

CHAPTER

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**Hospital inpatient and  
outpatient services**

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

- 3** For fiscal year 2022, the Congress should update the 2021 Medicare base payment rates for acute care hospitals by 2 percent.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

# Hospital inpatient and outpatient services

## Chapter summary

Short-term acute care hospitals provide acute inpatient and outpatient services, such as treatments for acute medical conditions and injuries. Medicare's payment rates for inpatient and outpatient services are generally set under the inpatient prospective payment system (IPPS) and outpatient prospective payment system (OPPS). In 2019, payments under these hospital payment systems totaled \$186 billion. About 5.5 million beneficiaries had 8.7 million inpatient stays in the 3,200 acute care hospitals paid under the IPPS in 2019. That same year, 20.6 million beneficiaries made 97.1 million visits to the 3,700 hospitals providing outpatient services under the OPPS.

In this chapter, we make a recommendation on a payment rate update for 2022. Because of standard data lags, the most recent complete data we have are from 2019 for most payment adequacy indicators. Where relevant, we have considered the effects of the 2020 coronavirus public health emergency (PHE) on our indicators and whether those effects are likely to be temporary or permanent. To the extent the effects of the PHE are temporary changes or vary significantly across individual hospitals, they are best addressed through targeted temporary funding policies rather than a permanent change to all hospitals' payment rates in 2022 and future years. Based on information available at the time of publication, we do not anticipate any long-term PHE-related effects that would warrant inclusion in the annual update to hospital payments in 2022. Instead, to the extent that the PHE continues, any

## In this chapter

- Are Medicare payments adequate in 2021?
- How should Medicare payment rates change in 2022?

needed additional financial support should be targeted to affected hospitals that are necessary for access.

### **Assessment of payment adequacy**

In 2019, most hospital payment adequacy indicators either remained positive or improved. Medicare beneficiaries continued to have good access to hospital care, the quality of hospital care improved, and hospitals maintained strong access to capital markets. The Medicare margin at IPPS hospitals remained negative but increased in 2019, and Medicare payments roughly matched relatively efficient hospitals' costs.

**Beneficiaries' access to care**—Medicare beneficiaries continued to have good access to hospital services in 2019.

- **Capacity and supply of providers**—Short-term acute care hospitals continued to have significant excess inpatient capacity in 2019, as indicated by an aggregate occupancy rate of 64 percent. This capacity remains adequate despite an increase in hospital closures in 2019 caused in part by declining admissions per capita. In 2020, the number of hospital closures decreased, but continued to exceed the number of openings.
- **Volume of services**—Inpatient stays per capita continued their gradual decline in 2019 (–1.9 percent), while outpatient services per capita continued their slow increase (0.7 percent). These trends reflect the continuing shift of care from inpatient to outpatient settings and from physician offices to hospital outpatient departments (as hospitals acquire physician practices). While the decline in inpatient use has been gradual, over time the results have been dramatic, with inpatient stays per capita falling by 31 percent since 1983.
- **Marginal profit**—IPPS hospitals with excess capacity continued to have financial incentives to provide inpatient and outpatient services to Medicare beneficiaries, as indicated by a marginal profit of about 8 percent in 2019.

**Quality of care**—In 2019, risk-adjusted readmission and mortality rates improved modestly, and patient experience measures remained stable. The Commission recommended in March 2019 a redesign of the current hospital quality payment programs, including removing the current penalty-only quality programs and enacting a new hospital value incentive program (HVIP) that balances rewards and penalties and has the potential to drive further improvement in hospital quality.

**Providers' access to capital**—Hospitals had record high all-payer operating and total margins, which contributed to strong access to capital in 2019. Furthermore, hospital construction spending held steady, municipal bond interest rates remained

low, hospital mergers and acquisitions continued, and hospital employment remained stable.

**Medicare payments and providers' costs**—Medicare's payments to IPPS hospitals grew faster than hospitals' costs in 2019, resulting in the aggregate Medicare margin increasing slightly from –9.3 to –8.7 percent among all IPPS hospitals and the median margin increasing from about –2 percent to –1 percent for relatively efficient hospitals. This increase in hospitals' Medicare margin was in part because IPPS payments per inpatient stay grew faster than hospitals' costs per stay, reflecting payment rates that included an overestimate of input price inflation. But the increase in hospitals' Medicare margin occurred primarily because Medicare made additional payments to hospitals to help cover the costs of charity care and non-Medicare bad debts. Medicare's uncompensated care payments, which are added on to the payments Medicare makes for each inpatient stay, are designed to increase when the rate of uninsured individuals increases and hospitals provide more uncompensated care. In 2019, CMS projected the national uninsured rate would increase 16 percent. This projection was the primary reason Medicare paid an additional \$1.5 billion in uncompensated care payments in 2019 (a 22 percent increase from 2018).

While the coronavirus PHE has made 2020 an anomalous year in many respects and it is impossible to predict with certainty the extent to which these effects will continue into 2021, we expect IPPS hospitals' Medicare margin to increase to about –6 percent in 2021, driven by substantially higher payment rate updates than in 2019 and prior years and the suspension of Medicare sequestration through the first half of fiscal year 2021. We also expect the efficient providers' Medicare margin will improve in 2021 to become slightly positive. The exact increase in the Medicare margin will depend in large part on the duration and severity of the coronavirus pandemic, volume changes, case-mix changes, and changes in costs relative to input price inflation, as well as any additional payment or other policy changes enacted in response to the pandemic.

### **How should payment rates change in 2022?**

Under current law, fee-for-service Medicare hospital base payment rates are projected to increase by about 2.4 percent in 2022, substantially higher than in 2019 and prior years, due to the expiration of statutory reductions in hospital updates required by the Affordable Care Act for each year from 2010 through 2019 and to lower productivity offsets. In addition, inpatient payments will increase by 0.5 percent, caused by unwinding a temporary reduction in payments that was put in place to recoup past overpayments resulting from changes in providers' documentation and coding. This change will result in an estimated 2.9 percent increase in inpatient payment rates and 2.4 percent increase in outpatient payment rates.

Given our positive payment adequacy indicators, a payment update of 2 percent in 2022—plus the statutory additional 0.5 percent increase to inpatient payments and the 0.8 percent increase to inpatient payments from our standing recommendation to replace the current quality program penalties with the HVIP—would be enough to maintain beneficiaries’ access to care and keep payment rates close to the cost of delivering high-quality care efficiently. On net, inpatient payments would increase by 3.3 percent and outpatient payment rates would increase by 2.0 percent. The 2.0 percent outpatient update (rather than the 2.4 percent estimated current law) would limit growth in the differential between rates paid for physician office visits on a hospital campus and rates paid for these visits at freestanding physician offices.

### **Mandated report: Expanding the post-acute care transfer policy to hospice**

Under the post-acute care transfer policy, when Medicare beneficiaries with certain conditions have short inpatient stays and are transferred to a post-acute care setting, the transferring hospital receives a per diem payment rather than the full IPPS amount. The Bipartisan Budget Act of 2018 expanded the IPPS post-acute care transfer policy to include hospital transfers to hospice beginning in fiscal year 2019 and mandated that the Commission evaluate and report on the effects of this policy change.

We estimate that the policy change resulted in savings of about \$304 million in fiscal year 2019 and about \$78 million in the first quarter of fiscal year 2020, without any discernable changes in Medicare beneficiaries’ timely access to hospice care. ■

## Background

Short-term acute care hospitals provide acute inpatient and outpatient services, such as treatments for acute medical conditions and injuries.<sup>1</sup> Fee-for-service (FFS) Medicare payment rates for inpatient and outpatient services are generally set by the inpatient prospective payment system (IPPS) and outpatient prospective payment system (OPPS).<sup>2</sup> In 2019, payments under these hospital payment systems totaled \$185.7 billion (Table 3-1).<sup>3</sup>

- **IPPS:** Medicare pays about 3,200 of the 4,700 short-term acute hospitals that participate in the Medicare program for inpatient services under the IPPS. In fiscal year 2019, these hospitals received \$111.3 billion in IPPS payments from the Medicare program and its beneficiaries for 8.7 million inpatient stays by 5.5 million FFS Medicare beneficiaries. Approximately 2,700 of these hospitals received an additional \$8.1 billion from the Medicare program for uncompensated care (charity care and non-Medicare bad debts).
- **OPPS:** Medicare pays some 3,700 short-term and other hospitals for outpatient services under the OPPS.<sup>4</sup> In calendar year 2019, these hospitals received \$66.2 billion from the Medicare program and its beneficiaries for 97.1 million outpatient visits by 20.6 million FFS Medicare beneficiaries.

The nearly \$186 billion in IPPS and OPPS payments in 2019 was slightly higher than in 2018 (\$181 billion). Medicare’s payments to hospitals rose because increases in payment rates, payments for uncompensated care and Part B drugs, and outpatient services per capita more than offset declines in inpatient stays per capita and declines in the number of FFS beneficiaries.

### How Medicare sets hospital payment rates

Under the IPPS and OPPS, CMS sets FFS Medicare payment rates for inpatient and outpatient services prospectively. CMS adjusts IPPS and OPPS payment rates for factors outside hospitals’ control, such as regional wage rates or patient characteristics. One rationale for paying hospitals on a prospective basis is to increase hospitals’ incentive to control their costs. Indeed, as we have reported in previous years’ March reports, hospitals with higher costs are often those under less pressure to constrain costs.

FFS Medicare hospital payment rates affect not only the Medicare program but also an increasing number of other payers that use FFS Medicare rates as benchmarks (see text box on payment rates to hospitals, p. 60).

### Inpatient prospective payment system

The IPPS primarily pays hospitals a predetermined amount per inpatient stay. The IPPS per stay payments are derived through adjustments applied to separate, annually updated operating and capital base payment rates. Adjustments to base rates include those for geographic factors, case mix

**TABLE  
3-1**

**Medicare payments under IPPS and OPPS, 2019**

Medicare payment system	Number of hospitals (in thousands)	Payments (in billions)
IPPS—Inpatient services	3.2	\$111.3
IPPS—Uncompensated care	2.7	8.1
OPPS—Outpatient services	3.7	66.2
Total		185.7

Note: IPPS (inpatient prospective payment system), OPPS (outpatient prospective payment system). Payments include any applicable beneficiary cost-sharing responsibilities. The year refers to fiscal year for inpatient services and calendar year for outpatient services. Components do not sum to total because of rounding.

Source: MedPAC analysis of Medicare Provider Analysis and Review data, IPPS final rule, and outpatient claims.

## Fee-for-service Medicare payment rates to hospitals are benchmarks for Medicare Advantage plans and other payers

Increasingly, fee-for-service (FFS) Medicare hospital payment rates are used as rate-setting benchmarks by Medicare Advantage (MA) plans and other payers. As such, any update to these FFS Medicare payment rates will have broader effects, including:

- **MA plan hospital payment rates.** Most MA plans pay hospitals using rates that are equal to rates under FFS Medicare (Berenson et al. 2015, Maeda and Nelson 2017).
- **Department of Veterans Affairs payment rates to community hospitals and other providers.** Since 2011, the Department of Veterans Affairs (VA) has been setting payment rates for most care—including hospital care—provided in non-VA settings not to exceed FFS Medicare rates, citing Medicare as the federal health care industry standard (Department of Veterans Affairs 2019).<sup>5</sup>
- **Upper limit on hospital rates for Medicaid beneficiaries and low-income uninsured.** The Medicaid program uses FFS Medicare rates when setting maximum supplemental “upper payment limit” FFS Medicaid payments to hospitals. States can make supplemental payments to hospitals to make up the difference between the Medicaid payments and the Medicare limit; states reported \$13 billion in such payments in 2017 (Medicaid and CHIP Payment and Access Commission 2019). The rates that uninsured individuals pay are also often benchmarked to Medicare, a result of limits on rates charged to low-income uninsured individuals that were enacted in the Affordable Care Act.
- **State health plans.** Some states’ employee health plans set their hospital payment rates based on a percentage of FFS Medicare rates, and other states have made proposals to do so.<sup>6</sup> ■

(the expected relative costliness of inpatient treatment for patients with similar clinical conditions), and certain hospital characteristics (such as teaching hospitals or disproportionate share hospitals (DSHs) serving a disproportionate share of low-income patients). The IPPS has additional payment adjustments for new technologies, extraordinarily high-cost cases, certain rural hospitals, and quality incentives and penalties.

Beginning in 2014, each DSH receives a reduced IPPS adjustment but also receives its share of a predetermined pool of payments for uncompensated care (charity care and non-Medicare bad debts). The uncompensated care pool is based on estimates of what DSH payments would have been under prior law and on the national uninsured rate relative to 2013.<sup>7</sup>

### Outpatient prospective payment system

The unit of payment in the OPSS consists of a primary service and ancillary items that are packaged with

the primary service. Examples of primary services include emergency department visits, computed tomography scans, and surgical procedures. The OPSS pays a predetermined amount for each primary service. CMS classifies the services into ambulatory payment classifications (APCs) based on clinical and cost similarity. For each APC, CMS determines a base payment rate using the geometric mean cost that hospitals incur when providing the services in the APC. CMS adjusts the base payment rate for each service provided for geographic differences in input prices. The OPSS also has special payments for new technologies, designed for situations in which individual services cost the hospital much more than the base payment, and for certain hospital types (such as cancer, children’s, and rural sole community hospitals). The OPSS also pays separately for drugs that have costs exceeding a threshold, corneal tissue acquisition, and blood and blood products.<sup>8</sup>



## The coronavirus public health emergency and the Commission's payment adequacy framework

Since early 2020, the coronavirus public health emergency (PHE) has had tragic effects on beneficiaries' health.<sup>9</sup> It also has had material effects on providers' patient volume, revenues, and costs. In March and April of 2020, COVID-19 admissions spiked in some parts of the country. Concerns about hospital capacity and patient safety led to a dramatic drop in elective surgeries and hospitals' overall revenue. For many hospitals, April revenue fell by roughly half before largely rebounding by June 2020. For some hospitals, federal coronavirus relief grants and cost reductions offset lost revenue, allowing them to remain profitable during the first three quarters of 2020, but other hospitals experienced losses. In the fourth quarter of 2020, COVID-19 admissions spiked again in many parts of the country. Uncertainty remains about the extent to which the pandemic will affect patient care patterns, hospital volume, and hospital financial performance in 2021 and 2022.

In this chapter, we recommend payment rate updates for 2022. Because of standard data lags, the most recent complete data we have are from 2019 for most payment adequacy indicators. We use available data and changes in payment policy to project margins for 2021 and make payment recommendations for 2022. To the extent the effects of the coronavirus PHE are temporary changes or vary significantly across individual hospitals, they are best addressed through targeted temporary funding policies rather than a permanent change to all hospitals' payment rates in 2022 and future years. For each payment adequacy indicator in this chapter, we discuss whether the effects of the coronavirus PHE on those indicators will most likely be temporary or permanent. Only permanent effects of the pandemic will be factored into recommended permanent changes in Medicare base payment rates. (For an overview of how our payment adequacy analysis takes account of the PHE, see Chapter 2.) ■

### Are Medicare payments adequate in 2021?

To assess whether FFS Medicare payments in 2021 are adequate for relatively efficient hospitals, we examined payment adequacy indicators in four categories:

- beneficiaries' access to hospital inpatient and outpatient care;
- quality of hospital care;
- hospitals' access to capital; and
- the relationship between FFS Medicare payments and hospitals' costs, both across all IPPS hospitals and limited to relatively efficient hospitals.<sup>10</sup>

Most of our payment adequacy indicators for hospitals were positive in 2019—the most recent year in which we have data for most indicators—with relatively efficient

IPPS hospitals improving their overall Medicare margin slightly from –2 percent in 2018 to –1 percent in 2019. (For a description of how the coronavirus pandemic has been incorporated into our payment adequacy framework, see text box.)

