SECTION 2F

Inpatient rehabilitation facility services

RECOMMENDATION

The update to the payment rates for inpatient rehabilitation facility services should be eliminated for fiscal year 2010.

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

SECTION 2F

Inpatient rehabilitation facility services

Section summary

Hospitals and rehabilitation units within hospitals that provide intensive inpatient rehabilitation services—such as physical, occupational, and speech therapy—are called inpatient rehabilitation facilities (IRFs). To be eligible for Medicare-covered treatment in an IRF, beneficiaries must generally be able to tolerate and benefit from three hours of therapy per day. Medicare fee-for-service (FFS) beneficiaries account for the majority of IRF discharges—more than 60 percent. Between 2006 and 2007, Medicare FFS expenditures for IRF services declined from about $6.3 billion to about $6.0 billion. This decrease is the result of a decline in Medicare FFS IRF discharges largely stemming from continued adjustment to the 75 percent rule (now capped at 60 percent) and increased Medicare Advantage enrollment. Medicare FFS spending for IRF services is projected to be $5.8 billion annually in 2008 and 2009 and then is projected to increase as Medicare enrollment growth accelerates.

With the beginning of the IRF prospective payment system (PPS) in 2002, the number of facilities, volume of cases, costs and payments

In this section

per case, and profitability of IRFs increased. In 2004, CMS found that few IRFs met the Medicare requirement in place at the time—that 75 percent of patients must present with 1 of 10 (later changed to 13) clinical conditions requiring inpatient rehabilitation, the so-called "75 percent rule." As a result, CMS published a rule that phased in the compliance threshold gradually from 50 percent to 75 percent over several years, which would have been fully implemented on July 1, 2008. This change in policy is the principal reason the volume of Medicare FFS patients admitted to IRFs has declined since 2004. In December 2007, the Congress rolled back the 75 percent rule, capping the compliance threshold permanently at 60 percent, in one of several provisions of the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) addressing IRFs. (For ease of reference, we continue to refer to this requirement as the "75 percent rule" because, for most of the period covered by our data analysis, IRFs operated under the belief that the threshold was being phased in to eventually reach 75 percent.)

To assess the adequacy of Medicare's payments for IRF services, we examined the following factors:

- ***Supply of facilities and number of beds***—After increasing modestly in the early years of the PPS, the supply of IRFs declined slightly in 2006 and 2007, by about 0.6 percent and 1.8 percent, respectively. The number of IRF beds increased at an average rate of 1.9 percent per year from 2001 to 2004, followed by an average decrease of 1.2 percent per year from 2004 to 2007. The drop in the numbers of facilities and beds in recent years has been less than the decrease in IRF discharges, suggesting that capacity remains adequate to meet demand. The aggregate total IRF occupancy rate decreased from 67 percent in 2004 to 61 percent in 2007.
- ***Volume of services and beneficiaries' access to care***—Between 2002 and 2004, the proportion of Medicare FFS beneficiaries admitted to IRFs increased by an average 4.4 percent per year and then declined from 2004 to 2007 by an average 7.5 percent per year. FFS admissions declined in 2007, but at a slower rate than in previous years. The types of

patients treated by IRFs in 2006 and 2007 were generally more complex than those who were admitted to alternative settings. While we have no way to evaluate whether individual patients are receiving care in the most appropriate settings, an assessment of hospital discharge patterns to post-acute care suggests that beneficiaries who no longer qualified for admission to IRFs as a result of the 75 percent rule were able to obtain rehabilitation care in other settings.

- ***Quality***—From 2004 to 2008, IRF patients' functional improvement between admission and discharge has increased, suggesting improvements in quality. However, changes over time in patient mix make it difficult to draw definitive conclusions about quality trends.
- ***Access to capital***—Because of the onset of the economy-wide credit crisis in 2008, access to capital is constrained. As a result, some IRFs may face increased capital costs or delayed access to capital. Since the dramatic changes in the credit markets are unrelated to changes in Medicare payments, current access to capital may not be a good indicator of Medicare payment adequacy.
- ***Payments and costs***—With introduction of the IRF PPS in 2002, payments per case rose rapidly, while growth in costs per case remained low in 2002 and 2003. Renewed implementation and phase-in of the 75 percent rule resulted in growth in costs per case accelerating between 2004 and 2006 as case mix increased and the volume of cases declined. Growth in cost per case slowed somewhat in 2007. The IRF aggregate Medicare margin for 2007 is 11.7 percent.

Our indicators of Medicare payment adequacy on net are more positive than negative. Capacity remains adequate to meet demand. Although the 75 percent rule has had significant impacts on IRF volume, this decline was consistent with the overall policy goal of the rule—to direct the most clinically appropriate types of cases to this intensive, costly setting. Our projected 2009 aggregate Medicare margin is 4.5 percent, down from 11.7 percent in 2007. To the extent that IRFs restrain their cost growth in

response to the MMSEA's elimination of the IRF update between 2007 and 2009 or the decline in discharges in recent years, the projected 2009 margin would be higher than we have estimated. On the basis of these analyses, we believe that IRFs could absorb cost increases and continue to provide care to clinically appropriate Medicare cases with no update to payments in 2010. We will closely monitor indicators within our update framework as we develop our recommendation for the IRF payment update in the next fiscal year. ■

Recommendation 2F

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

The update to the payment rates for inpatient rehabilitation facility services should be eliminated for fiscal year 2010.

Background

After an illness, injury, or surgery, some patients receive intensive inpatient rehabilitation services—such as physical, occupational, or speech therapy—in an inpatient rehabilitation facility (IRF). IRFs may be specialized freestanding hospitals or specialized units within an acute care hospital. Relatively few Medicare beneficiaries use these services because they must generally be able to tolerate and benefit from three hours of therapy per day to be eligible for treatment.

Medicare is the principal payer for IRF services, accounting for more than 60 percent of discharges. About 338,000 fee-for-service (FFS) beneficiaries (nearly 1 percent of total FFS beneficiaries) received care in IRFs in 2007. Medicare FFS expenditures on inpatient rehabilitation services were nearly $6.0 billion in 2007, down from about $6.3 billion in the prior fiscal year. This decrease in Medicare FFS spending on IRFs in 2007 is the result of a decline in Medicare FFS IRF discharges largely stemming from continued adjustment to the 75 percent rule (now 60 percent) and increased Medicare managed care enrollment.

