

CHAPTER

10

**Inpatient rehabilitation
facility services**

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

- 10** The Congress should reduce the Medicare payment rate for inpatient rehabilitation facilities by 5 percent for fiscal year 2018.

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

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(Additionally, the Commission reiterates its March 2016 recommendations on the inpatient rehabilitation facility prospective payment system. See text box, p. 269.)

Inpatient rehabilitation facility services

Chapter summary

Inpatient rehabilitation facilities (IRFs) provide intensive rehabilitation services to patients after an illness, injury, or surgery. Rehabilitation programs at IRFs are supervised by rehabilitation physicians and include services such as physical and occupational therapy, rehabilitation nursing, speech–language pathology, and prosthetic and orthotic services. In 2015, Medicare spent \$7.4 billion on fee-for-service (FFS) IRF care provided in about 1,180 IRFs nationwide. About 344,000 beneficiaries had more than 381,000 IRF stays. On average, Medicare accounts for about 60 percent of IRFs’ discharges.

Assessment of payment adequacy

Our indicators of Medicare payment adequacy for IRFs are generally positive.

Beneficiaries’ access to care—Our analysis of IRF supply and volume of services provided suggests that capacity remains adequate to meet demand.

- **Capacity and supply of providers**—After declining for several years, the total number of IRFs increased between 2013 and 2014 and remained relatively stable in 2015 at 1,182 facilities nationwide. Over time, the number of hospital-based and nonprofit IRFs has declined, while the number of freestanding and for-profit IRFs has increased. In 2015, the average IRF occupancy rate was 65 percent, indicating that capacity is adequate to meet demand for IRF services.

In this chapter

- Are Medicare payments adequate in 2017?
- How should Medicare payments change in 2018?

- **Volume of services**—Between 2014 and 2015, the number of FFS cases rose 1.5 percent to 381,000 cases.

Quality of care—The Commission tracks three broad categories of IRF quality indicators: risk-adjusted facility-level change in motor and cognitive function during the IRF stay, rates of discharge to the community and skilled nursing facilities, and rates of readmission to the acute care hospital. Between 2011 and 2015, there were small improvements in rates of readmission and discharge to the community as well as in two measures of functional change.

Providers' access to capital—The parent institutions of hospital-based IRFs continue to have good access to capital. The major freestanding IRF chain, which accounted for 46 percent of all freestanding IRFs in 2015 and about a quarter of all Medicare IRF discharges, also has very good access to capital. We were not able to determine the ability of other freestanding facilities to raise capital. Large post-acute care companies continue to pursue vertical integration strategies intended to position them for a changing reimbursement environment.

Medicare payments and providers' costs—Between 2014 and 2015, the aggregate IRF Medicare margin rose from 12.4 percent to 13.9 percent, despite sequester reductions. The aggregate margin has risen steadily since 2009. Medicare margins in freestanding IRFs were especially high. Higher margins in freestanding IRFs were driven largely by unit costs that were considerably lower than those of hospital-based IRFs. Higher costs in hospital-based IRFs appear due, in part, to a lack of efficiency. Hospital-based IRFs are typically small and have lower occupancy rates, so they do not enjoy the same economies of scale as their larger, freestanding counterparts. In addition, hospital-based IRFs are far less likely than freestanding IRFs to be for profit and therefore may be less focused on controlling costs to maximize returns to investors. At the same time, the Commission has found evidence suggesting that providers differ in their assessment and coding of patients' motor and cognitive function. As a result, though aggregate payments may be more than sufficient, payments for some IRFs may be too low relative to the costs incurred in treating their patients, while payments for other IRFs may be too high. Further, there are notable differences in freestanding and hospital-based IRFs' mix of cases, which suggests that some case types are more profitable than others, resulting in higher margins for facilities that admit larger shares of these cases. Despite the lower margins of hospital-based IRFs, Medicare payments to hospital-based IRFs in 2015 exceeded marginal costs by 20.5 percent, indicating that hospital-based IRFs with available beds have a strong incentive to admit Medicare patients. Medicare payments to freestanding IRFs exceeded marginal costs by 41.5 percent. We project that IRFs' aggregate Medicare margin will be 14.3 percent in 2017.

The Commission recommended that the update to IRF payments be eliminated for fiscal year 2009 and has continued to recommend a 0 percent update for every year since. However, in the absence of legislative action, CMS is required by statute to apply an adjusted market basket increase. Thus, payments have continued to rise. At the same time, growth in costs per case has been low. From 2009 to 2015, the cumulative increase in payments per case was 14.2 percent, while costs per case rose 8.3 percent. The gap between payment and cost growth has been particularly wide for freestanding IRFs. In 2015, margins for freestanding IRFs reached an all-time high of 26.7 percent. Although in recent years annual cost growth in hospital-based IRFs has been below 2 percent, higher overall costs in these facilities have led to lower margins. Still, Medicare payments to hospital-based IRFs continue to exceed marginal costs by a significant amount.

The high aggregate margin for IRFs in 2015 and our projected 2017 margin suggest that Medicare payments substantially exceed the costs of caring for beneficiaries. Absent congressional action, payments to IRFs will continue to increase in fiscal year 2018. The combination of low cost growth and increasing average payments has resulted in overpayments that contribute to Medicare's long-run sustainability challenges.

On the basis of these factors, the Commission recommends that the IRF payment rate for fiscal year 2018 be reduced by 5 percent. The reduction in the payment rate should be coupled with an expansion of the high-cost outlier pool, as previously recommended by the Commission, to redistribute payments within the IRF prospective payment system and reduce the impact of potential misalignments between IRF payments and costs. ■

Background

After illness, injury, or surgery, some patients need intensive, inpatient rehabilitative care, including physical, occupational, and speech therapy. Such services can be provided in inpatient rehabilitation facilities (IRFs).¹ To qualify as an IRF, a facility must meet Medicare's conditions of participation for acute care hospitals and must be primarily focused on treating conditions that typically require intensive rehabilitation, among other requirements. IRFs can be freestanding facilities or specialized units within acute care hospitals. To qualify for a covered IRF stay, a beneficiary must be able to tolerate and benefit from intensive therapy and must have a condition that requires frequent and face-to-face supervision by a rehabilitation physician. Other patient admission criteria also apply. In 2015, Medicare spent \$7.4 billion on IRF care provided in about 1,180 IRFs nationwide. About 344,000 beneficiaries had more than 381,000 IRF stays. On average, Medicare accounts for about 60 percent of IRFs' discharges.

Since January 2002, Medicare has paid IRFs under a per discharge prospective payment system (PPS).² Under the IRF PPS, Medicare patients are assigned to case-mix groups (CMGs) based on the patient's primary reason for inpatient rehabilitation, age, and level of motor and cognitive function. Within each of these CMGs, patients are further categorized into one of four tiers based on the presence of specific comorbidities that have been found to increase the cost of care. Each CMG tier has a designated weight that reflects the average relative costliness of cases in the group compared with that of the average Medicare IRF case.³ The CMG weight is multiplied by a base payment rate and then adjusted to reflect geographic differences in the wages IRFs pay. The payment is further adjusted based on the IRF's share of low-income patients. Additional adjustments are made for IRFs that are teaching facilities and for IRFs located in rural areas.

The IRF PPS has outlier payments for patients who are extraordinarily costly. High-cost outlier payments are intended to offer providers some financial protection against exceptionally high-cost cases. Outlier payments can also help ensure continued access for patients who are predictably more likely than others to be exceptionally costly compared with the usual payment for the case type. Under the IRF payment system, Medicare provides extra payments, in addition to the usual PPS payment, for a case

if its costs exceed a threshold. The outlier payment for a case is equal to 80 percent of costs above the threshold. The cost threshold is equal to the sum of the IRF's usual payment for the CMG plus a fixed loss amount. CMS sets the fixed loss amount each year at a level that it estimates will result in aggregate outlier payments exhausting the funds available in the outlier pool, which is currently set at 3 percent of total IRF payments. (For fiscal year 2017, the fixed loss amount is \$7,984 per outlier case, adjusted for the applicable wage index and other facility-specific characteristics.) The outlier pool is funded by an offset to the national base payment amount, which reduces all CMG payment rates by the same percentage.

In 2015, about 8 percent of IRF cases received high-cost outlier payments, although this share varied by case type. For example, about 13 percent of cases with spinal cord injury and more than 10 percent of stroke cases were high-cost outliers. By contrast, less than 6 percent of cases with other neurological conditions were outliers. Outlier cases were also distributed unevenly among IRFs. About 13 percent of cases in hospital-based IRFs were high-cost outliers compared with less than 3 percent of cases in freestanding IRFs.

Medicare facility requirements for IRFs

To qualify as an IRF for Medicare payment, facilities must meet the Medicare IRF classification criteria. The first criterion is that providers must meet the Medicare conditions of participation for acute care hospitals. They must also:

- have a preadmission screening process to determine that each prospective patient is likely to benefit significantly from an intensive inpatient rehabilitation program;
- ensure that the patient receives close medical supervision and provide—through qualified personnel—rehabilitation nursing, physical therapy, and occupational therapy and, as needed, speech—language pathology and psychological (including neuropsychological) services, social services, and orthotic and prosthetic services;
- have a medical director of rehabilitation with training or experience in rehabilitation who provides services in the facility on a full-time basis for freestanding IRFs or at least 20 hours per week for hospital-based IRF units;

The IRF compliance threshold (“60 percent rule”)

The inpatient rehabilitation facility (IRF) compliance threshold requires that no less than 60 percent of all patients (Medicare and other) admitted to an IRF have as a primary diagnosis or comorbidity at least 1 of 13 conditions specified by CMS.⁴ The intent of the compliance threshold is to distinguish IRFs from acute care hospitals. If an IRF does not meet the compliance threshold, then Medicare pays for all its cases on the basis of the inpatient hospital prospective payment system rather than the IRF prospective payment system.

The compliance threshold was originally set at 75 percent of an IRF’s cases, though before 2004 few IRFs likely reached that threshold due to inconsistent enforcement of the rule.⁵ CMS began consistently enforcing compliance in 2004 and enacted revisions to some of the qualifying conditions.⁶ The combination of renewed enforcement of the threshold and additional restrictions resulted—as intended—in a substantial decline in the volume of Medicare patients treated in IRFs. As volume declined, occupancy rates, the number of IRF beds, and the number of facilities also fell. Average case-mix severity and cost per case increased as IRFs shifted their mix of cases to more complex conditions that counted toward the threshold. The

compliance threshold was permanently capped at 60 percent in 2007 by the Medicare, Medicaid, and SCHIP Extension Act of 2007. Since then, the industry has stabilized.

Compliance is determined annually at the beginning of each facility’s cost reporting period. Determining compliance can be complex. A case is first evaluated for compliance based on the impairment group code (IGC), which describes the primary reason for inpatient rehabilitation.⁷ (IGCs are also used to assign cases to case-mix groups for payment purposes.) If compliance cannot be determined based on the IGC, the case is evaluated for compliance based on the patient’s International Classification of Diseases (ICD) diagnosis codes. Compliance is evaluated by Medicare’s administrative contractors either through review of a random sample of medical records or, more commonly, through the less resource-intensive “presumptive” method, developed by CMS. The presumptive method uses a computer program to compare a facility’s Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI) assessments for all Medicare patients (fee-for-service and Medicare Advantage) for

(continued next page)

- use a coordinated interdisciplinary team approach led by a rehabilitation physician that includes a rehabilitation nurse, a social worker or case manager, and a licensed therapist from each therapy discipline involved in the patient’s treatment; and
- meet the compliance threshold, which requires that no less than 60 percent of all patients admitted to an IRF have as a primary diagnosis or comorbidity at least 1 of 13 conditions specified by CMS (see text box on the IRF compliance threshold).

