealth services for MA beneficiaries. Changing the overall Medicare benefit by modifying the FFS benefit would maintain the current level of coverage parity between the two programs, meaning that beneficiaries enrolling in MA or FFS Medicare would receive the same coverage of services.<sup>19</sup>

Next, policymakers should consider whether an expansion of telehealth under basic FFS Medicare is sufficient or whether MA plans should be allowed even greater flexibility to cover telehealth services. The primary way additional flexibility could be afforded to MA plans is by allowing plans to include the cost of all telehealth services in their annual bid. Under this policy, plans would bid on the basic FFS benefit as well as any telehealth services they planned to offer. Therefore, Medicare payment for telehealth services would be included in the program's base payment to a plan and would not be financed by the rebate.



However, allowing MA plans to include the cost of all telehealth services in their bid would make the basic MA benefit offered by some plans different from the basic FFS benefit because some plans would choose to offer telehealth services in addition to those covered by the basic FFS benefit. Thus, for CMS to conduct an equivalent comparison of efficiency between MA and FFS in a given market, plans would need to submit a bid that fully distinguishes between the Part A and Part B benefit and the telehealth benefit. This subdivision of benefit packages is similar to how plans currently bid for supplemental services, so it would be feasible for plans. Depending on the telehealth services expanded by MA plans, bids could or could not change relative to their current levels, and the change in program costs would be unclear.

Allowing MA plans to include the cost of telehealth services in their bid would require balancing two of the Commission's principles. The Commission has long believed that policies governing coverage of the Medicare benefit should not favor MA or FFS Medicare. Allowing MA plans to include telehealth in their bid would introduce additional differences between MA coverage and FFS coverage. Currently, Medicare allows MA plans certain coverage flexibility that is not allowed in FFS, such as waiving the requirement for a three-day inpatient stay before covering skilled nursing services and allowing cost-sharing amounts to vary within certain limits while abiding by a maximum out-of-pocket spending limit. Nevertheless, the Commission also believes that bearing financial risk under the Medicare program could warrant those entities' greater flexibility in coverage of services. Both principles—coverage parity between MA and FFS Medicare and greater coverage flexibility for risk-bearing entities—apply here and should be considered when weighing whether to allow MA plans to include the cost of telehealth services in their bid.

### **Accountable care organizations**

The Commission generally supports expanding telehealth coverage for beneficiaries in risk-bearing ACOs. These ACOs bear financial risk if their attributed beneficiaries' annual spending exceeds a benchmark. Currently, these ACOs have waivers from CMMI to cover telehealth services that are not permitted by the Medicare PFS in urban areas and from the patient's residence. However, policymakers could decide to expand the flexibility of these ACOs to cover telehealth services beyond their current waiver and beyond current PFS coverage (e.g., permitting ACOs to use DTC services). In addition,

policymakers could expand the use of telehealth services in ACOs by expanding the current roster of risk-bearing ACOs or permitting other types of entities that bear financial risk to cover telehealth services beyond current PFS coverage.

The Commission also suggests that CMMI expand its testing of telehealth services. Commercial insurance plans use pilot programs to test coverage policies for individual telehealth services (e.g., RPM for patients with chronic conditions) on smaller segments of their patients before full implementation. In contrast, CMMI tests models of care that incorporate telehealth services, such as the Next Generation ACOs and various smaller Health Care Innovation Awards, but not the telehealth services individually. CMMI's approach limits its ability to detect the strengths or weaknesses of individual telehealth services.

---

## **Implications for future policymaking**

---

The Commission suggests policymakers adopt a measured approach to considering the incorporation of telehealth services into the PFS or other parts of the Medicare program. Telehealth services are currently covered within several areas of the Medicare program, with coverage limited to rural areas under the PFS and more flexible coverage in areas where providers bear financial risk. Commercial plan coverage of telehealth services is not uniform, and insurers' rationale for implementing coverage consistently pertained to employer demands and competition rather than cost savings. Many of the differences in telehealth coverage between commercial plans and the Medicare PFS are essentially derived from the different payment environments in which they operate. Under the PFS, taxpayers are not indemnified against the incentive of patients and providers to increase volume, whereas commercial plans operating in a managed care environment have the policy tools to control these volume incentives.

Therefore, while considering evidence from commercial insurers, the Commission supports evaluating individual types of telehealth services for potential coverage under Medicare using its principles of cost, access, and quality. Whether Medicare's coverage of a given telehealth service is being expanded from rural only to rural and urban, or it is being expanded to cover a telehealth service for the first time, if a given service demonstrates evidence of balancing

cost, access, and quality, policymakers should consider implementing that service. For example, the potential added costs associated with extending the coverage of telestroke services to urban originating sites appear to be balanced by evidence that telestroke expands access to stroke care experts and improves patient outcomes. When evidence of balancing the three principles is unclear, policymakers should consider testing the use of that telehealth service through CMMI. For example, DTC

services appear to significantly expand access to routine care at a potentially significant cost but without evidence that such an expansion is needed to address a clear access problem or that patient outcomes would improve to a corresponding degree. The Commission also suggests that entities bearing financial risk under the Medicare program, such as MA plans and risk-bearing ACOs, may warrant greater flexibility to use telehealth services. ■