To qualify as an IRF for Medicare payment, facilities must meet the Medicare conditions of participation for acute care hospitals. They also must meet the following criteria:

- have a preadmission screening process to determine that each prospective patient is likely to benefit significantly from an intensive inpatient rehabilitation program;
- use a coordinated multidisciplinary team approach that includes rehabilitation nursing, physical and occupational therapists, and speech and language pathologists;
- 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 rehabilitation units; and
- have no fewer than 60 percent of all patients admitted with at least 1 of 13 conditions (as a primary diagnosis or comorbidity), such as stroke or hip fracture.[1,2] This requirement was previously on a phased-in trajectory to require that 75 percent of IRF patients meet these criteria by July 1, 2008. However, the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) rolled back the 75 percent rule in 2007, capping the compliance threshold permanently at 60 percent (see discussion of the 75 percent rule in the text box (pp. 212–213).[3] (For ease of reference, this rule is referred to as the "75 percent rule" throughout this document.)

Before January 2002, IRFs were paid under the Tax Equity and Fiscal Responsibility Act of 1982, on the basis of their average costs per discharge, up to an annually adjusted facility-specific limit. The Balanced Budget Act of 1997 required the implementation of a prospective payment system (PPS) for IRFs. In January 2002, IRFs began to be paid predetermined per discharge rates based primarily on patient characteristics, the facility's wage index, and certain facility characteristics. As of 2004, all IRFs were paid under the new IRF PPS. (For more details on the IRF PPS, see http://www.medpac.gov/documents/MedPAC_Payment_Basics_08_IRF.pdf.)

Where are IRFs located?

In 2007, IRFs existed in every state and the District of Columbia (Figure 2F-2, p. 214). There are more IRFs in some regions of the country than others. In general, states in the eastern and south-central portions of the country have more IRFs than western states. The five states with the largest number of IRFs in 2007 were Texas, Pennsylvania, California, New York, and Ohio—all states among the largest in population. The states (including the District of Columbia) with the fewest IRFs were Hawaii (one IRF) and Maryland, Vermont, and the District of Columbia (two IRFs each).

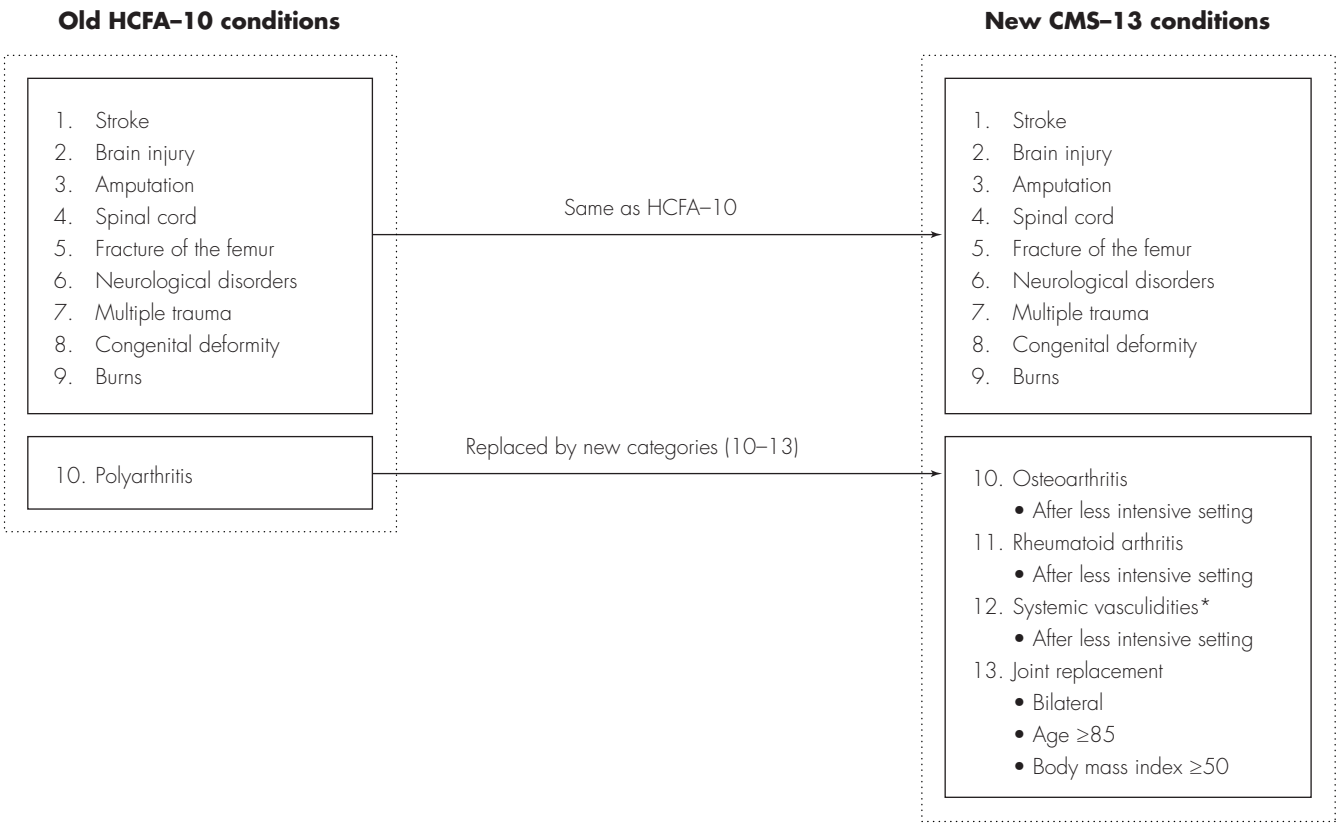
The number of IRF beds per 100,000 Medicare beneficiaries provides a measure of IRF capacity relative to the size of a state's Medicare population. Most states (32) had between 51 and 110 IRF beds per 100,000 Medicare beneficiaries in 2007 (Figure 2F-3, p. 215). The District of Columbia, Louisiana, Arkansas, and Nevada had the most IRF beds per 100,000 beneficiaries, ranging from 149 to 206. Eight states had 50 or fewer IRF beds per 100,000 beneficiaries: Maryland, Oregon, Connecticut, Hawaii, Alaska, Vermont, Wyoming, and Washington.

