CHAPTER 10

# Inpatient rehabilitation facility services

## RECOMMENDATION

**10** The Congress should eliminate the update to the Medicare payment rates for inpatient rehabilitation facilities in fiscal year 2015.

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

CHAPTER 10

# Inpatient rehabilitation facility services

## Chapter summary

Inpatient rehabilitation facilities (IRFs) are hospitals that provide intensive rehabilitation services to patients after an injury, illness, or surgery. Rehabilitation programs at IRFs are supervised by rehabilitation physicians and include services such as physical and occupational therapy, rehabilitation nursing, prosthetic and orthotic devices, and speech–language pathology. In 2012, 1,166 IRFs treated over 373,000 cases among Medicare fee-for-service (FFS) beneficiaries. Between 2011 and 2012, Medicare FFS payments for IRFs increased from $6.46 billion to $6.72 billion. In 2012, the number of patients who received care at IRFs increased, as did the average payment per case.

### Assessment of payment adequacy

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

***Beneficiaries' access to care***—Our measures of access to care suggest that beneficiaries generally maintained access to IRF services in 2012. The number of cases increased slightly. Although the number of unique patients per 10,000 FFS beneficiaries decreased slightly from 2011 to 2012, the number has remained relatively stable over recent years, suggesting relative stability in IRF use.

## In this chapter


- Are Medicare payments adequate in 2014?
- How should Medicare payments change in 2015?

- ***Capacity and supply of providers***—The supply of IRFs nationwide was almost unchanged in 2012, a shift from declines in previous years. The total number of freestanding facilities continued to increase slightly, while the number of hospital-based facilities decreased by 0.4 percent. Occupancy rates decreased slightly for both facility types (a 0.8 percent drop overall to 62.8 percent). IRFs are not the sole providers of rehabilitation services in communities, with skilled nursing facilities and home health agencies among potential alternatives for beneficiaries with rehabilitation needs. The overall growth in the number of IRFs, low occupancy rates, and availability of rehabilitation alternatives suggest that capacity remains adequate to meet demand.
- ***Volume of services***—The number of Medicare FFS cases treated in IRFs—as a measure of resources or services used—grew by about 0.5 percent in 2012, from 371,000 in 2011 to 373,000 in 2012.

***Quality of care—***Quality of care measures show improvement in recent years. From 2010 to 2012, Functional Independence Measure™ gain increased by an average of 3 percent each year. Rates of discharge to the community grew by an average of 0.5 percent each year, while rates of discharge to an acute care hospital declined by an average of 2.7 percent each year. These outcomes do not control for changes in case mix over time. Despite a small increase in case-mix severity, quality outcomes improved.

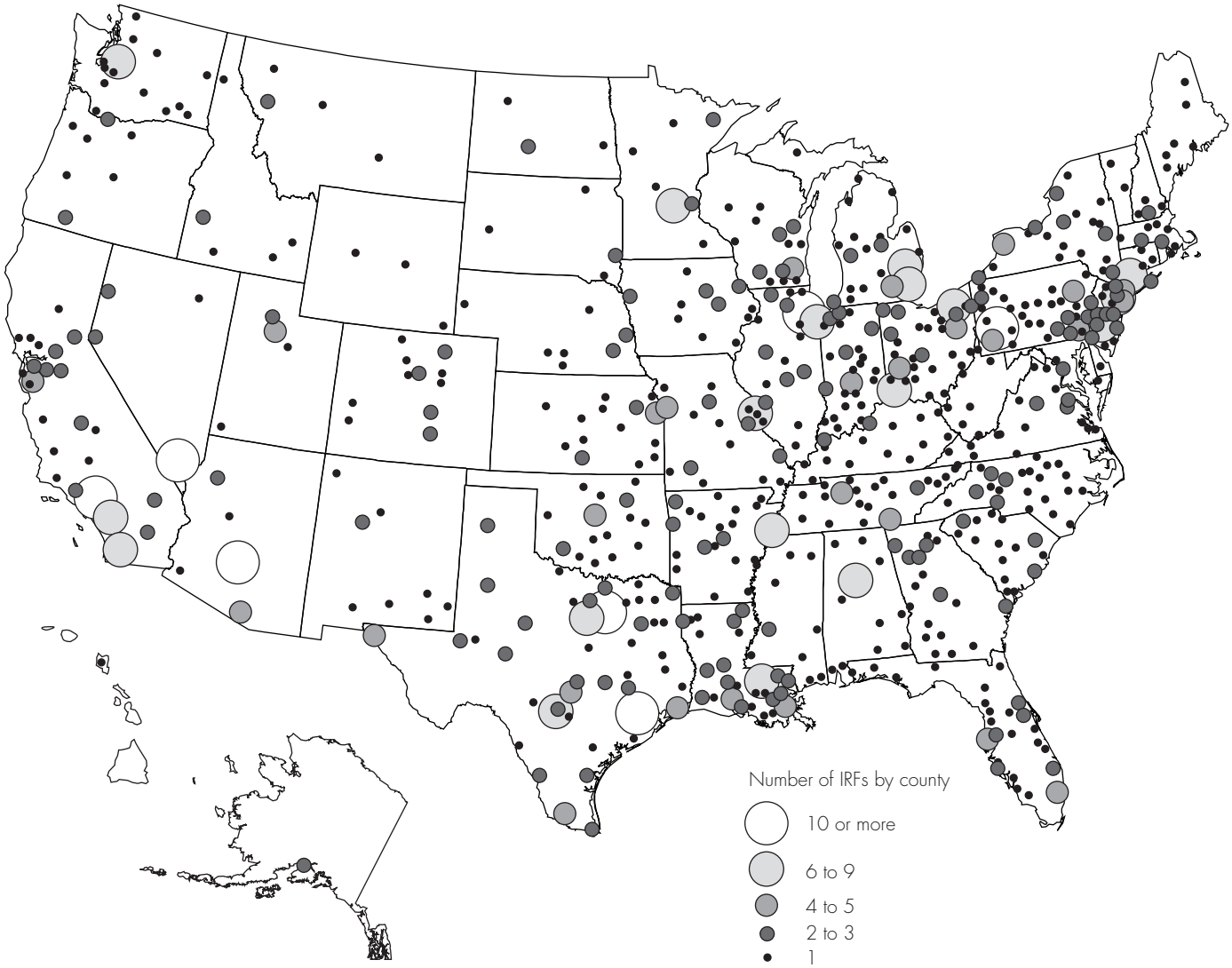
***Providers' access to capital—***One major freestanding IRF chain that accounts for about 50 percent of freestanding IRF Medicare revenues and 22 percent of revenues for the entire IRF industry has very good access to capital. We were not able to determine the ability of other freestanding facilities to raise capital. The parent institutions of hospital-based IRF units have maintained reasonable access to capital.

***Medicare payments and providers' costs—***Average Medicare payments per case to IRFs increased more than average costs per case did from 2011 to 2012; average payments grew 3 percent over 2011, compared with 1.5 percent cost growth. The aggregate Medicare margin for IRFs in 2012 was 11.1 percent. We project a 2014 Medicare IRF margin of 11.8 percent. If the sequester is in effect for 2014, the projected margin would be about 2 percentage points lower.

On the basis of these indicators, the Commission believes IRFs can continue to provide Medicare beneficiaries with access to safe and effective rehabilitation care with no update to the payment rates in fiscal year 2015. ■

**FIGURE 10–1**

**Geographic distribution of IRFs, 2012**




Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of 2012 Provider of Service files from CMS.

## Background

After an illness, injury, or surgery, some patients enter intensive rehabilitation programs at an inpatient rehabilitation facility (IRF) and receive services such as physical and occupational therapy and rehabilitation nursing in a physician-led, coordinated, multidisciplinary manner. For these admissions to qualify for Medicare coverage, the care for IRF patients must require supervision by a rehabilitation physician, use an interdisciplinary approach to care, and address a documented clinical need for therapy in at least two disciplines. IRFs provide hospital-level care and may be specialized units within an acute care hospital or specialized freestanding hospitals, which tend to be larger. Approximately 80 percent of facilities are hospital-based units; the remaining 20 percent are freestanding. However, hospital-based units accounted for only 55 percent of Medicare discharges to IRFs in 2012.