Medicare coverage criteria for beneficiaries

Medicare applies additional criteria that govern whether IRF services are covered for an individual Medicare

beneficiary. In 2010, CMS clarified coverage criteria regarding which patients are appropriate to be treated in an IRF, when therapy must begin, and how and when beneficiaries are evaluated. For an IRF claim to be considered reasonable and necessary, the patient must be reasonably expected to meet the following requirements at admission:

- The patient requires active and ongoing therapy in at least two modalities, one of which must be physical or occupational therapy.
- The patient can actively participate in and benefit from intensive therapy that most typically consists of three hours of therapy a day at least five days a week.

The IRF compliance threshold (“60 percent rule”) (cont.)

the year with a list of eligible codes. The diagnosis codes included on the list are ones that CMS believes demonstrate either that the patient meets criteria for the medical conditions that may be counted toward an IRF’s compliance percentage or that the patient has a comorbidity that could cause significant decline in function such that the patient would require intensive rehabilitation (Centers for Medicare & Medicaid Services 2014).

The presumptive method was designed to approximate medical record review, but in practice the method has tended to overestimate an IRF’s compliance percentage. To improve the accuracy of the presumptive method, in fiscal year 2016, CMS removed a large number of ICD diagnosis codes from the list used to qualify for presumptive compliance. These codes were removed because, without supporting documentation, they do not provide sufficient information to indicate that the patient would reasonably require intensive inpatient rehabilitation (Centers for Medicare & Medicaid Services 2014). Examples include nonspecific or miscellaneous diagnosis codes and codes for arthritis conditions that would meet the compliance criteria only if severity and prior treatment criteria are met, which can be determined only through medical record review.

To assess the impact of the new presumptive criteria, the Commission applied the new criteria to 2013 IRF–PAI records. Under the old criteria, 75 percent of all Medicare cases in 2013 were presumed to be compliant, and more than 98 percent of IRFs met or exceeded the compliance threshold. Under the new presumptive criteria, we estimate that only 66 percent of Medicare cases would have been compliant in 2013, and 23 percent of IRFs would have fallen short of the compliance threshold, assuming no behavioral change. We found that, among the most common conditions in IRFs, cases admitted for rehabilitation following hip or knee replacement would be most affected under the new rules, with the share of cases meeting compliance falling from 83 percent to 33 percent. The Commission expects IRFs will shift their mix of cases to ensure continued compliance with the threshold.

The Commission has supported CMS’s effort to tighten the requirements for compliance to ensure that IRF payments are made only to providers that furnish IRF-level services to beneficiaries who need and can tolerate that level of care. We continue to encourage the agency to explore further refinements to the 60 percent rule. ■

- The patient is sufficiently stable at the time of admission to actively participate in the intensive rehabilitation program.
- The patient requires supervision by a rehabilitation physician. This requirement is satisfied by physician face-to-face visits with a patient at least three days a week.

Patterns of use in IRFs

Beginning in 2004, after CMS’s renewed enforcement of the compliance threshold and restrictions on some of the qualifying conditions, the total number of fee-for-service (FFS) IRF cases fell and the mix of cases treated by IRFs shifted markedly. IRFs began to admit a higher share of patients with diagnoses that met the

revised compliance threshold, such as stroke, brain injury, and other neurological conditions. The growth in other neurological conditions—including multiple sclerosis, Parkinson’s disease, neuromuscular disorders, and polyneuropathy—was particularly striking. Between 2004 and 2014, the number of other neurological conditions grew 98 percent, even as the total number of Medicare IRF cases declined 21 percent. The number of cases with brain injuries (traumatic and nontraumatic combined) rose 74 percent over the same period. (Notably, the number of cases with other orthopedic conditions and debility also rose, though neither category is among the 13 conditions that count toward the compliance threshold.)⁸ Between 2004 and 2015, as a share of IRF cases, other neurological conditions rose from 5.2 percent to 13.0 percent, and brain

**TABLE
10-1**

The share of IRF cases with other neurological conditions grew rapidly from 2009 to 2014 but remained stable in 2015

Condition	Percent of Medicare FFS IRF cases				Meets compliance threshold	Percentage point change		
	2004	2009	2014	2015		2004–2009	2009–2014	2014–2015
Stroke	16.6%	20.5%	19.5%	19.8%	yes	3.9	–0.9	0.2
Other neurological conditions	5.2	9.0	13.0	13.0	yes	3.8	4.0	0.0
Fracture of the lower extremity	13.1	15.1	12.2	11.5	yes	2.0	–2.9	–0.7
Debility	6.2	9.3	10.3	10.7	no	3.1	1.0	0.4
Brain injury	3.9	7.3	8.7	9.3	yes	3.4	1.4	0.6
Other orthopedic conditions	5.2	6.4	7.7	7.9	no	1.3	1.3	0.1
Major joint replacement of lower extremity	24.1	11.7	7.7	6.8	*	–12.4	–4.0	–0.9
Cardiac conditions	5.3	4.9	5.6	6.0	no	–0.3	0.6	0.4
Spinal cord injury	4.2	4.4	4.7	4.7	yes	0.2	0.2	0.1
All other	16.3	11.3	10.6	10.5	**	–5.0	–0.7	–0.1

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service). “Other neurological conditions” includes multiple sclerosis, Parkinson’s disease, polyneuropathy, and neuromuscular disorders. “Fracture of the lower extremity” includes hip, pelvis, and femur fractures. Patients with debility have generalized deconditioning not attributable to other conditions. “Other orthopedic conditions” excludes fractures of the hip, pelvis, and femur, and hip and knee replacements. “All other” includes conditions such as amputations, arthritis, and pain syndrome. The compliance threshold requires that at least 60 percent of an IRF’s patients have 1 of 13 specified diagnoses or have a comorbidity that could cause significant decline in functional ability such that the patient requires intensive rehabilitation. All Medicare FFS IRF cases with valid patient assessment information were included in this analysis. Yearly figures presented in the table are rounded, but figures in the percentage point change columns were calculated using unrounded data.

*Cases admitted for rehabilitation after major joint replacement of the lower extremity count toward the compliance threshold if joint replacement was bilateral, if the patient had a body mass index of 50 or greater, or if the patient was age 85 or older.

**Case types in the “all other” category that meet the compliance threshold include congenital deformity, amputation, major multiple trauma, burns, and certain arthritis cases.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

injuries rose from 3.9 percent to 9.3 percent (Table 10-1). The most common case type in IRFs in 2015 was stroke, accounting for 19.8 percent of Medicare cases.

The distribution of case types differs by type of IRF (Table 10-2). For example, in 2015, only 16 percent of cases in freestanding for-profit IRFs were admitted for rehabilitation following a stroke, compared with 24 percent of cases in hospital-based nonprofit IRFs. Likewise, 20 percent of cases in freestanding for-profit IRFs were admitted with other neurological conditions, roughly double the share admitted to hospital-based IRFs.

High-margin IRFs have a different mix of cases

A previous Commission analysis of differences in the mix of cases across IRFs suggested the possibility that patient selection contributes to provider profitability (Medicare Payment Advisory Commission 2016). We found that IRFs with the highest margins in 2013 had a higher share of other neurological cases and a lower share of stroke cases (Figure 10-1).⁹ Further, we observed differences

in the types of stroke and other neurological conditions admitted to high-margin and low-margin IRFs. Stroke cases in the highest margin IRFs were two-and-a-half times more likely than those in the lowest margin IRFs to have no paralysis (Figure 10-2, p. 266). Likewise, other neurological cases in the highest margin IRFs were almost three times more likely than those in the lowest margin IRFs to have a neuromuscular disorder (such as amyotrophic lateral sclerosis or muscular dystrophy) as opposed to conditions like multiple sclerosis or Parkinson’s disease (Figure 10-3, p. 267).

As noted in our March 2016 report to the Congress, these findings suggest the possibility that, under the IRF PPS, some case types are more profitable than others. Research is needed to assess variation in costs within the IRF CMGs and differences in relative profitability across CMGs. Identifying and reducing variation within CMGs and properly calibrating payments with costs for each group is necessary to avoid overpayments and reduce financial

**TABLE
10-2**

IRF patient mix differed by provider type, selected conditions, 2015

Condition	Freestanding		Hospital based	
	For profit	Nonprofit	For profit	Nonprofit
Stroke	16%	22%	21%	24%
Other neurological conditions	20	6	11	9
Fracture of the lower extremity	11	9	16	11

Note: IRF (inpatient rehabilitation facility). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. "Fracture of the lower extremity" includes hip, pelvis, and femur fractures. All Medicare fee-for-service IRF cases with valid patient assessment information were included in this analysis.

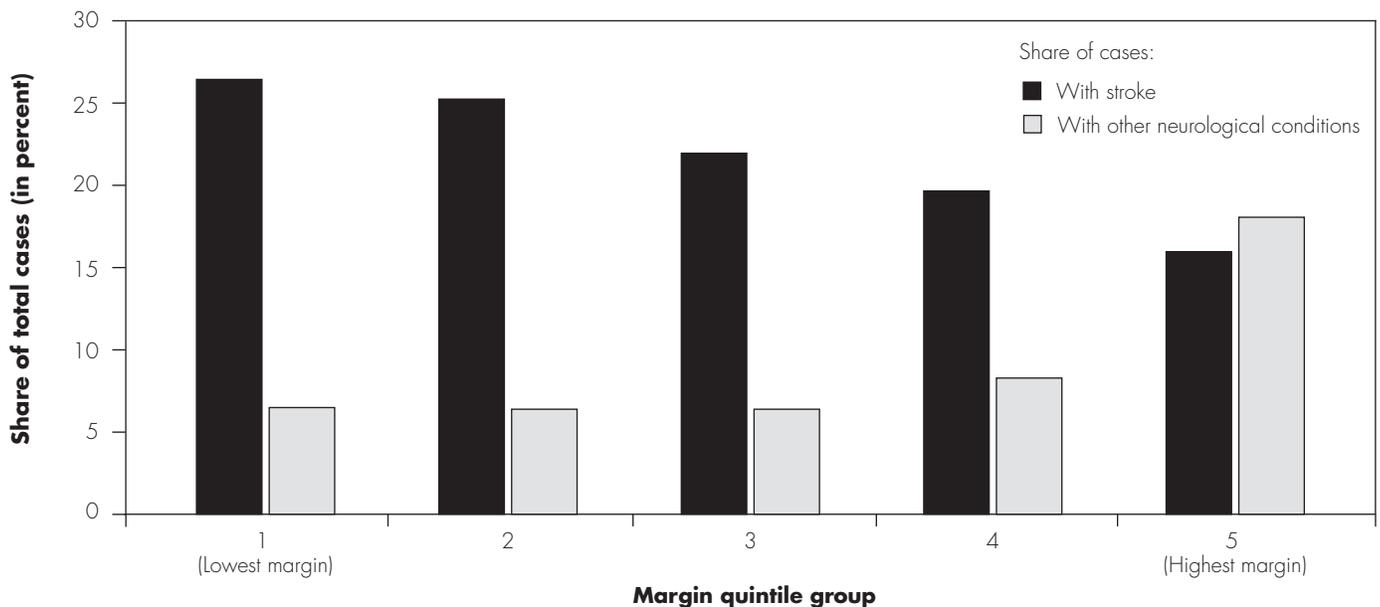
Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

incentives for providers to admit certain types of cases and avoid others. In the short term, the Commission has recommended that the Secretary effect changes to reduce potential misalignments between IRF payments and costs by redistributing payments within the IRF PPS through

the high-cost outlier pool (see text box on March 2016 recommendations, p. 269). Expanding the outlier pool would increase outlier payments for the most costly cases, easing the financial burden for IRFs that have a relatively high share of these cases.