While it is impossible to precisely predict the future given the evolving coronavirus pandemic, we anticipate most hospital payment adequacy indicators will remain positive in 2020 and 2021 and that IPPS hospitals' aggregate Medicare margin will increase to –6 percent in 2021, resulting from substantially higher payment rate updates in 2020 and 2021 relative to 2019 and prior years, and the suspension of Medicare sequestration for at least the first half of fiscal year 2021.

### Beneficiaries continued to have good access to hospital inpatient and outpatient services

FFS Medicare beneficiaries continued to have good access to hospital inpatient and outpatient services in 2019, as

hospitals continued to have excess inpatient capacity and a financial incentive to serve FFS Medicare beneficiaries.

The coronavirus public health emergency (PHE) affected hospitals' inpatient capacity and FFS Medicare beneficiaries' use of hospital services during parts of 2020; however, volume largely returned by the end of fiscal year 2020, and fewer hospitals closed in 2020 than in 2019. While there will continue to be variable effects in fiscal year 2021, we anticipate that in aggregate—across all hospitals and the entirety of the year—indicators of beneficiaries' access to care will remain positive in 2021.

### **Hospitals continued to have significant excess inpatient capacity in 2019**

Short-term acute care hospitals continued to have significant excess inpatient capacity in aggregate, with approximately two-thirds (64 percent) of all bed-days occupied during 2019. Hospitals' aggregate occupancy rate has slowly increased over the last five years as the number of inpatient, swing, or observation days slightly increased and the number of available beds slightly decreased. Nevertheless, hospitals have continued to maintain excess inpatient capacity despite population growth and some hospital closures because of continued declines in inpatient stays per capita.

The occupancy rate also continued to vary across different types of hospitals. In particular:

- ***Rural hospitals continued to have a lower occupancy rate.*** Small rural hospitals designated as critical access hospitals had an occupancy rate of 36 percent, indicating that about one-third of their beds—including observation and post-acute patients in swing beds—were occupied, on average. IPPS hospitals in rural nonmicropolitan counties had a similarly low occupancy rate (34 percent), while those in micropolitan areas had a slightly higher occupancy rate (47 percent). In contrast, IPPS hospitals in metropolitan areas had an occupancy rate of 68 percent.
- ***Teaching hospitals and those that treated a disproportionate share of low-income patients continued to have a higher occupancy rate.*** IPPS hospitals that were both teaching hospitals and DSHs had a substantially higher occupancy rate (72 percent) than nonteaching hospitals and non-DSHs (52 percent).

Hospital occupancy rates varied substantially across hospitals and time periods in 2020, attributable to the coronavirus PHE, including some geographic areas exceeding their hospital capacity as COVID-19 cases peaked. However, limited data to date suggest that hospitals' aggregate occupancy rate across the entirety of fiscal year 2020 dipped, attributable to a decline in all-payer inpatient stays and temporary increases in beds to provide surge capacity.

### **Fewer hospital closures in 2020 after a peak in 2019**

While hospital closures are still relatively rare events, there was an increase from fiscal year 2018 to 2019, when closures rose from 19 to 46.<sup>11</sup> The number of closures then decreased to 25 in fiscal year 2020.

The majority of the 71 hospitals that closed in 2019 and 2020 were small (52 had 100 or fewer beds) and located in urban metropolitan areas (39). In comparison, 30 hospitals opened in 2019 and 2020 combined, slightly more than the 17 that opened over the prior two years. The hospitals that opened were small (all had 100 or fewer beds) and all but 3 were in urban areas.

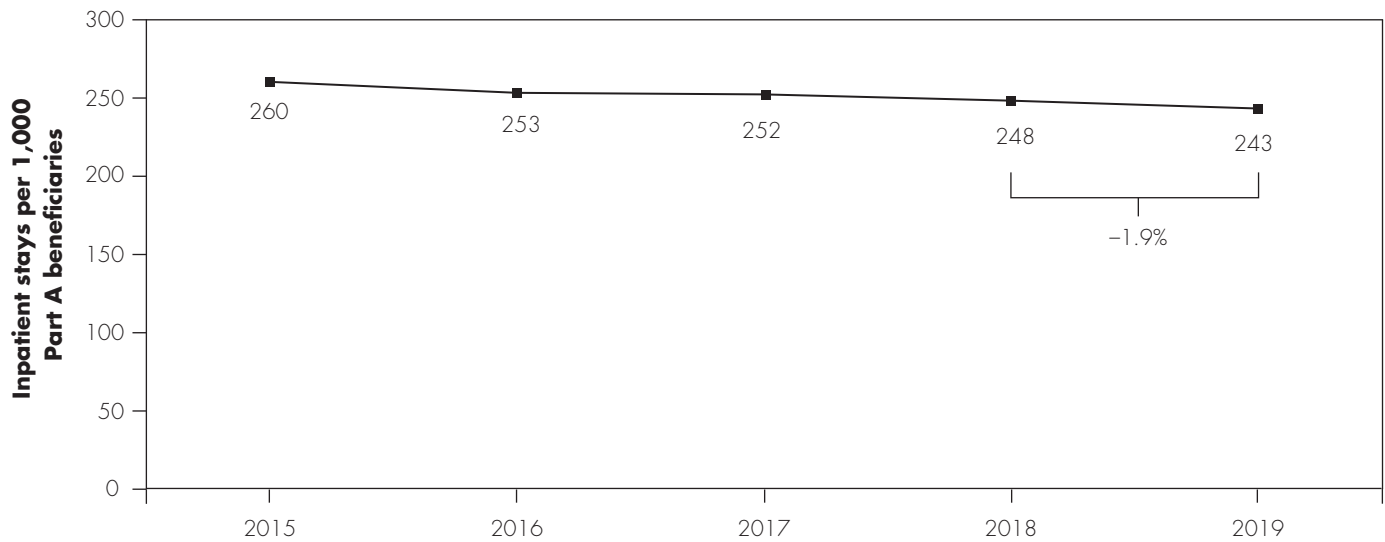
A majority of the hospitals that closed in 2019 and 2020 cited financial reasons as a driving factor for closure. The closed hospitals had comparatively low inpatient occupancy rates (29 percent, on average) and poor profitability (all-payer margin of -11 percent, on average, in the year before closure). The 11 critical access hospitals that closed averaged a slightly positive Medicare margin but an all-payer margin of -13 percent caused by losses on their non-Medicare patients. Several of the hospitals that closed during the two-year period filed for bankruptcy before their closure. Nonfinancial reasons for closures included consolidation, environmental factors (e.g., destruction attributable to the Camp Fire in California), and failure to meet Medicare conditions of participation.

Rural hospitals often face the greatest challenges with declining admissions, in part resulting from rural beneficiaries increasingly bypassing their local hospitals to seek care at urban hospitals. In 2010, 40 percent of rural beneficiaries' hospital admissions were in urban hospitals; by 2018, this share grew to 48 percent of their admissions.

The effect of recent hospital closures on beneficiaries' access varied. The average distance from the 29 hospitals that closed in 2020 to the nearest hospital was about 12

**FIGURE  
3-1**

**FFS Medicare beneficiaries' inpatient stays per capita continued gradual decline in 2019**



Note: FFS (fee-for-service). Analysis includes FFS Medicare beneficiaries' inpatient stays across all short-term acute care hospitals in the U.S. per 1,000 FFS Medicare Part A beneficiaries. Percentage change was calculated prior to rounding.

Source: MedPAC analysis of Medicare Provider Analysis and Review data and enrollment data from the Medicare Trustees report.

miles, and nearly half of the closures were within 5 miles of the nearest hospital. None of the closures involved hospitals more than 35 miles away from the next nearest hospital, suggesting most beneficiaries continued to have access to inpatient services in their region. In addition, some of the former hospital locations still offered some services, such as urgent care or clinic services, while others were actively working to reopen.

The Commission is especially concerned with rural beneficiaries' access to care as the number of rural hospital closures increases without a comparable increase in rural hospital openings. The Commission recommended in June 2018 that Medicare help preserve access to emergency services in cases where a full-service hospital is not viable by allowing isolated, rural stand-alone emergency departments (Medicare Payment Advisory Commission 2018).

The coronavirus PHE has made 2020 an anomalous year in many respects; for example, hospitals received targeted funding that may have prevented some closures.

It is unclear the extent to which the downward trend will continue in 2021.

**Inpatient stays per capita continued their gradual decline in 2019**

In 2019, FFS Medicare beneficiaries' inpatient stays per capita declined 1.9 percent (Figure 3-1), reflecting a continued shift of care to outpatient settings. For example, inpatient major hip and knee replacements per capita declined 8 percent (data not shown). The decline in inpatient stays per capita was a continuation of the historical trend—among both FFS Medicare beneficiaries and those who are commercially insured. For example, from 2015 to 2018, Medicare inpatient stays per capita fell 4.7 percent; among the commercially insured population, they fell 3.5 percent (Health Care Cost Institute 2020). While the decline in inpatient use has been gradual, over time the results have been dramatic: Since the IPPS started in 1983, inpatient stays per capita have declined by 31 percent and inpatient days per capita declined even faster,

dropping 63 percent (Centers for Medicare & Medicaid Services 2020, Health Care Financing Administration 1995).

Differential trends in inpatient stays also continued in 2019, resulting in continued shifts in the share of FFS Medicare beneficiaries' inpatient stays at certain types of hospitals and in the share of certain types of inpatient stays. In particular:

- ***Share of inpatient stays at rural hospitals continued to decline.*** The share of FFS Medicare beneficiaries' inpatient stays at hospitals in rural nonmicropolitan counties was 4.8 percent in 2019, down from 5.0 percent in 2018 and 5.4 percent in 2015. The share of inpatient stays at hospitals in rural micropolitan counties has also been decreasing, but to a smaller extent (to 8.5 percent from 8.9 percent in 2015). An analysis of claims data finds that the continued shift of inpatient stays from rural hospitals to urban hospitals reflects primarily beneficiaries bypassing their local rural hospital for inpatient care.
- ***Share of one-day inpatient stays continued to increase.*** The share of FFS Medicare beneficiaries' inpatient stays that were only one day was 14.1 percent in 2019, up from 13.4 percent in 2018 and 11.6 percent in 2014. As the Commission has previously noted, growth in the number of one-day stays could be attributable to the reduced likelihood in recent years that CMS's recovery audit contractors (RACs) will deny payment for one-day stays. In 2015, CMS ceased patient status reviews (which previously resulted in challenges to one-day stay claims). As a result, from 2014 to 2015, the number of claims that were challenged by the RACs as overpayments fell by 91 percent (Centers for Medicare & Medicaid Services 2015).
- ***Share of inpatient stays discharged to home health care and hospice continued to increase.*** The share of FFS Medicare beneficiaries' inpatient stays that resulted in a discharge to home with home health care was 18.4 percent in 2019, up from 18.1 percent in 2018 and 16.9 percent in 2015. At the same time, the share of inpatient stays discharged to skilled nursing facilities decreased slightly. This phenomenon, in conjunction with the increase in the share of one-day inpatient stays, could reflect a growing trend in hospitals discharging Medicare beneficiaries to home with home health care in lieu of monitoring them in

the hospital or a skilled nursing facility. In addition, the share of discharges to hospice increased to 3.4 percent, up slightly from 2018. (For the results of our analysis in support of the mandated report on the expansion of the IPPS transfer policy to hospice, see the text box, pp. 83–87.)

As a result of the coronavirus PHE, hospitals in aggregate experienced substantial declines in FFS Medicare and total inpatient volume in late March and April 2020. The extent of the declines and subsequent rebounds varied across types of inpatient stays, with smaller declines and faster returns to near-normal volumes among less discretionary stays. For example, Medicare beneficiaries' inpatient stays with heart attacks declined in April to 70 percent of prior-year levels and fully rebounded by mid-June, staying near prior-year levels through December 2020. Similarly, non-COVID-19 emergency visits that resulted in an inpatient stay initially declined in April to 50 percent of prior-year levels, partially rebounded to 80 percent of prior-year levels by June, and remained near that level through December. By contrast, more discretionary services had much larger initial declines, with total knee replacements dipping in April to 5 percent of prior-year levels. Total knee replacements then rebounded to 75 percent of prior-year levels by June but began declining as the third wave of COVID-19 cases began in late fall.

While the duration and severity of the coronavirus PHE is unclear, based on information available at the time of this publication, we do not anticipate that it will cause any long-term deviations from the historical trend of slow declines in FFS Medicare beneficiaries' inpatient stays per capita as care continues to shift to outpatient settings.

#### **Outpatient hospital services per capita continued slight increase in 2019**

Outpatient services to FFS Medicare beneficiaries per capita increased 0.7 percent in 2019—the same as in 2018. Consistent with prior years, this growth reflects two trends:

- ***Complex surgical procedures continued to shift from inpatient to outpatient settings.*** Growth in relatively complex services—such as knee replacement; endovascular procedures; and removal, replacement, or insertion of defibrillator systems or pulse generators—suggests that some of the growth in OPSS volume and payments is from services migrating from the (relatively higher cost) inpatient to the (relatively lower cost) outpatient setting. For example, in 2019,



**TABLE  
3-2**

**FFS Medicare beneficiaries' outpatient services per capita increased in HOPDs and decreased in physician offices**

**Outpatient services per 1,000 Part B beneficiaries**

Service	HOPD			Physician office		
	2013	2019	Percent change	2013	2019	Percent change
Clinic or physician office visit	780	972	25%	6,765	6,448	-4.7%
Chemotherapy administration	99	144	45	158	139	-12.4

Note: FFS (fee-for-service), HOPD (hospital outpatient department). HOPDs include all hospitals in the U.S. paid under the outpatient prospective payment system.

Source: MedPAC analysis of outpatient claims and enrollment data from the Medicare Trustees report.

the volume of outpatient services in the Healthcare Common Procedure Coding System (HCPCS) 93656 (a test of electrical activity of the heart) increased 15.8 percent (138 per 100,000 beneficiaries in 2019 versus 116 per 100,000 beneficiaries in 2018). OPSS payments for this service also increased, by 19.1 percent.

- Clinic visits, drug administration, and other services continued to shift from physician offices to hospital outpatient departments as hospitals have acquired physician practices.** A large source of growth in hospital outpatient department (HOPD) volume and OPSS payments for hospital outpatient services has been attributable to a shift from (relatively lower cost) physician offices to (relatively higher cost) HOPDs. From 2013 to 2019, the volume of clinic visits and drug administration (especially for chemotherapy drugs) rose substantially in the hospital outpatient setting, while the volume of these services fell in freestanding physician offices (Table 3-2). However, from 2018 to 2019, the growth in clinic visits in HOPDs slowed, increasing by only 1.6 percent. The relatively slow growth in clinic visits and a small decrease in other evaluation and management services, such as emergency department (ED) visits, is a main reason why overall volume growth in HOPDs from 2018 to 2019 moderated. Despite this moderation, the fact that outpatient volume has grown for over 10 consecutive years suggests FFS Medicare beneficiaries have adequate access to outpatient care.