In 2012, there were 1,166 IRFs nationwide, with over 35,000 beds; at least one IRF was in every state and the District of Columbia (Figure 10-1). In general, IRFs are

**TABLE 10–1** **Medicare FFS volume and utilization of and spending for IRFs, 2002–2012**

| | | | | | | | Average annual change | | | Annual change |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2002 | 2004 | 2008 | 2010 | 2011 | 2012 | 2002–2004 | 2004–2008 | 2008–2011 | 2011–2012 |
| Total Medicare spending (in billions) | $4.97 | $6.58 | $5.93 | $6.14 | $6.46 | $6.72 | 15.1% | –2.6% | 2.9% | 4.0% |
| Number of cases | 446,000 | 495,000 | 356,000 | 359,000 | 371,000 | 373,000 | 5.3 | –7.9 | 1.4 | 0.5 |
| Unique patients per 10,000 FFS beneficiaries | 117.2 | 124.4 | 92.2 | 91.2 | 93.1 | 92.4 | 3.1 | –7.2 | 0.3 | –0.8 |
| Payment per case | $11,127 | $13,290 | $16,646 | $17,085 | $17,398 | $17,995 | 9.3 | 5.8 | 1.5 | 3.4 |
| ALOS (in days) | 13.2 | 12.7 | 13.3 | 13.1 | 13.0 | 12.9 | –2.3 | 1.3 | –0.8 | –0.5 |

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility), ALOS (average length of stay). With respect to unique FFS patients in a particular year, each IRF FFS patient is counted only once during that year, regardless of whether they had multiple IRF admissions. From 2011 to 2012, Medicare Provider Analysis and Review data show a 3.4 percent increase in payment per case (shown in table). Medicare hospital cost report data from CMS show a 3 percent increase in average payment per case between these years; source differences include accounting for settlements in the cost report data, slight time-period differences, and completeness of data.

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

concentrated in highly populated states that have large Medicare populations. Overall, in 2012, 69 percent of beneficiaries lived in a county that had at least one IRF, with 43 percent living in a county with two or more IRFs. IRFs are not the sole provider of rehabilitation services in communities; while not required to provide intensive rehabilitation or hospital-level care, skilled nursing facilities (SNFs), home health agencies, comprehensive outpatient rehabilitation facilities, and independent therapy providers also furnish rehabilitation services. Given the number and distribution of these other rehabilitation therapy providers relative to IRFs, it is unlikely that many areas exist where IRFs are the only provider of rehabilitation therapy services available to Medicare beneficiaries.

IRFs treated over 373,000 Medicare fee-for-service (FFS) cases in 2012 (Table 10-1). Relatively few Medicare beneficiaries use IRF services because to qualify for Medicare coverage, IRF patients must be able to tolerate and benefit from intensive rehabilitation therapy, which typically consists of at least three hours of therapy a day for at least five days a week. Nevertheless, at over $6.7 billion dollars in payments, Medicare is the principal payer for IRF services, accounting for approximately 60 percent of total IRF discharges in 2012. Almost all IRF patients (95 percent) were admitted to an IRF directly from an acute care hospital. A small percentage of patients, 2.5 percent, were admitted from home, and the rest were admitted from other health care facilities, such as SNFs. While patients transferred to an IRF from an acute care hospital pay no additional deductible, patients admitted to an IRF directly from the community must pay the Part A inpatient hospital deductible, which is $1,216 in 2014. With respect to patient demographics, most Medicare FFS IRF patients in 2012 were White (81 percent) and female (58 percent), 10 percent were African American, and 4 percent were Hispanic.[1] Patients' median age was 77 years.

## Medicare facility requirements and coverage criteria

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 furnish—through qualified personnel—rehabilitation nursing, physical therapy and occupational therapy, and, as needed, speech–language pathology, social services, psychological (including neuropsychological) services, and orthotic and prosthetic devices;
- have a medical director of rehabilitation with training or experience in rehabilitating patients who provides services in the facility on a full-time basis for freestanding facilities or at least 20 hours per week for hospital-based rehabilitation units;
- 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 treating the patient; and
- meet the compliance threshold, which specifies that no fewer than 60 percent of all patients admitted to the IRF must have at least 1 of 13 conditions, specified by CMS, as a primary diagnosis or comorbidity.[2, 3]

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. Among others, patient admission criteria include:

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

### Compliance threshold

The compliance threshold mandates that a certain proportion of all patients in each IRF have diagnoses specified by CMS as typically requiring intensive inpatient rehabilitation. The intent of the compliance threshold is to distinguish IRFs from acute care hospitals. If an IRF does not meet the compliance threshold, Medicare pays for all its cases on the basis of the inpatient hospital prospective payment system rather than IRF discharge rates. The compliance threshold was originally set at 75 percent of an IRF's cases. CMS suspended enforcement of the rule in 2002 because of inconsistent enforcement patterns among Medicare's fiscal intermediaries, but it began consistently enforcing compliance in 2004 and enacted restrictions to some of the qualifying conditions.[4] The combination of renewed enforcement of the threshold and additional restrictions resulted in a substantial decline in the volume of Medicare patients treated in IRFs. As volume declined, occupancy rates, the number of rehabilitation beds, and the number of facilities also fell. Case-mix severity increased as the IRF patient population shifted to patients with more severe disorders who counted toward the threshold. Growth in cost per case increased as well, owing to greater patient severity and fixed costs being spread across fewer patients.

The compliance threshold, originally set at 75 percent, was permanently capped at 60 percent in 2007 by the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA). At that point, the industry was largely operating at 60 percent compliance. Since then, the industry has begun to stabilize. Although IRFs' efforts to meet the compliance threshold since 2004 had a significant impact on IRF volume, the decline was consistent with the underlying reason for the compliance threshold—to direct only the most clinically appropriate cases to this intensive, costly setting.

Determining compliance can be complex. A case is first evaluated for compliance based on the impairment group code (IGC), a category that describes the primary reason for admission, which is also used in the process to assign a case to a case-mix group for payment. If compliance cannot be determined based on the IGC, the case is evaluated for compliance based on the patient's International Classification of Diseases, Ninth Revision (ICD–9) diagnosis codes. Compliance is evaluated either through (1) medical review or (2) the "presumptive" method, in which a computer program compares a facility's Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI) assessments from the year with a list of eligible codes.

A more detailed summary of the history of the compliance threshold and the 2010 coverage criteria changes can be found in our March 2012 report to the Congress (Medicare Payment Advisory Commission 2012).

In fiscal year 2015, CMS is removing a large number of ICD–9 codes from the list used to qualify for presumptive compliance with the 60-percent rule because the codes alone do not provide sufficient information that the patient would reasonably require intensive rehabilitation. 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 could be determined only through medical review. The Commission supports CMS's goal to improve accuracy in determining the need for the intensive rehabilitation services that IRFs provide. The criteria for hip and knee replacement and for arthritis conditions detail specific clinical factors that indicate whether a patient's condition is severe enough to warrant treatment in an IRF. To ensure that only the most clinically appropriate patients qualify for the 60-percent rule, developing more detailed criteria for all 13 conditions or alternative means of oversight should be evaluated further.