## Endnotes

---

- 1 The 21st Century Cures Act also mandated that CMS provide Congress with a report by December 2017 describing Medicare beneficiaries who may benefit most from the expansion of telehealth services, the Center for Medicare & Medicaid Innovation's telehealth-related programs, high-volume services compatible with telehealth, and barriers that might prevent the expansion of telehealth services under Medicare. To date, this report has not been delivered by CMS to the Congress.
- 2 In total, we reviewed 89 documents across 40 MCOs. For some MCOs, we reviewed more than one plan offering, such as the Federal Employees Health Benefits Program and small groups, to look for variation in coverage across MCOs, resulting in inclusion of 48 plans across the 40 MCOs.
- 3 Because telehealth vendors often conduct visits by telephone, clinician call-in lines are typically defined as telehealth services. Online electronic health record features that let patients check lab and test results (e.g., MyChart) are generally not defined as telehealth services.
- 4 The VA's 21 VISNs include a network of medical centers, clinics, and veterans centers.
- 5 Section 1834(m) of the Social Security Act specifies the law pertaining to telehealth coverage under Medicare FFS and the PFS. The law specifies the permitted originating sites, authorized practitioners, and geographical restrictions to patients in rural areas for telehealth services. CMS is permitted to make regulatory changes to PFS telehealth policy that include adding, removing, or revising codes under the PFS; CMS cannot expand telehealth to urban areas or to new types of facilities.
- 6 In addition to the areas of the Medicare program mentioned here, there is limited coverage of telehealth services under Medicare Part D. Section 10328 of the Patient Protection and Affordable Care Act of 2010 requires prescription drug plan sponsors to offer, at a minimum, an annual comprehensive medication review that may be furnished person to person or through telehealth technologies. E-prescribing, which some consider a form of telehealth service, is also common and permitted within the Medicare program.
- 7 HPSAs are zones determined to be lacking enough providers to meet medical demand in three categories of health care: primary, dental, and mental health. CMS considers all three forms of HPSAs when determining eligibility for telehealth. Under the telehealth statute, rural HPSAs are permitted sites of care. In 2013, CMS broadened the number of service areas by clarifying the rural HPSAs to include both HPSAs located outside of MSAs as well as HPSAs in an MSA's rural census tract. In 2017, 6,769 primary medical HPSAs and 4,742 mental health HPSAs included 69 million and 108 million people, respectively. Roughly 60 percent of primary medical HPSAs were in rural areas and 53 percent of the mental health HPSAs were in rural areas, suggesting that urban HPSAs, which are not eligible for telehealth, are common.
- 8 CAHs are permitted to bill Medicare PFS telehealth services if the practitioner has reassigned his or her benefits to the CAHs. In these cases, Medicare makes the payment for telehealth services provided by the CAH's physicians or practitioners at 80 percent of the fee schedule amount for the distant site rather than as a cost-based payment. The beneficiary is responsible for the remaining 20 percent of the distant site payment amount.
- 9 Under the PFS, payment has three basic RVU components: work, practice expense, and malpractice expense. These three components are summed and multiplied by a conversion factor to determine payment rates. When a service is performed in a facility (e.g., hospital outpatient department or SNF), the practice expense RVU is lower because the facility does not have the typical practice expense that physician offices have—overhead, staff, equipment, and supplies. This difference explains why the nonfacility payment rate for services performed in a physician's office is higher.
- 10 To bill for a TCM service, a provider must have interactive contact with the beneficiary, such as a phone call or e-mail, within two business days following the beneficiary's discharge; billing for these services is not limited to primary care clinicians.
- 11 In 2018, CMS began paying clinicians for Current Procedural Terminology code 99091, a code that involves the interpretation of data gathered through the use of remote patient monitoring technology. As a part of this code, CMS requires that the clinician obtain advanced beneficiary consent and that the patient has been seen face to face by the billing practitioner within the previous year. The code can be reported no more than once in a 30-day period and can be billed once per patient during the same service period in which other management codes such as the CCM code and the TCM code are used.
- 12 Providers are able to bill for telehealth under these codes when they provide at least 20 minutes of care management services in a calendar month to beneficiaries with two or more chronic conditions that place them at a significant risk of death, acute exacerbation/decompensation, or functional decline.

- 13 Telehealth services can also be billed under the following care management service codes: the ESRD monthly capitation service code, the home health management service code, the 90-day global surgery service code, the behavioral health integration service code, and the continued coverage payment codes related to a continuous positive airway pressure machine.
- 14 Distant site services are used to assess service volume growth rather than both distant and originating site services combined because some providers do not bill Medicare for the originating site side of the episode. The Commission explored this inconsistency in its June 2016 report and determined that these providers do not bill Medicare for originating site services for several reasons. In 2017, the Office of Inspector General in the Department of Health and Human Services announced that this issue would be a part of its 2017 work plan.
- 15 Behavioral health clinicians such as physicians and other health professionals bill Medicare and fall into one of the following Medicare-defined specialist categories: psychiatrists, psychiatrist/neurologists, neuropsychiatrists, clinical psychologists, and other psychologists.
- 16 Across the Medicare program, 23 percent of Medicare FFS beneficiaries reside in rural locations and 77 percent reside in urban locations.
- 17 Hierarchical condition category (HCC) risk scores were used for this analysis. HCC risk scores are based on diagnoses that a beneficiary had in the prior year and take into account some demographic and other factors, including Medicaid eligibility and institutional status. Therefore, risk scores can be used as a proxy for patient severity of illness. We stratified the risk scores assigned to each beneficiary into quintiles (five categories) of very low, low, midlevel, high, and very high. Beneficiaries in the midlevel category were in the middle of the range of all beneficiary risk scores. *Telehealth users* were defined as those with at least one claim containing a telehealth E&M service in 2016. *Non-telehealth users* were defined as those without a telehealth E&M claim and with at least one claim containing a non-telehealth E&M service in 2016. Our analysis does not account for differences in demographic characteristics between the telehealth and non-telehealth users with midlevel risk scores.
- 18 Some plans stated the use of telehealth services could be higher than reported due to the failure of providers to code services appropriately. By contrast, use could be interpreted as lower than 1 percent of enrollees if calculated as a share of plan spending, claims, or individual visits.
- 19 Currently, some differences in coverage exist between MA and FFS coverage. For example, MA plans may apply for a waiver of the FFS requirement that skilled nursing services are covered only after a three-day inpatient stay. Plans may also alter cost-sharing amounts for individual services within certain limits and must include a cap on out-of-pocket spending.

## References

---

- American Telemedicine Association. 2017a. 2017 state telemedicine legislation tracking (as of 7/24/2017) [https://higherlogicdownload.s3.amazonaws.com/AMERICANTELEMED/3c09839a-fffd-46f7-916c-692c11d78933/UploadedImages/Policy/State%20Policy%20Resource%20Center/State%20Legislation%20Matrix\\_2017.pdf](https://higherlogicdownload.s3.amazonaws.com/AMERICANTELEMED/3c09839a-fffd-46f7-916c-692c11d78933/UploadedImages/Policy/State%20Policy%20Resource%20Center/State%20Legislation%20Matrix_2017.pdf).
- American Telemedicine Association. 2017b. *State telemedicine gaps analysis: Coverage & reimbursement*. Washington, DC: American Telemedicine Association.
- American Telemedicine Association. 2016. What is telemedicine? <http://thesource.americantelemed.org/home>.
- Ashwood, J. S., M. Gaynor, C. M. Setodji, et al. 2016. Retail clinic visits for low-acuity conditions increase utilization and spending. *Health Affairs* 35, no. 3 (March 1): 449–455.
- Ashwood, J. S., A. Mehrotra, D. Cowling, et al. 2017. Direct-to-consumer telehealth may increase access to care but does not decrease spending. *Health Affairs* 36, no. 3 (March 1): 485–491.
- Baker, L. C., S. J. Johnson, D. Macaulay, et al. 2011. Integrated telehealth and care management program for Medicare beneficiaries with chronic disease linked to savings. *Health Affairs* 30, no. 9 (September): 1689–1697.
- Bavafa, H., L. Hitt, and C. Terwiesch. 2017. The impact of e-visits on visit frequencies and patient health: Evidence from primary care. <https://ssrn.com/abstract=2363705>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017a. Chapter 12: Physicians/nonphysician practitioners. In *Medicare claims processing manual*. Baltimore, MD: CMS.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2017b. Medicare program; revisions to payment policies under the physician fee schedule and other revisions to Part B for CY 2018; Medicare Shared Savings Program requirements; and Medicare Diabetes Prevention Program. Final rule. *Federal Register* 82, no. 219 (November 15): 53006–53015.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016a. Chapter 4: Benefits and beneficiary protections. In *Medicare Managed Care Manual*. Baltimore, MD: CMS.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016b. Discussions between CMS and MedPAC staff, January 21.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2016c. Next Generation Accountable Care Organization Model. <https://innovation.cms.gov/initiatives/Next-Generation-ACO-Model/>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015a. Medicare Data Compendium, 2011 edition. [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/DataCompendium/2011\\_Data\\_Compendium.html](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/DataCompendium/2011_Data_Compendium.html).
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015b. Medicare program; Comprehensive Care for Joint Replacement payment model for acute care hospitals furnishing lower extremity joint replacement services. Final rule. *Federal Register* 80, no. 226 (November 24): 73274–73554.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2014. Announcement of calendar year (CY) 2015 Medicare Advantage capitation rates and Medicare Advantage and Part D payment policies and final call letter. <http://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2015.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2013. The characteristics and perceptions of the Medicare population: Data from the 2011 Medicare Current Beneficiary Survey. <http://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/Data-Tables-Items/2011CharAndPerc.html?DLPage=1&DLSortDir=descending>.
- Del Zoppo, G. J., J. L. Saver, E. C. Jauch, et al. 2009. Expansion of the time window for treatment of acute ischemic stroke with intravenous tissue plasminogen activator: A science advisory from the American Heart Association/American Stroke Association. *Stroke* 40, no. 8 (August): 2945–2948.
- Demaerschalk, B. M., and S. R. Levine. 2016. Telestroke: Solid support for virtual acute stroke care. *Neurology* 87, no. 13 (September 27): 1314–1315.
- Department of Defense. 2016. Memorandum from the Assistant Secretary of Defense: Provision of telemedicine at a patient's location, February 3.