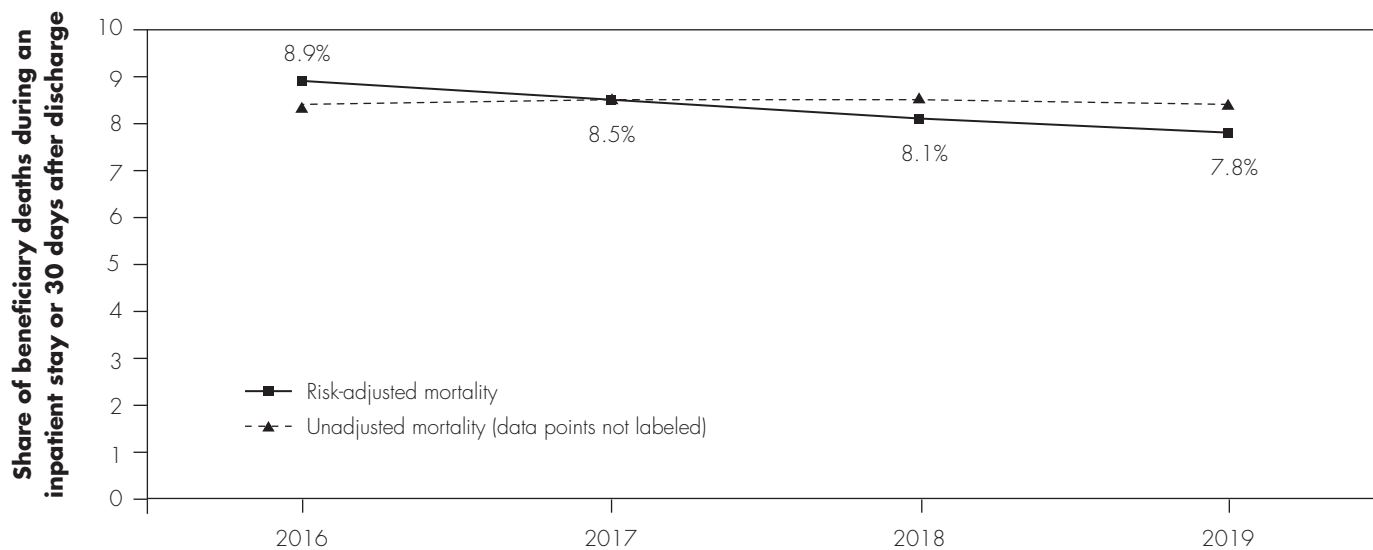
The coronavirus PHE undoubtedly depressed HOPD volume among Medicare beneficiaries in 2020, but data limitations prevent us from providing a precise estimate of the effect at this time. In Medicare, ED visits and clinic visits are two of the most commonly billed services under the OPSS. As for ED visits, we found that the volume in April 2020 was 51 percent of volume in January 2020; as for HOPD clinic visits, volume in April 2020 was 30 percent of volume in January 2020. The volume of these two services rebounded quickly. By June 2020, the volume of ED visits and clinic visits rebounded to about 75 percent of their January 2020 levels.

**Hospitals with excess capacity continued to have a financial incentive to serve Medicare beneficiaries in 2019**

Hospitals with excess capacity continued to have financial incentives to provide inpatient and outpatient PPS services to FFS Medicare beneficiaries: Their marginal profit on these services remained over 8 percent in 2019. We calculate hospitals' Medicare marginal profit by comparing Medicare's IPSS and OPSS payments with the variable cost of treating an additional FFS Medicare patient. To make a conservative estimate of hospitals' Medicare marginal profit, we use a broad definition of variable costs that is consistent with our prior estimates of the share of costs that varied over a one-year time period. We find that roughly 80 percent of costs are variable; to the extent that a higher share of costs is fixed, the marginal profit would be higher.

**FIGURE  
3-2**

**FFS Medicare beneficiaries' risk-adjusted, all-condition mortality rates have declined**



Note: FFS (fee-for-service). Analysis includes FFS Medicare beneficiaries ages 65 and older. The 2016 to 2018 risk-adjusted values differ from what was presented in the March 2020 report to the Congress because of an update to the baseline years used to calculate expected values (using 2016–2018 instead of 2010–2012 data) and use of an updated version of the 3M™ all-patient refined–diagnosis related group software.

Source: MedPAC analysis of Medicare Provider Analysis and Review data.

The rapid response to the coronavirus pandemic has demonstrated that at least some hospitals can substantially decrease their costs over a matter of months. For example, the largest hospital systems were able to substantially reduce costs from the first quarter of 2020 to the second quarter of 2020, despite the expectation that the reduction in volume would be temporary (Medicare Payment Advisory Commission 2020a). We expect that hospitals will have an even greater ability to adjust costs when they have a longer time period to adapt to environmental changes and resulting anticipated long-term changes in volume.

**Quality of care improved modestly or remained stable**

Two key indicators of the quality of hospital inpatient services provided to FFS Medicare beneficiaries—risk-adjusted mortality rates and readmission rates—improved modestly in 2019, and patient-reported experience measures remained high.

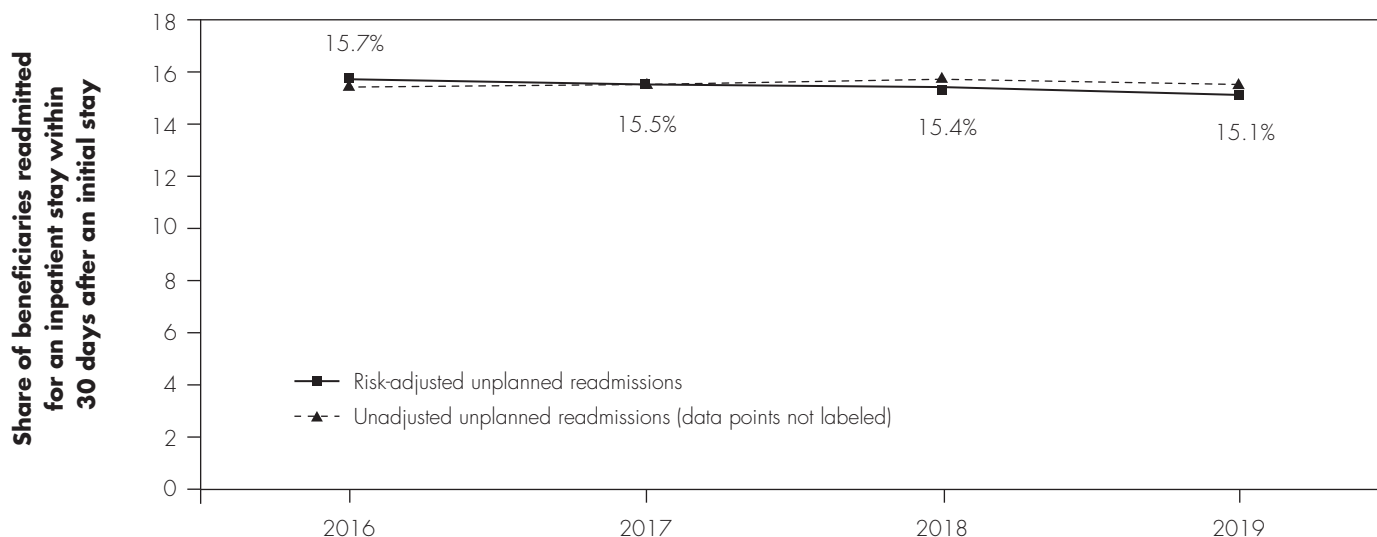
The quality of hospital care in 2020 will be difficult to assess and compare because of the coronavirus PHE. It is likely that information on quality performance during the PHE will be incomplete for at least some portion of 2020 performance and will reflect the pandemic's tremendous impact on mortality. CMS's guidance on reporting requirements and how the PHE will affect quality payment programs is evolving. To date, CMS has stated it will exclude at least some of the 2020 experience from the calculation of results for quality payment programs.

**Risk-adjusted mortality rate improved in 2019**

From 2016 to 2019, FFS Medicare beneficiaries' risk-adjusted mortality rate declined (that is, improved) by 1.1 percentage points, including a 0.3 percentage point decline in 2019 (Figure 3-2). Over the four-year period, unadjusted mortality rates were relatively stable, but expected mortality increased because beneficiaries admitted to hospitals in recent years tended to have more

**FIGURE  
3-3**

**FFS Medicare beneficiaries' risk-adjusted, all-condition readmission rates have declined**



Note: FFS (fee-for-service). Analysis includes FFS Medicare beneficiaries ages 65 and older. The 2016 to 2018 unadjusted readmission results differ from what was presented in the March 2020 report to the Congress because we used CMS's updated definition of unplanned admissions published in their 2019 measure specifications. The 2016 to 2018 risk-adjusted values differ from what was presented in the March 2020 report to the Congress because of an update to the baseline years used to calculate expected values (using 2016–2018 instead of 2010–2012 data), use of an updated version of the 3M™ all-patient refined–diagnosis related group software, and use of CMS's updated unplanned admissions definition.

Source: MedPAC analysis of Medicare Provider Analysis and Review data.

comorbidities and thus a higher risk of mortality. Other studies have found similar improvements for condition-specific mortality and overall readmissions in earlier years (Hines 2015, Krumholz 2015, Medicare Payment Advisory Commission 2018).

**Risk-adjusted readmission rates improved in 2019**

The Congress enacted the Hospital Readmission Reduction Program (HRRP) in 2010, and since that time, FFS Medicare beneficiaries' readmission rates have fallen. Our recent analysis of the HRRP found that the program gave hospitals an incentive to reduce unplanned readmissions (Medicare Payment Advisory Commission 2018). Our updated analysis of readmission rates across all conditions for beneficiaries over age 65 found that between 2016 and 2019, the raw unplanned readmission rate increased slightly by 0.1 percentage point, from 15.4 percent to 15.5 percent

(Figure 3-3). Once risk adjusted, these rates declined from 15.7 percent to 15.1 percent.

**Patient experience measures remained stable in 2019**

Patient-reported experiences regarding their care during inpatient stays remained stable from 2016 to 2019. Hospitals collect Hospital Consumer Assessment of Healthcare Providers and Systems® (H-CAHPS®) surveys from a sample of admitted patients, which CMS uses to calculate results for 10 measures of patient experience.<sup>12</sup> The H-CAHPS measures key components of quality by assessing whether something that should happen during a hospital stay (such as clear communication) actually happened or how often it happened. In 2019, communication with nurses, communication with doctors, and receipt of discharge information had the highest scores, with over 80 percent of surveyed patients answering with the most positive response. From 2016

## The Commission's standing recommendation to replace current hospital quality programs with a new hospital value incentive program

The Commission asserts that quality measurement should be patient oriented, encourage coordination, and promote delivery system change. In March 2019, the Commission recommended that the Congress replace fee-for-service Medicare's current hospital quality programs with a single, outcome-focused, quality-based payment program for hospitals—the hospital value incentive program (HVIP)—based on our principles for quality measurement (Medicare Payment Advisory Commission 2019). Consistent with the Commission's principles, the HVIP links payment to quality of care to reward hospitals for providing high-quality care to beneficiaries while maintaining low episode costs.

Initially, the HVIP can incorporate existing quality measure domains such as readmissions, mortality, spending, patient experience, and hospital-acquired conditions (or infection rates). By using existing measures on which hospitals are already evaluated, assuming equal weighting of the measure domains, the HVIP raises the weight of mortality and patient experience and lowers the weight of readmissions and infection rates compared with current quality programs. In line with the Commission's principles, the HVIP uses clear, prospectively set performance standards to translate hospital performance on these quality measures to a reward or a penalty.

According to the Commission's principles, adjusting measure results for social risk factors is important

because these factors can mask disparities in clinical performance. Accordingly, the HVIP accounts for differences in providers' patient populations by incorporating a peer-grouping methodology in which quality-based payments are distributed to hospitals separated into 10 peer groups, defined by the share of treated beneficiaries with full dual eligibility for Medicare and Medicaid (as a proxy for income). The HVIP redistributes pools of dollars to hospitals in the peer groups based on their quality performance. The pools of dollars are funded by a payment withhold from all hospitals in the peer group (e.g., 5 percent).

Under the Commission's HVIP model, the grouping of hospitals into peer groups that serve similar populations makes payment adjustments more equitable than existing quality payment programs. As a result, we expect that under the HVIP, large urban hospitals and major teaching hospitals would, on average, receive rewards rather than the penalties they receive under current programs. Rural and nonteaching hospitals, on average, would receive higher rewards than large urban and major teaching hospitals. Relatively efficient providers also would receive more of a reward from the HVIP compared with other hospitals. All groups receive higher payments on average as a result of removing penalties in the current program. In addition, all hospitals would benefit from the streamlined reporting and the HVIP's lower burden of data collection. ■

to 2019, the share of patients rating their overall hospital experience a 9 or 10 on a 10-point scale remained stable at 73 percent. In 2019, the care transitions measure result remained low, with only 54 percent of surveyed patients responding with "Strongly Agree" that they understood their care plan when they left the hospital.

### Need for a redesign of hospital quality payment programs

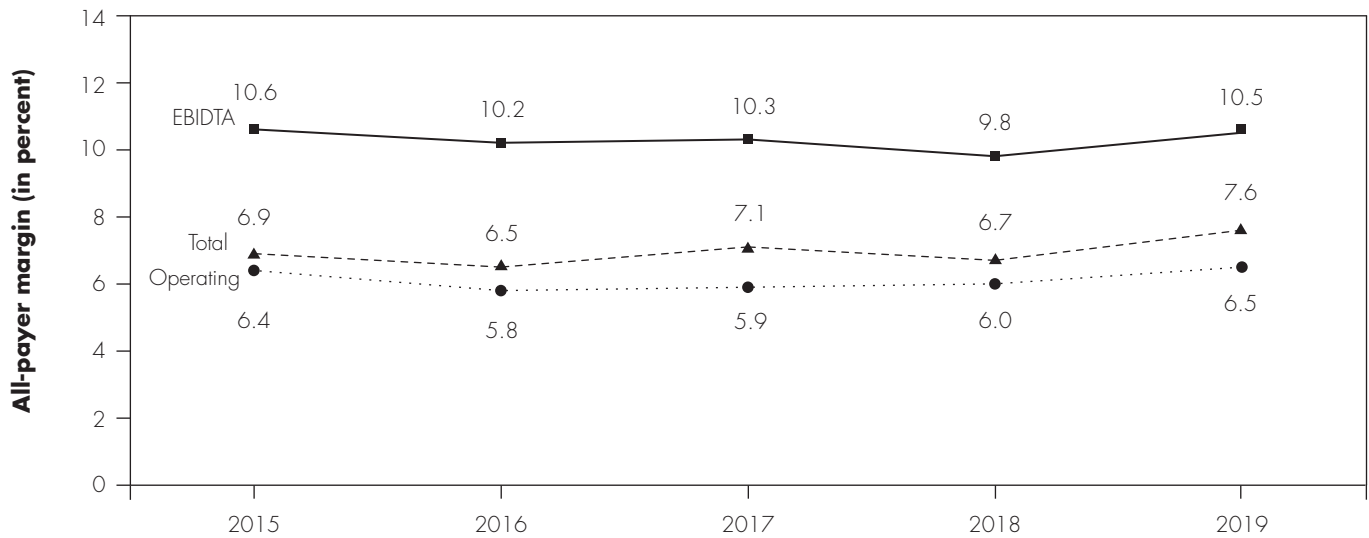
At least part of the improvement in quality appears to be attributable to financial incentives from three Medicare

quality incentive programs added to the IPPS in 2013 and 2015: the HRRP (which can reduce payments up to 3.0 percent), the Hospital Value-Based Purchasing (VBP) Program (which can raise a hospital's payment by as much as 3.0 percent or lower it by up to 1.5 percent), and the Hospital-Acquired Condition Reduction Program (which can reduce a hospital's payments by 1 percent for 25 percent of hospitals). In 2019, hospitals' performance on the combined quality programs had the potential to increase a hospital's IPPS payment rates by as much as



**FIGURE  
3-4**

**IPPS hospitals' all-payer financial performance has been strong, with total and operating margins reaching record highs in 2019**



Note: IPPS (inpatient prospective payment system), EBITDA (earnings before interest, taxes, depreciation, and amortization). Analysis includes short-term acute care hospitals in the U.S. paid under the IPPS with complete and nonoutlier cost report data. A margin is calculated as aggregate payments minus aggregate allowable costs, divided by aggregate payments.

Source: MedPAC analysis of hospital cost reports.

about 3 percent and lower payments by as much as about 5.5 percent. Under the combined effect of the program in 2019, almost a quarter of hospitals saw a net increase in IPPS payments (averaging about 0.5 percent in IPPS payments), and about 70 percent of hospitals saw a net decrease of payments (averaging about 1 percent of IPPS payments). Together, the payments from the two quality penalty programs decreased inpatient payments by about \$0.9 billion in 2019, equivalent to 0.8 percent of IPPS operating payments (including uncompensated care).