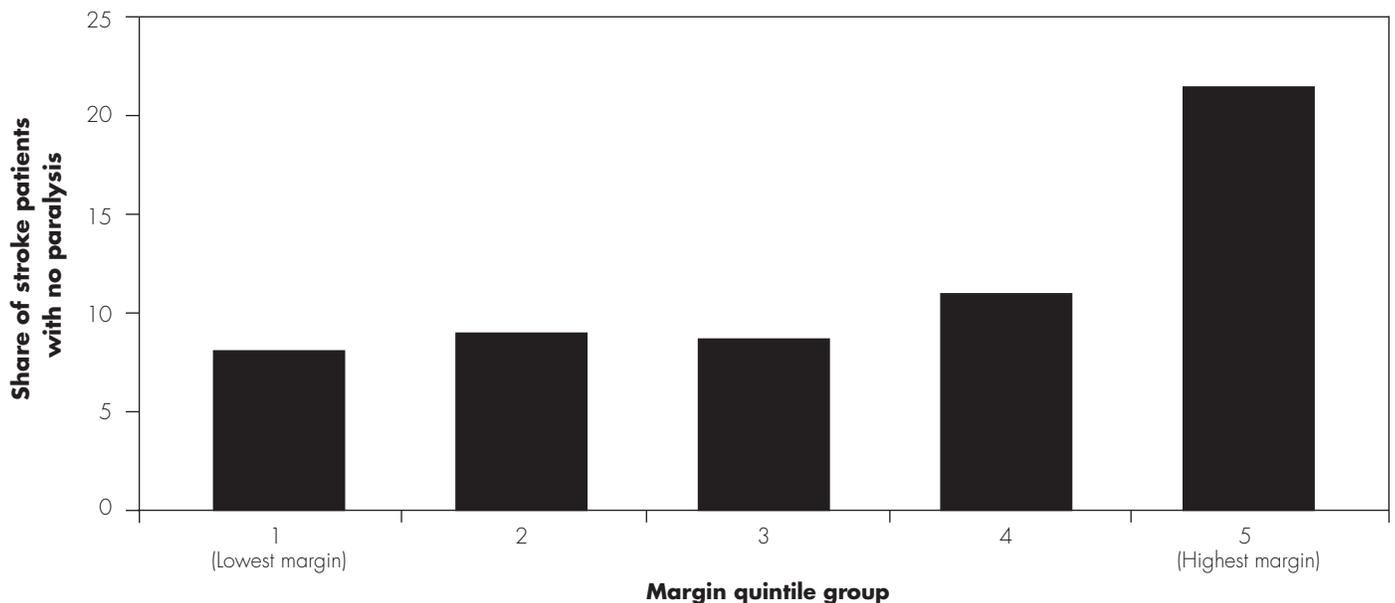
**FIGURE
10-1**

IRFs with the highest margins had more cases with other neurological conditions, fewer cases with stroke, 2013



Note: IRF (inpatient rehabilitation facility). IRFs were ranked by their 2013 Medicare margins and then sorted into five equal-sized groups (quintiles). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. Cases that did not have an acute care hospital discharge within 30 days of admission to the IRF were excluded from this analysis.

Source: MedPAC analysis of Medicare Provider Analysis and Review data, Inpatient Rehabilitation Facility–Patient Assessment Instrument data, and cost report data from CMS.

**FIGURE
10-2****Stroke cases in the highest margin IRFs were more likely to have no paralysis, 2013**

Note: IRF (inpatient rehabilitation facility). IRFs were ranked by their 2013 Medicare margins and then sorted into five equal-sized groups (quintiles). Cases that did not have an acute care hospital discharge within 30 days of admission to the IRF were excluded from this analysis.

Source: MedPAC analysis of Medicare Provider Analysis and Review data, Inpatient Rehabilitation Facility–Patient Assessment Instrument data, and cost report data from CMS.

Patient assessment may not be uniform across IRFs

A previous Commission analysis of acute care hospital claims data and data from the Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI) suggested the possibility that IRFs differ in their assessment of patients’ motor and cognitive function (Medicare Payment Advisory Commission 2016, Medicare Payment Advisory Commission 2015). In that analysis, we examined IRF patient assessment data from 2013 and administrative data from those IRF patients’ immediately preceding acute care hospital stays.¹⁰ To control for differences in the mix of case types across IRFs, we examined patient characteristics in the IRF and in the preceding acute care hospital stay by patients’ type of condition, as coded by the IRF at IRF admission.¹¹ Our approach allowed us to compare patient characteristics as coded in the acute care hospital with those coded in the IRF. Ideally, we would evaluate IRF patient characteristics by comparing IRF patient assessment data with complete patient assessment information recorded for the beneficiary during the preceding acute care hospital

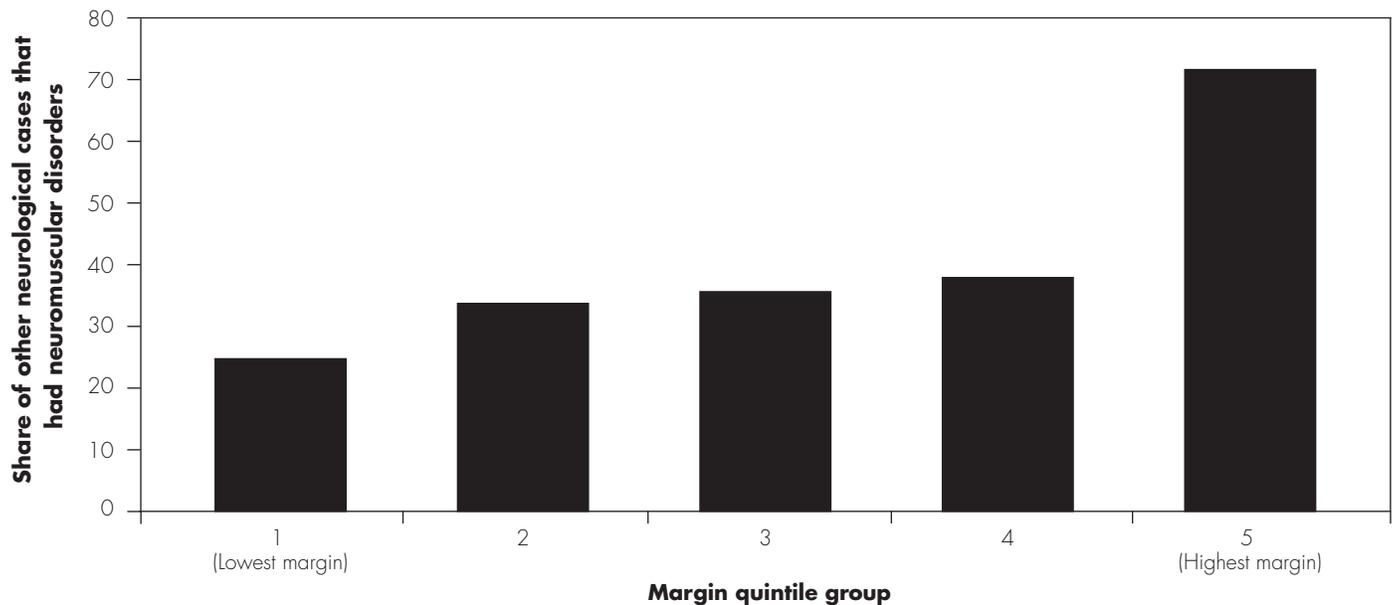
stay. However, because acute care hospitals do not submit patient assessment data to CMS, no such data exist. Nevertheless, though acute care hospital claims data do not provide information about a patient’s motor function and provide only limited information about a patient’s cognition, they can tell us about patients’ diagnoses, severity of illness, and relative resource requirements during the hospital stay preceding admission to the IRF.¹²

Overall, when we compared patients in high-margin and low-margin IRFs, we found that patients in high-margin IRFs were less severely ill and resource intensive during the acute care hospitalization that preceded the IRF stay:

- Patients in high-margin IRFs had, on average, a lower case-mix index in the acute care hospital as well as a lower level of severity of illness and a shorter length of stay.
- Patients in high-margin IRFs were less likely to have been high-cost outliers in the acute care hospital or to have spent four or more days in the hospital intensive care or coronary care unit.

**FIGURE
10-3**

Other neurological cases in the highest margin IRFs were more likely to have neuromuscular disorders, 2013



Note: IRF (inpatient rehabilitation facility). IRFs were ranked by their 2013 Medicare margins and then sorted into five equal-sized groups (quintiles). “Other neurological conditions” includes multiple sclerosis, Parkinson’s disease, polyneuropathy, and neuromuscular disorders. “Neuromuscular disorders” includes amyotrophic lateral sclerosis and muscular dystrophy. Cases that did not have an acute care hospital discharge within 30 days of admission to the IRF were excluded from this analysis.

Source: MedPAC analysis of Medicare Provider Analysis and Review data, Inpatient Rehabilitation Facility–Patient Assessment Instrument data, and cost report data from CMS.

But once patients were admitted to and assessed by the IRF, the average patient profile changed, with patients treated in high-margin IRFs appearing to be more disabled than those in low-margin IRFs (as measured by motor impairment scores). This pattern persisted across case types.

We found that the difference in average motor impairment scores between high-margin and low-margin IRFs was particularly wide for stroke cases with no paralysis: Cases in the highest margin IRFs had a motor impairment score that was 18 percent lower, on average, than cases in the lowest margin IRFs. (In IRFs, motor impairment is measured using a 13-item Functional Independence Measure™ (FIM™) scale to assess the level of disability in motor functioning and the burden of care for a patient’s caregivers. Lower scores indicate greater disability and generally result in higher payment.) Indeed, in 2013, nonparalyzed stroke patients in the highest margin IRFs had an average motor FIM score (29.0) that was almost the same as the average motor score of paralyzed stroke

patients in the lowest margin IRFs (29.2) (Table 10-3, p. 268). This finding was surprising because stroke patients with paralysis typically have worse motor function than stroke patients without paralysis. All else being equal, Medicare’s payment for these two types of stroke patients with a motor FIM score of 29.0 would be the same—even though stroke patients with no paralysis had an IRF length of stay that was, on average, more than two days shorter than that of stroke patients with paralysis.