Department of Veterans Affairs. 2017. Statement of Kevin Galpin, M.D., Executive Director, Telehealth Services, Veterans Health Administration (VHA), Department of Veteran's Affairs (VA) before the Subcommittee on Oversight and Investigations Committee on Veteran's Affairs. U.S. House of Representatives. August 30.

Department of Veterans Affairs. 2014. Federal update for October 13–17, 2014 <http://mn.gov/mdva/images/Federal-Update-10-17-14.pdf>.

Gordon, A. S., W. C. Adamson, and A. R. DeVries. 2017. Virtual visits for acute, nonurgent care: A claims analysis of episode-level utilization. *Journal of Medical Internet Research* 19, no. 2 (February 17): e35.

Government Accountability Office. 2017a. *Department of Defense: Telehealth use in fiscal year 2016*. GAO–18–108R. Washington, DC: GAO.

Government Accountability Office. 2017b. *Health care: Telehealth and remote patient monitoring use in Medicare and selected federal programs*. GAO–17–365. Washington, DC: GAO.

Government Accountability Office. 2017c. *Telehealth: Use in Medicare and Medicaid*. GAO–17–760T. Washington, DC: GAO.

Grabowski, D. C., and A. J. O'Malley. 2014. Use of telemedicine can reduce hospitalizations of nursing home residents and generate savings for Medicare. *Health Affairs* 33, no. 2 (February): 244–250.

Health Resources and Services Administration. 2016. *National projections of supply and demand for selected behavioral health practitioners: 2013–2025*. Washington, DC: HRSA.

Kepplinger, J., K. Barlinn, S. Deckert, et al. 2016. Safety and efficacy of thrombolysis in telestroke: A systematic review and meta-analysis. *Neurology* 87, no. 13 (September 27): 1344–1351.

Lewin Group. 2015. *CMS Bundled Payments for Care Improvement (BPCI) Initiative models 2–4: Year 1 evaluation & monitoring annual report*. Report prepared by the Lewin Group for the Centers for Medicare & Medicaid Services. Contract no: HHSM–500–2011–00001I, task order HHSM–500–T0007. Baltimore, MD: CMS.

Madhavan, M., and S. Karciski. 2016. Telestroke: Is it safe and effective? *Neurology* 87, no. 13 (September 27): e145–148.

Medicaid and CHIP Payment and Access Commission. 2016. *MACStats: Medicaid and CHIP data book*. Washington, DC: MACPAC.

Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Mehrotra, A. 2014. Expanding the use of telehealth: Promise and potential pitfalls. Testimony before the Committee on Energy and Commerce, U.S. House of Representatives. May 1. <https://energycommerce.house.gov/hearings/telehealth-digital-medicine-how-21st-century-technology-can-benefit/>.

Mehrotra, A., H. A. Huskamp, J. Souza, et al. 2017. Rapid growth in mental health telemedicine use among rural Medicare beneficiaries, wide variation across states. *Health Affairs* 36, no. 5 (May 1): 909–917.

Mehrotra, A., and J. R. Lave. 2012. Visits to retail clinics grew fourfold from 2007 to 2009, although their share of overall outpatient visits remains low. *Health Affairs* 31, no. 9 (September): 2123–2129.

Muthana, J., J. Connors, S. Cutting, et al. 2015. Continued participation in a telestroke program improves time to intravenous thrombolysis *Neurology* 84, no. 14 supplement (April): P4.315.

Nelson, R. E., G. M. Saltzman, E. J. Sklabrin, et al. 2011. The cost-effectiveness of telestroke in the treatment of acute ischemic stroke. *Neurology* 77, no. 17 (October 25): 1590–1598.

Oliver, A. 2007. The Veterans Health Administration: An American success story? *Milbank Quarterly* 85, no. 1 (March): 5–35.

Rheuban, K. S. 2017. Testimony before the Senate Committee on Commerce, Science, and Transportation's Subcommittee on Communications, Technology, Innovation, and the Internet. June 20. <https://www.finance.senate.gov/imo/media/doc/21472.pdf>.

Schwamm, L. H. 2014. Telehealth: Seven strategies to successfully implement disruptive technology and transform health care. *Health Affairs* 33, no. 2 (February): 200–206.

Smith, K. W., A. Bir, N. L. Freeman, et al. 2017. Impact of health care delivery system innovations on total cost of care. *Health Affairs* 36, no. 3 (March 1): 509–515.

Summer, L., E. Hargrave, M. Hertel, et al. 2017. *Final report: Findings from interviews with telehealth experts: 2017 interviews in Indiana, Virginia, and Washington*. Study conducted by independent consultants and staff from NORC at the University of Chicago for MedPAC. Washington, DC: MedPAC.

Switzer, J. A., B. M. Demaerschalk, J. Xie, et al. 2013. Cost-effectiveness of hub-and-spoke telestroke networks for the management of acute ischemic stroke from the hospitals' perspectives. *Circulation: Cardiovascular Quality and Outcomes* 6, no. 1 (January 1): 18–26.

Takahashi, P. Y., J. L. Pecina, B. Upatising, et al. 2012. A randomized controlled trial of telemonitoring in older adults with multiple health issues to prevent hospitalizations and emergency department visits. *Archives of Internal Medicine* 172, no. 10 (May 28): 773–779.