### IRF prospective payment system

Before January 2002, IRFs were paid on the basis of their average costs per discharge, up to an annually adjusted facility-specific limit. Pursuant to the Balanced Budget Act of 1997, IRFs began to be paid in 2002 under a prospective payment system (PPS) based on per discharge rates that vary according to rehabilitation needs, area wages, and certain facility characteristics. As of fiscal year 2004, all IRFs were paid under the IRF PPS. Under the PPS, Medicare patients are assigned to one of 92 case-mix groups (CMGs) that are organized by clinical condition and expected resource needs. In 87 of these groups, patients are assigned based on the primary reason for intensive rehabilitation care (for example, a stroke or burns), their age, and levels of functional and cognitive impairments. In each CMG, patients are further categorized into one of four tiers based on the patients' comorbidities, certain of which can increase the cost of care relative to the costs of caring for an average beneficiary in that CMG. Each CMG has its own payment rate, and each tier also has a rate that reflects the costliness of patients in that tier relative to others in the CMG. The other five CMGs are for patients discharged before the fourth day and for those who die in the facility. IRFs may receive lower payments for patients who are transferred to another facility when the length of stay is less than that typically provided to patients with the same condition. For high-cost outliers, IRFs receive the regular payment rate plus 80 percent of their costs above a fixed-loss threshold. For more information on Medicare's IRF payment system, see the Commission's IRF *Payment Basics* document at http://www.medpac.gov/documents/MedPAC_Payment_Basics_13_IRF.pdf.

### Medicare FFS spending trends for IRFs

In 2012, Medicare FFS spending on IRFs increased by 4 percent to $6.72 billion. While contractions in the market responding to regulations lowered Medicare spending levels in earlier years, 2012 marks the first year that spending exceeded the 2004 level. Aggregate expenditures for IRF services in the Medicare FFS program increased after implementation of the PPS in 2002, growing at an average rate of about 15 percent per year to around $6.6 billion in 2004 (Table 10-1, p. 244). Between 2005 and 2008, however, aggregate FFS expenditures for IRFs fell, as more beneficiaries enrolled in Medicare Advantage plans and facilities adjusted to meet the compliance threshold that CMS reinstated in 2004.[5] Aggregate FFS expenditures for IRF services have increased each year since 2009.

## Are Medicare payments adequate in 2014?

To assess whether payments for fiscal year 2014 are adequate to cover the costs that efficient providers incur and how much payments should change in fiscal year 2015, we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care by examining the supply and capacity of IRF providers and changes over time in the volume of services provided, quality of care, providers' access to capital, and the aggregate relationship between Medicare's payments and IRF providers' costs. Our analysis this year indicates that the Medicare payment adequacy indicators for IRFs are generally positive.

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

We have no direct indicator of beneficiaries' access to care because no surveys exist that are specific to this small portion of the Medicare population. We also cannot determine the necessity of an IRF versus another post-

**TABLE 10–2**

**In 2012 total supply of IRFs increased slightly, but hospital-based and nonprofit IRFs continued to decline**

| Type of IRF | 2004 | 2005 | 2006 | 2008 | 2010 | 2011 | 2012 | Average annual change 2004–2008 | Average annual change 2008–2011 | Annual change 2011–2012 |
|---|---|---|---|---|---|---|---|---|---|---|
| All IRFs | 1,221 | 1,235 | 1,225 | 1,202 | 1,179 | 1,165 | 1,166 | –0.4% | –1.0% | 0.1% |
| Urban | 1,024 | 1,027 | 1,018 | 1,001 | 981 | 972 | 973 | –0.6 | –1.0 | 0.1 |
| Rural | 197 | 208 | 207 | 201 | 198 | 193 | 193 | 0.5 | –1.3 | 0.0 |
| Freestanding | 217 | 217 | 217 | 221 | 233 | 234 | 239 | 0.5 | 1.9 | 2.1 |
| Hospital based | 1,004 | 1,018 | 1,008 | 981 | 946 | 931 | 927 | –0.6 | –1.7 | –0.4 |
| Nonprofit | 768 | 768 | 758 | 738 | 729 | 711 | 698 | –1.0 | –1.2 | –1.8 |
| For profit | 292 | 305 | 299 | 291 | 294 | 294 | 307 | –0.1 | 0.3 | 4.4 |
| Government | 161 | 162 | 168 | 173 | 156 | 158 | 157 | 1.8 | –3.0 | –0.6 |

Note: IRF (inpatient rehabilitation facility). For all years, the rural/urban breakdown is by core-based statistical area definition. For 2012, the ownership of four facilities is unknown.

Source: MedPAC analysis of 2012 fourth quarter Provider of Service files from CMS.

acute care setting to provide rehabilitation services. However, our analysis of IRF supply and volume suggests that capacity remains adequate to meet demand.

### Capacity and supply of providers: Number of IRFs and occupancy rates suggest adequate capacity

The number of IRFs increased by one between 2011 and 2012, the first year that the number of facilities has not declined since 2005 (Table 10-2).[6] The number of freestanding facilities has continued to slowly increase. Hospital-based IRFs continued to leave the market, although the decline in 2012 was smaller than in recent years. The majority of freestanding IRFs are for profit, while the majority of hospital-based IRFs are nonprofit. The increase in the growth of for-profit facilities jumped in 2012 (a 4.4 percent increase from 2011), reflecting a net gain of 6 hospital-based for-profit IRFs and 7 freestanding for-profit IRFs.

Occupancy rates provide another view of IRFs' capacity to serve patients, and they indicate that capacity is adequate to handle current demand and can likely accommodate future increases (Table 10-3, p. 248). Between 2011 and 2012, occupancy rates decreased slightly from 63.3 percent to 62.8 percent. In 2012, occupancy rates were higher for freestanding IRFs (67.3 percent) than for hospital-based IRFs (59.7 percent) and higher for IRFs in urban areas than in rural areas (63.9 percent and 50.2 percent, respectively). Since 2008, occupancy rates have fluctuated slightly but changed overall by less than one percentage point from 2008 to 2012.

### Volume of services: In 2012, number of FFS patients in IRFs increased; prevalence of IRF use remained fairly stable 2008–2012

We measure patient volume as the total number of FFS IRF cases and the number of unique FFS IRF patients per 10,000 FFS beneficiaries. The latter measure removes the effect of population growth and changes in Medicare Advantage enrollment, and counts each user only once per year, regardless of whether the patient had multiple IRF admissions. After earlier years of growth, volume declined substantially from 2004 to 2008 as providers adjusted to renewed enforcement of the compliance threshold (Table 10-1, p. 244). Since 2008, the total number of FFS IRF cases grew every year except 2010, reaching 373,000 in 2012.[7] From 2011 to 2012, volume grew 0.5 percent, less than the average annual growth from 2008 to 2011 of 1.4 percent. While the total number of FFS cases increased between 2011 and 2012, the number of unique FFS IRF patients per 10,000 FFS beneficiaries declined from 93.1 to 92.4. This measure has fluctuated since 2008, but the proportion in 2012 is similar to that in 2008. The trend in

**TABLE 10–3**

**In 2012 IRF occupancy rates declined slightly across most groups**

| | | | | | | | Average annual change | | Annual change |
|---|---|---|---|---|---|---|---|---|---|
| **Occupancy rates** | **2004** | **2008** | **2009** | **2010** | **2011** | **2012** | **2004–2008** | **2008–2011** | **2011–2012** |
| All IRFs | 67.8% | 62.1% | 62.8% | 62.4% | 63.3% | 62.8% | –2.2% | 0.6% | –0.8% |
| Urban | 69.0 | 63.4 | 64.0 | 63.6 | 64.3 | 63.9 | –2.1 | 0.5 | –0.6 |
| Rural | 56.1 | 49.4 | 50.8 | 49.7 | 50.2 | 50.2 | –3.1 | 0.5 | 0.0 |
| Hospital based | 65.7 | 59.8 | 60.1 | 59.4 | 60.1 | 59.7 | –2.3 | 0.2 | –0.7 |
| Freestanding | 71.9 | 66.2 | 67.3 | 67.1 | 67.8 | 67.3 | –2.0 | 0.8 | –0.7 |
| Nonprofit | 68.2 | 63.2 | 63.6 | 62.6 | 63.3 | 63.1 | –1.9 | 0.1 | –0.3 |
| For profit | 68.2 | 61.1 | 62.2 | 62.8 | 63.6 | 63.1 | –2.7 | 1.3 | –0.8 |
| Government | 65.0 | 60.9 | 60.9 | 60.0 | 60.4 | 60.1 | –1.6 | –0.3 | –0.5 |
| Number of beds | | | | | | | | | |
| 1 to 10 | 55.2 | 51.6 | 49.3 | 50.1 | 51.8 | 52.4 | –1.7 | 0.1 | 1.2 |
| 11 to 21 | 63.2 | 57.2 | 57.2 | 56.2 | 56.8 | 56.8 | –2.5 | –0.2 | 0.0 |
| 22 to 59 | 68.1 | 61.4 | 62.6 | 62.7 | 63.2 | 62.9 | –2.6 | 1.0 | –0.5 |
| 60 or more | 71.1 | 66.8 | 67.3 | 66.5 | 67.2 | 66.5 | –1.5 | 0.2 | –1.0 |

Note: IRF (inpatient rehabilitation facility). Occupancy rate calculated based on total patient days divided by bed days available during the hospitals' cost-reporting period.