As noted in our March 2016 report to the Congress, the consistent finding that high-margin IRFs have patients who are, on average, less severely ill in the acute care hospital but appear more functionally disabled upon assessment in the IRF suggests that assessment and coding practices contribute to greater profitability in some IRFs, especially given the comparatively low level of costs and cost growth observed in high-margin facilities. Providers may differ in their assessment and coding of patients’ motor and cognitive function, which may result in payments that are not properly aligned with the resource

**TABLE
10-3**

Nonparalyzed stroke patients in the highest margin IRFs had the same average motor impairment score as stroke patients with paralysis in the lowest margin IRFs, 2013

Type of stroke case	Average motor impairment score	
	Lowest margin IRFs	Highest margin IRFs
With paralysis	29.2	24.6
Without paralysis	35.3	29.0

Note: IRF (inpatient rehabilitation facility). Average motor impairment scores were calculated using the motor Functional Independence Measure™ (FIM™) coded by the IRF. The motor FIM measures the level of disability in motor functioning at IRF admission on a 91-point scale. Higher FIM scores indicate higher levels of function. IRFs were ranked by their 2013 Medicare margins and then sorted into five equal-sized groups (quintiles). Lowest margin IRFs (quintile 1) had a mean margin of -36.6 percent, while highest margin IRFs (quintile 5) had a mean margin of 31.1 percent. Stroke cases with paralysis include patients with left body involvement, right body involvement, and bilateral involvement. Cases that did not have an acute care hospital discharge within 30 days of admission to the IRF were excluded from this analysis.

Source: MedPAC analysis of Medicare Provider Analysis and Review data, Inpatient Rehabilitation Facility–Patient Assessment Instrument data, and cost report data from CMS.

needs of patients. Some IRFs may receive payments that are too high relative to the costs incurred in treating their patients, while other IRFs may receive payments that are too low.

These findings led the Commission to recommend that CMS ensure payment accuracy and help improve program integrity by reviewing medical records merged with IRF patient assessment data, reassessing inter-rater reliability across IRFs, and conducting other research as necessary (see text box on March 2016 recommendations).

Are Medicare payments adequate in 2017?

To assess whether payments for fiscal year 2017 are adequate to cover the costs providers incur and how much providers’ costs are expected to change in the coming year (2018), we examine several indicators of payment

adequacy. Specifically, we assess beneficiaries’ access to care by examining the capacity and supply of IRFs and changes over time in the volume of services provided, quality of care, providers’ access to capital, and the relationship between Medicare payments and providers’ costs.

Beneficiaries’ access to care: IRF supply and service volume suggest sufficient access

We have no direct indicator of beneficiaries’ access to IRF care. Although there are criteria for admission to an IRF, it is not clear when IRF care is necessary or beneficial for a given patient or when another, lower cost post-acute care provider (such as a skilled nursing facility) could provide appropriate care. The absence of IRFs in some areas of the country makes it particularly difficult to assess the need for IRF care since beneficiaries in areas without IRFs presumably receive similar services in other settings. Nevertheless, our analysis of IRF supply and volume of services provided suggests that capacity remains adequate to meet demand.

Number of IRFs and occupancy rates suggest adequate capacity and supply

After declining for several years, the total number of IRFs increased between 2013 and 2014 and remained relatively stable in 2015 at 1,182 facilities nationwide (Table 10-4, p. 270). Each state and the District of Columbia had at least one IRF. In general, IRFs are concentrated in highly populated states that have large Medicare populations. IRFs are not the sole provider of rehabilitation services in communities; skilled nursing facilities (SNFs), home health agencies, comprehensive outpatient rehabilitation facilities, and independent therapy providers also furnish rehabilitation services (though not all provide inpatient care). Given the number and distribution of these other rehabilitation therapy providers, it is unlikely that many areas exist where IRFs are the only provider of rehabilitation therapy services available to Medicare beneficiaries.

In 2015, about 78 percent of IRFs were distinct units in acute care hospitals; the remaining 22 percent were freestanding facilities. However, because hospital-based units have, on average, fewer beds and a lower share of Medicare discharges, they accounted for only 52 percent of Medicare discharges. Overall, 30 percent of IRFs were for-profit entities. Freestanding IRFs were far more likely to be for profit than were hospital-based IRFs (70 percent vs. 19 percent, respectively; data not shown). About 50

The Commission reiterates its March 2016 recommendations on the IRF prospective payment system

Recommendation 9-2

The Secretary should conduct focused medical record review of inpatient rehabilitation facilities that have unusual patterns of case mix and coding.

Rationale 9-2

The Commission's finding that high-margin inpatient rehabilitation facilities (IRFs) have patients who are, on average, less severely ill in the acute care hospital but appear more functionally disabled in the IRF suggests the possibility that coding practices contribute to greater profitability in some IRFs. Providers may differ in their assessment of patients' motor and cognitive function, resulting in payments for some IRFs that are too high relative to the costs incurred in treating their patients. To improve the accuracy of payments and protect program integrity, CMS should review medical records merged with IRF patient assessment data, reassess inter-rater reliability across IRFs, and conduct other research as necessary. Because medical record review is resource intensive, CMS should begin by focusing on providers that have an atypical mix of cases, such as a high concentration of neuromuscular disorders and stroke cases without paralysis, and on providers that have anomalous patterns of coding, such as wide discrepancies in their patients' levels of severity as coded in the acute care hospital compared with that coded in the IRF. However, system-wide assessment of payment accuracy is also needed.

Implications 9-2

Spending

- Implementing this recommendation could result in changes to the payment system that would be budget neutral but could also reduce Medicare's spending on IRF services if CMS were to make payment adjustments to account for assessment and coding differences across providers or for coding changes that do not reflect real case-mix change. CMS would incur some administrative expenses to conduct these activities.

Beneficiary and provider

- We do not expect this recommendation to have adverse effects on Medicare beneficiaries with respect to access to care or out-of-pocket spending or on providers' willingness and ability to care for Medicare beneficiaries.

Recommendation 9-3

The Secretary should expand the inpatient rehabilitation facility outlier pool to redistribute payments more equitably across cases and providers.

Rationale 9-3

The Commission's finding that high-margin IRFs may be selecting certain types of cases suggests that some case-mix groups (CMGs) may be more profitable than others. At the same time, our finding that IRFs may differ in their assessments of patients' motor and cognitive function suggests that the IRF CMGs may not be adequately capturing differences in patient acuity and costs across cases and providers. The potential for financial loss may therefore be greater for some providers than for others. Expanding the outlier pool would increase outlier payments for the most costly cases, easing the financial burden for IRFs that have a relatively high share of these cases.

Implications 9-3

Spending

- This recommendation would be implemented in a budget-neutral manner and should not have an overall impact on spending.

Beneficiary and provider

- We do not expect this recommendation to have adverse effects on Medicare beneficiaries with respect to access to care or out-of-pocket spending. This recommendation may relieve the financial pressure on some providers and may improve equity among providers by diminishing the effects of inaccurate coding. ■

**TABLE
10-4**

The number of for-profit and freestanding IRFs continues to grow

Type of IRF	Share of Medicare FFS discharges								Average annual change		
		2004	2006	2008	2010	2013	2014	2015	2004–2006	2006–2013	2013–2015
All IRFs	100%	1,221	1,225	1,202	1,179	1,161	1,177	1,182	0.2%	-0.8%	0.9%
Urban	92	1,024	1,018	1,001	981	977	1,013	1,020	-0.3	-0.6	2.2
Rural	8	197	207	201	198	184	164	162	2.5	-1.7	-6.2
Freestanding	48	217	217	221	233	243	251	262	0.0	1.6	3.8
Hospital based	52	1,004	1,008	981	946	918	926	920	0.2	-1.3	0.1
Nonprofit	42	768	758	738	729	677	681	681	-0.7	-1.6	0.3
For profit	50	292	299	291	294	322	338	352	1.2	1.1	4.6
Government	7	161	168	173	156	155	149	138	2.2	-1.1	-5.6

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service). The number of facilities are for the calendar year. The large decline in the number of rural IRFs between 2013 and 2014 is due primarily to changes in the core-based statistical areas, as defined by the Office of Management and Budget, which determine whether geographic areas are considered urban or rural. Because of these changes, 19 IRFs that were previously considered rural are now designated urban.

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

percent of Medicare IRF discharges in 2015 were from for-profit facilities. Over time, the number of hospital-based and nonprofit IRFs has declined, while the number of freestanding and for-profit IRFs has increased. Between 2004 and 2015, the number of hospital-based IRFs fell by 8 percent, while the number of freestanding IRFs rose by 21 percent.

Between 2013 and 2015, the number of rural IRFs fell, on average, by about 6 percent per year. Most of that decline, however, was due to changes in 2014 to the core-based statistical areas (CBSAs), as defined by the Office of Management and Budget, which determine whether geographic areas are considered urban or rural (Centers for Medicare & Medicaid Services 2015). Because of these changes, 19 IRFs that were previously considered rural were designated urban in 2014.

In 2015, 26 IRFs closed; most were hospital-based units. At the same time, 31 new IRFs opened, more than half of them hospital-based units. Acute care hospitals may find that IRF units help reduce inpatient lengths of stay. Previous Commission analyses have found that hospitals with IRF units have higher inpatient margins than hospitals without such units (Medicare Payment Advisory Commission 2015).

In 2015, the average IRF occupancy rate was 65 percent, up from 64 percent in 2014. Occupancy rates were higher in freestanding IRFs (69 percent) than in hospital-based IRFs (62 percent). These rates suggest that capacity is more than adequate to meet demand for IRF services.

IRF volume increased in 2015

The number of Medicare FFS IRF cases grew rapidly throughout the 1990s and the early years of the IRF PPS, reaching a peak of about 495,000 in 2004. After CMS renewed its enforcement of the compliance threshold in 2004, IRF volume declined substantially, falling almost 8 percent per year from 2004 to 2008 (Table 10-5). At that point, volume began to increase slowly, rising less than 1 percent per year from 2008 to 2014. Between 2014 and 2015, the number of FFS cases grew somewhat more quickly, rising 1.5 percent to about 381,000 cases.

In 2015, the number of IRF cases per 10,000 FFS beneficiaries was 101, up 1.7 percent from the previous year. Relatively few Medicare beneficiaries use IRF services because, to qualify for Medicare coverage, IRF patients must be able to tolerate and benefit from rehabilitation therapy that is intensive, which is typically

**TABLE
10-5**

The number of IRF cases and the average payment per case increased in 2015

	2004	2006	2008	2010	2013	2014	2015	Average annual change		
								2004–2008	2008–2014	2014–2015
Number of cases	495,349	404,633	356,312	359,307	373,118	375,590	381,339	-7.9%	0.9%	1.5%
Cases per 10,000 FFS beneficiaries	135.6	111.9	100.4	99.7	99.1	99.3	101.0	-7.2	-0.2	1.7
Payment per case	\$13,290	\$15,380	\$16,646	\$17,085	\$18,258	\$18,632	\$19,116	5.8	1.9	2.6
ALOS (in days)	12.7	13.0	13.3	13.1	12.9	12.8	12.7	1.3	-0.6	-0.7
Users	449,362	369,269	323,897	325,506	337,704	338,887	343,562	-7.9	0.8	1.4

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service), ALOS (average length of stay).

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

interpreted to mean at least three hours of therapy a day for at least five days a week. Still, compared with all Medicare beneficiaries, those admitted to IRFs in 2015 were disproportionately over age 85. The use rate of IRFs among Medicare’s FFS population continues to be more than twice that of the Medicare Advantage (MA) population (see text box on use of IRFs by MA beneficiaries, pp. 272–273).

Quality of care: Improvement since 2011 for most measures

The Commission tracks three broad categories of IRF quality indicators: risk-adjusted facility-level change in functional and cognitive status during the IRF stay, rates of discharge to the community and to SNFs, and rates of readmission to the acute care hospital. Between 2011 and 2015, there were small improvements in rates of readmission and discharge to the community, as well as in two measures of functional change.