In March 2019, the Commission recommended that the Congress replace Medicare's current hospital quality programs (including the penalty-only programs) with a single, outcome-focused quality-based payment program for hospitals—that is, the hospital value incentive program (HVIP)—which balances rewards and penalties and has the potential to drive further improvement in hospital quality (see text box).

**Hospitals' access to capital remained strong**

Hospitals had record high all-payer operating and total margins, which contributed to strong access to capital in 2019.

In 2020, the coronavirus PHE affected hospitals' access to capital, with different effects on different groups of hospitals. However, in aggregate, the additional federal support hospitals received—as well as advanced Medicare payments—helped maintain hospitals' aggregate access to capital in 2020 near the record highs in 2019. Through November 2020, we saw no increase in rates lenders required from hospitals.

**All-payer financial performance reached record highs in 2019**

In aggregate, IPPS hospitals' all-payer financial performance was very strong in 2019, with key measures of hospitals' financial performance reaching record highs (Figure 3-4).

- IPPS hospitals' all-payer operating margin—a measure of how hospitals' patient care revenue compares with their operating costs—increased to 6.5 percent, slightly above the prior all-time high of 6.4 percent in 2015.
- IPPS hospitals' all-payer total margin—which includes nonpatient care revenue, such as investment income—increased to 7.6 percent, above the prior all-time high of 7.1 percent in 2017.
- IPPS hospitals' cash flow—as measured by earnings before interest, taxes, depreciation, and amortization—increased to 10.5 percent, the highest level since 2015.

(These all-payer margins calculated from hospitals' cost reports are similar to those calculated from other data sources, such as data collected by the American Hospital Association, with minor differences resulting from differences in the set of included hospitals.)

Within these aggregate results, there continued to be substantial variation in hospitals' financial performance. For example, in 2019, for-profit IPPS hospitals' all-payer operating margin was 12.3 percent, more than double that of nonprofit IPPS hospitals. In contrast, the all-payer operating margin at rural nonmicropolitan IPPS hospitals was only 0.6 percent in 2019 (data not shown).

While the coronavirus pandemic has been a human tragedy, the Congress has supported hospitals with over \$70 billion in supplemental funds as they rise to the pandemic challenge. We find no evidence of widespread financial struggles at hospitals in aggregate. In fact, some large hospital systems returned some relief funds they received because the funds exceeded their pandemic-related losses. Therefore, while the effect of the coronavirus pandemic on hospitals' finances varied substantially across hospitals, we have no evidence that it has had a dramatic effect on hospitals' long-term access to the capital markets.

### **Construction spending held steady in 2019, and bond issuances remained strong**

Hospital construction spending was \$26 billion in 2019, similar to prior years. Hospital construction spending has been relatively stable since 2014 when the health care industry began to see a decrease in spending on inpatient hospital capacity (Census Bureau 2019). This trend is in

part attributable to health systems focusing on lower cost outpatient facilities and renovations to existing facilities (Conn 2017).

Hospitals also issued \$23 billion in bonds in calendar year 2019, including \$16 billion in new financing and \$7 billion in refinancing (Thomson Reuters 2019). This level of bond funding was a decline from 2018, corresponding with an increase in interest rates, but similar to the level in 2016 and higher than bond issuances in 2015. Between January 2018 and January 2019, the average interest rate for double-A tax-exempt 30-year nonprofit hospital bonds increased from 3.3 percent to 3.6 percent (Cain Brothers 2018).

### **Mergers and acquisitions continued in 2019**

Hospital mergers and acquisitions continued in calendar year 2019, with 71 transactions—a number similar to prior years. However, the number of hospitals and beds involved in these transactions declined substantially, reflecting a shift to acquisitions of single hospitals and those with fewer beds. As a result, from 2018 to 2019 the average number of beds per transaction decreased from 372 to 179 (Irving Levin Associates Inc. 2019).

In the first quarter of 2020, hospital mergers and acquisitions were in line with previous years but dipped sharply after mid-March as a result of the coronavirus pandemic. Several large consolidations were called off, including at least one that specifically cited financial issues exposed by the pandemic as a reason for the consolidation's failure (HealthLeaders 2020). According to HealthLeaders, the impact of the coronavirus PHE could slow the pace of hospital mergers and acquisitions. However, according to Moody's, concerns about COVID-19 could accelerate patient preference for outpatient care, which could provide health systems incentives to continue to increase their development and acquisition of outpatient facilities (Moody's Investors Service 2020).

### **Hospital employment remained stable in 2019**

Between the start of fiscal year 2015 and the PHE in March 2020, the number of individuals employed by hospitals grew steadily from 5.7 million to 6.3 million.<sup>13</sup> Over this same time period, hospital employees' weekly hours grew from 36.6 to 37.6 (2.7 percent), while their weekly earnings grew from \$1,100 to \$1,290 (16.9 percent).

However, hospital employment decreased in April and May 2020 to 6.1 million (2.6 percent below March) as the effects of the PHE set in. While employment varied significantly by region, national hospital employment increased after May, but as of October 2020 (the most recent available month of data) remained 1.6 percent below March. Hospital employees' weekly hours during the PHE also decreased between March and April by 3.7 percent but have subsequently rebounded to above prior-year levels. Weekly earnings followed a similar trajectory, decreasing 2.7 percent between March and April, but rebounding by October 2020 to 2.7 percent higher than the same time in 2019. The drop in hospital employment during the PHE was less than the drop in employment in both the health care sector as a whole and the overall economy. The federal government provided hospitals with many financial resources throughout the public health emergency that other industries did not receive.

### **Medicare payments for hospital services nearly matched relatively efficient hospitals' costs in 2019**

In 2019, driven by the increase in uncompensated care payments and the increased profitability from inpatient services, hospitals' FFS Medicare margin improved to -8.7 percent among all IPPS hospitals and to near break-even among relatively efficient hospitals and those under fiscal pressure.

Projecting hospitals' Medicare margin in 2021 involves substantial uncertainty, but we project IPPS hospitals' Medicare margin will increase to -6 percent, driven by higher than historic payment rate increases with the expiration of statutory reductions enacted in the Affordable Care Act, lower than historic productivity offsets, and the suspension of Medicare sequestration through the first half of fiscal year 2021. We also expect the efficient providers' Medicare margin will improve in 2021 to become slightly positive.

### **Payments per inpatient stay grew faster than costs per stay in 2019**

In 2019, IPPS payments per stay and per capita continued to increase. IPPS payments per stay rose 3.3 percent to about \$12,800, while payments per capita grew 1.4 percent to about \$2,940 per beneficiary (Figure 3-5, p. 72). Nevertheless, because both the number of FFS beneficiaries and the number of inpatient stays per capita

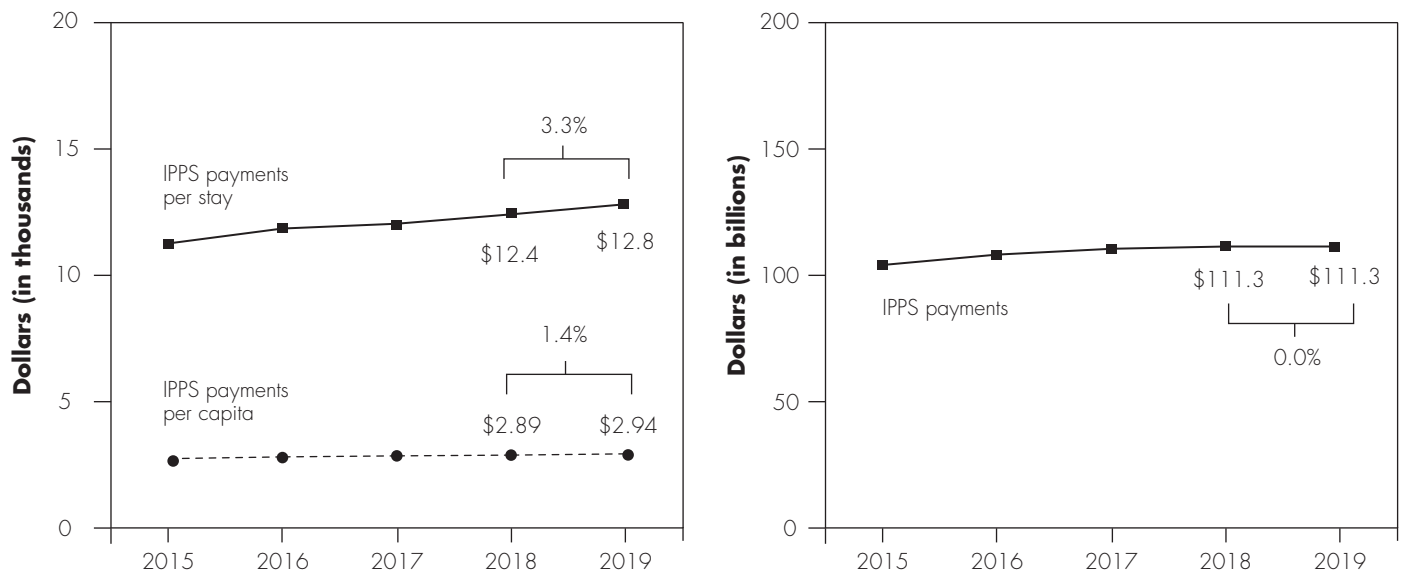
have fallen (by 1.8 percent and 1.4 percent, respectively), Medicare's payments to hospitals for IPPS-covered stays held steady in 2019 at \$111.3 billion. In sum, the increase in payments per inpatient stay—which reflect increases in prices, patient severity, and coding practices—were offset by declines in inpatient stays per capita and enrollment in 2019. (See text box on growth in inpatient payments, p. 73.)

The 3.3 percent growth in IPPS payments per stay in 2019 was faster than the 2.7 percent average over the prior four years (Table 3-3, p. 74). The growth in 2019 resulted from:

- a 1.4 percent annual update to IPPS operating base rates (a combination of the estimated increase in the inpatient market basket, the estimated productivity offset, and a statutory budgetary reduction);
- a 0.5 percent statutory increase in inpatient payment rates resulting from unwinding a temporary reduction in payments that was put in place to recoup past overpayments resulting from changes in providers' documentation and coding;
- a 0.8 percent increase in reported patient severity, referred to as inpatient case mix; and
- a 0.6 percent increase from all other factors, including larger than expected outlier payments and a shift in geographic mix toward hospitals with higher wage indexes.

The 2019 increases in the annual update to IPPS operating rates (1.4 percent) and net case mix (0.8 percent) were both lower than their averages over the prior four years. The faster growth in IPPS payments per stay in 2019 was therefore due primarily to the 0.5 percent update required by statute. The Congress mandated that payment rates in 2014 through 2017 be reduced to recoup past overpayments resulting from documentation and coding changes that did not reflect real changes in case mix, then later phased out this reduction.<sup>14</sup> Accordingly, CMS increased payment rates in 2019 by 0.5 percent to make up for the earlier reductions to payment.

We estimate hospitals' IPPS costs per stay grew 3.2 percent in 2019, above the average over the prior four years (Table 3-4, p. 74). This increase in IPPS costs per stay in 2019 resulted from a 2.4 percent growth in input prices and an imputed 0.7 percent increase in costs per

**FIGURE  
3-5****IPPS payments per stay and per capita continued to increase in 2019 while aggregate IPPS payments held steady**

Note: IPPS (inpatient prospective payment system). Analysis includes fee-for-service Medicare beneficiaries' inpatient stays across all IPPS hospitals in the U.S. IPPS payments exclude uncompensated care payments and include both Medicare program spending and beneficiary cost-sharing responsibilities.

Source: MedPAC analysis of Medicare Provider Analysis and Review claims and enrollment data from the Medicare Trustees report.

stay from all other factors. We cannot directly measure the extent to which hospitals improved their productivity or coded patients more extensively. However, hospitals' ability to constrain their cost growth to 0.7 percentage point above the growth in input prices—despite a reported 0.8 percent growth in inpatient case mix and higher than expected outlier costs in 2019—indicates that hospitals improved their productivity, coded patients more extensively, or both. As in past years, reported case-mix growth represents a combination of increased severity and increases in coding practices, and we cannot isolate the subset of case-mix growth that represents increased coding.

The faster growth in IPPS payments per stay relative to costs per stay was in part a result of CMS's overestimation of input price growth in 2019. The 2.9 percent estimate of input prices used to prospectively set rates was 0.5 percentage point above actual input price inflation of 2.4 percent (Table 3-3, p. 74, and Table 3-4, p. 74). The market basket forecast is primarily a function of projected

labor cost growth, and overestimates of labor cost growth can result in updates exceeding input price growth. This forecast error was not unique to 2019; hospitals' actual input price inflation was lower than CMS's forecast in every year from 2015 through 2018. Using input price forecasts allows prices to be known at the start of the year but does result in overpayments in some years and underpayments in other years.

### Change in uncompensated care payments

In addition to IPPS payments for FFS Medicare beneficiaries' inpatient stays, the Medicare program also makes uncompensated care payments to IPPS hospitals to help cover their costs of treating the uninsured. Pursuant to a provision in the Affordable Care Act, beginning in 2014, each eligible hospital receives (1) a reduced operating DSH payment and (2) an uncompensated care payment. Under the revised operating DSH payment equation, hospitals receive 25 percent of the DSH funds they would have received under prior law. Second, each

## Growth in FFS Medicare inpatient payments driven by growth in payments per stay, not volume

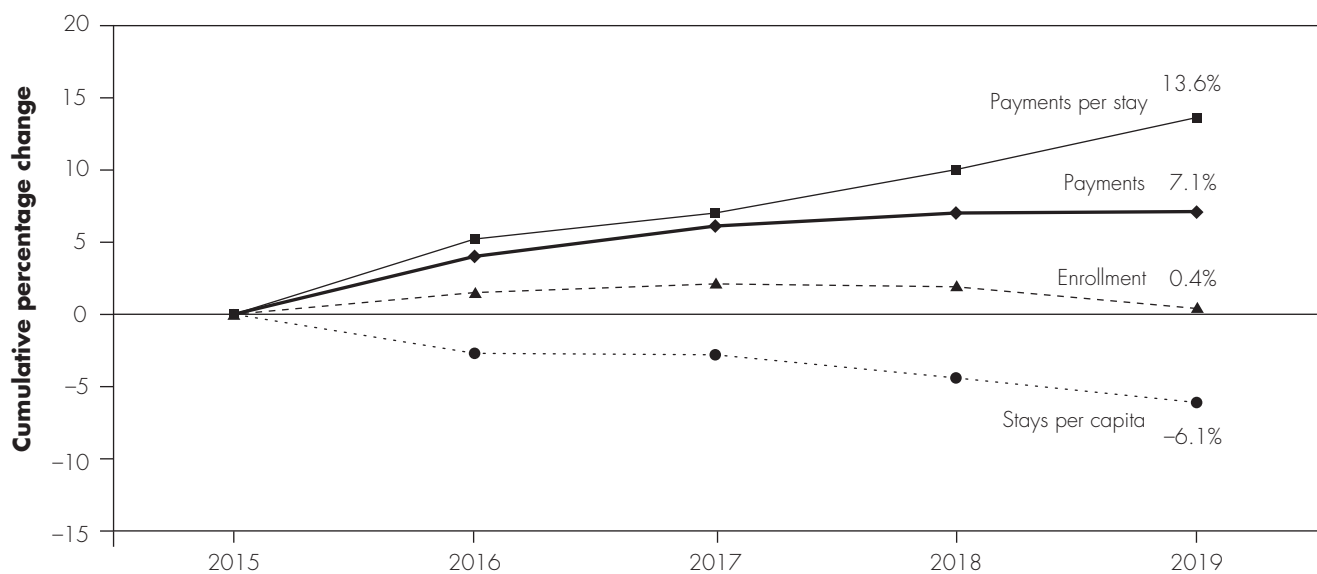
The growth in aggregate inpatient prospective payment system (IPPS) payments for fee-for-service (FFS) Medicare beneficiaries' inpatient stays has been driven by growth in IPPS payments per stay—which reflect increases in prices, patient severity, and coding practices. From 2015 to 2019, payments per stay increased 13.6 percent. By contrast, Medicare Part A enrollment increased just 0.4 percent over the period, with enrollment growth actually slowing from 2018 to 2019 (Figure 3-6).