The 75 percent rule for inpatient rehabilitation facilities

The intent of the 75 percent rule is to distinguish inpatient rehabilitation facilities (IRFs) from acute care hospitals in terms of primarily serving patients who are clinically appropriate for the level of care IRFs provide. For 20 years, from 1984 to 2004, the diagnoses included in the 75 percent rule were the same and were known as the Health Care Financing Administration–10 (HCFA–10) (Figure 2F-1).[4] In 2002, CMS discovered that its contracted fiscal intermediaries were using inconsistent methods to enforce the 75

FIGURE 2F–1

Change in the inpatient rehabilitation facility criteria



Note: HCFA–10 (Health Care Financing Administration–10).
*Systemic vasculidities are relatively rare inflammations of the arteries, frequently autoimmune, that involve a variety of systems, including joints.

Are Medicare payments adequate in 2009?

We examine the following factors in determining the adequacy of Medicare payments to IRFs:

- supply of facilities;
- volume of services and beneficiaries' access to care;
- quality;
- access to capital; and
- payments and costs, focusing on the costs efficient providers incur, pursuant to a specific mandate of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA).

The 75 percent rule for inpatient rehabilitation facilities (cont.)

percent rule and that many IRFs did not comply with the rule. As a result, CMS suspended enforcement of the rule until the agency could examine it and determine whether the regulation should be modified.

In 2004, CMS redefined the arthritis conditions that count toward the 75 percent rule, by specifying three precise types of arthritis. In addition, CMS clarified that only a subset of major joint replacement patients (the largest category of IRF patients in 2004) would count toward the 75 percent rule. These changes contributed to the reduction in the volume of patients admitted to IRFs since 2004. At the same time, the average case mix of IRF patients increased because IRFs admitted fewer joint replacement patients and other types of patients who did not count toward the 75 percent rule, who tend to be less clinically complex than other IRF patients.

CMS created a four-year transition period for IRFs' compliance with the revised 75 percent rule. The Deficit Reduction Act of 2005 (DRA) added a year to the transition. As amended by the DRA, the policy was:

- 50 percent of the IRFs' total patient population must meet the revised regulations in cost reporting years beginning on or after July 1, 2004, through June 30, 2005;
- 60 percent in cost reporting years beginning on or after July 1, 2005, through June 30, 2007; and
- 65 percent in cost reporting years beginning on or after July 1, 2007, through June 30, 2008.

For cost reporting periods beginning on or after July 1, 2008, the threshold was scheduled to return to 75 percent. However, the Medicare, Medicaid, and SCHIP Extension Act of 2007 rolled back the compliance threshold to 60 percent and capped it at that level permanently. It also made permanent, via statute, the CMS discretionary policy of allowing IRFs to count patients toward the compliance threshold if they had comorbidities (rather than primary diagnoses) that were among 1 of the 13 qualifying conditions.

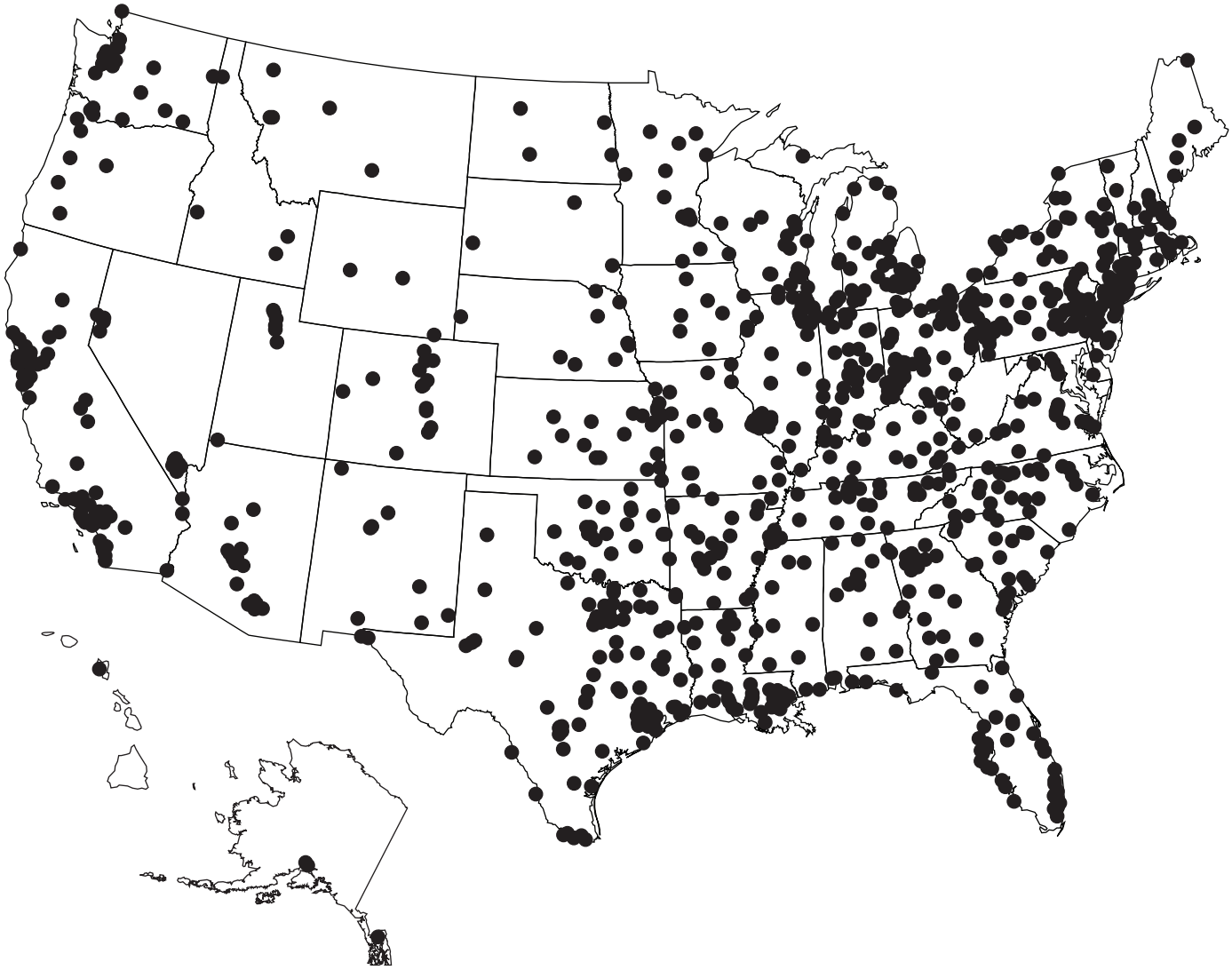
The renewed enforcement of the 75 percent rule was controversial. Even though a 75 percent rule has been in place since 1984, CMS did not consistently enforce it, as noted earlier. The revised rule categorized large classes of admissions as not appropriate for IRF care. In particular, CMS concluded that most joint replacement patients (the largest category of IRF patients in 2004) did not need the intensive rehabilitation services IRFs provided and could receive rehabilitation services from alternative providers, such as acute care hospitals, skilled nursing facilities, long-term care hospitals, outpatient rehabilitation providers, and home health agencies. IRFs not in compliance with the revised rule would be declassified as an IRF and paid acute inpatient prospective payment system (PPS) rates for all cases, which generally are much lower than IRF PPS rates.[5] ■