Risk-adjusted rates of potentially avoidable rehospitalization, discharge to community, and discharge to SNF

Avoidable rehospitalizations expose beneficiaries to hospital-acquired infections and increase the number of transitions between settings, which are disruptive

to patients and can result in medical errors (such as medication errors). In addition, they unnecessarily increase Medicare spending. There has been relatively little research on rehospitalization of IRF patients in aggregate, though some studies have focused on one or more rehabilitation impairment categories (DeJong et al. 2009, Galloway et al. 2013, Ottenbacher et al. 2014, Schneider et al. 2013, Schneider et al. 2012). However, research regarding rehospitalization of SNF and nursing home patients has identified several contributing factors that may be within a post-acute care facility’s control. These factors include staffing level, skill mix, and frequency of staff turnover; drug management; and adherence to transitional care protocols, such as discharge counseling, medication reconciliation, patient education regarding self-care, and communication among providers, staff, and the patient’s family (Grabowski et al. 2008, Kane et al. 2003, Konetzka et al. 2008a, Konetzka et al. 2008b, Lau et al. 2005, Mustard and Mayer 1997).

The Commission’s rates of rehospitalization during the IRF stay and during the 30 days after discharge are risk adjusted and reflect those readmissions that are potentially avoidable with adequate care in the IRF setting (Kramer et al. 2015).¹³ The measure of readmission in the 30 days after discharge reflects how well facilities prepare

Comparison of Medicare Advantage and Medicare fee-for-service patients' use of inpatient rehabilitation facility services

Patients who reside in areas with inpatient rehabilitation facilities (IRFs) typically have alternatives for rehabilitation care, including skilled nursing facilities and home health agencies. Alternative post-acute care settings are generally less costly but typically offer less intensive rehabilitation and medical services. For many patients, any number of settings could provide appropriate care for their conditions. Because Medicare Advantage (MA) plans have incentives to manage care for beneficiaries in a cost-efficient manner, we examined how the population characteristics and use rates of the higher cost IRF services in the MA population compared with use in the fee-for-service (FFS) population.

Medicare requires IRFs to submit patient assessment data for both FFS and MA patients. We examined 2015 data from the Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI) and found that the use rate of IRFs among the FFS population in 2015 was more than double that of MA patients (Table 10-6). On average, MA enrollees who used IRFs were slightly younger than FFS IRF users (age 73.6 years vs. 75.3 years, respectively) and had similar functional status at admission, as measured by average Functional Independence Measure™ motor and

cognitive scores. On average, as measured by the IRF case-mix weight, MA IRF patients were more complex than their FFS counterparts, and their average length of stay was more than a day longer. MA enrollees who used IRFs were more likely than FFS beneficiaries to be admitted to hospital-based IRFs (60.7 percent vs. 50.2 percent, respectively).

The mix of case types among MA IRF cases was different from that among FFS IRF cases (Table 10-7). A much larger share of MA IRF patients were admitted for rehabilitation after a stroke—36 percent versus 20 percent for FFS IRF patients. MA IRF patients were less likely than FFS patients to be admitted for rehabilitation for other neurological conditions (9 percent vs. 13 percent, respectively), fractures of the lower extremity (8 percent vs. 12 percent, respectively), and debility (6 percent vs. 11 percent, respectively).

The disparity in use rates suggests that MA plans are more selective in the types of cases they authorize to receive care in IRFs, with more complex rehabilitation cases such as strokes and spinal cord injuries more likely to be referred to IRFs. However, a few caveats must be noted. First, this analysis did not control

(continued next page)

**TABLE
10-6**

FFS beneficiaries had higher IRF use rate, lower severity than MA enrollees, 2015

	FFS patients	MA patients
Cases per 1,000 beneficiaries	10.3	3.7
Admitted to hospital-based IRF	50.2%	60.7%
Average age	75.3	73.6
Case-mix weight	1.33	1.41
ALOS (in days)	12.7	13.9
Average FIM™ motor score at admission	28.7	28.5
Average FIM™ cognitive score at admission	22.2	21.7

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility), MA (Medicare Advantage), ALOS (average length of stay), FIM™ (Functional Independence Measure™). The motor FIM measures the level of disability in motor functioning on a 91-point scale. The cognitive FIM measures the level of cognitive impairment at IRF admission on a 35-point scale. Higher FIM scores indicate higher levels of function.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

Comparison of Medicare Advantage and Medicare fee-for-service patients' use of inpatient rehabilitation facility services (cont.)

for the availability of IRFs in areas with high MA market penetration. In addition, the IRF use rate could be affected by potential differences in the need for rehabilitation services in the MA population. Finally, we cannot rule out the possibility that reporting bias affects our results. Though CMS requires IRFs to submit patient assessment data for all their

Medicare patients, only FFS payment is contingent on submission of the IRF-PAI. IRFs are therefore highly motivated to submit the IRF-PAI for FFS Medicare patients. By contrast, an MA plan's payment for IRF services delivered to an enrollee is not dependent on IRF-PAI submission. Providers therefore may be less likely to submit the IRF-PAI for MA enrollees. ■

**TABLE
10-7**

Mix of case types among FFS IRF cases differed from that of MA IRF cases, 2015

Type of case	Share of all cases	
	FFS patients	MA patients
Stroke	20%	36%
Other neurological conditions	13	9
Fracture of the lower extremity	12	8
Debility	11	6
Brain injury	9	11
Other orthopedic	8	4
Major joint replacement of the lower extremity	7	6
Cardiac conditions	6	4
Spinal cord injury	5	7
Amputation	3	4
All other	8	5

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility), MA (Medicare Advantage). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. "Fracture of the lower extremity" includes hip, pelvis, and femur fractures. Patients with debility have generalized deconditioning not attributable to other conditions. "Other orthopedic conditions" excludes fractures of the hip, pelvis, and femur, and hip and knee replacements. "All other" includes conditions such as arthritis and pain syndrome. Columns may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Inpatient Rehabilitation Facility-Patient Assessment Instrument data from CMS.

beneficiaries and their caregivers for safe and appropriate transitions to the home or the next health care setting.

Between 2011 and 2015, the national average for the rate of risk-adjusted potentially avoidable readmissions during the IRF stay declined from 2.9 percent to 2.4 percent (Table 10-8, p. 274). (Lower rates are better.) A similar pattern was observed in the rate of risk-adjusted potentially avoidable readmissions within 30 days after discharge from an IRF: Between 2011 and 2015, the national average declined from 5.0 percent to 4.2 percent.

We also examined rates of discharge to the community and to SNFs. We found that between 2011 and 2015, the national average for the risk-adjusted community discharge rate increased from 74.0 percent to 76.0 percent. (Higher rates are better.)¹⁴ The national average for the risk-adjusted rate of discharge to SNFs was essentially unchanged.

Risk-adjusted gains in motor function and cognition

To qualify for coverage of IRF care, beneficiaries must require, be able to participate in, and benefit from

**TABLE
10-8**

Risk-adjusted rates of discharge to the community and potentially avoidable rehospitalizations have improved

Measure	2011	2012	2013	2014	2015
Potentially avoidable rehospitalizations during IRF stay	2.9%	2.6%	2.5%	2.5%	2.4%
Discharged to a SNF	6.9	6.7	6.7	6.9	6.8
Discharged to the community	74.0	75.2	75.8	76.2	76.0
Potentially avoidable rehospitalizations during 30 days after discharge from IRF	5.0	4.6	4.6	4.5	4.2

Note: IRF (inpatient rehabilitation facility), SNF (skilled nursing facility). High rates of discharge to the community indicate better quality. High rates of rehospitalization and discharge to SNF indicate worse quality. Rates are the average of facility rates and calculated for all facilities with 25 or more stays.

Source: Analysis of Inpatient Rehabilitation Facility–Patient Assessment Instruments from CMS.

intensive rehabilitation therapy. To observe the extent to which IRFs help improve the motor function and cognition of the beneficiaries they treat, we use a risk-adjusted measure of gains in these areas. Our measures reflect the extent to which patients’ motor skills and cognition improved during the IRF stay, given their level of function at admission and how much improvement they would be expected to make. Some patients, such as a relatively healthy 68-year-old recovering from an elective hip replacement, are likely to improve across several activities of daily living during their IRF stay. Other patients, such as an 85-year-old suffering from debility following a prolonged acute care hospital stay, may be expected to make only modest improvements during the IRF stay.

Functional status at admission and discharge is measured using the motor and cognitive scores on the IRF–PAI. The IRF–PAI incorporates the 18-item FIM scale to assess

the level of disability in motor and cognitive functioning and the burden of care for a patient’s caregivers (Deutsch et al. 2005). Scores for each of the 18 FIM items can be summed to calculate a motor score (based on 13 FIM items) and a cognitive score (based on 5 FIM items). The motor score at discharge can range from 13 to 91, while the cognitive score can range from 5 to 35, with higher scores indicating more functional independence. To measure observed improvement in motor function and cognition, we subtracted the respective FIM scores at admission from the FIM scores at discharge to calculate FIM motor and cognitive gains (Kramer et al. 2015). A larger number indicates more improvement in functional independence and cognition between admission and discharge. Each risk-adjusted rate was calculated by comparing a facility’s observed rate with its expected rate and multiplying this ratio by the national rate.

**TABLE
10-9**

Mean risk-adjusted functional outcomes have improved

Measure	Risk-adjusted gain in function				
	2011	2012	2013	2014	2015
Motor FIM™ gain	22.3	22.7	23.1	23.6	23.8
Cognitive FIM™ gain	3.6	3.7	3.8	3.9	3.9

Note: IRF (inpatient rehabilitation facility), FIM™ (Functional Independence Measure™). The motor FIM measures the level of disability in motor functioning on a 91-point scale. The cognitive FIM measures the level of cognitive impairment on a 35-point scale. FIM gain is calculated as the FIM score at discharge minus the FIM score at admission. Higher FIM gain indicates more improvement. Mean FIM gain averages the change of all facilities with 25 or more stays.

Source: Analysis of Inpatient Rehabilitation Facility–Patient Assessment Instruments from CMS.

**TABLE
10-10**

Performance on risk-adjusted quality measures varied across IRFs in 2015

Measure	Risk-adjusted rate		
	Mean	25th percentile	75th percentile
Motor FIM™ gain	23.8	21.1	26.2
Cognitive FIM™ gain	3.9	3.0	4.7
Potentially avoidable rehospitalizations during IRF stay	2.4%	1.6%	3.2%
Discharged to a SNF	6.8	4.3	8.8
Discharged to the community	76.0	72.9	79.3
Potentially avoidable rehospitalizations during 30 days after discharge from IRF	4.2	3.0	5.3

Note: IRF (inpatient rehabilitation facility), FIM™ (Functional Independence Measure™), SNF (skilled nursing facility). The motor FIM measures the level of disability in motor functioning on a 91-point scale. The cognitive FIM measures the level of cognitive impairment on a 35-point scale. FIM gain is calculated as the FIM score at discharge minus the FIM score at admission. Higher FIM gains indicate more improvement. High rates of discharge to the community indicate better quality. High rates of rehospitalization and discharge to SNF indicate worse quality. Mean rates are calculated for all facilities with 25 or more Medicare stays per year. Percentiles are calculated separately for each measure.

Source: Analysis of Inpatient Rehabilitation Facility–Patient Assessment Instruments from CMS.