Increases in payments per stay as the driver behind growth in inpatient payments is not unique to the

FFS Medicare population. For example, despite differences in payment methodologies and in mix of services among commercially insured patients, from 2015 to 2018, inpatient stays per capita declined by slightly less among the commercial population than the Medicare FFS populations (3.5 percent vs. 4.4 percent) while payments per stay increased among the commercial population more than twice as much as Medicare FFS payments (14 percent vs. 6.1 percent) (Health Care Cost Institute 2020 and MedPAC analysis). ■

**FIGURE 3-6**

**Growth in IPPS payments driven by growth in payments per stay**



Note: IPPS (inpatient prospective payment system). Analysis includes fee-for-service Medicare beneficiaries' inpatient stays across all IPPS hospitals in the U.S. IPPS payments exclude uncompensated care payments and include both Medicare program spending and beneficiary cost-sharing responsibilities.

Source: MedPAC analysis of Medicare Provider Analysis and Review claims and enrollment data from the Medicare Trustees report.

hospital receives uncompensated care payments equal to its share of a fixed pool of dollars, defined as 75 percent of estimated aggregated operating DSH payments under the prior-law DSH formula multiplied by the national

uninsured rate as a percentage of the uninsured rate in 2013. This amount is referred to as the “uncompensated care pool.”<sup>15</sup>

**TABLE  
3-3****IPPS payments per stay grew 3.3 percent from 2018 to 2019, faster than in the prior four years**

	Annual change 2019	Average of annual changes, 2015 to 2018
IPPS payments per stay	3.3%	2.7%
Annual update to IPPS operating rates	1.4	1.7
Estimated inpatient market basket	2.9	2.7
Estimated multifactor productivity offset	-0.8	-0.5
Budgetary reduction	-0.8	-0.5
Other non-budget-neutral updates	0.5	-0.6
Inpatient case mix (net)	0.8	1.5
All other factors	0.6	0.1

Note: IPPS (inpatient prospective payment system). Analysis includes fee-for-service Medicare beneficiaries' inpatient stays at IPPS hospitals in the U.S. IPPS payments per stay exclude uncompensated care payments. "Annual update to IPPS operating base rates" includes estimates as of the time of the final rule. Budgetary reduction was required by the Affordable Care Act in each of 2010 to 2019. "Other non-budget-neutral updates" includes statutory adjustments for coding and documentation improvements and the 2017 and 2018 two-midnight policy adjustments. "Inpatient case mix (net)" reflects the change in case mix, net of change anticipated and accounted for through budget-neutrality factors. "All other factors" includes changes in outlier payments, geographic mix, and capital PPS payments. Components may not sum to stated totals as a result of rounding.

Source: MedPAC analysis of Medicare Provider Analysis and Review claims and IPPS final rules.

In 2019, uncompensated care payments increased 22 percent to \$8.1 billion dollars (Figure 3-7). The 22 percent increase in the uncompensated care pool in 2019 was the result of a projected 5 percent increase in the estimate of what DSH payments would have been under prior law and a projected 16 percent increase in the national uninsured

rate (from 58 percent of the 2013 rate up to 68 percent of the 2013 uninsured rate). When the rate of uninsured individuals increases and hospitals have greater losses on uncompensated care, CMS gives hospitals higher uncompensated care add-on payments to their IPPS rates.

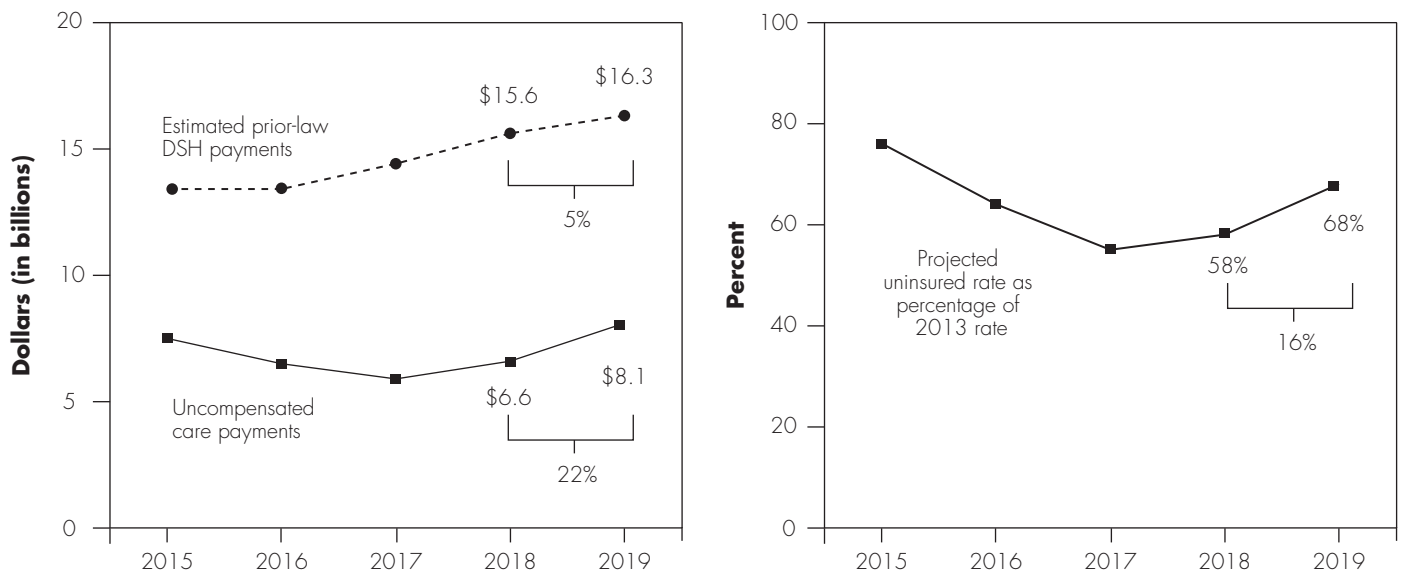
**TABLE  
3-4****IPPS costs per stay grew 3.2 percent in 2019, faster than in the prior four years, driven mostly by growth in input prices**

	Annual change 2019	Average of annual changes, 2015 to 2018
IPPS costs per stay	3.2%	2.7%
Input prices	2.4	2.1
Imputed change in costs from all other factors, including increases in productivity and coding	0.7	0.6

Note: IPPS (inpatient prospective payment system). Analysis includes fee-for-service Medicare beneficiaries' inpatient stays at IPPS hospitals in the U.S. with complete and nonoutlier cost report data. Actual inpatient input prices are from CMS market basket data as of the 2020 third quarter. Product of components may not equal stated totals as a result of rounding.

Source: MedPAC analysis of hospital cost reports and CMS market basket data.



**FIGURE  
3-7****Medicare's uncompensated care payments to IPPS hospitals increased 22 percent in 2019, driven by an increase in the projected uninsured rate**

Note: IPPS (inpatient prospective payment system), DSH (disproportionate share hospital). CMS estimated that from 2018 to 2019, the uninsured rate increased from about 8.2 percent (58 percent of the 2013 uninsured rate of 14 percent) to 9.5 percent (68 percent of the 2013 uninsured rate).

Source: MedPAC analysis of hospital cost reports.

**Outpatient payments grew more slowly than costs in 2019 despite continued profitability on Part B drugs**

In fiscal year 2019, OPSS payments grew more slowly than costs. OPSS payments at IPPS hospitals increased 5.0 percent, driven primarily by growth in Part B drug payments, which climbed 12 percent. At the same time, costs grew by 5.4 percent.

The growth in both OPSS payments and costs were slower in 2019 relative to prior years, when payments grew at an average annual rate of 6.6 percent from 2015 through 2019 and costs grew by 6.9 percent over the same time period. Three factors contributed to the relatively low growth in 2019. First, hospitals converted fewer acquired ambulatory surgical centers (ASCs) to provider-based departments (maintaining them as ASCs instead), which caused the number of procedures done in HOPDs to be nearly unchanged from 2018 to 2019. Second, the number of evaluation and management services (such as office visits and emergency department visits) increased more slowly from 2018 to 2019, likely due to a slowdown

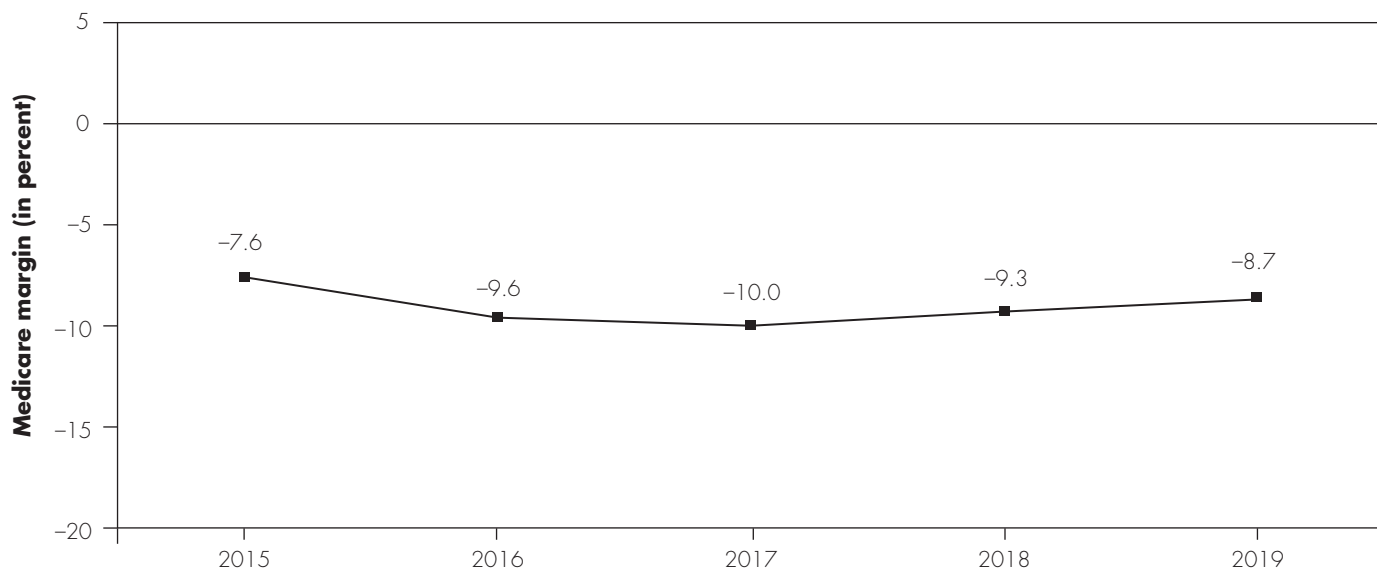
in hospital acquisition of physician practices. Third, in 2019, CMS changed the OPSS payment status of an unusually high number of drugs from pass-through status to separately payable non-pass-through status. Under the OPSS, statute requires that all pass-through drugs be paid at a rate of the drug's average sales price (ASP) plus 6 percent. Also, CMS has established a policy that sets the payment rates for separately payable non-pass-through drugs that hospitals obtain through the 340B Drug Pricing Program at a rate of ASP minus 22.5 percent. Therefore, as the drugs that had pass-through status in 2018 transitioned to separately payable non-pass-through status in 2019, payments to 340B hospitals for these drugs declined substantially.

**Overall Medicare margin remained negative in aggregate, but increased in 2019 and was near zero among hospitals under fiscal pressure and for-profit hospitals**

In aggregate, IPPS hospitals' overall Medicare margin remained negative in 2019 but increased to -8.7 percent, the highest level since 2015 (Figure 3-8, p. 76).

**FIGURE  
3-8**

**IPPS hospitals' overall Medicare margin remained negative, but increased in 2019**



Note: IPPS (inpatient prospective payment system). Analysis includes IPPS hospitals in the U.S. with complete and nonoutlier cost report data. Hospitals' Medicare margin is calculated as aggregate Medicare payments minus aggregate allowable Medicare costs, divided by aggregate Medicare payments. "Overall Medicare margin" refers to the aggregate margin across multiple hospital service lines (including inpatient, outpatient, swing bed, skilled nursing, rehabilitation, psychiatric, and home health services), as well as direct graduate medical education and uncompensated care payments.

Source: MedPAC analysis of hospital cost reports.

As discussed earlier, the increase in hospitals' Medicare margin in 2019 was primarily because Medicare made additional payments to hospitals to help cover the costs of charity care and non-Medicare bad debts. In addition, IPPS payments per inpatient stay grew faster than hospitals' costs per stay, in part attributable to payment rates that included an overestimate of input price inflation.

While IPPS hospitals' overall margin remained negative in aggregate, two groups of IPPS hospitals' margins increased to about zero in 2019:

- **Hospitals under fiscal pressure have lower costs and therefore a higher Medicare margin.** Hospitals under fiscal pressure—defined as hospitals with a median non-Medicare margin of less than 1 percent over five years—continued to have lower Medicare inpatient costs and a higher overall Medicare margin.<sup>16</sup> We estimate the quarter of IPPS hospitals under high fiscal pressure in 2019 had a Medicare margin of about 0 percent, while the two-thirds under low fiscal pressure

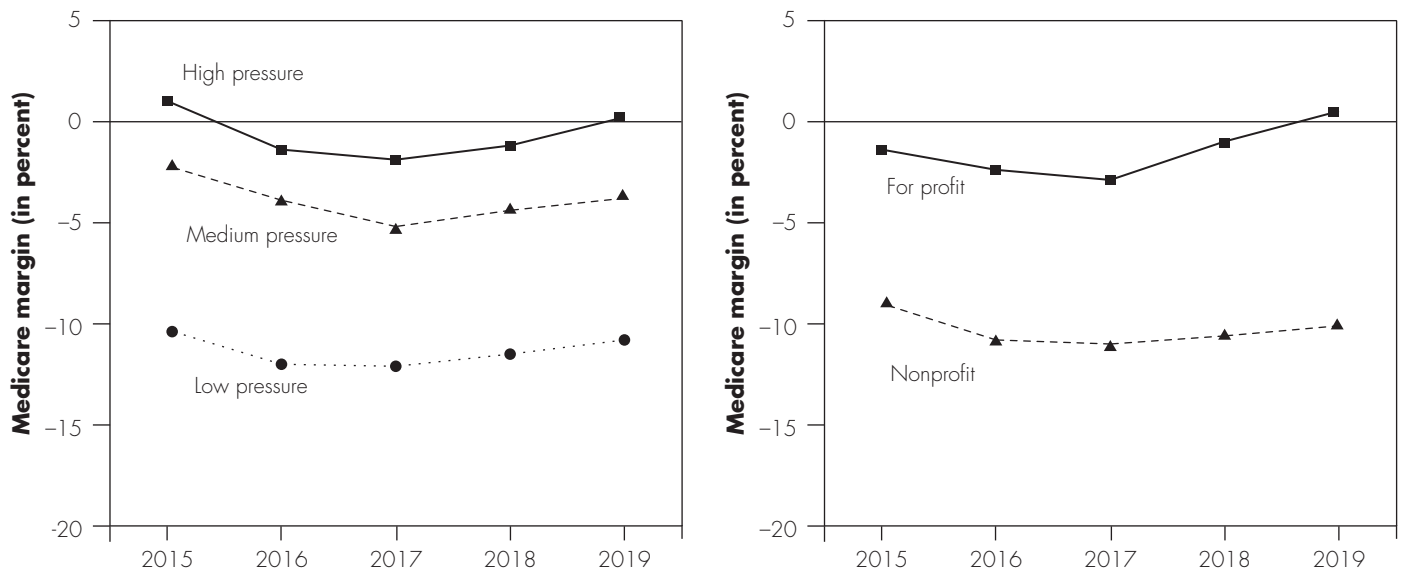
had a Medicare margin near -11 percent (Figure 3-9). The remaining hospitals with medium pressure had performance in the middle. The higher margin among hospitals under high fiscal pressure was driven by these hospitals' lower standardized inpatient costs per case, which were 9 percent below the hospitals under low pressure to constrain costs (data not shown). Hospitals under high fiscal pressure tended to have slightly higher shares of inpatients paying at government rates (43 percent of inpatient days were attributed to Medicare and Medicaid FFS patients, on average). Hospitals under high fiscal pressure also had better margins on Medicare outpatient services than hospitals under low pressure, but the differences were less than for inpatient services.