Totten, A., D. Womack, K. Eden, et al. 2016. *Telehealth: Mapping the evidence for patient outcomes from systematic reviews*. Technical brief no. 26. Rockville, MD: Agency for Healthcare Research and Quality.

Trout, K. E., S. Rampa, F. A. Wilson, et al. 2017. Legal mapping analysis of state telehealth reimbursement policies. *Telemedicine Journal and E-health* 23, no. 10 (October): 805–814.

Uscher-Pines, L., and A. Mehrotra. 2014. Analysis of Teladoc use seems to indicate expanded access to care for patients without prior connection to a provider. *Health Affairs* 33, no. 2 (February): 258–264.

Uscher-Pines, L., A. Mulcahy, D. Cowling, et al. 2015. Antibiotic prescribing for acute respiratory infections in direct-to-consumer telemedicine visits. *JAMA Internal Medicine* 175, no. 7 (July): 1234–1235.

Veterans Health Administration. 2016. Veterans Integrated Services Networks. <http://www.va.gov/directory/guide/division.asp>.



A P P E N D I X

A

---

**Commissioners' voting  
on recommendations**

---



## Commissioners' voting on recommendations

In the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000, the Congress required MedPAC to call for individual Commissioner votes on each recommendation and to document the voting record in its report. The information below satisfies that mandate.

### Chapter 1: Context for Medicare payment policy

No recommendations

### Chapter 2: Assessing payment adequacy and updating payments in fee-for-service Medicare

No recommendations

### Chapter 3: Hospital inpatient and outpatient services

For 2019, the Congress should update the 2018 Medicare base payment rates (inpatient and outpatient) for acute care hospitals by the amount determined under current law.

*Yes:* Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson

*Absent:* Samitt, Wang

### Chapter 4: Physician and other health professional services

For calendar year 2019, the Congress should increase the calendar year 2018 payment rates for physician and other health professional services by the amount specified in current law.

*Yes:* Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang

*Absent:* Samitt

## Chapter 5: Ambulatory surgical center services

**5-1** The Congress should eliminate the calendar year 2019 update to the Medicare payment rates for ambulatory surgical centers.

*Yes:* Bricker, Buto, Christianson, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang

*Absent:* Coombs, Samitt

**5-2** The Secretary should require ambulatory surgical centers to report cost data.

*Yes:* Bricker, Buto, Christianson, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang

*Absent:* Coombs, Samitt

## Chapter 6: Outpatient dialysis services

For 2019, the Congress should update the calendar year 2018 Medicare end-stage renal disease prospective payment system base rate by the amount determined under current law.

*Yes:* Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang

*Absent:* Samitt

## Chapter 7: Post-acute care: Increasing the equity of Medicare's payments within each setting

The Congress should direct the Secretary to begin to base Medicare payments to post-acute care (PAC) providers on a blend of each sector's setting-specific relative weights and the unified PAC prospective payment system's relative weights in fiscal year 2019.

*Yes:* Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson

*Absent:* Samitt, Wang

## Chapter 8: Skilled nursing facility services

The Congress should:

- eliminate the market basket update for skilled nursing facilities for fiscal years 2019 and 2020;
- direct the Secretary to implement a redesigned prospective payment system (PPS) in fiscal year 2019 for skilled nursing facilities; and
- direct the Secretary to report to the Congress on the impacts of the revised PPS and make any additional adjustments to payments needed to more closely align payments with costs in fiscal year 2021.

*Yes:* Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang

*Absent:* Samitt

## Chapter 9: Home health care services

The Congress should reduce Medicare payments to home health agencies by 5 percent in calendar year (CY) 2019 and implement a two-year rebasing of the payment system beginning in CY 2020. The Congress should direct the Secretary to revise the prospective payment system to eliminate the use of therapy visits as a factor in payment determinations, concurrent with rebasing.

*Yes: Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang*

*Absent: Samitt*

## Chapter 10: Inpatient rehabilitation facility services

The Congress should reduce the fiscal year 2019 Medicare payment rate for inpatient rehabilitation facilities by 5 percent.

*Yes: Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang*

*Absent: Samitt*

Additionally, the Commission reiterates its March 2016 recommendations on the inpatient rehabilitation facility prospective payment system. See text box, p. 276.

## Chapter 11: Long-term care hospital services

The Secretary should eliminate the fiscal year 2019 Medicare payment update for long-term care hospitals.

*Yes: Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang*

*Absent: Samitt*

## Chapter 12: Hospice services

The Congress should eliminate the fiscal year 2019 update to the Medicare payment rates for hospice services.

*Yes: Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang*

*Absent: Samitt*



## Chapter 13: The Medicare Advantage program: Status report

**13-1** For Medicare Advantage contract consolidations involving different geographic areas, the Secretary should:

- For any consolidations effective on or after January 1, 2018, require companies to report quality measures using the geographic reporting units and definitions as they existed prior to consolidation, and
- Determine star ratings as though the consolidations had not occurred, and maintain the pre-consolidation reporting units until new geographic reporting units are implemented per Recommendation 13-2.

*Yes: Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang*

*Absent: Samitt*

**13-2** The Secretary should:

- Establish geographic areas for Medicare Advantage quality reporting that accurately reflect health care market areas, and
- Calculate star ratings for each contract at that geographic level for public reporting and for the determination of quality bonuses.

*Yes: Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang*

*Absent: Samitt*

## Chapter 14: The Medicare prescription drug program (Part D): Status report

The Congress should change Part D's coverage-gap discount program to:

- require manufacturers of biosimilar products to pay the coverage-gap discount by including biosimilars in the definition of "applicable drugs" and
- exclude biosimilar manufacturers' discounts in the coverage gap from enrollees' true out-of-pocket spending.

*Yes: Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang*

*Absent: Samitt*

## Chapter 15: Moving beyond the Merit-based Incentive Payment System

The Congress should:

- eliminate the current Merit-based Incentive Payment System; and
- establish a new voluntary value program in fee-for-service Medicare in which:
  - clinicians can elect to be measured as part of a voluntary group; and
  - clinicians in voluntary groups can qualify for a value payment based on their group's performance on a set of population-based measures.

*Yes:*            *Bricker, Buto, Christianson, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Pyenson, Redberg, Safran, Thomas, Thompson, Wang*

*No:*            *Coombs, Nerenz*

*Absent:*       *Samitt*

## Chapter 16: Mandated report: Telehealth services and the Medicare program

Vote to forward telehealth report to Congress.