In 2015, the mean gain (positive change) in the motor FIM score during an IRF stay was 23.8, while the mean gain for the cognitive FIM score was 3.9 (Table 10-9). (Bigger gains are better.) The average risk-adjusted gain in IRF patients’ motor and cognitive FIM scores increased from 2011 to 2015. However, changes in motor function and cognition must be interpreted with caution. Because payment is based in part on patients’ functional status at admission—with higher payments associated with lower functional status—providers have a financial incentive to improve their documentation and coding to more fully account for each patient’s rehabilitation needs. While improvements in documentation and coding can appropriately improve measurement of patients’ motor and cognitive function, resulting changes in reported FIM scores may not reflect real change in patients’ level of disability. If IRFs improve their documentation and coding more at admission than at discharge, FIM gains may increase over time but may not reflect real improvements in patients’ motor and cognitive gains. As a result, reported gains in motor and cognitive function may be overstated.

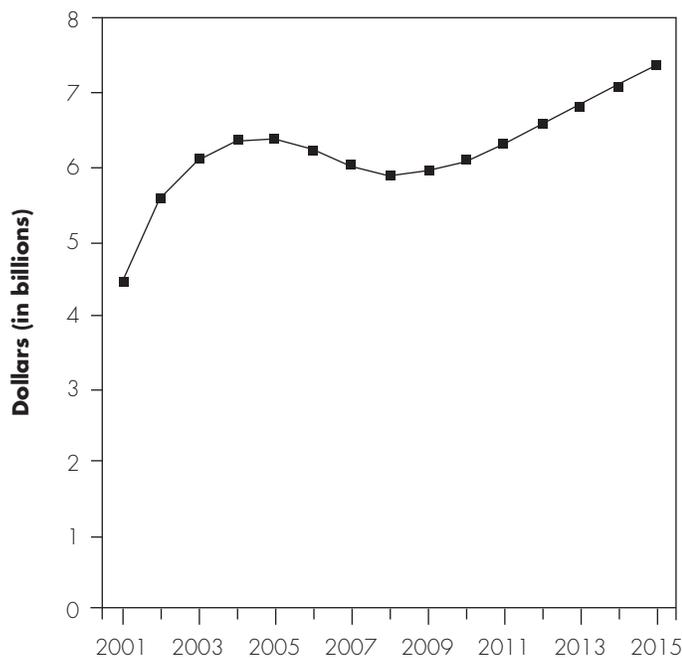
Variation in quality measures across IRFs

The measures we examined varied across providers (Table 10-10). We found that the worst performing quartile of IRFs had a risk-adjusted rate of discharge to a SNF higher than 8.8 percent in 2015, whereas the best performing quartile of providers had rates of 4.3 percent or less. (A

lower rate of discharge to a SNF is better.) Risk-adjusted rates of discharge to the community varied less: The worst performing quartile of IRFs had a community discharge rate lower than 72.9 percent, while the best performing quartile of providers had rates of 79.3 percent or more. (A higher rate of discharge to the community is better.) Variation was also seen in rehospitalization rates: The worst performing quartile had risk-adjusted rates of potentially avoidable readmissions during the IRF stay that were at or above 3.2 percent, whereas the best quartile had rates at or below 1.6 percent. (A lower rate of readmissions is better.)

Providers’ access to capital: IRFs appear to have adequate access to capital

More than three-quarters of IRF providers are hospital-based units that would access any necessary capital through their parent institutions. Overall, as detailed in the hospital chapter (Chapter 3), hospitals’ access to capital remained strong in 2015 and 2016 due to low interest rates and continued improvement in profitability. The three major bond-rating agencies reported both higher revenue growth at nonprofit hospitals and lower expense growth (Fitch Ratings 2016, Moody’s Investors Service 2016b, Standard & Poor’s Ratings Services 2016). The agencies attributed revenue growth to improvements in payer mix, increased utilization of acute inpatient services, payment rate increases from Medicare and commercial payers, and

**FIGURE
10-4****Program spending for IRF services
has grown steadily since 2008**

Note: IRF (inpatient rehabilitation facility).

Source: Office of the Actuary 2016.

merger and acquisition activity. The agencies attributed lower expense growth to several factors, including modest growth in capital expenditures due to a focus on outpatient capacity and the nearly complete implementation of electronic health records systems, declining debt burden, and continued cost containment strategies. The level of hospital bond issuances increased dramatically from 2015 to 2016, reflecting hospitals' strong financial position and continuing low interest rates.

As for freestanding IRFs, market analysts continue to rate access to capital as good for the industry's largest chain, which owned 46 percent of all freestanding IRFs in 2015 and accounted for about a quarter of all Medicare IRF discharges. This assessment is reflected in the chain's continued expansion of IRF capacity. The chain acquired shares in several IRFs through joint ventures in 2015 and reported that it has five new IRFs in the construction pipeline, with operations expected to start in late 2016, 2017, and 2018 (Healthsouth Corporation 2016). The chain also acquired one of the nation's largest providers of home health care in late 2014 as part of a vertical integration strategy intended to position the company for

a changing reimbursement environment. Other large post-acute care companies are pursuing this strategy, too. For example, the industry's largest long-term care hospital chain also operates 100 hospital-based IRFs, along with home health and hospice agencies. Companies believe that providing a continuum of post-acute services will allow them to better coordinate care, improve transitions, reduce lengths of stay, and prevent avoidable hospitalizations, thereby allowing them to adjust to reimbursement pressures and making them desirable partners in coordinated care delivery models and bundled payment arrangements (Healthsouth Corporation 2016, Kindred Healthcare 2016, Moody's Investors Service 2016a).

**Medicare payments and providers' costs:
Medicare margins were high and increased
in 2015**

The aggregate Medicare margin in IRFs has risen steadily since 2009, reaching 13.9 percent in 2015, despite sequester reductions. Medicare margins in freestanding IRFs were especially high. Higher margins in freestanding IRFs were driven largely by lower unit costs. In addition, freestanding IRFs are far more likely than hospital-based IRFs to be for profit and therefore may be more focused on controlling costs to maximize returns to investors. At the same time, the Commission has found evidence suggesting that providers differ in their assessment and coding of patients' motor and cognitive function, resulting in payments for some IRFs that are too high relative to the costs incurred in treating their patients, while payments for other IRFs may be too low. Further, there are notable differences in freestanding and hospital-based IRFs' mix of cases. Some case types may be more profitable than others, resulting in higher margins for facilities that admit larger shares of these cases. Given the difference in financial performance across IRFs, we examined freestanding and hospital-based IRFs' marginal profit to assess whether both types of providers have a financial incentive to expand the number of Medicare beneficiaries they serve. We found that in 2015, Medicare payments exceeded marginal costs by a substantial amount—20.5 percent for hospital-based IRFs and 41.5 percent for freestanding IRFs—suggesting that IRFs with available beds have an incentive to admit Medicare patients. This finding is a positive indicator of patient access, even in IRFs with lower margins.

Trends in spending and cost growth

The Office of the Actuary projects that Medicare FFS spending for IRF services in fiscal year 2015 was \$7.4

billion (Figure 10-4). Program spending has been growing, on average, more than 3 percent per year since 2008, reversing a downward trend that began in 2004. Beginning that year, renewed enforcement of the compliance threshold and restrictions of some of the qualifying conditions resulted in a substantial reduction in the number of Medicare patients treated in IRFs. (This reduction was consistent with the underlying reason for the compliance threshold—to direct only the most clinically appropriate cases to this intensive, costly post-acute care setting.) Between 2005 and 2008, program spending for IRF services fell 8 percent.¹⁵ The decline in volume slowed in 2008 and reversed in 2009, after the Congress permanently capped the compliance threshold at 60 percent. Medicare spending for IRF services began to grow again at that point.

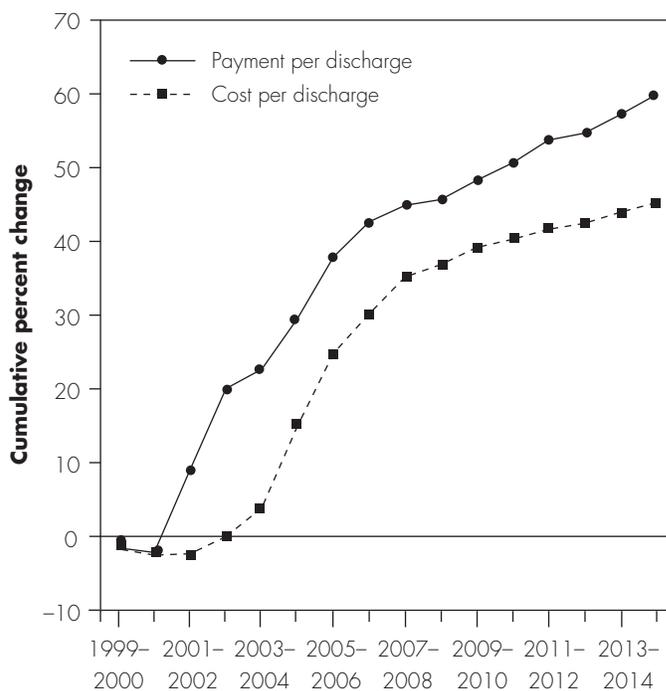
As the IRF patient population shifted to patients with more severe conditions who counted toward the compliance threshold, case-mix severity and cost per discharge increased. However, from 1999 to 2015, the cumulative increase in payments per discharge outpaced the increase in costs per discharge (Figure 10-5). From 1999 to 2014, payments per discharge grew 57 percent compared with 44 percent growth in costs per discharge. Between 2014 and 2015, payments per discharge increased 2.7 percent, while costs per discharge increased 1.2 percent.

Differences in standardized costs suggest economies of scale

Adjusting IRF costs per discharge for differences in wages, case mix, high-cost outliers, and short-stay cases permits a standardized comparison of costs across types of IRFs nationwide. The median standardized cost per discharge for all IRFs in 2015 was \$14,960 (Table 10-11, p. 278). Costs were inversely related to the size of the IRF. IRFs with 10 or fewer beds had a median standardized cost per discharge that was 56 percent higher than that of IRFs with 65 or more beds (\$18,085 vs. \$11,621, respectively). Still, even controlling for the number of beds, hospital-based IRFs had higher standardized costs (data not shown). Previous Commission analyses suggest that some of the difference between the standardized costs of hospital-based and freestanding IRFs is due to discrepancies across providers in the assessment of patients' motor and cognitive function. In comparing costs across providers, the Commission standardizes costs using provider case mix. In IRFs, case mix is based in part on the functional status of patients. If assessment of patients' functional status is not reasonably consistent across

FIGURE 10-5

IRFs' payments per discharge increased cumulatively more than costs, 1999–2015



Note: IRF (inpatient rehabilitation facility). Percent changes are calculated based on consistent two-year cohorts.

Source: MedPAC analysis of Medicare cost report data from CMS.

providers, then differences in case mix may not reflect real differences in patient acuity. To the extent that this inconsistency occurs, facilities with an average case mix that is higher than warranted will have lower standardized costs than they otherwise would.

We stratified IRFs into quartiles of standardized costs to compare the characteristics of facilities with the lowest and highest costs in 2015 (Table 10-12, p. 279). IRFs in the lowest cost quartile had a median standardized cost per discharge that was 43 percent less than that of IRFs in the highest cost quartile (\$11,124 vs. \$19,443, respectively). The difference in Medicare margins between low-cost and high-cost IRFs was very large. IRFs in the lowest cost quartile had a median Medicare margin of 28.5 percent compared with -22.0 percent for IRFs in the highest cost quartile.