These findings are consistent with those of other researchers who generally have found that increases in Medicare payments result in increases in costs. For example, White and Wu found that hospitals that



**FIGURE**  
**3-9**

**IPPS hospitals' overall Medicare margin neared zero in 2019 among hospitals under high fiscal pressure and among for-profit hospitals**



Note: IPPS (inpatient prospective payment system). Analysis includes IPPS hospitals in the U.S. with complete and nonoutlier cost report data. Hospitals' Medicare margin is calculated as aggregate Medicare payments minus aggregate allowable Medicare costs, divided by aggregate Medicare payments. "Overall Medicare margin" refers to the aggregate margin across multiple hospital service lines (including inpatient, outpatient, swing bed, skilled nursing, rehabilitation, psychiatric, and home health services), as well as direct graduate medical education and uncompensated care payments.

Source: MedPAC analysis of hospital cost reports.

received higher Medicare payment increases resulting from policy changes tended to have higher cost growth (White and Wu 2014). They also found that lower Medicare price growth did not cause hospitals to increase prices negotiated with commercial insurers, contrary to "cost-shift" theory. Instead, White 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 different study examined how hospitals responded when they received a large increase in their wage index through Section 508 of the Medicare Modernization Act. 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). One exception to the literature is a recent working paper that finds

faster commercial price growth at hospitals that were penalized under the HRRP; however, the authors caution it is not definitive evidence of cost shifting (Darden et al. 2019). The implication of these studies is that constraining Medicare prices should help constrain hospital costs.

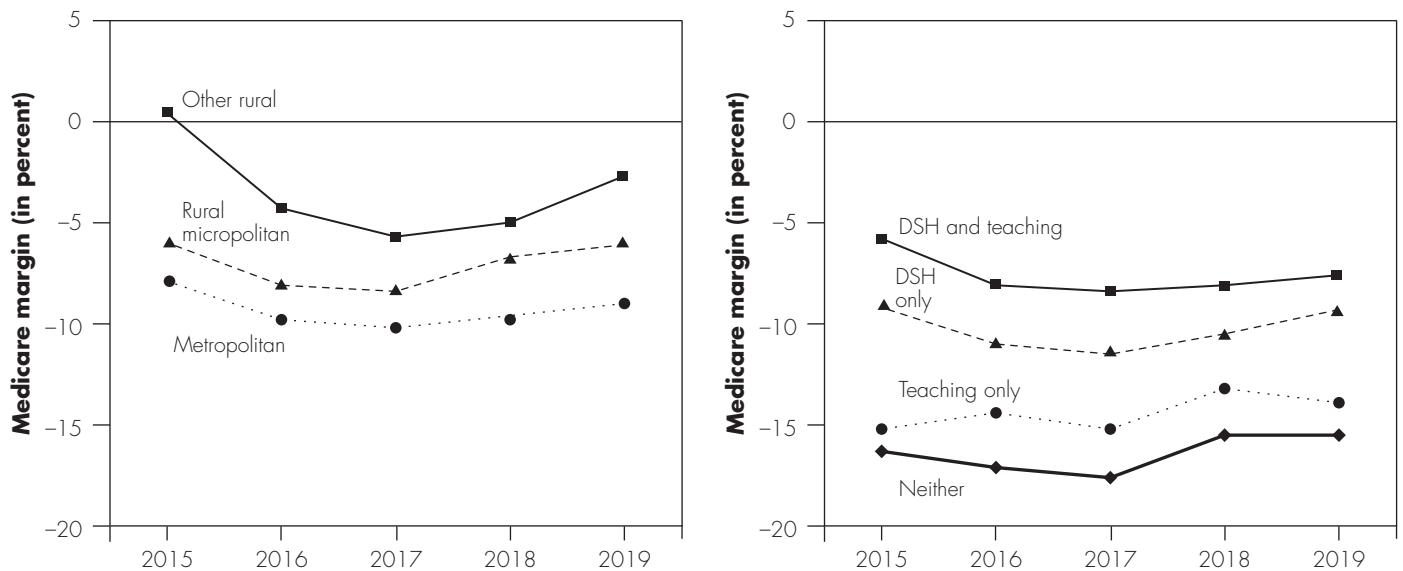
- **For-profit hospitals have a higher Medicare margin.** Similar to hospitals under fiscal pressure, we estimate that in 2019, the Medicare margin for for-profit IPPS hospitals was roughly 0 percent, well above the Medicare margin at nonprofit hospitals (Figure 3-9).

Consistent with historical trends, in 2019 the Medicare margin continued to vary substantially across other hospital characteristics. In particular:

- **Rural hospitals continued to have a higher Medicare margin than urban hospitals.** IPPS hospitals outside of metropolitan and micropolitan areas continued to have a higher Medicare margin than those in less rural

**FIGURE  
3-10**

**IPPS hospitals' overall Medicare margin was higher among hospitals in rural areas and those that treat a high share of low-income patients**



Note: IPPS (inpatient prospective payment system), DSH (disproportionate share hospital). Analysis includes IPPS hospitals in the U.S. with complete and nonoutlier cost report data. Hospitals' Medicare margin is calculated as aggregate Medicare payments minus aggregate allowable Medicare costs, divided by aggregate Medicare payments. "Overall Medicare margin" refers to the aggregate margin across multiple hospital service lines (including inpatient, outpatient, swing bed, skilled nursing, rehabilitation, psychiatric, and home health services), as well as direct graduate medical education and uncompensated care payments. Metropolitan (urban) counties contain an urban cluster of 50,000 or more people, and rural micropolitan counties contain a cluster of 10,000 to 50,000 people.

Source: MedPAC analysis of hospital cost reports.

areas in 2019 (Figure 3-10). The higher margin at IPPS rural hospitals is in large part attributable to the additional IPPS payments many rural hospitals receive, such as through the sole community hospital (SCH), Medicare-dependent hospital (MDH), and low-volume hospital (LVH) designations. Critical access hospitals' Medicare margin held steady in 2019 at near -2 percent (data not shown).<sup>17</sup> Over 95 percent of rural hospitals receive some type of increase in their inpatient payment rates as a result of SCH, MDH, LVH, or critical access hospital special payments.

- **DSHs and teaching hospitals continued to have a higher Medicare margin than other hospitals.** Hospitals receiving two large IPPS adjustments—those that treated a disproportionate share of low-income patients (DSHs) and teaching hospitals—continued to have a higher Medicare margin than other hospitals (Figure 3-10).

**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>TM</sup> risk-adjusted all-condition mortality), readmission rates (3M potentially preventable readmissions), and standardized inpatient Medicare costs per case. Our assessment of efficiency is not in absolute terms, but rather, relative to a comparison group of other IPPS hospitals.<sup>18</sup>

**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 over the 2016 to 2018 period. We then

examined the performance of the two hospital groups in fiscal year 2019.

Hospitals were identified as relatively efficient if they met four criteria in each year from 2016 to 2018:

- 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 a sample of 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. Because we screen out hospitals that have few Medicaid patients or have poor performance in a single year, our methodology does not seek to identify all efficient hospitals, only a subsample of relatively efficient hospitals. 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 (in the year before the performance period).<sup>19</sup>

**Examining performance of relatively efficient and other hospitals from 2016 to 2018** Of the 1,473 hospitals with available data that met our screening criteria during the 2016 to 2018 period, 224 (15 percent) were found to be relatively efficient.<sup>20</sup> 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 3-5, p. 80). The median efficient hospital's relative risk-adjusted 30-day mortality rate for the 3-year historical performance 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 8 percent below the national median. The standardized Medicare cost per discharge for the efficient group was 9 percent lower than the national median.

**Characteristics of relatively efficient hospitals** The sample of relatively efficient hospitals represented 15 percent of all hospitals; were spread across the country; and represented diverse categories of hospitals, including teaching, nonteaching, rural, urban, for profit, and nonprofit, as well as hospitals serving large numbers of low-income patients. While most types of hospitals were represented in the efficient group, a disproportionate share of efficient hospitals had relatively high volumes of admissions. Volume primarily affects our efficiency measures through two metrics. First, higher volume hospitals tended to have lower risk-adjusted mortality. Second, we require some consistency of results over three years and remove any hospital that performed in the bottom third on any metric in a single year from the efficient group.<sup>21</sup> Thus, random variation in smaller hospitals may make them more likely to be excluded from our efficient sample. The effect of higher volume could explain why 19 percent of teaching hospitals were deemed relatively efficient by our criteria and only 13 percent of nonteaching hospitals met our criteria (data not shown). Similarly, 9 percent of rural hospitals were deemed relatively efficient compared with 17 percent of urban hospitals (which had more than double the volume of rural hospitals on average). For-profit and nonprofit hospitals were both deemed relatively efficient 15 percent of the time. While for-profit hospitals had lower costs (Figure 3-9, p. 77), nonprofit hospitals tended to perform slightly better on our quality metrics. The efficient group had a share of Medicaid patients similar to the share at other hospitals.<sup>22</sup>

Lower costs allowed the relatively efficient hospitals to generate better Medicare margins. In 2019, the median hospital in the efficient group had a -1 percent margin on Medicare while the median hospital in the comparison group had a Medicare margin of -7 percent (Table 3-5, p. 80). The relatively efficient group also continued to perform better on quality metrics during the 2019 performance period, with risk-adjusted mortality equal to 92 percent of the national median and risk-adjusted readmissions equal to 95 percent of the national median (Table 3-5).

### **Projected Medicare margin for 2021**

We project IPPS hospitals' Medicare margins in 2021 based on payments and costs from the most recent year of available data (2019) and policy and environmental changes that took place in 2020 and are anticipated in 2021. While the coronavirus PHE has made 2020 an anomalous year in many respects and it is impossible to predict with certainty the extent to which these effects

**TABLE  
3-5****Performance of relatively efficient hospitals**

Relative performance measure	Type of hospital	
	Relatively efficient, 2016-2018	Other hospitals
Number of hospitals	224	1,249
Share of hospitals in our study sample	15%	85%
<b>Historical performance, 2016-2018 (percent of national median)</b>		
Risk-adjusted:		
Composite 30-day mortality (3M™)	90%	101%
Readmission rates (3M)	92	101
Standardized Medicare costs per discharge	91	103
<b>Performance metrics, 2019 (percent of national median)</b>		
Risk-adjusted:		
Composite 30-day mortality (3M)	92%	101%
Composite 30-day readmission (3M)	95	101
Standardized Medicare costs per discharge	91	103
<b>Share of patients rating the hospital a 9 or 10 (out of 10)</b>	73	71
<b>Median:</b>		
Overall Medicare margin, 2019	-1%	-7%
Non-Medicare margin, 2019	9	9
Total (all-payer) margin, 2019	7	6
Share of patients where Medicaid is the primary payer	6	7

Note: Relative values are the median for the group as a percent of the median of all hospitals that met inclusion criteria for our study sample. 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 a low share of Medicaid patients (the bottom 10 percent of hospitals) and hospitals in markets with high service use (top 10 percent of hospitals) in response to concerns that socioeconomic conditions and aggressive treatment patterns can influence unit costs and risk-adjusted quality metrics.

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

will continue into 2021, our best estimate is that IPPS hospitals' Medicare margin in 2021 will increase relative to 2019, driven by substantially higher payment-rate updates in 2020 and 2021 than in 2019 and prior years, and the suspension of Medicare sequestration through the first half of fiscal year 2021.

The annual update to the IPPS operating and OPFS base rates was 2.6 percent in 2020 and 2.4 percent in 2021 (Table 3-6). This cumulative 5.1 percent increase is substantially higher than in prior years, attributable to the expiration of statutory reductions in hospital updates required by the Affordable Care Act in each of

2010 through 2019 and lower productivity offsets. IPPS operating rates will also increase in 2020 and 2021 from the 0.5 percent statutory increase (due to unwinding a temporary reduction in payments that was put in place to recoup past overpayments resulting from changes in providers' documentation and coding); as a result, IPPS operating base rates will increase 6.1 percent from 2019 to 2021 (exclusive of budget-neutrality adjustments). Uncompensated care payments in 2021 will be approximately the same as in 2019 (data not shown).

The Congress and CMS also made temporary increases to FFS Medicare payments in 2020 and 2021 in response to

**TABLE  
3-6**

**Current-law updates to IPPS and OPSS payment rates**

	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Annual update (IPPS and OPSS)</b>	<b>1.35%</b>	<b>2.6%</b>	<b>2.4%</b>	<b>2.4%*</b>
Estimated inpatient market basket	2.9	3.0	2.4	2.7*
Estimated multifactor productivity offset	-0.8	-0.4	0.0	-0.3*
Budgetary reduction	-0.75	0.0	0.0	0.0
<b>Additional statutory increase (IPPS only)</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>

Note: IPPS (inpatient prospective payment system), OPSS (outpatient prospective payment system). Budgetary reduction was required by the Affordable Care Act in each of 2010 to 2019. The other statutory adjustments are the unwinding of prior adjustments for documentation and coding required in the Medicare Access and CHIP Reauthorization Act of 2015. Separate updates to inpatient capital base rates are not shown.

\*Based on forecasts as of third quarter of 2020; forecast used to set actual update will be revised to use most recent economic data at the time the final rule for fiscal year 2022 is published in late summer 2021.

Source: MedPAC analysis of IPPS final rules and CMS market basket data.

the coronavirus PHE. The Congress increased Medicare payments to hospitals and other sectors by suspending the 2 percent Medicare sequestration from May 2020 through March 2021. In addition, for the duration of the PHE, COVID-19 inpatient stays receive a 20 percent increase in IPPS payments, and hospitals will receive additional payments to cover the higher costs of any new COVID-19 treatments authorized for emergency use.

An area of greater uncertainty is hospitals’ cost growth. However, we anticipate it will continue to be less than the combined growth in input prices and case mix, consistent with historical trends (Medicare Payment Advisory Commission 2020b). While hospitals will continue to have COVID-19 cases in 2021 and incur associated costs, these cases will also increase hospitals’ case mix. Given the small share of hospital inpatient stays that are for COVID-19 and the additional payments for these cases (a 20 percent increase in base payments and additional payments for COVID-19 treatments), we do not anticipate that COVID-19 cases will have a material effect on hospitals’ Medicare margin.

Considering these factors, we expect IPPS hospitals’ aggregate Medicare margin in 2021 to improve to approximately -6 percent under current law. We also expect the efficient providers’ Medicare margin will improve in 2021 to become slightly positive. The exact

increase in hospitals’ Medicare margin will depend in large part on the duration and severity of the coronavirus pandemic, volume changes, case-mix changes, and changes in costs relative to input price inflation, as well as any congressional response to the pandemic.

**How should Medicare payment rates change in 2022?**

The update recommendation for hospital payment rates in 2022 is based on indicators of beneficiaries’ access to care, quality of care, hospitals’ access to capital, and the relationship between FFS Medicare payments and hospital costs.

**RECOMMENDATION 3**

**For fiscal year 2022, the Congress should update the 2021 Medicare base payment rates for acute care hospitals by 2 percent.**

**RATIONALE 3**

Our payment adequacy indicators show that FFS Medicare beneficiaries continued to have good access to inpatient and outpatient acute hospital care, hospital quality improved, and hospitals maintained strong access to



capital markets, despite a negative Medicare margin. In addition, a 1.35 percent annual update (together with other statutory changes and increases in uncompensated care) was sufficient to improve hospitals' Medicare margin in 2019 and for Medicare payments to almost cover the costs of relatively efficient hospitals.