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

patients per 10,000 FFS beneficiaries may suggest relative stability in IRF use compared with other rehabilitation alternatives.

### Changes in admission patterns and case mix

We analyzed changes from 2004 through 2012 in posthospital discharge destinations for patients likely to need rehabilitation. We found that among cases of stroke, a condition with relatively high average case-mix severity that counts toward the compliance threshold, the share of hospital patients discharged to IRFs versus other settings remained largely unchanged (Table 10-4). In contrast, for hip and knee replacement cases, conditions for which CMS has limited the types of cases that count toward the compliance threshold, the relative share of hospital patients discharged to IRFs declined by more than half. Over the same period, the share of patients with hip and knee replacements discharged to SNFs and home health agencies grew by the same proportion that the IRF discharges declined, suggesting that these beneficiaries were able to obtain rehabilitation care in other settings.

The mix of patients treated by IRFs has also changed since 2004, as IRFs admitted a higher percentage of patients with diagnoses that met the revised compliance threshold. The percentage of IRF cases with 1 of the 13 specified conditions has increased, according to our analysis of proprietary data for a sample of IRFs (Table 10-5).[8] In the first three years of renewed enforcement of the revised compliance threshold (2004–2006), the percentage of all Medicare cases meeting the threshold increased rapidly from 45.0 percent to 60.5 percent. However, when MMSEA capped the compliance threshold permanently at 60 percent in 2007, the increase in the compliance rate leveled off, and the rate has remained at about 60 percent through 2013.

As IRFs have adjusted their patient admission patterns to meet the revised compliance threshold, the average case-mix severity of the total Medicare FFS IRF population has increased. The largest increases in case mix occurred during the first years of renewed enforcement, from 2004 to 2007, with case mix increasing a total of 13 percent. From 2008 to 2011, after the compliance threshold was

**TABLE 10–4**

**Share of hospital discharges to IRFs declined since 2004 for hip and knee replacements but remained stable for stroke**

| Condition | Discharge destination | Percent of hospital discharges | | | | | Percentage point change in share of hospital discharges |
|---|---|---|---|---|---|---|---|
| | | 2004 | 2008 | 2010 | 2011 | 2012 | 2004–2012 |
| Major joint replacement/ hip and knee replacement | IRF | 28% | 14% | 12% | 12% | 11% | –17 |
| | SNF/swing bed | 33 | 36 | 38 | 38 | 38 | 5 |
| | Home health | 21 | 30 | 32 | 31 | 31 | 10 |
| | All other settings | 18 | 19 | 19 | 19 | 20 | 2 |
| Stroke | IRF | 18 | 19 | 19 | 19 | 19 | 1 |
| | SNF/swing bed | 27 | 25 | 26 | 25 | 25 | –2 |
| | Home health | 11 | 12 | 12 | 12 | 12 | 1 |
| | All other settings | 45 | 44 | 44 | 44 | 44 | –1 |

Note: IRF (inpatient rehabilitation facility), SNF (skilled nursing facility). "All other settings" includes outpatient care, other inpatient facilities, and home. Discharge destination totals may not equal 100 percent due to rounding.

Source: MedPAC analysis of hospital inpatient Medicare claims data from CMS.

capped at 60 percent in 2007, the increase in patient severity slowed and case mix increased by an average of 0.9 percent a year. From 2011 to 2012, case mix increased by another 0.9 percent, resulting in a case mix of 1.30 in 2012, and increased by 1 percent between 2012 and the first six months of 2013 for a case mix of 1.32.[9] The average length of stay for Medicare FFS IRF patients in 2012 was 12.9 days, continuing a slight decline in length of stay since 2008 (Table 10-1, p. 244).

The change in case mix over time is reflected in the shifting pattern of diagnoses admitted to IRFs among IRF FFS cases since 2004 (Table 10-6, p. 250). Between 2004 and the first half of 2013, the share of major joint replacements of the lower extremity fell by 15.2 percentage points, consistent with the more limited definition of eligible joint replacement cases that count toward the revised compliance threshold implemented in 2004. During the same period, the percentage of IRF patients with conditions included in the compliance threshold—such as stroke, brain injury, and neurological disorders—increased. Also, the shares of debility cases and other orthopedic conditions increased by 4.2 percentage points and 2.5 percentage points, respectively. The growth in debility cases and other orthopedic conditions is noteworthy because neither is among the 13 conditions included in the compliance threshold.

Between 2012 and the first half of 2013, the distribution of case type among FFS patients remained relatively stable. The share of neurological disorders increased by 1 percentage point, and the share of major joint replacement continued to decline, falling by 1.3 percentage points.

**TABLE 10–5**

**Compliance rate of Medicare IRF cases continues to meet 60-percent threshold**

| | 2004 | 2006 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| Estimated compliance rate of Medicare IRF cases | 45.0% | 60.5% | 61.4% | 61.0% | 60.2% | 60.8% |

Note: IRF (inpatient rehabilitation facility). The data for 2013 are limited to discharges that occurred between January 2013 and June 2013. The compliance rate is the aggregate share of IRF cases that falls into 1 of 13 CMS specified conditions. As of July 2007, 60 percent of a facility's cases must fall into one of these diagnoses for Medicare to pay the facility as an IRF.

Source: MedPAC analysis of 2004 to 2013 data from eRehabData®.

**TABLE 10–6**

**IRF patient mix has changed, 2004–2013**

| | Percent of IRF Medicare FFS cases | | | | | | Percentage point change | | |
|---|---|---|---|---|---|---|---|---|---|
| Type of case | 2004 | 2008 | 2010 | 2011 | 2012 | 2013* | 2004–2008 | 2008–2012 | 2012–2013 |
| Stroke | 16.6% | 20.4% | 20.1% | 19.6% | 19.4% | 19.4% | 3.9 | –1.0 | 0.0 |
| Neurological disorders | 5.2 | 8.0 | 9.8 | 10.3 | 11.6 | 12.5 | 2.8 | 3.5 | 1.0 |
| Spinal cord injury | 4.2 | 4.3 | 4.3 | 4.5 | 4.6 | 4.5 | 0.1 | 0.3 | –0.1 |
| Brain injury | 3.9 | 7.0 | 7.3 | 7.6 | 7.9 | 8.1 | 3.0 | 1.0 | 0.1 |
| Fracture of the lower extremity | 13.1 | 16.0 | 14.3 | 13.8 | 13.0 | 12.6 | 3.0 | –3.1 | –0.4 |
| Major joint replacement of the lower extremity | 24.0 | 13.1 | 11.5 | 10.7 | 10.1 | 8.8 | –10.9 | –3.0 | –1.3 |
| Other orthopedic conditions | 5.1 | 6.1 | 6.7 | 7.1 | 7.5 | 7.6 | 0.9 | 1.5 | 0.1 |
| Debility | 6.1 | 9.1 | 10.0 | 10.3 | 10.0 | 10.3 | 3.0 | 0.9 | 0.4 |
| Cardiac conditions | 5.3 | 4.7 | 4.9 | 5.1 | 5.3 | 5.4 | –0.6 | 0.7 | 0.1 |
| All other | 16.4 | 11.3 | 11.1 | 10.9 | 10.6 | 10.7 | –5.1 | –0.6 | 0.1 |

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service). "Other" includes conditions such as amputations, major multiple trauma, and pain syndrome. Numbers may not sum to 100 percent due to rounding.
*Data are for the first six months of 2013.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instruments from CMS for 2004–2012, and January 1 through June 30, 2013.