Overall, our indicators of Medicare payment adequacy are more positive than negative. The number of IRFs increased after the PPS was implemented in 2002 through 2005 but decreased slightly in 2006 and 2007. The number of IRF beds also decreased modestly from 2004 to 2007. However, the decrease in the number of facilities and number of beds has not been as large as the decrease in discharges. After PPS began, the volume of cases and Medicare spending grew rapidly, with both cases and spending per case increasing by roughly 6.5 percent annually from 2002 to 2004. From 2004 to 2007, the volume of cases dropped, although Medicare spending per case increased, consistent with the increase in patient complexity.

We have no direct indicators of beneficiaries' access to care because there are no surveys specific to this population and because some patients who could receive care in IRFs can be treated in other settings. While we have no way to assess whether individual patients are receiving care in the most appropriate setting, an assessment of hospital discharge patterns to post-acute care suggests that beneficiaries who are not receiving treatment in IRFs as a result of the 75 percent rule are able to obtain rehabilitation care in other settings. Improvements in functional independence between IRF admission and discharge increased from 2004 to 2008, suggesting improvements in quality, although changes in patient mix over time make it difficult to draw a definitive

FIGURE 2F–2

Geographic distribution of IRFs, 2007



Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of Medicare cost report data from CMS for 2007.

conclusion about quality. Access to capital tightened in 2008 because of the economy-wide credit crisis; however, changes in the credit market are not related to Medicare payment changes. The IRF aggregate Medicare margin in 2007 is 11.4 percent.

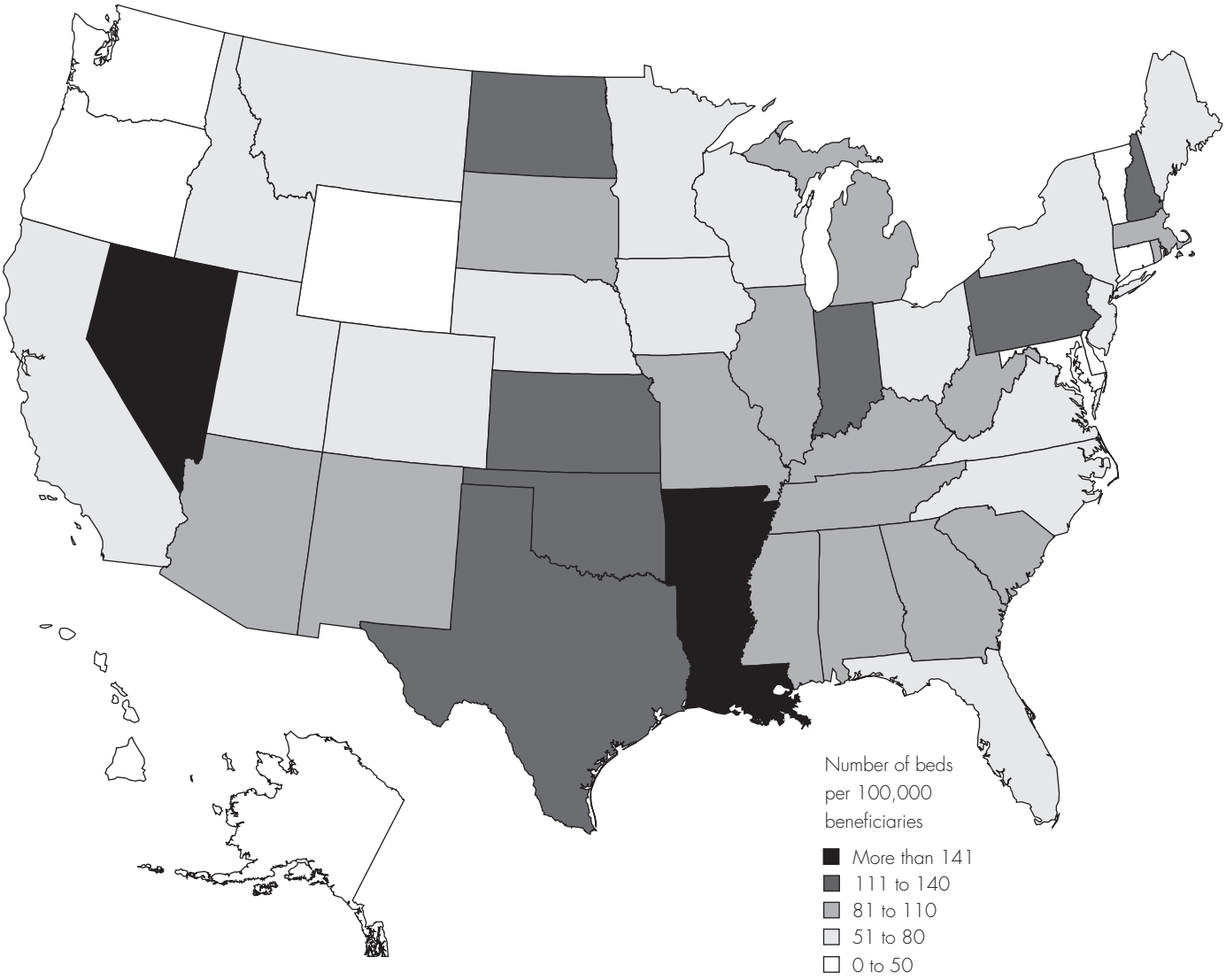
The supply of providers and beds decreased modestly in recent years

After the PPS was implemented in 2002, the supply of IRFs increased an average 1.2 percent per year from 2002 to 2005 (Table 2F-1, p. 216). In 2006 and 2007, the number of IRFs declined slightly, about 0.6 percent and 1.8 percent, respectively. In 2007, the total number of IRFs remained slightly higher than the number of IRFs in existence at the outset of the PPS in 2002.