The recommendation of a 2 percent update to hospital payment rates balances several imperatives:

- maintain payments high enough to ensure beneficiaries' access to hospital care,
- maintain payments close to hospitals' cost of efficiently providing high-quality care,
- maintain fiscal pressure on hospitals to constrain costs and improve the long-term sustainability of the Medicare program, and
- minimize differences in payment rates for similar services across sites of care.

We estimate that an update to hospital payment rates of 2 percent in 2022—together with the additional statutory 0.5 percent increase to inpatient payments and a 0.8 percent increase to inpatient payments from our standing recommendation to replace the current penalty-only quality payment programs with an HVIP that balances reward and penalties—would be high enough to maintain beneficiaries' access to care and exceed the cost of delivering high-quality care efficiently. The net 3.3 percent increase in inpatient payments and 2 percent increase in outpatient payments would also continue to keep some fiscal pressure on hospitals to constrain costs and would limit (relative to current law) growth in the differential

between rates paid for physician office visits on a hospital campus and rates paid for office visits at freestanding physician offices.

The coronavirus PHE affected hospital payment adequacy indicators; however, based on information available at the time of this publication, we do not anticipate any long-term changes persisting past the end of the PHE that would warrant an additional increase in the annual update to hospital payments in 2022. Instead, to the extent that the PHE continues, any needed additional financial support should be targeted to affected hospitals that are necessary for access.

### IMPLICATIONS 3

#### Spending

- Current law is expected to increase hospital payment rates by 2.4 percent (a 2.7 percent market basket less a 0.3 percent productivity adjustment). The recommended update of 2.0 percent—together with the additional statutory 0.5 percent increase to inpatient payments and 0.8 percent increase from our standing HVIP recommendation—would increase combined spending on hospital inpatient and outpatient services relative to current law. On net, the recommendation would increase Medicare spending by between \$750 million and \$2 billion in 2022 and by \$5 billion to \$10 billion over five years.

#### Beneficiary and provider

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

## Mandated report: Expanding the post-acute care transfer policy to hospice

The Bipartisan Budget Act (BBA) of 2018 expanded the inpatient prospective payment system (IPPS) post-acute care (PAC) transfer policy to include hospital transfers to hospice beginning fiscal year 2019. The BBA of 2018 mandated that the Commission evaluate and report on the effects of this policy change. The Commission provided preliminary results in our March 2020 report to the Congress. The Commission is required to submit its final report to the Congress by March 15, 2021. The analysis herein constitutes the Commission’s final report and is based on the first five quarters of experience under the new policy (from October 2018 through December 2019). We find no evidence of adverse effects of the transfer policy on beneficiaries’ access to hospice care.

### The PAC transfer policy

The PAC transfer policy applies to discharges from IPPS hospitals to long-term care hospitals, children’s hospitals, cancer hospitals, inpatient psychiatric facilities, inpatient rehabilitation facilities, skilled nursing facilities, and home health agencies. As of October 2018, it also applies to discharges to hospice.

Under the PAC transfer policy, some short inpatient stays that are discharged to a PAC setting receive a reduced payment. Short stays are defined as lengths of stay that are more than one day below the geometric mean length of stay for a given diagnosis under Medicare’s classification system—Medicare severity–diagnosis related groups (MS–DRGs). Short stays for certain DRGs that are discharged to a PAC setting receive a reduced payment. The PAC transfer policy applies to a subset of MS–DRGs that have a relatively high prevalence of short stays followed by discharge to PAC. In fiscal year 2019, the PAC transfer policy applied to 279 of 761 MS–DRGs.

For short stays by patients classified in eligible MS–DRGs that are followed by PAC, payment for IPPS hospitals is calculated by dividing the full MS–DRG payment amount by the geometric mean length of stay for the MS–DRG. The IPPS hospital generally receives

a payment that is double the per diem rate for the first day of the stay plus a per diem payment for each additional day of the stay, with the total payment not to exceed the full MS–DRG payment amount. A special payment formula exists—with a higher first-day payment amount—for a small subset of MS–DRGs that have disproportionately high first-day costs.

### Mandated report

The BBA of 2018 requires that the Commission evaluate the effects of the expansion of the PAC transfer policy to hospice on:

- the number of discharges of hospital inpatients to hospice,
- the length of stays of patients in an inpatient hospital setting who are discharged to hospice,
- Medicare spending, and
- any other areas determined appropriate by the Commission.

In conducting the evaluation, the Commission was directed to consider factors such as whether the timely access to hospice care by patients admitted to a hospital has been affected by changes to hospital policies or behaviors made as a result of this policy.

### Results of evaluation: No discernable changes in timely access to hospice care

The expansion of the PAC transfer policy to hospice resulted in savings of about \$304 million in fiscal year 2019 and about \$78 million in the first quarter of fiscal year 2020.

In the first five quarters of experience under the new policy, we do not observe discernable changes in timely access to hospice care by hospital inpatients. The share of discharges to hospice among hospital inpatients appears to have increased slightly in this period, consistent with historical trends of increasing hospice use. Lengths of stay for hospital inpatients

*(continued next page)*

## Mandated report: Expanding the post-acute care transfer policy to hospice (cont.)

discharged to hospice oscillated before the policy change, making it difficult to interpret quarter-to-quarter changes in lengths of stay. In the first five quarters of the new policy, lengths of stay for inpatients discharged to hospice were within the range observed in prior quarters. An examination of hospice referral trends and inpatient length of stay for the 10 MS-DRGs with the greatest number of discharges to hospice also suggests that the expansion of the transfer policy has not adversely affected beneficiaries' timely access to hospice care.

### Number of discharges of hospital inpatients to hospice

The share of fee-for-service (FFS) Medicare hospital inpatients discharged to hospice has increased or remained stable in the first five quarters of the policy (through the first quarter of fiscal year 2020), consistent

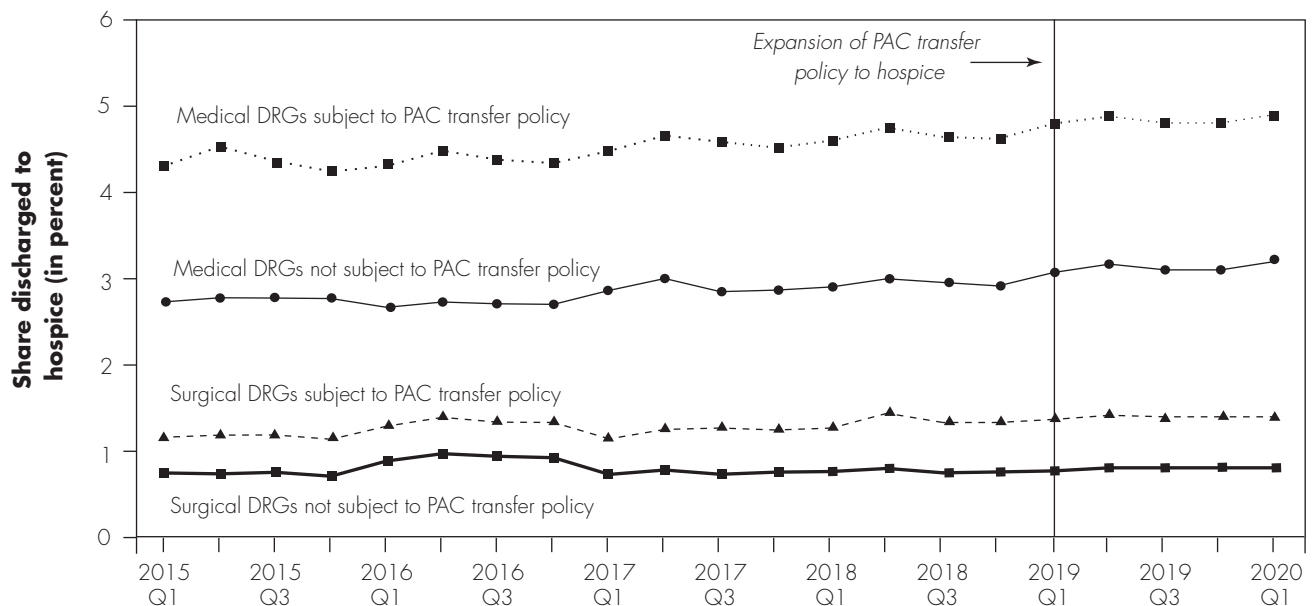
with historical trends (Figure 3-11). Among inpatients in medical MS-DRGs, discharges to hospice appear to have increased slightly in the first five quarters under the new policy, both for those MS-DRGs that are subject to the transfer policy and for those that are not.

For surgical DRGs, the share of patients discharged to hospice has remained stable both for MS-DRGs that are and are not subject to the transfer policy. An examination of hospice referral trends for the 10 MS-DRGs with the greatest number of discharges to hospice also suggests that the PAC transfer policy has not adversely affected hospice referral rates. For each of these MS-DRGs, the share of inpatients discharged to hospice increased or changed little between first quarter 2018 and first quarter 2020 (Table 3-7, p. 87).

(continued next page)

**FIGURE  
3-11**

**Share of FFS Medicare inpatients discharged to hospice by type of DRG and whether the DRG is subject to the PAC transfer policy, 2015 to 2020**



Note: FFS (fee-for-service), DRG (diagnosis related group), PAC (post-acute care), Q (quarter). Data displayed by fiscal year and quarter. Analysis includes FFS Medicare beneficiaries' inpatient stays across inpatient prospective payment system hospitals in the U.S.

Source: MedPAC analysis of Medicare claims data.



## Mandated report: Expanding the post-acute care transfer policy to hospice (cont.)

**Hospital length of stay** The mandate directs the Commission to examine hospital length of stay for FFS Medicare patients discharged to hospice to determine whether it has changed in response to the transfer policy. Under the PAC transfer policy, when patients are discharged to a setting subject to the policy, the hospital receives a reduced payment only if the patient’s hospital length of stay is equal to or less than the short-stay threshold (defined as one day less than the geometric mean length of stay for the MS–DRG). One way a hospital could theoretically avoid the reduced payment for a patient transferred to hospice would be to keep the patient in the hospital until the length of stay exceeds the short-stay threshold. However, it is also possible that the PAC transfer policy does not play a significant role in discharge decisions for hospice patients. The

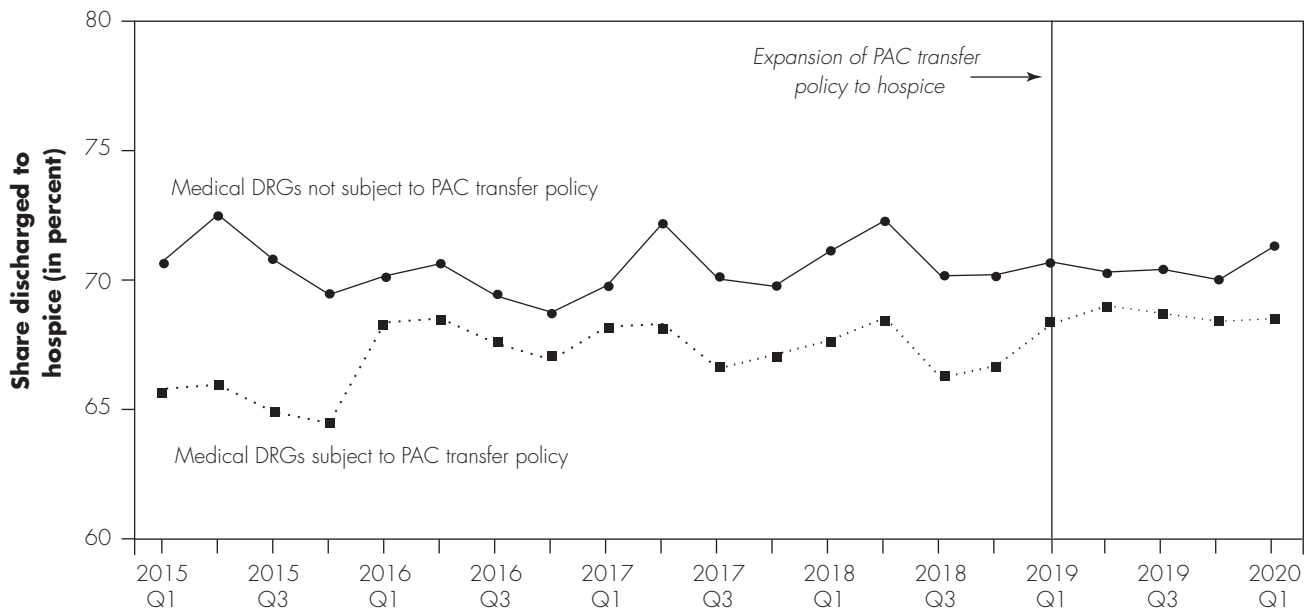
decision to refer a patient to hospice and the timing of a patient’s hospice election is complex and influenced by many factors, including the patient’s condition, providers’ communication with the patient and family about the patient’s prognosis, the patient’s and family’s understanding of the prognosis, and preferences for conventional care versus palliative care.

To examine whether hospital length of stay has changed with the expansion of the transfer policy, we analyzed inpatient length of stay for patients discharged to hospice and calculated the share of those patients with inpatient stays longer than the short-stay threshold (which we refer to as “long” inpatient stays). If the expansion of the transfer policy to hospice were resulting in hospice patients staying in the hospital

(continued next page)

**FIGURE 3–12**

**Share of FFS Medicare inpatients discharged from medical MS–DRGs to hospice with inpatient lengths of stay greater than the short-stay threshold, 2015 to 2020**



Note: FFS (fee-for-service), MS–DRG (Medicare severity–diagnosis related group), PAC (post-acute care), Q (quarter). Data displayed by fiscal year and quarter. Analysis includes FFS Medicare beneficiaries’ inpatient stays across inpatient prospective payment system hospitals in the U.S.

Source: MedPAC analysis of Medicare claims data.

## Mandated report: Expanding the post-acute care transfer policy to hospice (cont.)

longer, we would expect the share of patients with long inpatient stays to increase.

Overall, the data on inpatient length of stay do not indicate discernable changes in FFS Medicare beneficiaries' timely access to hospice care in the first five quarters of the policy. Figure 3-12 (p. 85) and Figure 3-13 show the share of patients transferred to hospice with "long" inpatient stays for medical and surgical MS-DRGs, respectively. In general, the share of inpatients discharged to hospice with long inpatient stays oscillates over time, which suggests that caution should be taken in interpreting any quarter-to-quarter changes. For both medical and surgical MS-DRGs that are subject to the transfer policy, the share of inpatients discharged to hospice who had "long" inpatient stays

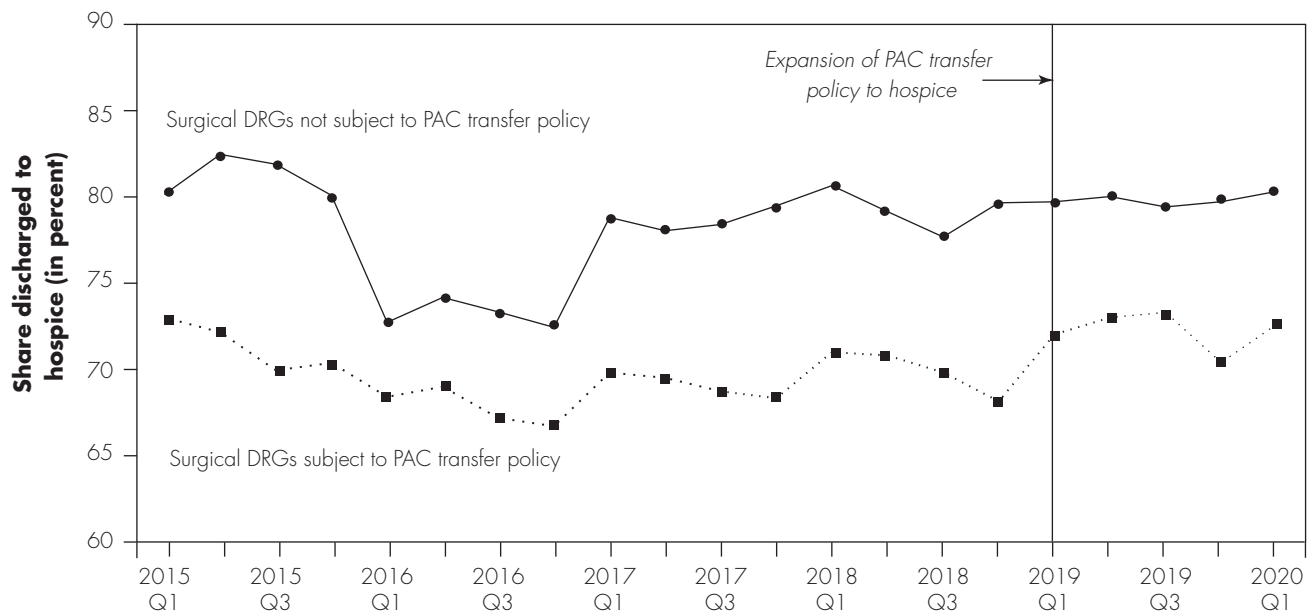
increased modestly between first quarter 2018 and first quarter 2020 but remains within the historical range (Figure 3-13).