Shares of other case types changed by less than 1 percentage point. Between Medicare Advantage (MA) and FFS patients, we find that MA patients are more concentrated in conditions with higher severity, suggesting that MA plans may be more selective in the patients they authorize to receive care in IRFs (see text box, pp. 252–253).

Freestanding IRFs have historically had substantially greater financial performance compared with hospital-based IRFs. In considering adequacy in Medicare payment rates, we compare patient populations in hospital-based and freestanding IRFs to determine whether differences in financial performance are driven largely by efficiencies or whether differences exist in the patient populations that could substantially influence costs.

Hospital-based and freestanding IRFs appear to have relatively similar patient populations in case types overall and in patient comorbidities. In 2012, the top 10 case types were the same for both types of IRFs, accounting for 91 percent of cases in hospital-based IRFs and 93 percent of cases in freestanding IRFs (Table 10-7). Half of these conditions do not count toward the compliance threshold (miscellaneous, major joint replacement of the lower extremity, other orthopedic conditions, cardiac conditions, and short-stay patients). Although the top 10 case types were the same, the shares of some case types differed. Stroke patients constituted a lower share of freestanding IRF cases than of hospital-based IRF cases (15 percent vs. 21 percent), while patients with neurological disorders constituted a higher share of freestanding IRF cases (15 percent vs. 7 percent). Other orthopedic conditions, which do not count toward the compliance threshold, also accounted for a higher share of total cases in freestanding IRFs than in hospital-based IRFs (10 percent vs. 5 percent). The impairment groups of neurological disorders and other orthopedic conditions can encompass a broader range of conditions than many of the other group types, which may also allow IRFs to select patients within these groups based on their likely cost. Neurological disorders represent 1 of the 13 conditions that qualify for the 60-percent rule, so IRFs with higher shares of neurological disorder patients may be able to meet the requirements of the rule with a wider variety of case types and potentially lower cost patients. Additional research is needed regarding differences among case types that qualify for the 60-percent rule. Nevertheless, the differences in shares of case types alone are unlikely to account substantially for the historic differences in financial performance between these facility types.

Tier level within each CMG, reflecting patient comorbidities, is another measure of patient severity in comparing hospital-based and freestanding patient populations. Tier 1 reflects the most costly patients (i.e., it has the highest relative weight) and Tier 4 reflects the

**TABLE 10–7**

**Top 10 types of cases in hospital-based and freestanding IRFs, 2012**

| | Type of IRF | |
|---|---|---|
| Type of case | Hospital based | Freestanding |
| Stroke | 21% | 15% |
| Neurological disorders | 7 | 15 |
| Fracture of the lower extremity | 13 | 11 |
| Miscellaneous | 12 | 12 |
| Major joint replacement of the lower extremity | 10 | 10 |
| Brain injury | 8 | 7 |
| Spinal cord injury | 6 | 4 |
| Other orthopedic conditions | 5 | 10 |
| Cardiac conditions | 5 | 5 |
| Short-stay patients* | 4 | 4 |
| Total | 91 | 93 |

Note: IRF (inpatient rehabilitation facility).
*The short-stay category includes patients who expired while in the IRF.

Source: MedPAC analysis of 2012 Medicare claims data.

least costly patients, who do not have comorbidities found to increase the cost of care. The distribution of Medicare IRF cases by tier is similar for hospital-based IRFs and freestanding IRFs (Table 10-8). Both IRF types have roughly 60 percent of cases in Tier 4.

### Comparability of outcomes among rehabilitation care settings

Comparability of outcomes among different rehabilitation care settings represents an important question, particularly given that some patients do not live near an IRF and others may obtain care at settings other than IRFs due to the compliance threshold. Overall, research studies do not conclusively identify a particular post-acute care setting as having better outcomes for rehabilitation patients than other post-acute settings. A 2010 CMS report to the Congress analyzed peer-reviewed research on the effectiveness of IRFs compared with other post-acute care settings and concluded that the studies are limited because they do not adequately control for selection bias (Gage et al. 2010). The report also found inconsistent results across studies comparing outcomes for lower extremity joint replacement patients and hip fracture patients in IRFs and SNFs. The report was unable to conclude definitively whether shifts in discharge destination due to the compliance threshold have affected beneficiaries' access to appropriate rehabilitation services.

Standardized data from the Continuity Assessment Record and Evaluation (CARE) tool—a uniform post-acute care assessment tool tested through the Medicare Post-Acute Care Payment Reform demonstration—can help CMS compare outcomes for rehabilitation care across settings. The demonstration used the CARE tool to compare outcomes across sites of care, such as readmission to the hospital and improvements on two functional measures, mobility and self-care function. The 2011 report summarizing the findings compared outcomes among home health agencies, IRFs, long-term care hospitals (LTCHs), and SNFs (Gage et al. 2011). Results indicated that unadjusted acute hospital readmission rates did not vary greatly among settings, although IRFs had the lowest rate and LTCHs had the highest rate. Risk-adjusted rates that controlled for differences in patient acuity did not differ significantly among IRFs, SNFs, and home health agencies. On functional outcomes, the risk-adjusted analysis found no significant difference in the average degree of improvement in mobility but a somewhat higher gain in self-care outcomes among patients who received care from an IRF or home health agency.

Differences in outcomes also varied by clinical condition. The demonstration study examined improvement in self-care for the subgroups of patients with musculoskeletal and nervous system conditions, two conditions that typically receive significant amounts of therapy. For nervous system conditions, the average risk-adjusted

**TABLE 10–8**

**Distribution of IRF cases by case-mix group tier, 2012**

| | Type of IRF | |
|---|---|---|
| Tier | Hospital based | Freestanding |
| 1 | 5% | 5% |
| 2 | 8 | 9 |
| 3 | 28 | 28 |
| 4 (no comorbidities) | 60 | 58 |

Note: IRF (inpatient rehabilitation facility). IRF patients are classified into 92 case-mix groups, and within 87 of these groups, patients are further categorized into one of four tiers based on the presence of certain comorbidities. Columns may not sum to 100 percent due to rounding.

Source: MedPAC analysis of 2012 Medicare claims data.

## Comparison of MA and Medicare FFS patients' use of IRF services

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

We found that the use rate of IRFs among the FFS population in 2012 was more than double the rate of MA patients (Table 10-9). These data do not control for the availability of IRFs in areas with high MA market penetration. The use rate could also be affected by potential differences in the need for rehabilitation services in the MA population.

On average, MA IRF patients had longer stays and greater severity of illness than FFS IRF patients, as measured by the IRF case-mix weight. MA patients were more concentrated in conditions with higher severity. A higher percentage of MA IRF users than

**TABLE 10–9** **FFS patients have higher IRF use rate, lower severity than MA patients, 2012**

| | FFS patients | MA patients |
|---|---|---|
| Use rate | 1.04% | 0.41% |
| Average length of stay | 12.90 | 13.60 |
| Case-mix weight | 1.30 | 1.37 |
| Discharged home | 69.4% | 72.1% |
| Discharged home with home health | 51.3% | 52.1% |
| Discharged to SNF | 10.2% | 7.9% |

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility), MA (Medicare Advantage). Use rate is calculated as the number of FFS or MA patients divided by all FFS or MA patients. Patients in the discharged home category also appear in the discharged home with home health category. Discharge destinations do not total 100 percent. Not all discharge destinations are represented in the table.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS. Source for the denominator for the use rates is the 2012 annual report of the Boards of Trustees of the Medicare trust funds.

*(continued next page)*

gain in self-care improvement was higher in IRFs than in SNFs. In contrast, for musculoskeletal conditions, there was no significant difference in the risk-adjusted degree of improvement between LTCH, IRF, and SNF patients (the average improvement for home health patients was greater than for SNF patients) (Centers for Medicare & Medicaid Services 2012).