In 2007, the number of most IRF provider types (rural, urban, nonprofit, for profit, and hospital based) declined slightly, with the exception of freestanding and government IRFs, which increased. Trends in the number of IRFs by type varied more in prior years. From 2002 to 2006, the number of rural IRFs grew at a higher rate than other types

FIGURE 2F–3

IRF beds per 100,000 Medicare beneficiaries, 2007



Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of Medicare cost report data from CMS for 2007.

of IRFs, perhaps fueled by the 21.3 percent rural payment adjustment under the PPS and the ability of critical access hospitals to begin operating IRF units in 2004.[6]

Changes in the number of IRFs categorized by ownership also show different patterns of growth. In the initial years of the PPS, the number of for-profit IRFs grew at more than three times the pace of nonprofit IRFs. From 2002 to 2005, for-profit IRFs grew at about 3 percent per year, before declining by about 2 percent in 2006 and 3.7 percent in 2007. The number of nonprofit IRFs grew by 1 percent annually from 2002 to 2004 and then declined by 1 percent to 2 percent annually from 2005 to 2007.

The supply of IRFs presents a partial picture of Medicare beneficiary access to IRF services. Rehabilitation hospitals may have responded to the renewed enforcement of the 75 percent rule by reducing the number of beds they operated, either by closing down beds or by using dedicated IRF rooms for other inpatient purposes, as would be expected in the face of declines in volume. Such changes could also affect beneficiary access. After increasing an average 1.9 percent per year from 2001 to 2004, the total number of

TABLE 2F–1

The total number of IRFs rose slightly from 2002 to 2005 but declined slightly in 2006 and 2007

	TEFRA	PPS						Average annual percent change		
Type of IRF	2001	2002	2003	2004	2005	2006	2007	2002–2005	2005–2006	2006–2007
All IRFs	1,157	1,188	1,211	1,227	1,231	1,224	1,202	1.2%	–0.6%	–1.8%
Urban	971	988	1,001	1,009	1,000	969	953	0.4	–3.1	–1.7
Rural	186	200	210	218	231	255	249	4.9	10.4	–2.4
Freestanding	214	215	215	217	217	217	219	0.3	0.0	0.9
Hospital based	943	973	996	1,010	1,014	1,007	983	1.4	–0.7	–2.4
Nonprofit	733	755	765	772	765	757	740	0.4	–1.0	–2.2
For profit	271	277	290	294	305	299	288	3.3	–2.0	–3.7
Government	153	156	156	161	161	168	174	1.1	4.3	3.6

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system).

Source: MedPAC analysis of Provider of Services files from CMS.

IRF beds decreased an average 1.2 percent per year from 2004 to 2007 (Table 2F-2). However, this decrease in the number of IRF beds was less than the decrease in the number of discharges (discussed later), suggesting that capacity remains adequate to meet demand. The effects of the change in the number of IRF beds and IRF patients are evident in IRF occupancy rates. Between 2004 and 2007, the aggregate IRF occupancy rate (for all patients, not specific to Medicare) declined from 67 percent to 61 percent, based on our analysis of Medicare cost report data.

Although IRF patient volume declined, access to care appears to be adequate

From 2002 to 2004, Medicare spending for IRF services grew by almost 7 percent per year, reaching more than $6.4 billion in 2004 before declining in 2007 to just under $6.0 billion (Table 2F-3).[7]

The number of unique FFS beneficiaries admitted to IRFs and the number of IRF cases also increased rapidly from

TABLE 2F–2

Fewer rehabilitation beds have been available in recent years

								Average annual change	
Type of bed	2001	2002	2003	2004	2005	2006	2007	2001–2004	2004–2007
Beds, freestanding hospitals	12,760	13,355	13,513	13,523	13,137	12,840	12,917	2.1%	–1.5%
Beds, hospital-based rehabilitation units	22,356	23,098	23,272	24,026	24,157	23,929	23,270	1.8	–1.1
Total inpatient rehabilitation beds	35,115	36,453	36,785	37,549	37,294	36,769	36,187	1.9	–1.2

Note: Counts exclude data from Maryland, non-U.S. hospitals, and outliers. Number of beds is calculated by taking the total number of available bed days for all patients (not specific to Medicare) divided by the total number of days in the cost reporting period.

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

TABLE 2F–3

The number of IRF cases has declined since 2004, while payments per case have increased

	TEFRA	PPS						Average annual change	
	2001	2002	2003	2004	2005	2006	2007	2002–2004	2004–2007
Medicare spending (in billions)	$4.51	$5.65	$6.16	$6.43	$6.40	$6.29	$5.95	6.7%	–2.6%
Unique beneficiaries	N/A	398,000	435,000	451,000	410,000	369,000	338,000	6.5	–9.2
IRF patients per 10,000 FFS beneficiaries	N/A	114	121	124	112	103	98	4.4	–7.5
Cases	415,579	439,631	478,723	496,695	449,321	404,255	370,048	6.3	–9.3
Payment per case	$9,982	$11,152	$12,952	$13,275	$14,248	$15,354	$16,143	9.1	6.7
ALOS (in days)	14.0	13.3	12.8	12.7	13.1	13.0	13.2	–2.3	1.3

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), N/A (not available), FFS (fee-for-service), ALOS (average length of stay).

Source: MedPAC analysis of MedPAR data from CMS, and data on aggregate Medicare spending for IRF services from the CMS Office of the Actuary.

2002 to 2004 and then began to decline in 2005. From 2002 to 2004, the number of unique FFS beneficiaries using IRFs increased by an average 6.5 percent annually but decreased between 2004 and 2007 by an average 9.2 percent per year. After we adjust for decreases in FFS enrollment reflecting increased enrollment in Medicare Advantage, the decline in the number of FFS beneficiaries using IRFs from 2004 to 2007 averaged 7.5 percent per year. This decline in IRF use largely resulted from IRFs' adjustment to the 75 percent rule. In addition, increased medical review of IRF claims by CMS contractors may also have influenced IRF admissions practices and contributed to the decline in IRF admissions.[8]

Because the MMSEA permanently capped the 75 percent rule at 60 percent beginning July 1, 2007, we do not anticipate continued dramatic reductions in IRF utilization attributable to the rule in the future. In 2007, the rate of IRF use among FFS beneficiaries (i.e., number of IRF patients per 10,000 FFS beneficiaries) continued to decline but at a slower pace than in previous years, suggesting that the rule's effects were leveling off. Specifically, between 2004 and 2006, the IRF use rate declined an average 9 percent per year, compared with 5 percent in 2007.