**TABLE
10-11****IRFs with fewer beds had much higher standardized costs per discharge, 2015**

Type of IRF	Median standardized cost per discharge
All IRFs	\$14,960
Hospital based	15,847
Freestanding	11,436
Nonprofit	15,574
For profit	12,960
Government	16,601
Urban	14,608
Rural	17,724
Number of beds	
1 to 10	18,085
11 to 24	16,169
25 to 64	13,619
65 or more	11,621

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for differences in area wages, mix of cases, and prevalence of high-cost outliers, short-stay outliers, and transfer cases. Government-owned facilities operate in a different financial context from other facilities, so their costs are not necessarily comparable.

Source: MedPAC analysis of Medicare cost report and Medicare Provider Analysis and Review data from CMS.

IRFs with the lowest costs tended to be larger. The median number of beds was 50 compared with 17 in the highest cost quartile (Table 10-12). IRFs with the lowest costs also had a higher median occupancy rate than IRFs in the highest cost quartile (74 percent vs. 49 percent, respectively). These results suggest that low-cost IRFs benefit from economies of scale. Low-cost facilities were disproportionately freestanding and for profit. Still, 36 percent of the IRFs in the lowest cost quartile were hospital based, and 29 percent of the IRFs in this group were nonprofit. By contrast, in the highest cost quartile, 94 percent were hospital based and 59 percent were nonprofit.

Margins vary widely

Between 2014 and 2015, the aggregate IRF Medicare margin rose from 12.5 percent to 13.9 percent, despite sequester reductions (Table 10-13, p. 280). From 2009 to 2015, the aggregate margin rose steadily after a period of declining, although healthy, margins.

Financial performance in 2015 varied across IRFs. Medicare margins in freestanding IRFs were especially high. In 2015, the aggregate margin for freestanding IRFs (which accounted for 48 percent of Medicare discharges from IRFs) was 26.7 percent (Table 10-13, p. 280). The top quartile of freestanding IRFs had margins greater than 33.9 percent (data not shown). Hospital-based IRFs (accounting for 52 percent of Medicare IRF stays) had an aggregate margin of 2.0 percent; the top quartile had margins greater than 11.5 percent.

Higher unit costs were the primary driver of differences in financial performance between freestanding and hospital-based IRFs. Freestanding IRFs had a median standardized cost per discharge that was about 28 percent higher than that of hospital-based IRFs (\$11,436 vs. \$15,847, respectively) (Table 10-11). Hospital-based IRFs are far more likely than freestanding IRFs to be nonprofit, which may contribute to the disparity in unit costs. But even nonprofit freestanding IRFs had a median standardized cost per discharge that was 20 percent lower than that of hospital-based IRFs. Previous Commission analysis of underlying cost components found that hospital-based IRFs had higher costs than freestanding IRFs across all cost categories, with the biggest difference in routine costs (Medicare Payment Advisory Commission 2015).

Nevertheless, one-quarter of hospital-based IRFs had Medicare margins greater than 11 percent, indicating that many hospitals can manage their IRF units profitably. Further, despite the comparatively low average margin in hospital-based IRFs, evidence suggests that these units make a positive financial contribution to their parent hospitals. Commission analysis found that in 2013, the aggregate Medicare margin for inpatient hospitals with IRF units was a percentage point higher than that of hospitals without IRF units (Medicare Payment Advisory Commission 2015).

Margins varied by ownership, with for-profit IRFs having a higher aggregate Medicare margin than nonprofit IRFs (25.0 percent vs. 3.6 percent, respectively) (Table 10-13, p. 280). Among freestanding IRFs, nonprofit facilities (which accounted for 7 percent of Medicare discharges from IRFs) had an aggregate margin of 14.0 percent. Freestanding for-profit IRFs (which accounted for 41 percent of Medicare discharges from IRFs) had an aggregate margin of 29.4 percent. Among hospital-based IRFs, the aggregate margin for nonprofit units (which accounted for 35 percent of IRF discharges) was 1.5 percent, while that margin for for-profit units (10 percent

of discharges from IRFs) was 6.1 percent. Between 2014 and 2015, for freestanding IRFs, the total (all-payer) margin—that is, the margin across all lines of business—remained almost static, falling from 10.7 percent to 10.6 percent.¹⁶

Several factors account for the disparity in margins between hospital-based and freestanding IRFs. First, hospital-based IRFs appear to be less stringent in their cost control. Commission analysis of IRF cost growth for consistent two-year cohorts found that the cumulative increase between 1999 and 2015 in costs per case for hospital-based IRFs grew 61 percent compared with 24 percent growth in costs per case for freestanding IRFs. Because they are typically small and have relatively few cases, hospital-based IRFs likely achieve fewer economies of scale than their freestanding counterparts. In 2015, 65 percent of hospital-based IRFs had fewer than 25 beds, compared with 7 percent of freestanding IRFs. Only 4 percent of hospital-based IRFs had 65 or more beds compared with 34 percent of freestanding IRFs. Further, occupancy rates were lower in hospital-based IRFs than in their freestanding counterparts (62 percent vs. 69 percent, respectively). As a result, hospital-based IRFs had, on average, about 400 cases (all payers) in 2015 compared with almost 1,160, on average, for freestanding IRFs.

At the same time, freestanding IRFs are far more likely than hospital-based IRFs to be for profit and therefore likely to be more focused on controlling costs to maximize returns to investors. Analysis of freestanding IRFs' cost data found that the cumulative increase in costs per case for nonprofit IRFs has far outstripped that for for-profit IRFs. From 1999 to 2015, costs per case for freestanding nonprofit IRFs grew 47 percent, compared with 19 percent growth in costs per case for freestanding for-profit IRFs.

In general, hospital-based IRFs have a much larger share of cases with extraordinarily high costs. In 2015, 13 percent of hospital-based IRF cases qualified for high-cost outlier payments, compared with just 2 percent of freestanding IRF cases. Indeed, 85 percent of IRF outlier payments were made to hospital-based facilities. Though these payments diminish per case losses, they do not completely cover per case costs. It is not clear whether the large number of outlier cases in hospital-based IRFs stems from differences in efficiency, unmeasured case complexity, or both. A previous Commission analysis raised concerns that providers can differ in their assessment and coding of patients' motor and cognitive functions, which would result in payments that are not

**TABLE
10-12**

Low standardized costs led to high margins for both hospital-based and freestanding IRFs in 2015

Characteristic	Quartile	
	Lowest cost	Highest cost
Median cost per discharge		
All	\$11,124	\$19,443
Hospital based	11,756	19,434
Freestanding	10,610	19,881
Median Medicare margin		
All	28.5%	-22.0%
Hospital based	22.1	-22.0
Freestanding	32.0	-25.0
Median		
Number of beds	50	17
Occupancy rate	74%	49%
Case-mix index	1.30	1.23
Share of facilities that are:		
Hospital based	36%	94%
Freestanding	64	6
Nonprofit	29	59
For profit	67	23
Government	4	18
Urban	93	71
Rural	7	29

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for differences in area wages, mix of cases, and prevalence of high-cost outliers, short-stay outliers, and transfer cases. Government-owned facilities operate in a different financial context from other facilities, so their costs are not necessarily comparable.

Source: MedPAC analysis of Medicare cost report and Medicare Provider Analysis and Review data from CMS.

properly aligned with the resource needs of patients (Medicare Payment Advisory Commission 2016). Though Medicare's payments in aggregate appear to be more than sufficient, some IRFs may receive payments that are too low relative to the costs incurred in treating their patients, while other IRFs receive payments that are too high.

Finally, there are notable differences in hospital-based and freestanding IRFs' mix of cases. A larger share of hospital-based IRFs' patients than those of freestanding IRFs were admitted with stroke as the primary reason for

**TABLE
10-13**

IRF Medicare margins increased in 2015

Type of IRF	Share of Medicare discharges, 2015	Margins							
		2004	2006	2008	2010	2012	2013	2014	2015
All IRFs	100%	16.7%	12.5%	9.3%	8.6%	11.2%	11.5%	12.5%	13.9%
Hospital based	52	12.2	9.9	3.9	-0.6	0.6	-0.1	1.1	2.0
Freestanding	48	24.7	17.5	18.2	21.4	23.9	24.6	25.3	26.7
Nonprofit	42	12.8	10.9	5.3	2.1	2.4	1.2	2.3	3.6
For profit	50	24.4	16.3	16.9	19.6	22.9	23.6	24.0	25.0
Government	7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Urban	92	17.0	12.8	9.6	9.0	11.6	11.9	12.9	14.2
Rural	8	13.2	10.0	6.9	4.7	6.5	6.0	6.4	8.6
Number of beds									
1 to 10	2	3.7	-3.6	-4.9	-10.3	-6.8	-11.3	-10.4	-7.8
11 to 24	22	10.5	7.3	1.2	-3.3	-1.3	-0.8	-0.2	-0.5
25 to 64	47	18.3	13.7	10.1	10.6	12.2	13.2	14.4	16.1
65 or more	28	21.5	17.8	17.3	17.5	21.0	20.0	20.7	22.7

Note: IRF (inpatient rehabilitation facility), N/A (not applicable). Government-owned facilities operate in a different financial context from other facilities, so their margins are not necessarily comparable. Their margins are not presented separately here, although they are included in the margins for other groups (e.g., "all IRFs"), where applicable. Percentages may not sum to 100 due to rounding.

Source: MedPAC analysis of cost report data from CMS.

rehabilitation (23 percent vs. 17 percent, respectively). Compared with freestanding IRFs, hospital-based IRFs also admitted a somewhat larger share of patients needing rehabilitation after fracture of a lower extremity (13 percent vs. 11 percent, respectively). Freestanding IRFs admitted larger shares than hospital-based IRFs of cases with other neurological conditions (18 percent vs. 9 percent, respectively) and other orthopedic conditions (11 percent vs. 6 percent, respectively). Notably, the impairment groups of other neurological conditions and other orthopedic conditions encompass a broader range of conditions than do many of the other impairment groups. This clinical heterogeneity can allow favorable selection of patients within these groups based on their likely costs of care. Cases with other neurological conditions also count toward the compliance threshold, so IRFs with higher shares of these cases may be able to more easily meet the requirements of the 60 percent rule while keeping down costs. Further, some case types may be more profitable than others, resulting in higher margins for facilities that admit larger shares of these cases.

Given the difference in financial performance across IRFs, it is useful to consider whether IRFs generally have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, a provider compares the additional revenue it will receive (i.e., the Medicare payment) with its marginal costs—that is, the costs that vary with volume. If Medicare’s per case payment is larger than the marginal cost of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. On the other hand, if marginal payments do not cover the marginal costs, the provider has a disincentive to admit Medicare beneficiaries. To operationalize this concept, we compare payments for Medicare services with marginal costs, a comparison that is approximated as:

$$\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and equipment costs})) / \text{Medicare payments}$$

The result is a lower bound on the marginal profit because we ignore any potential labor costs that are fixed. For IRFs with available data, we find that Medicare payments exceed marginal costs by a substantial amount—20.5 percent for hospital-based IRFs and 41.5 percent for freestanding IRFs—suggesting that IRFs with available beds have an incentive to admit Medicare patients. This finding is a very positive indicator of patient access, even in IRFs with lower margins.

How should Medicare payments change in 2018?