Where results varied, the difference in improvement among settings was relatively small, less than 5 points on a 100-point scale. Home health and IRF patients had better improvement in self-care outcomes, but unobserved factors regarding patient characteristics may have influenced outcomes. For example, the more intensive therapy requirements in IRFs may result in IRFs attracting patients who are more engaged or more motivated to improve. Likewise, factors such as informal caregiver support that are not included in the model can influence both the likelihood of referral to home health agencies and the outcomes.

### Quality of care measures show improvement

We evaluated quality outcomes on three measures: Functional Independence Measure™ (FIM™) gain, discharge to the community, and discharge to an acute

## Comparison of MA and Medicare FFS patients' use of IRF services (cont.)

FFS IRF users were stroke, brain injury, and spinal cord patients (Table 10-10). These conditions have higher case-mix weights and longer stays than other conditions. In 2012, the greatest difference in use was among stroke patients, who accounted for 32.7 percent of MA IRF patients, compared with 19.4 percent of FFS IRF patients. MA and FFS patients had overall similar case-mix weights and lengths of stay for most conditions, with the exception of spinal cord cases. However, the higher proportions of higher severity conditions among MA patients appear to have driven the higher average case-mix weight across all MA patients. These differences suggest that MA plans are more selective in the patients they authorize to receive care in IRFs. ■

**TABLE 10–10**

**Patient mix of Medicare FFS and MA IRF patients, 2012**

| | FFS IRF patients | | | MA IRF patients | | |
|---|---|---|---|---|---|---|
| Type of case | Percent of all FFS patients | ALOS | Case-mix weight | Percent of all MA patients | ALOS | Case-mix weight |
| Stroke | 19.4% | 15.4 | 1.56 | 32.7% | 15.4 | 1.56 |
| Fracture of the lower extremity | 13.0 | 13.2 | 1.27 | 10.7 | 12.9 | 1.25 |
| Neurological disorders | 11.6 | 12.9 | 1.36 | 8.3 | 13.5 | 1.39 |
| Brain injury / nontraumatic | 4.9 | 13.0 | 1.38 | 5.8 | 13.2 | 1.37 |
| Brain injury / traumatic | 3.0 | 14.0 | 1.45 | 4.1 | 13.8 | 1.46 |
| Spinal cord / nontraumatic | 3.9 | 14.2 | 1.45 | 5.0 | 15.3 | 1.51 |
| Spinal cord / traumatic | 0.7 | 19.0 | 2.08 | 1.0 | 20.0 | 2.20 |
| Major joint replacement of the lower extremity | 10.1 | 9.7 | 0.88 | 9.1 | 9.8 | 0.90 |
| Debility | 10.0 | 11.6 | 1.23 | 5.9 | 12.1 | 1.24 |
| Other orthopedic conditions | 7.5 | 11.7 | 1.12 | 4.5 | 11.7 | 1.11 |
| Cardiac conditions | 5.3 | 10.9 | 1.15 | 4.0 | 11.1 | 1.15 |

Note: FFS (fee-for-service), MA (Medicare Advantage), IRF (inpatient rehabilitation facility), ALOS (average length of stay). Not all case types are displayed.

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

care hospital. FIM gain is the total difference between admission scores and discharge scores for a range of items addressing functional improvement on the IRF–PAI.[10]

Our analysis suggests that in the aggregate, mean quality of care improved on all of these measures between 2010 and 2012 (Table 10-11, p. 254). From 2010 to 2012, FIM gain increased by an average of 3 percent each year. Rates of discharge to the community grew by an average of 0.5 percent each year, while rates of discharge to an acute care hospital declined by an average of 2.7 percent each year. These outcomes do not control for changes in case mix over these years, although the increase in case-mix severity was relatively small (a 1.5 percent increase in total from 2010 to 2012).

### Providers' access to capital: IRFs appear to have adequate access to capital

Eighty percent of IRFs are hospital-based units that would access capital through their parent institution. As detailed in Chapter 3 of this report, hospitals overall maintained reasonable levels of access to capital in 2012. While respondents to *Modern Healthcare*'s 2013 Construction

**TABLE 10–11**

**From 2010 to 2012, average IRF quality of care improved**

| | 2010 | 2011 | 2012 | Average annual change 2010–2012 |
|---|---|---|---|---|
| FIM™ gain | 25.8 | 26.5 | 27.3 | 3.0% |
| Discharge to community | 69.2% | 69.7% | 69.9% | 0.5 |
| Discharge to acute care hospital | 10.8% | 10.5% | 10.2% | –2.7 |

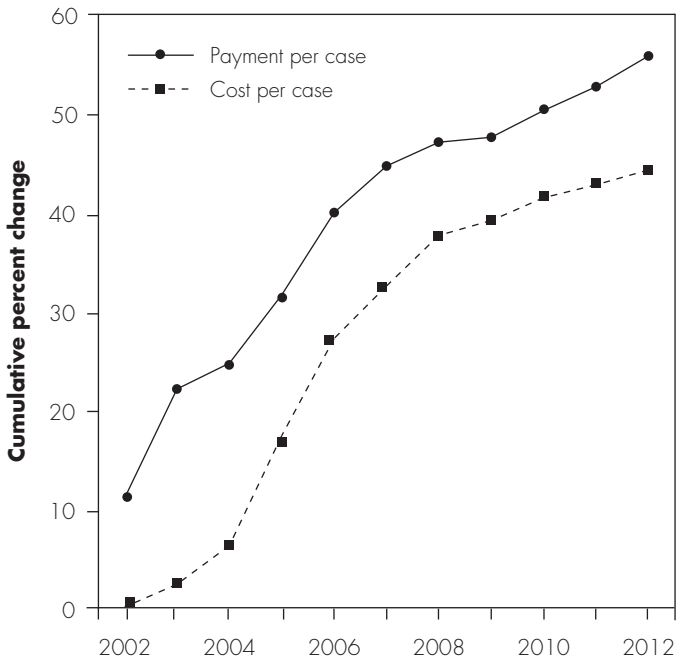
Note: IRF (inpatient rehabilitation facility), FIM™ (Functional Independence Measure™). FIM gain rates are comparable with corresponding rates (January–June) in the March 2011 report to the Congress.

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

& Design Survey indicated that the balance of hospital construction spending has tilted away from inpatient toward outpatient-based projects, a small number of new hospital-based IRFs entered the market in 2012 (Robeznieks 2013).

**FIGURE 10–2**

**Under the PPS, IRFs' payments per case have increased cumulatively more than costs, 2002–2012**




Note: PPS (prospective payment system), IRF (inpatient rehabilitation facility). Costs are not adjusted for changes in case mix.

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

As for freestanding IRFs, market analysts we spoke with thought that access to capital for one major national chain remains very good. Lower costs of borrowing, continued acquisition and construction of new IRFs, and implementation of shareholder-friendly initiatives reflect good access to capital and positive financial health. Recent financial reports for this chain have demonstrated strong operating performance (Deutsche Bank 2013). Besides this chain, most other freestanding facilities are independent or are local chains with only a few providers. The extent to which these providers can access capital is less clear.

## Medicare payments and providers' costs: Payments to IRFs have grown more than costs since 2002 PPS implementation

Medicare's payments per case to IRFs have increased cumulatively more than IRFs' costs per case since implementation of the PPS in 2002. The average Medicare FFS payment per case has grown 56 percent between 2002 and 2012, compared with a 43 percent increase in average cost per FFS case (Figure 10-2). After large growth in average payments from 2002 to 2004, costs per case grew more than payments each year from 2004 to 2009. However, payments per case have grown more than costs each year since 2010. Based on Medicare cost reports, average payments per case grew more than average costs per case did from 2011 to 2012, with 3 percent payment growth compared with 1.5 percent cost growth.