Between 2002 and 2004, payments per case increased at an average annual rate of 9.1 percent and further increased between 2004 and 2007 at an average rate of 6.7 percent per year. The payment increases between 2004 and 2007 generally reflect the increasing complexity of IRFs' patient mix as less complex patients were treated in other settings.

From 2002 to 2004, the average length of stay in IRFs declined, consistent with implementation of the new IRF PPS. From 2004 to 2005, the average length of stay increased from 12.7 days to 13.1 days; the average length of stay has remained relatively stable since then at 13 days in 2006 and 13.2 days in 2007. The increased length of stay is consistent with the increased average complexity of patients treated in IRFs since 2004.

The most common rehabilitation conditions for Medicare beneficiaries for 2004 to 2008 are shown in Table 2F-4 (p. 218). The types of cases treated in IRFs have shifted over this period. The most frequent rehabilitation diagnoses changed from major joint replacement in 2004 to stroke in 2008. In 2004, major joint replacement patients made up about 24 percent of IRF cases; by 2008, these patients represented 13 percent of cases. In contrast, stroke patients made up less than 17 percent of IRF cases in 2004, but by 2008 they made up nearly 21 percent. Fractures of the lower extremity (hip fractures) have become the second most common type of IRF case, representing 16 percent

TABLE 2F–4 **Most common types of cases in inpatient rehabilitation facilities**

Type of case	2004	2005	2006	2007	2008
Stroke	16.6%	19.0%	20.3%	20.8%	20.5%
Fracture of the lower extremity	13.1	15.0	16.1	16.4	16.3
Major joint replacement	24.0	21.3	17.8	15.0	13.2
Debility	6.1	5.8	6.2	7.7	9.1
Neurological disorders	5.2	6.2	7.0	7.8	7.9
Brain injury	3.9	5.2	6.0	6.7	6.9
Other orthopedic conditions	5.1	5.1	5.2	5.5	5.8
Cardiac conditions	5.3	4.2	4.0	4.2	4.6
Spinal cord injury	4.2	4.5	4.6	4.6	4.3
Other	16.4	13.8	12.8	11.3	11.4

Note: Other includes conditions such as amputations, major multiple trauma, and pain syndrome. Numbers may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS for 2004, 2005, 2006, 2007, and January 1 through June 30, 2008.

of IRF cases in 2008. The total number of stroke and hip fracture patients admitted to IRFs has remained relatively steady over the period from 2004 to 2008; however, these diagnoses now make up a greater share of IRF cases because the total number of IRF cases has declined.

The types of patients being treated in IRFs after renewed enforcement of the 75 percent rule are more complex than those who shifted to alternative settings. Cases that did not meet the criteria of the 75 percent rule were less complex as measured by the IRF PPS relative payment weights than cases that did meet the criteria, according to eRehabData® from 2004 to 2008 (eRehabData 2008).[9] For example, according to clinical protocols eRehabData uses to ascertain whether a claim is likely to be counted toward the 75 percent rule, the relative payment weight for cases that met the 75 percent rule in 2004 was on average about 1.4, compared with about 1.0 for cases that did not count toward the rule. eRehabData also provides information on how IRFs' compliance with the 75 percent rule changed over time. On the basis of eRehabData, 45 percent of Medicare cases counted toward the 75 percent rule in 2004, 56 percent in 2005, 60 percent in 2006, 61 percent in 2007, and 62 percent in the first half of 2008 (eRehabData 2008).[10] With the 75 percent rule threshold permanently capped at 60 percent beginning in July 2007, we would expect to see case-mix growth related to the 75 percent rule leveling off. According to our analysis of the Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI) data, IRFs experienced an overall 1.8 percent increase in Medicare case mix from the first half of calendar year 2007 to the first half of 2008. This growth in case mix for 2008 is moderate and consistent with what we would expect as adjustment to the 75 percent rule nears completion.

We have no direct measures of beneficiaries' access to care. The decrease in IRF discharges is difficult to interpret because it is not possible to identify beneficiaries who would have received care in an IRF but for the 75 percent rule. If patients who need intensive rehabilitation are able to obtain this care in other settings, the reduction in IRF volume—while significant—may not constitute an access problem. To draw inferences about the effects of the 75 percent rule on the access to care, we analyzed changes in post-hospital discharge destinations for patients likely to need rehabilitation. We examined Medicare acute care hospital inpatient claims to identify the discharge destinations for the 10 conditions that had the highest number of discharges to IRFs in 2003.[11] Although these conditions represented a significant share of IRFs' volume, most beneficiaries with these conditions are treated in other post-acute settings. Of the acute care hospital cases in these 10 diagnosis related groups (DRGs), only about 9 percent were discharged to IRFs in 2007. We analyzed how the discharge destination of cases in these DRGs changed between 2004 and 2007. Two conditions—major joint replacement of the lower extremity and stroke—illustrate how IRFs' admitting patterns changed over this time period (Table 2F-5).

TABLE 2F–5

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

DRG	Discharge destination	Percent of DRG				Percentage point change in DRG share	
		2004	2005	2006	2007	2004–2006	2006–2007
Major joint replacement/ hip and knee replacement	IRF	28%	24%	20%	16%	–8	–4
	SNF/swing bed	33	34	35	36	2	1
	Home health	21	25	27	29	6	2
	All other settings	18	18	18	19	0	1
Stroke	IRF	18	18	19	19	1	0
	SNF/swing bed	27	26	26	26	–1	0
	Home health	11	11	12	12	1	0
	All other settings	45	44	44	44	–1	0

Note: IRF (inpatient rehabilitation facility), DRG (diagnosis related group), SNF (skilled nursing facility). All other settings includes outpatient care, other inpatient facilities, or to home. Numbers (percent of DRG) may not sum to 100 percent due to rounding.

Source: MedPAC analysis of 2004–2007 hospital inpatient Medicare claims data from CMS.