*Yes:*            *Bricker, Buto, Christianson, Coombs, Crosson, DeBusk, Ginsburg, Grabowski, Hoadley, Nerenz, Pyenson, Redberg, Safran, Thomas, Thompson, Wang*

*Absent:*       *Samitt*



---

# Acronyms

---



## Acronyms

---

<b>A-APM</b>	advanced alternative payment model	<b>CMG</b>	case-mix group
<b>ABIM</b>	American Board of Internal Medicine	<b>CMI</b>	case-mix index
<b>ACH</b>	acute care hospital	<b>CMMI</b>	Center for Medicare & Medicaid Innovation
<b>ACI</b>	advancing care information	<b>CMR</b>	comprehensive medication review
<b>ACO</b>	accountable care organization	<b>CMS</b>	Centers for Medicare & Medicaid Services
<b>ADL</b>	activity of daily living	<b>CMS-HCC</b>	CMS-hierarchical condition category
<b>AEP</b>	annual election period	<b>CON</b>	certificate of need
<b>AHCA</b>	American Health Care Association	<b>COPD</b>	chronic obstructive pulmonary disease
<b>AHRQ</b>	Agency for Healthcare Research and Quality	<b>CPC+</b>	Comprehensive Primary Care Plus
<b>ALF</b>	assisted living facility	<b>CPIA</b>	clinical practice improvement activities
<b>ALOS</b>	average length of stay	<b>CPI-U</b>	consumer price index for all urban consumers
<b>ANPRM</b>	advance notice of proposed rulemaking	<b>CPT</b>	Current Procedural Terminology
<b>APC</b>	ambulatory payment classification	<b>C-SNP</b>	chronic condition special needs plan
<b>APRN</b>	advanced practice registered nurse	<b>CT</b>	computed tomography
<b>ASC</b>	ambulatory surgical center	<b>CVT</b>	clinical video telehealth
<b>ASCQR</b>	ASC Quality Reporting	<b>CY</b>	calendar year
<b>BBA</b>	Balanced Budget Act of 1997	<b>DIR</b>	direct and indirect remuneration
<b>BBA</b>	Bipartisan Budget Act of 2018	<b>DME</b>	durable medical equipment
<b>BCS</b>	breast cancer screening	<b>DO</b>	doctor of osteopathic medicine
<b>BLA</b>	Biologics License Applications	<b>DoD</b>	Department of Defense
<b>BLS</b>	Bureau of Labor Statistics	<b>DRG</b>	diagnosis related group
<b>BPCI</b>	Bundled Payments for Care Improvement	<b>DSH</b>	disproportionate share
<b>CAH</b>	critical access hospital	<b>D-SNP</b>	dual-eligible special needs plan
<b>CAHPS®</b>	Consumer Assessment of Healthcare Providers and Systems®	<b>DTC</b>	direct-to-consumer
<b>C-APC</b>	comprehensive ambulatory payment classification	<b>DVP</b>	Drug Value Program
<b>CAUTI</b>	catheter-associated urinary tract infection	<b>E&amp;M</b>	evaluation and management
<b>CBO</b>	Congressional Budget Office	<b>ED</b>	emergency department
<b>CBSA</b>	core-based statistical area	<b>EDS</b>	Encounter Data System
<b>CC</b>	complication or comorbidity	<b>eGFR</b>	estimated glomerular filtration
<b>CCI</b>	chronically critically ill	<b>EGWP</b>	employer group waiver plan
<b>CCJR</b>	Comprehensive Care for Joint Replacement	<b>EHR</b>	electronic health record
<b>CCM</b>	chronic care management	<b>EMR</b>	electronic medical record
<b>CCP</b>	coordinated care plan	<b>ePA</b>	electronic prior authorization
<b>CCR</b>	continuing care retirement	<b>ESA</b>	erythropoiesis-stimulating agent
<b>CDC</b>	Centers for Disease Control and Prevention	<b>ESCO</b>	ESRD Seamless Care Organization
<b>CEC</b>	Comprehensive ESRD Care [Initiative]	<b>ESRD</b>	end-stage renal disease
<b>CHC</b>	continuous home care	<b>FDA</b>	Food and Drug Administration
<b>CKD</b>	chronic kidney disease	<b>FFS</b>	fee-for-service
<b>CLABSI</b>	central line-associated bloodstream infection	<b>FIDE-SNP</b>	fully integrated dual-eligible special needs plan
<b>CLFS</b>	clinical lab fee schedule	<b>FIM™</b>	Functional Independence Measure™
		<b>FQHC</b>	federally qualified health center
		<b>FY</b>	fiscal year



<b>GAO</b>	Government Accountability Office	<b>KDE</b>	kidney disease education
<b>GDP</b>	gross domestic product	<b>LDO</b>	large dialysis organization
<b>GDR</b>	generic dispensing rate	<b>LEP</b>	late enrollment penalty
<b>GIP</b>	general inpatient care	<b>LIS</b>	low-income [drug] subsidy
<b>GME</b>	graduate medical education	<b>LOS</b>	length of stay
<b>GPCI</b>	geographic practice cost index	<b>LPN</b>	licensed practical nurse
<b>HAC</b>	hospital-acquired condition	<b>LTCH</b>	long-term care hospital
<b>H-CAHPS®</b>	Hospital Consumer Assessment of Healthcare Providers and Systems®	<b>MA</b>	Medicare Advantage
<b>HCBS</b>	home- and community-based services	<b>MAC</b>	Medicare Appeals Council
<b>HCC</b>	hierarchical condition category	<b>MACRA</b>	Medicare Access and CHIP Reauthorization Act of 2015
<b>HCIA</b>	Health Care Innovation Awards	<b>MA-PD</b>	Medicare Advantage–Prescription Drug [plan]
<b>HCPCS</b>	Healthcare Common Procedure Coding System	<b>MCBS</b>	Medicare Current Beneficiary Survey
<b>HEDIS®</b>	Healthcare Effectiveness Data and Information Set®	<b>MCC</b>	major complication or comorbidity
<b>HH</b>	home health	<b>MCO</b>	managed care organization
<b>HHA</b>	home health agency	<b>MedPAC</b>	Medicare Payment Advisory Commission
<b>HHGM</b>	home health groupings model	<b>MEI</b>	Medicare Economic Index
<b>HHS</b>	Department of Health and Human Services	<b>MEPS</b>	Medical Expenditure Panel Survey
<b>HI</b>	Hospital Insurance (Medicare Part A)	<b>MIPS</b>	Merit-based Incentive Payment System
<b>HMO</b>	health maintenance organization	<b>MGMA</b>	Medical Group Management Association
<b>HOPD</b>	hospital outpatient department	<b>MIPPA</b>	Medicare Improvements for Patients and Providers Act of 2008
<b>HVIP</b>	hospital value incentive program	<b>MLR</b>	medical loss ratio
<b>HPC</b>	hospitalization for potentially preventable complication	<b>MMP</b>	Medicare–Medicaid Plan
<b>HPSA</b>	health professional shortage area	<b>MMSEA</b>	Medicare, Medicaid, and SCHIP Extension Act of 2007
<b>HRA</b>	health risk assessment	<b>MPF</b>	Medicare Plan Finder
<b>HRRP</b>	Hospital Readmissions Reduction Program	<b>MRI</b>	magnetic resonance imaging
<b>HSA</b>	health service area	<b>MSA</b>	metropolitan statistical area
<b>HT</b>	home telehealth	<b>MS-DRG</b>	Medicare severity–diagnosis related group
<b>HUD</b>	Department of Housing and Urban Development	<b>MS-LTC-DRG</b>	Medicare severity long-term care diagnosis related group
<b>HVIP</b>	hospital value incentive program	<b>MSP</b>	Medicare Savings Program
<b>HWH</b>	hospital within hospital	<b>MSS</b>	medical social services
<b>ICL</b>	initial coverage limit	<b>MSSP</b>	Medicare Shared Savings Program
<b>ICU</b>	intensive care unit	<b>MTM</b>	medication therapy management
<b>IMPACT</b>	Improving Medicare Post-Acute Care Transformation Act of 2014	<b>MTMP</b>	medication therapy management program
<b>IPPS</b>	inpatient prospective payment system	<b>N/A</b>	not applicable
<b>IPS</b>	interim payment system	<b>N/A</b>	not available
<b>IRC</b>	inpatient respite care	<b>NCHS</b>	National Center for Health Statistics
<b>IRE</b>	independent review entity	<b>NCQA</b>	National Committee for Quality Assurance
<b>IRF</b>	inpatient rehabilitation facility	<b>NDC</b>	national drug code
<b>IRF-PAI</b>	Inpatient Rehabilitation Facility–Patient Assessment Instrument	<b>NG</b>	Next Generation
<b>I-SNP</b>	institutional special needs plan	<b>NHAMCS</b>	National Hospital Ambulatory Medical Care Survey
<b>IT</b>	information technology	<b>NHIS</b>	National Health Interview Survey