To estimate 2017 payments, costs, and margins with 2015 data, the Commission considers policy changes effective in 2016 and 2017, including those in the Patient Protection and Affordable Care Act of 2010 (PPACA). Those changes that affect our estimate of the 2017 margin include:

- a market basket increase of 2.4 percent for fiscal year 2016, offset by PPACA-required reductions totaling 0.7 percentage point, for a net update of 1.7 percent;
- a market basket increase of 2.7 percent for fiscal year 2017, offset by PPACA-required reductions totaling 1.05 percentage points, for a net update of 1.65 percent; and
- changes to the high-cost outlier fixed loss amount in 2016 and 2017, which will increase payments.

Given historical trends, we expect cost growth to be below market basket levels. Though the sequester reduction will decrease payments, we expect growth in payments to continue to exceed cost growth.

Considering these assumptions, we project an aggregate Medicare margin of 14.3 percent for IRFs in 2017.

The Commission recommended that the update to IRF payments be eliminated for fiscal year 2009 and has continued to recommend a 0 percent update for every year since. However, in the absence of legislative action, CMS is required by statute to apply an adjusted market basket increase. Thus, payments have continued to rise. At the same time, growth in costs per case has been low. From 2009 to 2015, the cumulative increase in payments per case was 14.2 percent, while costs per case rose 8.3 percent. The gap between payments and costs per case for freestanding IRFs has grown even wider: From 2009

to 2015, the cumulative increase in payments per case for freestanding IRFs was 14.7 percent, compared with 4.2 percent growth in costs per case. In 2015, margins for freestanding IRFs reached an all-time high of 26.7 percent. Freestanding nonprofit IRFs had a margin of 14.0 percent, while freestanding for-profit facilities had a margin of 29.4 percent.

Although, in recent years, annual cost growth in hospital-based IRFs has been below 2 percent, higher overall costs in these facilities have led to lower margins. Higher costs in hospital-based IRFs appear due in part to a lack of efficiency. Hospital-based IRFs are typically small and do not enjoy the same economies of scale as their larger, freestanding counterparts. In addition, hospital-based IRFs are far less likely than freestanding IRFs to be for profit and therefore may be less focused on controlling costs to maximize returns to investors. At the same time, Commission analyses suggest that payments are not properly aligned with the resource needs of patients, which could contribute to the margin differential between hospital-based and freestanding IRFs. The Commission also has noted that the mix of patients in IRFs differs and has raised concerns that some types of cases are less profitable than others. Despite their lower margins, Medicare payments to hospital-based IRFs in 2015 exceeded marginal costs by 20.5 percent, indicating that hospital-based IRFs with available beds have a strong incentive to admit Medicare patients. Further, acute care hospitals may find that IRF units help reduce acute care lengths of stay. Previous Commission analyses have found that hospitals with IRF units have higher inpatient margins than hospitals without such units.

The high aggregate margin for IRFs in 2015 and a projected margin for 2017 that is even higher indicate that Medicare payments substantially exceed the costs of caring for beneficiaries. Absent congressional action, payments to IRFs will continue to increase in fiscal year 2018. The combination of low cost growth and increasing average payments has resulted in overpayments that contribute to Medicare's sustainability challenges in the long run. As noted above, between 2009—the first year in which the Commission recommended eliminating the IRF payment update—and 2015, the cumulative increase in payments per case for all IRFs was 14.2 percent, while costs per case rose 8.3 percent, a difference of more than 5 percentage points.

Reducing the payment rate for IRFs would better align Medicare payments with the costs of IRF care. Such a

reduction in the payment rate should be coupled with an expansion of the high-cost outlier pool, as previously recommended by the Commission, to redistribute payments within the IRF PPS and reduce the impact of potential misalignments between IRF payments and costs. Currently, the outlier pool is set at 3 percent of total IRF payments. Expanding the outlier pool would increase outlier payments for the most costly cases, ameliorating the financial burden for IRFs that have a relatively high share of these cases. The expanded outlier pool would be funded by an offset to the national base payment amount, which would further reduce all CMG payment rates by the same percentage across the board. As noted in our March 2016 report to the Congress, expanding the outlier pool could increase payments for providers who are less efficient as well as for providers whose patients' acuity is not well captured by the case-mix system. Nevertheless, because of concerns about the accuracy of Medicare's payments for resource-intensive cases, the Commission continues to believe that an expanded outlier pool is warranted in the near term. Over the longer term, however, CMS must ensure the accuracy of Medicare's payments by determining that IRFs' assessment and coding correctly reflect patients' level of disability. Research is also needed to assess variation in costs within the IRF CMGs and differences in relative profitability across CMGs. In the future, CMS could enact payment system reforms that necessitate reassessment of IRF outlier payments and adjustments to the outlier policy, including a return to a smaller outlier pool.

The Commission estimates that reducing the payment rate for IRFs by 5 percent and expanding the outlier pool from 3 percent to 5 percent would decrease total payments to IRFs by 5 percent. We estimate that, in aggregate, payments to freestanding IRFs would decrease by 6.1 percent; to hospital-based IRFs, by 4.0 percent; to for-profit IRFs, by 5.9 percent; and to nonprofit IRFs, by 4.4 percent. We estimate that payments to IRFs with the lowest margins would remain unchanged, while payments to IRFs with the highest margins would fall by 6.5 percent.

RECOMMENDATION 10

The Congress should reduce the Medicare payment rate for inpatient rehabilitation facilities by 5 percent for fiscal year 2018.

RATIONALE 10

The combination of low historical cost growth and increasing average payments has resulted in overpayments

to IRFs. The high aggregate margin in 2015 and our projected margin for 2017, which is even higher, indicate that Medicare payments substantially exceed the costs of caring for beneficiaries. These overpayments contribute to Medicare's sustainability challenges in the long run. The Commission recommended that the update to IRF payments be eliminated for fiscal year 2009 and has continued to recommend a 0 percent update for every year since. However, CMS has been required by statute to apply an adjusted market basket increase each year. Between 2009 and 2015, the cumulative increase in payments per case for all IRFs was 14.2 percent, while costs per case rose 8.3 percent, a difference of more than 5 percentage points. Reducing the payment rate for IRFs by 5 percent would better align Medicare payments with the costs of IRF care.

IMPLICATIONS 10

Spending

- The Medicare Access and CHIP Reauthorization Act of 2015 limits the payment update for IRFs in fiscal year 2018 to 1 percent. Relative to this current law, the Commission's recommendation would decrease Medicare spending by between \$250 million and \$750 million in 2018 and by between \$1 billion and \$5 billion over five years.

Beneficiary and provider

- We do not expect this recommendation to have an adverse effect on Medicare beneficiaries' access to care or out-of-pocket spending. This recommendation could increase the financial pressure on some providers, but the effect would be ameliorated by an accompanying expansion in the high-cost outlier pool. We expect that relatively efficient providers will continue to be willing and able to care for Medicare beneficiaries. ■

Endnotes

- 1 More frequently, Medicare beneficiaries receive inpatient rehabilitation services in skilled nursing facilities (SNFs), in part because nationwide there are many more SNFs than IRFs.
- 2 More information about the prospective payment system for IRFs is available at http://medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_16_irf_final.pdf?sfvrsn=0.
- 3 Patients with a length of stay of fewer than four days are assigned to a single CMG, regardless of diagnosis, age, level of motor or cognitive function, or presence of comorbidities.
- 4 The 13 conditions are stroke; spinal cord injury; congenital deformity; amputation of a lower limb; major multiple trauma; hip fracture; brain injury; certain other neurological conditions (multiple sclerosis, Parkinson's disease, cerebral palsy, and neuromuscular disorders); burns; three arthritis conditions for which appropriate, aggressive, and sustained outpatient therapy has failed; and hip or knee replacement when it is bilateral, the patient's body mass index is greater than or equal to 50, or the patient is age 85 or older.
- 5 Analysis of proprietary data from eRehabData[®] for a sample of IRFs suggests that, before implementation of the IRF PPS, many facilities fell short of the 75 percent threshold. Using medical record review, eRehabData estimated that in 2002, the share of Medicare IRF cases with one of the specified conditions that count toward the compliance percentage was 42 percent (Russell 2015).
- 6 CMS's major revisions to the compliance threshold policy in 2004 were to (1) increase the number of conditions that count toward the threshold from 10 to 13 (by redefining the arthritis conditions that counted) and (2) revise the qualifying conditions of major joint replacement—a condition that was commonly treated in IRFs—such that only a specific subset of patients with that condition would count toward the compliance threshold.
- 7 An impairment group code is not an International Classification of Diseases (ICD) code but, rather, one of a separate unique set of codes specifically developed for the IRF PPS for assigning the primary reason for admission to an IRF.
- 8 Cases with noncompliant conditions may count toward the compliance threshold if they have specified comorbidities.
- 9 This analysis of IRF claims and assessment data from 2013 excluded cases that did not have an acute care hospital discharge within 30 days before the IRF admission. Excluding IRF cases that were not recently discharged from an acute care hospital was important because post-acute cases in IRFs may differ from cases that are admitted from the community, and freestanding IRFs typically have a higher share of cases admitted from the community than hospital-based IRFs do.
- 10 For this analysis, the Commission matched fee-for-service IRF claims and assessment data from 2013 with claims for IRF patients' preceding acute care hospital services. About 87 percent of IRF claims in 2013 could be linked to an acute care hospital discharge within 30 days before the IRF admission date. The vast majority of these post-acute IRF cases (96 percent) had an acute care hospital discharge within three days of the IRF admission. IRF cases that did not have an acute care hospital discharge within 30 days before the IRF admission were excluded from the analysis.
- 11 IRFs assign each patient to an impairment group that indicates the primary reason for inpatient rehabilitation. These impairment groups can be collapsed into 21 rehabilitation impairment categories (e.g., stroke, traumatic brain injury, and other neurological conditions). We looked at IRF patient characteristics both by impairment group and by the collapsed rehabilitation impairment categories.
- 12 For each impairment group, we examined patients' average case-mix index in the acute care hospital (a measure of resource intensity in the hospital) as well as the average severity of illness using the all-patient refined–diagnosis-related groups. We also looked at the average length of stay in the hospital, the average length of stay in an intensive care or coronary care unit, and whether patients had been high-cost outliers in the hospital.
- 13 These potentially avoidable readmissions are identified by the primary diagnosis for the hospital readmission at the time of hospital discharge. The potentially avoidable readmissions we measure are respiratory-related illness (pneumonia, influenza, bronchitis, chronic obstructive pulmonary disease, and asthma); sepsis; congestive heart failure; fractures or fall with a major injury; urinary tract or kidney infection; blood pressure management; electrolyte imbalance; anticoagulant therapy complications; diabetes-related complications; cellulitis or wound infection; pressure ulcer; medication error or adverse drug reaction; and delirium.
- 14 Our measure of community discharge does not give IRFs credit for discharging a Medicare beneficiary to the community if the beneficiary is subsequently readmitted to an acute care hospital within 30 days of the IRF discharge.

15 Medicare spending for IRF services was also affected when CMS reduced the IRF standard payment conversion factor by 1.9 percent in 2006 and 2.6 percent in 2007 to adjust for changes in IRF coding practices that CMS determined did not reflect real changes in IRF patients' acuity.

16 Because of the structure of the Medicare cost report, all-payer margins for hospital-based IRFs reflect a margin for the entire hospital rather than for the IRF unit alone. Therefore, we examine an all-payer margin only for freestanding IRFs.

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