The most significant shift in acute care hospital discharge destination and IRF admissions occurred with hip and knee replacements (DRG–209).[12] Between 2004 and 2006, the percentage of hip and knee replacement patients who were discharged to an IRF declined from 28 percent to 20 percent. In 2007, the share of these patients discharged to an IRF further dropped to 16 percent. During this time, corresponding increases occurred in the share of discharges to home health care and skilled nursing facilities (SNFs), which suggests that some patients who previously might have received rehabilitation care in an IRF are now receiving that care in other settings. Between 2004 and 2006, the share of discharges to home health care increased from 21 percent to 27 percent and further increased in 2007 to 29 percent. Between 2004 and 2006, the share of discharges to SNFs increased slightly from 33 percent to 35 percent and increased further in 2007 to 36 percent. Between 2006 and 2007, there was also a 1 percentage point increase in the share of discharges to other settings—predominantly discharges to home, possibly with outpatient therapy services. The decline in the share of hip and knee replacement patients discharged to IRFs is not surprising in light of the change to the 75 percent rule in 2004 that limited the types of hip and knee replacement patients who would count toward the threshold.[13]

By contrast, among stroke patients—a condition that CMS has continued to identify as appropriate for admission to IRFs, without qualifications—the share of hospital patients discharged to IRFs and other settings has remained largely unchanged. The percent of stroke patients (DRG–014) discharged to IRFs increased slightly between 2004 and 2006 from 18 percent to 19 percent, with the share of patients discharged to SNFs, home health care, and other settings also exhibiting very minimal change. In 2007, the share of stroke patients discharged to IRFs and other settings was essentially unchanged, suggesting that under the 75 percent rule IRFs were able to develop strategies to maintain or slightly increase their rates of admission of stroke patients.

The hip and knee replacement example illustrates the fact that declines in IRF admissions, even if attributable to the 75 percent rule, do not necessarily mean that Medicare beneficiaries are forgoing rehabilitation services. While many patients who need intensive rehabilitation are still able to obtain that care in other settings, it is difficult to assess whether rehabilitation care is comparable across settings in terms of quality, outcomes, and relative costliness. Patient assessment instruments (where they exist) are not comparable across post-acute care settings in their content or application. While Medicare requires three of the post-acute care settings to use patient

Summary of Section 115 of the Medicare, Medicaid, and SCHIP Extension Act of 2007

In December 2007, the Congress passed, and the President signed into law the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA). Section 115 of the Act contained a number of provisions related to Medicare's prospective payment system for inpatient rehabilitation facility (IRF) services. Changes to the 75 percent rule were the most significant of the IRF-related provisions. The legislation capped the compliance threshold at 60 percent, retroactively effective for cost reporting periods beginning on or after July 1, 2007 (the compliance threshold at that time had been 65 percent, pursuant to the Deficit Reduction Act of 2005). The law also permitted IRFs to count patients toward the threshold if their secondary diagnoses are among the 13 criteria conditions, even if their primary diagnoses are not. This policy had been set to expire with full implementation of the 75 percent rule on July 1, 2008. Under the MMSEA legislation, both policies became permanent.

The legislation also set the update to the IRF base payment rates to zero for the last half of fiscal year 2008 and for all of fiscal year 2009. Absent this provision, the statutory update for IRFs is the market basket for rehabilitation, psychiatric, and long-term care hospitals.

Lastly, the MMSEA directed the Secretary of Health and Human Services to study access to IRF care under the 75 percent rule, including an examination of conditions that are treated in IRFs but that currently are not included in the 75 percent rule and an analysis of alternatives to or refinements of the 75 percent rule criteria, specifically with respect to patients' functional status, their diagnoses, and comorbidities. The Secretary is required to submit a report on these analyses to the Congress no later than 18 months after the date of enactment of the MMSEA. ■

assessment tools, each uses a different one.[14] Although the existing tools measure the same broad aspects of patient care—functional status, diagnoses, comorbidities, and cognitive status—the time frames covered, the scales used to differentiate among patients, and the definitions of the care included in the measures vary considerably (MedPAC 2005).

The Commission previously observed that the lack of a common patient assessment instrument impedes analyses of comparative quality and cost of post-acute care across settings (MedPAC 2008, MedPAC 2007, MedPAC 2006, MedPAC 2005). The lack of comparability has precluded the development of patient assessment criteria that could help hospital discharge planners identify the most appropriate setting for each patient's post-acute care needs. (The MMSEA requires the Secretary of Health and Human Services to further study alternatives to the 75 percent rule that may better identify patients appropriate for treatment in IRFs; see text box.) As a result, from Medicare's perspective, the reasons for admitting patients to one post-acute care setting instead of another are not transparent and may reflect considerations such as the availability of a facility of a given type in a market, relationships among acute and post-acute care providers in a market, or patient selection. Further, the lack of a common post-acute care patient assessment instrument precludes comparison of the outcomes across post-acute care settings. As a result, it is not possible to answer fundamental questions such as whether the higher cost of IRF care is warranted by better outcomes.

The Deficit Reduction Act of 2005 required CMS to implement a demonstration project under which the agency would develop and field a uniform post-acute care patient assessment instrument, with the goal of comparing patients and outcomes across settings to assess the potential to rationalize Medicare payments for post-acute care across settings. The common patient assessment instrument has been developed, and data collection began in early 2008. The corresponding final report is due in July 2011.

Quality indicators show improvement, but case-mix changes prevent definitive conclusions

Our indicators of quality of care provided by IRFs show some improvement from 2004 to 2008, although changes

in the mix of IRF patients over time make it difficult to ascertain whether it represents a true change in quality. To assess quality, we use a measure commonly tracked by the industry: the difference between admission and discharge scores for the Functional Independence Measure™ (FIM™) incorporated in the IRF–PAI. The 18-item FIM measures the level of disability in physical and cognitive functioning and the burden of care for patients' caregivers (Deutsch et al. 2005). Scores for each item range from 1 (complete dependence) to 7 (independence). Scores on each of the 18 measures are summed to calculate a total FIM score, which can range from 18 to 126. To compare quality on a national basis, we use the average difference in scores at discharge versus admission for Medicare patients (commonly referred to as FIM gain)—a larger number indicates greater improvement in functional independence between admission and discharge. We report this measure in two ways. We compare differences for:

- all Medicare patients treated in an IRF
- the subset of Medicare patients who were discharged home from an IRF

Between 2004 and 2008, FIM gain between admission and discharge increased for all Medicare FFS IRF patients and the subset of patients who were discharged home (Table 2F-6). For all patients, FIM gain increased almost 2 points between 2004 and 2008, from 22.4 to 24.3. Among patients discharged home, FIM gain increased 3 points over this period, from 25.3 in 2004 to 28.1 in 2008.