Examining the 10 MS-DRGs with the most hospice discharges, we do not see evidence suggesting that the hospice transfer policy has led to longer hospital stays for patients referred to hospice. For 7 of 10 MS-DRGs, the share of patients discharged to hospice who had long inpatient stays declined or changed little between first quarter 2018 and first quarter 2020 (Table 3-7). Over this period, the share of inpatients discharged to hospice with long inpatient stays increased modestly for MS-DRG 280 (acute myocardial infarction) and MS-DRG 853 (infectious and parasitic diseases). The increase in long inpatient stays for MS-DRG 853 is

*(continued next page)*

**FIGURE  
3-13**

**Share of FFS Medicare inpatients discharged from surgical MS-DRGs to hospice with inpatient lengths of stay greater than the short-stay threshold, 2015 to 2020**



Note: FFS (fee-for-service), MS-DRG (Medicare severity–diagnosis related group), PAC (post-acute care), Q (quarter). Data displayed by fiscal year and quarter. Analysis includes FFS Medicare beneficiaries' inpatient stays across inpatient prospective payment system hospitals in the U.S.

Source: MedPAC analysis of Medicare claims data.

## Mandated report: Expanding the post-acute care transfer policy to hospice (cont.)

consistent with historic trends for this MS-DRG and predates expansion of the transfer policy to hospice (data not shown). For MS-DRG 280, the share of patients discharged to hospice with long inpatient stays has oscillated over time, and the 2020 level is within the historical range since 2015 (data not shown). For MS-DRG 54 (nervous system neoplasm), the share of patients discharged to hospice with long inpatient stays appears to have increased substantially; however, this increase is an artifact of a change in the definition of what constitutes a short stay versus a long stay for this

MS-DRG, rather than an increase in inpatients' actual lengths of stay.<sup>23</sup>

In summary, this evaluation of data on hospice referrals from inpatient hospitals and on inpatient length of stay for FFS Medicare beneficiaries referred to hospices finds no evidence of adverse effects on beneficiary access to hospice care over the first five quarters of the new policy expanding the PAC transfer policy to hospice. ■

**TABLE  
3-7**

**Hospice referral rates and inpatient lengths of stay for the 10 MS-DRGs with the most hospice referrals, first quarters 2018 and 2020**

MS-DRG	Description	Share of inpatients discharged to hospice in first quarter of:		Share of inpatients discharged to hospice with inpatient lengths of stay greater than the short-stay threshold in first quarter of:	
		2018	2020	2018	2020
871	Septicemia or severe sepsis without MV >96 hours and with MCC	8.5%	8.9%	66.4%	66.5%
291	Heart failure and shock with MCC or peripheral extracorporeal membrane oxygenation	5.1	5.0	70.1	69.3
064	Intracranial hemorrhage or cerebral infarction with MCC	12.9	13.7	56.5	55.3
177	Respiratory infections and inflammations with MCC	11.2	11.8	61.5	61.4
682	Renal failure with MCC	7.9	8.6	66.3	66.4
280	Acute myocardial infarction, discharged alive with MCC	7.6	7.7	63.4	65.3
193	Simple pneumonia and pleurisy with MCC	4.4	4.6	68.8	68.7
640	Miscellaneous disorders or nutrition, metabolism, fluids/electrolytes with MCC	5.8	6.0	75.0	74.1
853	Infectious and parasitic diseases with operating room procedure and MCC	5.3	5.5	62.6	65.5
054	Nervous system neoplasms with MCC	3.8	3.8	62.0	79.4*

Note: MS-DRG (Medicare severity–diagnosis related group), MV (mechanical ventilation), MCC (major comorbidities and complications), CC (comorbidities and complications). Data displayed are for first quarter of the fiscal year. Analysis includes fee-for-service Medicare beneficiaries' inpatient stays across inpatient prospective payment system hospitals in the U.S.

\*For MS-DRG 54, the short-stay threshold changed from two days in 2018 to one day in 2020. This change in definition caused the share of stays exceeding the short-stay threshold to increase between 2018 and 2020.

Source: MedPAC analysis of Medicare claims data.

## Endnotes

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- 1 Other types of hospitals provide post-acute or other specialized care, such as inpatient rehabilitation facilities (Chapter 9), long-term care hospitals (Chapter 10), and psychiatric hospitals. Short-term acute care hospitals can also provide other services, such as post-acute care services, in distinct units.
- 2 Throughout this chapter, we use the term “FFS Medicare” or “traditional Medicare” as equivalents to the CMS term “Original Medicare.” Collectively, we distinguish the payment model represented by these terms from other models such as Medicare Advantage or advanced alternative payment models that may use FFS mechanisms, but which are designed to create different financial incentives. Examples of other Medicare payment methodologies for inpatient and outpatient services at short-term acute care hospitals include cost-based reimbursement to small hospitals designated as critical access hospitals and Maryland’s all-payer global budget. In addition, even at PPS hospitals, certain inpatient costs are paid separately, such as organ acquisition costs. Hospitals also receive Medicare payments for post-acute care services and for their costs of direct medical education. These other payment methodologies are beyond the scope of this chapter but are included in our estimates of IPPS hospitals’ overall Medicare margin.
- 3 Under each Medicare payment methodology, Medicare pays the approved amount minus any beneficiary liability, such as a deductible or copayment; the provider then needs to collect the remaining amount from the beneficiary or a supplemental insurer. Medicare reimburses providers for 65 percent of bad debts resulting from beneficiaries’ nonpayment of deductibles and copayments after providers have made reasonable efforts to collect the unpaid amounts. This total payment estimate does not reflect any unreimbursed bad debt.
- 4 Medicare uses the OPSS to pay for outpatient services at all IPPS hospitals (other than those that are part of the Indian Health Service); certain specialized short-term acute care hospitals (cancer and children’s hospitals); and other types of hospitals, such as psychiatric, long-term care, and rehabilitation hospitals.
- 5 In 2019, the Department of Veterans Affairs finalized regulations to implement the new Veterans Community Care program under the MISSION Act. This rule maintains payment rates for most care at non-VA facilities not to exceed FFS Medicare rates, but includes exceptions, such as allowing higher rates in highly rural areas and clarifying that reference Medicare rates include those for critical access hospitals (Department of Veterans Affairs 2019).
- 6 For example, beginning in 2016, Montana’s state employee health plan implemented contracts with Montana hospitals in which hospital payments were based on a percentage above Medicare rates ([http://benefits.mt.gov/Portals/195/HCBBD%20Annual%20Report\\_Proof10.pdf](http://benefits.mt.gov/Portals/195/HCBBD%20Annual%20Report_Proof10.pdf)). Oregon followed in 2017, setting hospital payment rates for its state employee plan at 200 percent of Medicare payment rates for in-network hospitals and 185 percent for out-of-network hospitals (ORS §243.256). Other states, such as Colorado and North Carolina, have made proposals to base payment rates on a percentage of Medicare rates. In addition, Washington State created a public option beginning in 2021 in which aggregate payments for all covered benefits (exclusive of pharmacy) are capped at 160 percent of Medicare (WSL RCW §41.05.410).
- 7 For more details on the IPPS, see the Hospital Acute Inpatient Services Payment System document in our *Payment Basics* series at [http://medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_20\\_hospital\\_final\\_sec.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_20_hospital_final_sec.pdf?sfvrsn=0).
- 8 For more details on the OPSS, see the Outpatient Hospital Services Payment System in our *Payment Basics* series at [http://medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_20\\_opd\\_final\\_sec.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_20_opd_final_sec.pdf?sfvrsn=0).
- 9 Under Section 319 of the Public Health Services Act, the Secretary of Health and Human Services may determine that a disease or disorder presents a public health emergency (PHE) or that a PHE, including significant outbreaks of infectious disease or bioterrorist attacks, otherwise exists. The Secretary first determined the existence of a coronavirus PHE, based on confirmed cases of COVID-19 in the U.S., on January 31, 2020. At the time of publication, the coronavirus PHE had been renewed four times, most recently on January 7, 2021.
- 10 For the first three categories in our payment adequacy framework—access to care, quality, and access to capital—we generally include all short-term acute care hospitals in the U.S., regardless of Medicare’s payment methodology. However, because the primary goal of our assessment of hospital payment adequacy is to make recommendations on the annual update to IPPS operating and OPSS base payment rates, our examination of the relationship between hospitals’ payments and costs is limited to hospitals paid under the IPPS.
- 11 Hospital closures are defined as cessation of Medicare beneficiaries’ access to inpatient services at a general short-term acute care hospital or critical access hospital in the U.S. (exclusive of territories). Closures do not include the

- relocation of inpatient services from one hospital to another under common ownership within 10 miles, nor do closures include hospitals that both opened and closed within a 5-year time period. The number of hospital closures and openings in a given year can change over time as hospitals reopen or dates of closure are updated.
- 12 CAHPS is a registered trademark of the Agency for Healthcare Research and Quality.
  - 13 We used monthly hospital employment estimates from the Bureau of Labor Statistics' national current employment statistics, December 2020 (<https://www.bls.gov/ces/data.htm>). The employment data sample includes all private and government hospitals, while data on weekly hours and earnings are limited to private hospitals.
  - 14 The American Taxpayer Relief Act of 2012 required CMS to recover overpayments to hospitals to account for changes in the Medicare severity–diagnosis related group documentation and coding that do not reflect real changes in case mix, totaling \$11 billion over fiscal years 2014 to 2017. The Medicare Access and CHIP Reauthorization Act of 2015 replaced the single positive adjustment CMS intended to make in 2018 with a positive adjustment for each of fiscal years 2018 through 2023.
  - 15 Similar to other FFS Medicare payments, uncompensated care payments are subject to sequestration.
  - 16 For more details on how we identified hospitals under fiscal pressure, see our March 2011 report (Medicare Payment Advisory Commission 2011).
  - 17 While Medicare pays critical access hospitals 101 percent of their allowable costs, the 2 percent sequestration and unreimbursed bad debt caused these hospitals' margin to be slightly negative.
  - 18 The objective of this analysis is to find a subset of the relatively efficient hospitals rather than to identify all efficient hospitals. For example, we exclude small hospitals with under 500 discharges from our analysis, not because we know they are inefficient, but because we have an insufficient volume of claims to know whether or not they performed at a relatively efficient level.
  - 19 We use medians rather than means to limit the influence of outliers on our set of efficient providers.
  - 20 The 1,473 hospitals are a smaller sample than in past years, attributable to delays in the reporting of some cost report data.
  - 21 We do not adjust our costs per discharge for economies of scale. However, we excluded all hospitals with fewer than 500 Medicare discharges from our analysis. For the remaining hospitals, economies of scale are not a material factor when evaluating costs per discharge because costs are roughly proportionate to the volume of discharges for hospitals with over 500 Medicare discharges per year (generally over 1,000 all-payer discharges). Teaching hospitals tend to have higher costs per discharge, but we standardize costs per discharge by adjusting for the effect of case mix, outlier cases, and the cost of training residents. After these adjustments, teaching hospital costs on average are similar to nonteaching hospital costs. For a more complete description of the methodology, see online Appendix 3-B from our March 2016 report to the Congress, available at <http://www.medpac.gov/docs/default-source/reports/chapter-3-online-only-appendixes-hospital-inpatient-and-outpatient-services-march-2016-report-.pdf>.
  - 22 The efficient hospitals' shares of Medicaid discharges ranged from 4 percent at the 25th percentile to 11 percent at the 75th percentile compared with an interquartile range of 3 percent to 12 percent for all hospitals.
  - 23 Annually, CMS updates the short-stay threshold for each MS–DRG based on the geometric mean length of stay for that MS–DRG using claims data from two years prior. For MS–DRG 54, the geometric mean length of stay changed from 3.1 days for fiscal year 2018 to 3.0 days for fiscal year 2020. Because short stays are defined as stays that are more than one day below the geometric mean length of stay for the MS–DRG, in fiscal year 2018, one-day and two-day stays were considered short stays, and in fiscal year 2020 only one-day stays were considered short stays. This change in definition caused the increase in “long” inpatient stays between 2018 and 2020.

## References

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- 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.
- Cain Brothers. 2018. *Industry Insights*. November 20.
- Census Bureau. 2019. Value of construction put in place survey at a glance. <https://www.census.gov/construction/c30/c30index.html>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2020. Public Use File. [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Geographic-Variation/GV\\_PUF](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Medicare-Geographic-Variation/GV_PUF).
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2015. *Recovery auditing in Medicare fee-for-service for fiscal year 2015*. Baltimore, MD: CMS. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Monitoring-Programs/Medicare-FFS-Compliance-Programs/Recovery-Audit-Program/Downloads/FY2015-Medicare-FFS-RAC-Report-to-Congress.pdf>.
- 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.
- 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*. NBER working paper no. 23748. Cambridge, MA: National Bureau of Economic Research.
- Darden, M., I. McCarthy, and E. Barrette. 2019. *Who pays in pay for performance?* Evidence from hospital pricing. NBER working paper no. 24304. Cambridge, MA: National Bureau of Economic Research.
- Department of Veterans Affairs, 2019. Veterans Community Care Program. *Federal Register* 84, no. 108 (June 5): 26278–26310.
- Frakt, A. 2015. Hospitals are wrong about shifting costs to private insurers. *New York Times*, March 23.
- Health Care Cost Institute. 2020. *2018 health care cost and utilization report*. Washington, DC: HCCI.
- Health Care Financing Administration, Department of Health and Human Services. 1995. *Medicare and Medicaid Research Review*. Statistical supplement. Baltimore, MD/Pittsburgh, PA: HCFA.
- HealthLeaders. 2020. Intelligence report: Healthcare M&A moving forward in a post-COVID-19 landscape. July/August. <https://www.healthleadersmedia.com/report/intelligence/healthcare-ma-moving-forward-post-covid-19-landscape>.
- 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. 2019. *The health care services acquisition report: 25th 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. *JAMA*: 355–365.
- Maeda, J., and L. Nelson. 2017. *An analysis of private-sector prices for hospital admissions*. Congressional Budget Office working paper 2017–02. Washington, DC: CBO.
- Medicaid and CHIP Payment and Access Commission. 2019. *Report to the Congress on Medicaid and CHIP*. Chapter 2: Oversight of upper payment limit supplemental payments to hospitals. Washington, DC: MACPAC.
- Medicare Payment Advisory Commission. 2020a. The coronavirus pandemic and Medicare. Presentation at the Commission’s September public meeting. [http://medpac.gov/docs/default-source/meeting-materials/medpac\\_covid\\_sept\\_2020\\_rev.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/meeting-materials/medpac_covid_sept_2020_rev.pdf?sfvrsn=0).
- Medicare Payment Advisory Commission. 2020b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2019. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2018. *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.
- Moody’s Investors Service. 2020. *Healthcare Quarterly*. October.
- Thomson Reuters. 2019. Hospital municipal bond issuances: As of August 20, 2019.



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.