<b>NHSN</b>	National Healthcare Safety Network	<b>R&amp;D</b>	research and development
<b>NP</b>	nurse practitioner	<b>RADV</b>	risk adjustment data validation
<b>NPI</b>	national provider identifier	<b>RAPS</b>	Risk Adjustment Processing System
<b>NTA</b>	nontherapy ancillary	<b>RDS</b>	retiree drug subsidy
<b>OCM</b>	Oncology Care Model	<b>REIT</b>	real estate investment trust
<b>OECD</b>	Organisation for Economic Co-operation and Development	<b>RHC</b>	routine home care
<b>OES</b>	Occupational Employment Statistics	<b>RN</b>	registered nurse
<b>OIG</b>	Office of Inspector General	<b>RPM</b>	remote patient monitoring
<b>OMW</b>	osteoporosis management in women who had a fracture	<b>RUG</b>	resource utilization group
<b>OOP</b>	out-of-pocket	<b>RVU</b>	relative value unit
<b>OPPS</b>	outpatient prospective payment system	<b>SFT</b>	store-and-forward telehealth
<b>OR</b>	operating room	<b>SGR</b>	sustainable growth rate
<b>PA</b>	physician assistant	<b>SHIP</b>	State Health Insurance Assistance Program
<b>PAC</b>	post-acute care	<b>SMI</b>	Supplementary Medical Insurance
<b>PAC-PRD</b>	Post-Acute Care Payment Reform Demonstration	<b>SNF</b>	skilled nursing facility
<b>PACE</b>	Program of All-Inclusive Care for the Elderly	<b>SNP</b>	special needs plan
<b>PAMA</b>	Protecting Access to Medicare Act of 2014	<b>SSI</b>	surgical site infection
<b>PAP</b>	patient assistance program	<b>SSO</b>	short-stay outlier
<b>PAYGO</b>	pay-as-you-go	<b>TCM</b>	transitional care management
<b>PBM</b>	pharmacy benefit manager	<b>TDAPA</b>	transitional drug add-on payment adjustment
<b>PCIP</b>	Primary Care Incentive Payment	<b>TEFRA</b>	Tax Equity and Fiscal Responsibility Act of 1982
<b>PD</b>	peritoneal dialysis	<b>TIN</b>	taxpayer identification number
<b>PDP</b>	prescription drug plan	<b>TMR</b>	targeted medication review
<b>PFFS</b>	private fee-for-service	<b>UA</b>	urbanized area
<b>PFS</b>	physician fee schedule	<b>UAF</b>	update adjustment factor
<b>PLI</b>	professional liability insurance	<b>UC</b>	urban cluster
<b>POS</b>	point of sale	<b>UCDS</b>	Uniform Clinical Data Set
<b>PPACA</b>	Patient Protection and Affordable Care Act of 2010	<b>UNOS</b>	United Network for Organ Sharing
<b>PPO</b>	preferred provider organization	<b>USRDS</b>	United States Renal Data System
<b>PPR</b>	potentially preventable readmission	<b>UVA</b>	University of Virginia
<b>PPS</b>	prospective payment system	<b>VA</b>	Department of Veterans Affairs
<b>PQI</b>	Prevention Quality Indicator	<b>VBP</b>	value-based purchasing
<b>PQRI</b>	Physician Quality Reporting Initiative	<b>VISN</b>	Veterans Integrated Service Network
<b>PQRS</b>	Physician Quality Reporting System	<b>VM</b>	value-based payment modifier (value modifier)
<b>PROMIS®</b>	Patient-Reported Outcome Measurement Information System®	<b>VSSO</b>	very short-stay outlier
<b>PSA</b>	prostate-specific antigen	<b>VVP</b>	voluntary value program
<b>PTP</b>	provider-to-provider		
<b>QIP</b>	Quality Incentive Program		
<b>QPP</b>	Quality Payment Program		
<b>QRUR</b>	Quality and Resource Use Report		