### Differences in standardized costs suggest economies of scale

Adjusting IRF costs per discharge for differences in wages, case mix, and outlier payments permits a standardized comparison of costs across different types of IRFs across the country. The mean adjusted cost per

**TABLE 10–12**

**Mean adjusted costs per discharge are lower for freestanding IRFs and larger facilities, 2012**

| Type of IRF | Mean adjusted cost per discharge |
|---|---|
| All IRFs | $15,738 |
| Hospital based | 16,592 |
| Freestanding | 12,469 |
| Nonprofit | 15,824 |
| For profit | 14,858 |
| Government | 17,644 |
| Urban | 15,349 |
| Rural | 17,747 |
| Number of beds | |
| 1 to 10 | 17,653 |
| 11 to 21 | 16,462 |
| 22 to 59 | 15,524 |
| 60 or more | 12,953 |

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for the wage index, case mix, and outliers. Government-owned facilities operate in a different financial context from other facilities, so costs are not necessarily comparable.

Source: MedPAC analysis of 2012 standard analytical file and Medicare cost report data from CMS.

discharge for all IRFs in 2012 was $15,738 (Table 10-12). On average, after adjustment, cost per discharge in freestanding IRFs was about $4,123 lower (25 percent) than in hospital-based IRFs, and cost per discharge in urban IRFs was approximately $2,398 (14 percent) lower than in rural IRFs. Larger facilities had lower cost per discharge. In 2012, cost per discharge was $4,700 (27 percent) lower in facilities with more than 60 beds than in facilities in the 1-bed to 10-bed range.

We stratified IRFs into quartiles of standardized costs to compare the characteristics of facilities in the low-cost and high-cost quartiles (Table 10-13) for 2012. IRFs in the lowest cost quartile tended to have more beds and higher occupancy rates. The median number of beds in the lowest cost quartile was 42 compared with the highest cost quartile's median of 17 beds. The median occupancy rate for IRFs in the lowest cost quartile was 69 percent, compared with a 52 percent occupancy rate for IRFs in the highest cost quartile.

The difference in Medicare margins between low-cost and high-cost providers was very large: The median margin for IRFs in the lowest cost quartile was about 26 percent, compared with about –26 percent for IRFs in the highest cost quartile. Low-cost providers were disproportionately freestanding (about 54 percent) since freestanding IRFs constitute only 20 percent of industry facilities. However, margins for hospital-based IRFs that were low-cost and margins for freestanding IRFs that were low-cost were both very high, 21.8 percent and 29.2 percent, respectively.

**TABLE 10–13**

**High margins among both hospital-based and freestanding IRFs in the low-cost quartile of standardized costs, 2012**

| | Quartile | |
|---|---|---|
| **Characteristic** | **Low cost** | **High cost** |
| Number of IRFs | 271 | 271 |
| Percent: | | |
| Hospital based | 45.8% | 93.7% |
| Freestanding | 54.2 | 6.3 |
| Nonprofit | 38.0 | 63.1 |
| For profit | 59.4 | 18.5 |
| Government | 2.6 | 18.5 |
| Urban | 94.5 | 69.0 |
| Rural | 5.5 | 31.0 |
| Median Medicare margin | | |
| All | 26.4% | –25.5% |
| Hospital based | 21.8 | –25.7 |
| Freestanding | 29.2 | –20.4* |
| Median | | |
| Number of beds | 42 | 17 |
| Occupancy rate | 69% | 52% |
| Case-mix index | 1.26 | 1.20 |
| Median costs per discharge | | |
| All | $10,929 | $19,671 |
| Hospital based | 11,542 | 19,608 |
| Freestanding | 10,488 | 20,143* |

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for the wage index, case mix, and outliers. Government-owned facilities operate in a different financial context from other facilities, so costs are not necessarily comparable.
*Reflects small cell size (17 facilities).

Source: MedPAC analysis of 2012 standard analytical file and Medicare cost report data from CMS.

**TABLE 10–14**

**IRFs' Medicare margins rose in 2012**

| Type of IRF | Share of Medicare discharges, 2012 | Margins | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 2004 | 2006 | 2008 | 2009 | 2010 | 2011 | 2012 |
| All IRFs | 100% | 16.7% | 12.4% | 9.3% | 8.4% | 8.7% | 9.8% | 11.1% |
| Urban | 91.2 | 17.0 | 12.6 | 9.5 | 8.6 | 9.0 | 10.2 | 11.4 |
| Rural | 8.8 | 13.9 | 10.6 | 7.2 | 5.9 | 5.6 | 6.1 | 7.3 |
| Freestanding | 45.3 | 24.7 | 17.5 | 18.1 | 20.5 | 21.3 | 22.9 | 23.8 |
| Hospital based | 54.7 | 12.2 | 9.6 | 3.8 | 0.2 | –0.4 | –0.1 | 0.8 |
| Nonprofit | 46.9 | 12.8 | 10.7 | 5.3 | 2.3 | 2.1 | 2.6 | 2.1 |
| For profit | 45.8 | 24.4 | 16.3 | 16.8 | 19.0 | 19.6 | 21.0 | 22.9 |
| Government | 7.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Number of beds | | | | | | | | |
| 1 to 10 | 2.5 | 3.4 | –3.8 | –4.8 | –11.6 | –10.0 | –6.8 | –7.8 |
| 11 to 21 | 19.0 | 9.6 | 7.0 | 0.5 | –2.7 | –3.2 | –3.3 | –1.9 |
| 22 to 59 | 42.3 | 16.1 | 12.4 | 8.3 | 6.5 | 6.9 | 8.0 | 9.3 |
| 60 or more | 36.2 | 22.6 | 17.5 | 16.9 | 18.3 | 18.4 | 19.4 | 20.9 |

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.

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

### IRF Medicare margins increased in 2012

Between 2011 and 2012, aggregate IRF Medicare margins increased from 9.8 percent to 11.1 percent (Table 10-14). During the first two years of the IRF PPS, margins rose rapidly, reaching 17.8 percent in 2003, with all IRF provider types experiencing solid gains. After this rapid buildup, margins declined each year through 2009, although they remained healthy. Starting in 2010, margins have again risen moderately each year.

As is typical for Medicare providers in other health care sectors, margins varied substantially across providers. Medicare margins in freestanding IRFs far exceeded those of hospital-based facilities. In 2012, margins for freestanding IRFs (45.3 percent of discharges) increased to 23.8 percent, while hospital-based IRFs (54.7 percent of discharges) had margins of 0.8 percent. In 2012, aggregate margins in for-profit facilities were 22.9 percent, while nonprofit IRFs had margins of 2.1 percent. However, margins by ownership status varied by facility type. Between 2011 and 2012, among freestanding facilities, margins in nonprofit facilities declined from 15.3 percent to 13.8 percent, while margins in for-profit IRFs increased from 25.3 to 26.5 percent. During the same period, among hospital-based IRFs, margins in nonprofits declined slightly from –0.1 percent to –0.2 percent, while margins in for-profits increased sharply from 3.8 percent to 8.3 percent. Total (all-payer) margins for freestanding facilities decreased from 11.7 percent to 9.6 percent.[11]

The difference in margins is affected by volume and the ability to constrain cost growth. Hospital-based units tend to be smaller facilities yet still generally have lower occupancy rates than freestanding facilities. More than half of hospital-based IRFs (58 percent) have fewer than 22 beds, whereas only 6 percent of freestanding IRF facilities have fewer than 22 beds, and about half have 60 beds or more.