---

## **More about MedPAC**

---



## Commission members

---

**Francis J. Crosson, M.D., chairman**

Los Altos, CA

**Jon B. Christianson, Ph.D., vice chairman**

*School of Public Health at the University of Minnesota*

Minneapolis, MN

*Term expires April 2018*

**Alice Coombs, M.D.**

*Milton Hospital and South Shore Hospital*

Weymouth, MA

**Jack Hoadley, Ph.D.**

*Health Policy Institute, Georgetown*

*University*

Washington, DC

**David Nerenz, Ph.D.**

*Henry Ford Health System*

Detroit, MI

**Rita Redberg, M.D., M.Sc.**

*University of California at San Francisco*

*Medical Center*

San Francisco, CA

**Craig Samitt, M.D., M.B.A.**

*Anthem Inc.*

Indianapolis, IN

**Susan Thompson, M.S., R.N.**

*UnityPoint Health*

West Des Moines, IA

*Term expires April 2019*

**Amy Bricker, R.Ph.**

*Express Scripts*

St. Louis, MO

**Jon B. Christianson, Ph.D.**

**Brian DeBusk, Ph.D.**

*DeRoyal Industries*

Powell, TN

**Paul Ginsburg, Ph.D.**

*Brookings Institution*

Washington, DC

**Bruce Pyenson, F.S.A., M.A.A.A.**

*Milliman Inc.*

New York, NY

**Pat Wang, J.D.**

*Healthfirst*

New York, NY

*Term expires April 2020*

**Kathy Buto, M.P.A.**

Arlington, VA

**Francis J. Crosson, M.D.**

**David Grabowski, Ph.D.**

*Harvard Medical School*

Boston, MA

**Dana Gelb Safran, Sc.D.**

*Blue Cross Blue Shield of Massachusetts*

Boston, MA

**Warner Thomas, M.B.A.**

*Ochsner Health System*

New Orleans, LA





## Commissioners' biographies

---

**Amy Bricker, R.Ph.,** is president of the Supply Chain Division of Express Scripts Inc. in St. Louis, MO. She also has responsibility for Inside Rx, an Express Scripts subsidiary. She has held leadership roles at Express Scripts in pharmacy network management, supply chain economics, and retail contracting and strategy. Prior positions include regional vice president of account management and director of clinical sales with Walgreens Health Services and director of community retail pharmacy for BJC HealthCare. She currently serves on the boards of two nonprofit organizations: Memory Care Home Solutions and Youth in Need. Ms. Bricker received a bachelor of science in pharmacy at St. Louis College of Pharmacy.

**Kathy Buto, M.P.A.,** is an independent consultant and an expert in U.S. and international health policy. She serves on the Healthcare Leadership Council of the Healthcare Financial Management Association and as a venture adviser to Incube Labs LLC. She also serves on the board of the Arlington Free Clinic and as a member of Women of Impact, a women's health care leadership group. Her previous positions include vice president of global health policy at Johnson & Johnson, senior health adviser at the Congressional Budget Office, deputy director of the Center for Health Plans and Providers at the Health Care Financing Administration (now Centers for Medicare & Medicaid Services), and deputy executive secretary for health at the Department of Health and Human Services. Ms. Buto received her master's in public administration from Harvard University.

**Jon B. Christianson, Ph.D.,** is the James A. Hamilton Chair in Health Policy and Management in the Division of Health Policy and Management at the School of Public Health at the University of Minnesota. His research has addressed the areas of health finance, payment structures, rural health care, managed care payment, and the quality and design of care systems. Dr. Christianson received his Ph.D. in economics from the University of Wisconsin.

**Alice Coombs, M.D.,** is a critical care specialist and an anesthesiologist at Milton Hospital and South Shore Hospital in Weymouth, MA. She is also an associate professor in anesthesiology and critical care medicine at the Medical College of Virginia/Virginia Commonwealth University Health System. She is board certified in internal

medicine, anesthesiology, and critical care medicine. Dr. Coombs is past president of the Massachusetts Medical Society (MMS) and a member of MMS's Committee on Ethnic Diversity. She chaired the Committee on Workforce Diversity that is part of the American Medical Association's (AMA's) Commission to Eliminate Health Care Disparities and has served on the Governing Council for the AMA Minority Affairs Consortium and the AMA Initiative to Transform Medical Education. She currently serves on the AMA Women Physicians Section Executive Committee. She helped to establish the New England Medical Association, a state society of the National Medical Association that represents minority physicians and health professionals. Dr. Coombs has served as a member and vice chair of the Massachusetts Board of Registration in Medicine Patient Care Assessment Committee. In addition, she was a member of the Massachusetts Special Commission on the Health Care Payment System, the Massachusetts Health Policy Advisory Committee, and the Massachusetts Health Disparities Council.

**Francis J. Crosson, M.D.,** spent 35 years as a physician and physician executive at Kaiser Permanente. In 1997, he founded and for 10 years led the Permanente Federation LLC, the national umbrella organization for the physician half of Kaiser Permanente. Later he served as senior fellow at the Kaiser Permanente Institute for Health Policy and director of public policy for The Permanente Medical Group. From July 2012 through October 2014, he was group vice president of the American Medical Association in Chicago, IL, where he oversaw work related to physician practice satisfaction, efficiency, and sustainability. He previously served on MedPAC from 2004 to 2010, including as vice chair from 2009 to 2010. Dr. Crosson received his medical degree from the Georgetown University School of Medicine.

**Brian DeBusk, Ph.D.,** is chief executive officer of DeRoyal Industries in Powell, TN, which operates in the surgical, orthopedic, wound care, and health care information technology markets. He also serves as vice chairman of Lincoln Memorial University in rural Tennessee, which includes graduate medical education programs for physicians, physician assistants, nurse practitioners, and nurses. Dr. DeBusk's prior employment includes General Electric, Inobis, and

Pace Energy Systems. He has served on the faculty of both the University of Tennessee and Lincoln Memorial University, teaching classes in information technology and business strategy. Dr. DeBusk holds a Ph.D. in electrical engineering from Vanderbilt University and a master of business administration from Emory University.

**Paul Ginsburg, Ph.D.,** is the Leonard Schaeffer Chair in Health Policy Studies at the Brookings Institution in Washington, DC, and professor of health policy at the University of Southern California, where he is affiliated with the USC Schaeffer Center for Health Policy and Economics. Prior positions include founder and president of the Center for Studying Health System Change, founding executive director of the Physician Payment Review Commission, senior economist at RAND, and deputy assistant director at the Congressional Budget Office. Dr. Ginsburg earned his doctorate in economics from Harvard University.

**David Grabowski, Ph.D.,** is a professor in the Department of Health Care Policy at Harvard Medical School in Boston, MA. His research primarily focuses on the economics of aging, with an emphasis on post-acute and long-term care financing, organization, and delivery of services. Dr. Grabowski served as a member of two CMS technical expert panels that focused on the home health prospective payment system and the quality measures used in the home health value-based purchasing model. He serves on the editorial board of several journals, including the *American Journal of Health Economics* and *Medical Care Research & Review*. Dr. Grabowski received his Ph.D. in public policy from the Irving B. Harris School of Public Policy at the University of Chicago.

**Jack Hoadley, Ph.D.,** is research professor emeritus at the Health Policy Institute in the McCourt School of Public Policy at Georgetown University in Washington, DC. Dr. Hoadley previously served as director of the Division of Health Financing Policy for the Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation; as principal policy analyst at MedPAC and its predecessor organization, the Physician Payment Review Commission; and as senior research associate with the National Health Policy Forum. His research expertise includes health financing for Medicare, Medicaid, and the Children's Health Insurance Program (CHIP); pharmaco-economics and prescription drug benefit programs; and private sector insurance coverage. Dr. Hoadley has published widely on health care financing

and pharmaco-economics and has provided testimony to government panels.

**David Nerenz, Ph.D.,** is director of the Center for Health Policy and Health Services Research at the Henry Ford Health System in Detroit, MI, as well as director of outcomes research at the Henry Ford Neuroscience Institute and vice chair for research in the Department of Neurosurgery at Henry Ford Hospital. He has served on the National Committee for Quality Assurance's Culturally and Linguistically Appropriate Services Workgroup, the Accountable Care Organization Technical Advisory Committee of the American Medical Group Association, and most recently as co-chair of the National Quality Forum's Expert Panel on Risk Adjustment for Sociodemographic Factors. Dr. Nerenz has served in various roles with the Institute of Medicine, including as chair of the Committee on Leading Health Indicators for Healthy People 2020. He serves on the editorial boards of *Population Health Management* and *Medical Care Research and Review*.

**Bruce Pyenson, F.S.A., M.A.A.A.,** is principal and consulting actuary at Milliman Inc. in New York, NY. His work has focused on diverse aspects of health care and insurance, including recent work related to alternative payment models for accountable care organizations, such as shared savings, as well as financial modeling of therapeutic interventions. He has co-authored publications on such topics as the cost-effectiveness of lung cancer screening, pandemic influenza, and site-of-service cost differences for chemotherapy. Mr. Pyenson is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries.

**Rita Redberg, M.D., M.Sc.,** is professor of clinical medicine at the University of California at San Francisco (UCSF) Medical Center. A cardiologist, Dr. Redberg is also core faculty at the UCSF Philip R. Lee Institute of Health Policy Studies and adjunct associate at Stanford University's Center for Health Policy/Center for Primary Care and Outcomes Research. She is editor of *JAMA Internal Medicine* and chairperson of CMS's Medicare Evidence Development and Coverage Advisory Committee. Dr. Redberg serves in numerous positions on committees of the American Heart Association and the American College of Cardiology and was a Robert Wood Johnson Health Policy Fellow. She did her undergraduate work at Cornell University and has graduate degrees from the University of Pennsylvania Medical School and the London School of Economics.

**Dana Gelb Safran, Sc.D.**, is the Chief Performance Measurement and Improvement Officer and Senior Vice President, Enterprise Analytics, at Blue Cross Blue Shield of Massachusetts. In that role, she is responsible for leading efforts to use data, measurement, incentives, and reporting to improve the quality, outcomes, and affordability of care. Dr. Safran is also an associate professor at Tufts University School of Medicine. She currently serves on a number of state and national advisory bodies related to health care quality and affordability, including the National Quality Forum Consensus Standards Approval Committee and the CMS Technical Expert Panel on the Quality Rating System. Dr. Safran received her Sc.D. in health policy and management from the Harvard School of Public Health.

**Craig Samitt, M.D., M.B.A.**, is executive vice president and chief clinical officer at Anthem Inc. He has led major health systems for 20 years, most recently serving as president and CEO of HealthCare Partners, a division of DaVita HealthCare Partners, and, from 2006 through 2013, as president and CEO of Dean Health System in Madison, WI. Before joining Anthem, Dr. Samitt served as partner and global provider practice leader in Oliver Wyman's Health & Life Sciences Practice and previously held senior executive roles at Fallon Clinic, Harvard Pilgrim Health Care, and Harvard Vanguard Medical Associates. He is chair emeritus of the Group Practice Improvement Network and previously served as an advisory and faculty member of CMS's Accountable Care Organization Accelerated Development Learning Sessions. Dr. Samitt received his B.S. in biology from Tufts University, his M.D. from Columbia University College of Physicians and Surgeons, and his M.B.A. from the Wharton School.

**Warner Thomas, M.B.A.**, is president and CEO of the Ochsner Health System in New Orleans, LA. He oversees a network of 10 hospitals, 45 health centers and clinics, and 2,200 affiliated physicians. The Ochsner system includes the Ochsner Medical Center in New Orleans, the Ochsner Clinic group practice, rurally based and subacute care hospitals, skilled nursing and rehabilitation facilities, and hospice. The Ochsner Medical Center operates one of largest accredited non-university-based graduate medical education programs in the United States. It is also one of the largest Medicare risk contractors in the region and offers an accountable care organization for Medicare. Mr. Thomas's prior positions include chief operating officer of the Ochsner Clinic, vice president of managed care and network development at the Southern New Hampshire

Medical Center, and senior auditor and consultant at Ernst & Young. He received his master of business administration from Boston University Graduate School of Management.

**Susan Thompson, M.S., R.N.**, is senior vice president of integration and optimization with UnityPoint Health, an integrated delivery system serving Iowa, central and western Illinois, and central Wisconsin. Ms. Thompson is also the chief executive officer of UnityPoint Health Accountable Care, L.C., an Iowa limited liability company that brings together a diverse group of health care providers including hospitals, employed and independent physicians, and other providers, as well as other health initiatives. Previously, she was president and chief executive officer of UnityPoint Health–Fort Dodge, which serves a predominantly rural and aging population and included a sole community hospital, a primary care and multispecialty physician group, management contracts with five critical access hospitals throughout the region, and a Pioneer Accountable Care Organization. She also served in successive clinical and management positions at Trinity Regional Medical Center, as intensive care staff nurse, director of quality systems, assistant director of patient-focused care, chief information officer, chief operating officer, and chief executive officer. Ms. Thompson obtained her B.S. in nursing and her M.S. in health services management from Clarkson College in Omaha, NE.

**Pat Wang, J.D.**, is chief executive officer of Healthfirst in New York, NY. Healthfirst is a not-for-profit provider-sponsored health plan that serves Medicare enrollees, including those who are eligible for low-income subsidies and those who are dually eligible for Medicare and Medicaid. Healthfirst incorporates a payment model that transfers risk to hospital and physician partners. Ms. Wang previously served as senior vice president of finance and managed care for the Greater New York Hospital Association. She received her law degree from the New York University School of Law.



## Commission staff

---

### **James E. Mathews, Ph.D.**

*Executive director*

### **Dana K. Kelley, M.P.A.**

*Interim deputy director*

#### *Analytic staff*

Catherine Bloniarz, M.S.  
Stephanie Cameron, Sc.M.  
Carol Carter, Ph.D.  
Evan Christman, M.P.Aff.  
Zachary Gaumer, M.P.S.  
David V. Glass, M.S.  
Scott Harrison, Ph.D.  
Andrew Johnson, Ph.D.  
Dana Kelley, M.P.A.  
Kim Neuman, M.A.  
Brian O'Donnell, M.P.P.  
Jennifer Podulka, M.P.Aff.  
Nancy Ray, M.S.  
Eric Rollins, M.P.P.  
Rachel Schmidt, Ph.D.  
Jeffrey Stensland, Ph.D.  
Shinobu Suzuki, M.A.  
Ledia Tabor, M.P.H.  
Ariel Winter, M.P.P.  
Daniel Zabinski, Ph.D.

#### *Research assistants*

Emma Achola  
Sydney McClendon  
Amy Phillips

#### *Assistant director*

Paul Masi, M.P.P.

#### *Special assistant and scheduler*

Olivia Berci

#### *Administrative staff*

Allan Holland  
Wylene Carlyle  
Timothy Gulley  
Tina Jennings, MTESL  
Howard Patterson  
Cynthia Wilson