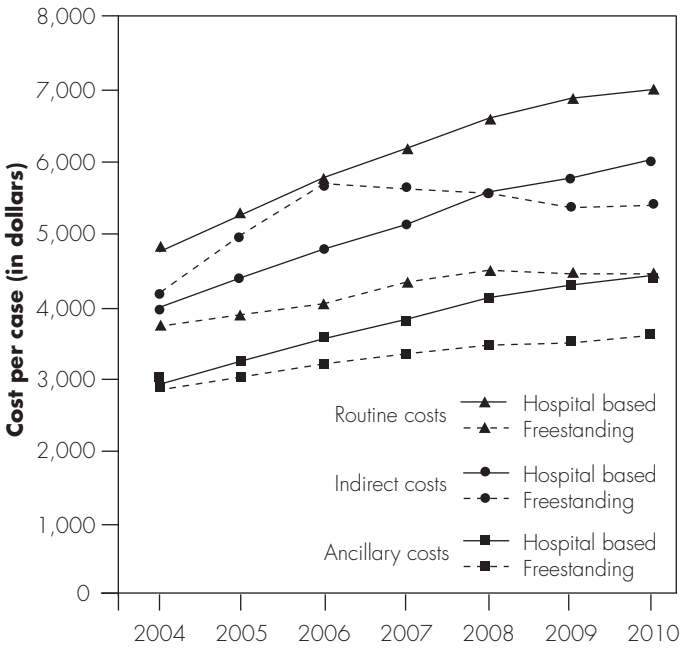
Analysis of changes in component costs shows that freestanding facilities have contained cost growth more than hospital-based facilities have, particularly in routine costs (Figure 10-3). Between 2004 and 2010, routine costs grew 49 percent in hospital-based facilities but only 20 percent in freestanding facilities. In 2010, routine

costs per case were 37 percent higher in hospital-based facilities than in freestanding facilities. Differences in cost growth trends are similar for ancillary costs, which include the costs of therapy, and indirect costs, which include administration, capital, and general overhead. In 2010, indirect costs per case were 11 percent higher in hospital-based facilities than in freestanding facilities, and ancillary costs per case were 19 percent higher in hospital-based facilities than in freestanding facilities. As changes in the compliance threshold resulted in lower patient volumes and higher severity of illness in patients, freestanding facilities may have been more successful at containing costs across all components because of financial necessity among the stand-alone and predominantly for-profit facilities.

In the aggregate, the Medicare payments for hospital-based IRFs appear sufficient for the units to cover their direct costs. In 2010, the direct cost margin (calculated as payments minus direct costs, divided by payments) for hospital-based IRFs was 34.4 percent. Further, hospital margins were higher in hospitals that had IRF units than in hospitals without them. In 2012, the Medicare margin for inpatient hospitals with IRF units was –4.2 percent, compared with –6.1 percent for hospitals without an IRF unit. This difference suggests that IRF units may have been able to make positive financial contributions to their parent hospitals.

**FIGURE 10–3**

**Change in component costs by IRF ownership, 2004–2010**




Note: IRF (inpatient rehabilitation facility). Routine costs include room and board and nursing. Indirect costs include administration, capital, and general overhead. Ancillary costs include therapy, drugs, and other supplies.

Source: MedPAC analysis of cost report data from CMS.

## Medicare margins for 2014

To project the aggregate Medicare margin for 2014, we model policy changes that will go into effect in 2013 and 2014. These policies include:

- Increasing payment rates for fiscal year 2013 by 2.1 percent, the net result of a 2.7 percent market basket update, an estimated 0.2 percent payment increase for changes in the outlier threshold, a –0.1 percentage point market basket reduction per the Patient Protection and Affordable Care Act of 2010 (PPACA), and a –0.7 percentage point market basket reduction for productivity per PPACA.
- Increasing payment rates for fiscal year 2014 by 2.3 percent, the net result of a 2.6 percent market basket update, an estimated 0.5 percent payment increase for changes in the outlier threshold, a –0.3 percentage point reduction per PPACA, and a –0.5 percentage point reduction for productivity per PPACA.

To estimate cost growth in 2013 and 2014, we used an average of the previous three years' cost growth. Based on the policy changes listed and our assumptions regarding cost growth, we project that aggregate Medicare margins will increase from 11.1 percent in 2011 to 11.8 percent in 2014. The 2014 margin projection is based on the current law payment rates under Title XVIII of the Social Security Act, which do not include the sequester. If the sequester is in effect for 2014, the projected margin would be about 2 percentage points lower. The margin projection for 2014 does not assume increased cost control efforts by IRFs in response to the market basket reductions or the economy.

# How should Medicare payments change in 2015?

**RECOMMENDATION 10**

**The Congress should eliminate the update to the Medicare payment rates for inpatient rehabilitation facilities in fiscal year 2015.**

## RATIONALE 10

Our indicators of Medicare payment adequacy for IRFs are positive. The overall growth in volume, low occupancy rates, and availability of other rehabilitation alternatives suggest that capacity remains adequate to meet demand. Quality of care continues to improve. We calculate an aggregate margin of 11.1 percent in 2012 and project a margin of 11.8 percent for 2014. Based on our assessment of the indicators of payment adequacy, we conclude that IRFs should be able to accommodate cost changes in fiscal year 2015 with the base payment rate held at 2014 levels. That is, the 2015 base payment rate under the IRF PPS should be the same as the base rate in 2014. We will closely monitor our payment update indicators and will be able to reassess our recommendation for the IRF payment update in the next fiscal year.

## IMPLICATIONS 10

### Spending

- The payment update for IRFs under current law in fiscal year 2015 consists of a forecasted 2.7 percent market basket update for rehabilitation, psychiatric, and long-term care hospitals; a forecasted –0.3 percent productivity adjustment off the market basket update; and a –0.2 percent market basket reduction per PPACA.[12] This recommendation would decrease federal program spending relative to current law by between $50 million and $250 million in 2015 and by $1 billion to $5 billion over five years.

### 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 increase the financial pressure on providers, but overall, a minimal effect on reasonably efficient providers' willingness and ability to care for Medicare beneficiaries is expected.

Future work will include addressing trends that we have observed in financial performance among sectors of the IRF industry. While margins in hospital-based facilities average 0.8 percent, margins average 24 percent among freestanding facilities, which provide care for 45 percent of all IRF discharges. It is important for Medicare to act as a prudent purchaser, and with these high margins, payments may no longer accurately reflect providers' costs for almost half of Medicare discharges. In future work, we plan to consider options for rebasing IRF payments. Furthermore, we plan to begin evaluating whether there are systematic biases in Medicare's payments that result in the imbalance in financial performance among provider types. ■

# Endnotes

1 IRF patient demographics are similar to the distribution in the general Medicare population, although the proportion of Hispanic patients treated at IRFs is somewhat lower than in the general Medicare population (4 percent vs. 8 percent) (Medicare Payment Advisory Commission 2013). Data suggest that Hispanic beneficiaries are underrepresented as both IRF and SNF users.

2 This rule does not take the place of Medicare's general medical necessity requirements.

3 The 13 conditions are stroke; spinal cord injury; congenital deformity; amputation; major multiple trauma; hip fracture; brain injury; neurological disorders (e.g., multiple sclerosis, Parkinson's disease); burns; three arthritis conditions for which appropriate, aggressive, and sustained outpatient therapy has failed; hip or knee replacement when bilateral body mass index ≥ 50; and age 85 or older.

4 CMS's major revisions to the compliance threshold policy in 2004 were (1) increasing the number of conditions that count toward the threshold from 10 to 13 (by redefining the arthritis conditions that counted) and (2) revising the qualifying condition 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.

5 FFS expenditures also fell when CMS reduced IRF payments by 1.9 percent in 2006 and by 2.6 percent in 2007 to adjust for changes in IRF coding practices that CMS analyses determined did not reflect real changes in IRF patients' acuity.

6 The total number of IRF beds has generally followed trends in number of facilities.

7 The decline in 2010 may have been due in part to the clarifications in the coverage criteria that went into effect that year (see p. 245).

8 The proprietary data come from eRehabData®, which has data on a subset of IRFs that subscribe to its inpatient rehabilitation outcomes system. eRehabData® has developed a protocol to assess whether a case satisfies the compliance threshold.

9 Source: MedPAC analysis of the Inpatient Rehabilitation Facility–Patient Assessment Instrument.

10 Scores for each of the 18 FIM items range from 1 (*complete dependence*) to 7 (*independence*). The scores on the 18 measures are summed to calculate a total score.

11 All-payer margins for hospital-based facilities reflect a margin for the entire hospital rather than for the IRF unit alone. Therefore, we only present all-payer margins for freestanding facilities.

12 The market basket forecast and productivity adjustment were made in the third quarter of 2013. CMS will use the most recent forecast available when setting updates, which may differ from the number we report here.

# References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