While the increase in FIM gain over time may reflect an increase in IRF quality, differences in the mix of patients admitted to IRFs over the period make it difficult to ascertain. For FIM gain to accurately measure aggregate IRF quality over time, the functional status of patients at admission must be similar over time. Between 2004 and 2008, the average FIM score at admission for all Medicare IRF patients decreased nearly 7 points, from 68.0 in 2004 to 61.2 in 2008. This decline suggests that patients admitted to IRFs on average were more severely impaired in 2008 than in 2004. Despite the increase in FIM gain between 2004 and 2008, the average FIM score at discharge for all IRF patients and for IRF patients discharged home declined between 2004 and 2008. The decline in FIM scores at discharge would be expected if IRFs were admitting patients with more severe impairments and does not necessarily indicate a decrease in quality.

TABLE 2F–6

IRF patients' functional gain has increased

	2004	2005	2006	2007	2008
All IRF patients					
FIM™ at admission	68.0	66.1	63.6	62.2	61.2
FIM™ at discharge	90.4	89.3	87.1	86.1	85.5
FIM™ gain	22.4	23.2	23.5	23.9	24.3
IRF patients discharged home					
FIM™ at admission	71.9	70.2	68.0	66.6	65.7
FIM™ at discharge	97.1	96.6	94.9	94.2	93.8
FIM™ gain	25.3	26.4	26.9	27.6	28.1

Note: IRF (inpatient rehabilitation facility), FIM™ (Functional Independence Measure™).

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS. Data are for January 1 through June 30 only.

Our analysis of the three diagnoses with the largest IRF volume—stroke, lower extremity fracture, and hip and knee replacement—shows the same pattern of FIM scores as for IRF patients as a whole. For each of these groups separately, FIM gain increased from 2004 to 2008, but FIM scores at both admission and discharge decreased during this period, which suggests that patient severity may have increased over time even within diagnosis groups. Because of the case-mix changes over time, evidence of quality improvements suggested by FIM gain remains inconclusive.

Access to capital has tightened

Because of the onset of the economy-wide credit crisis in 2008, access to capital is constrained. These external macroeconomic factors are not related to changes in Medicare's payments to IRFs.

Four of five IRFs are hospital-based units that have access to capital through their parent institution, which, because of the credit crisis, may experience increased capital costs or delayed access to capital. The credit crisis may similarly affect access to capital among freestanding IRFs. One major national chain of freestanding IRF providers is highly leveraged, but the providers' Medicare IRF margins are high. A second chain, operating five freestanding facilities, indicates that it is well positioned with regard to the economy-wide credit crisis. Most other freestanding

TABLE 2F–7

Rehabilitation hospital construction projects, 2006–2007

	2006						2007					
	Completed		Broke ground		Designed		Completed		Broke ground		Designed	
Project	Projects	Beds	Projects	Beds	Projects	Beds	Projects	Beds	Projects	Beds	Projects	Beds
Entire hospitals	12	493	14	722	24	970	22	554	14	586	24	704
Expansions	13	170	10	140	14	517	11	695	7	138	16	440
Renovations	24	217	21	239	28	354	34	145	11	141	27	357
Total	49	880	45	1,101	66	1,841	67	1,394	32	865	67	1,501

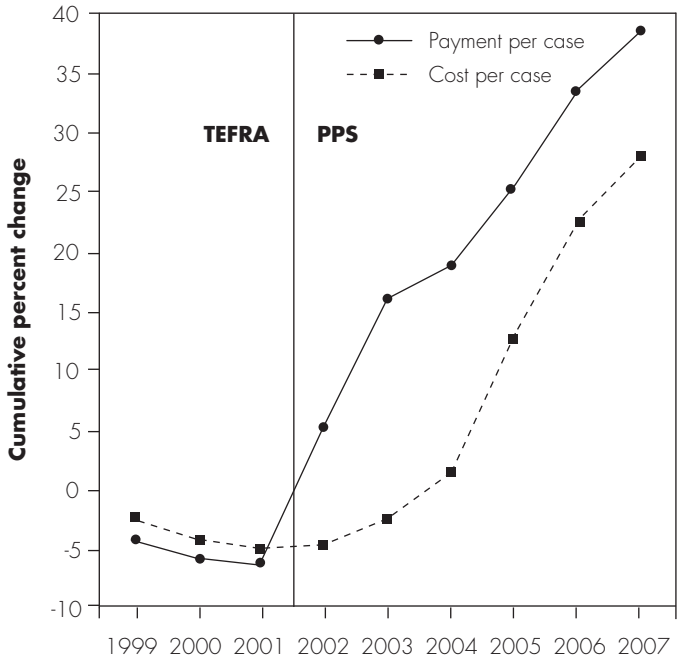
Source: Robeznieks 2008, Romano 2007.

facilities are independent or local chains of only a few providers (for profit or nonprofit), and access to capital for these providers is less clear.

Modern Healthcare's annual survey of hospital construction indicates that construction and planning of new rehabilitation facilities progressed at a moderate pace in 2007 (Table 2F-7). Rehabilitation construction projects that began or were designed in 2007 had fewer additional total beds than were represented by these phases in 2006, possibly reflecting industry's continued adjustment to the 75 percent rule. Construction projects completed in 2007 had more total beds than those completed in 2006.

FIGURE 2F–4

IRFs' payments per case have risen faster than costs, 1999–2007



Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Data are from consistent two-year cohorts of IRFs.

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

Overall, payments have grown faster than costs since implementation of the IRF PPS

The last component of our update framework examines changes in payments and costs. We also calculate an aggregate Medicare margin for IRFs.

With the introduction of the IRF PPS in 2002, payments per case rose rapidly while growth in cost per case remained low in both 2002 and 2003 (Figure 2F-4). The renewed enforcement of the 75 percent rule resulted in rapid growth in costs per case between 2004 and 2006, rising an average 10 percent per year, as case mix increased and the volume of cases declined. Between 2006 and 2007, the rate of growth in cost per case slowed to 5.5 percent.[15] In total, payments have grown faster than costs since the PPS was implemented in 2002.

IRF Medicare margins declined slightly in 2007 but remained high

In the aggregate, the financial performance of IRFs with respect to Medicare remained substantially positive through 2007. From 2002 (the beginning of the IRF PPS) to 2003, the aggregate Medicare margin increased rapidly, from 11 percent to almost 18 percent. During that period, all IRF provider types had rapid increases in margins (Table 2F-8). In 2004, the aggregate Medicare margin declined slightly to just over 16 percent and continued to decline moderately from 2005 to 2007. We estimate that

TABLE 2F–8 **IRFs' Medicare margins, by type**

	TEFRA	PPS				
Type of IRF	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
All IRFs	1.5%	11.0%	17.9%	16.3%	13.1%	12.3%	11.7%
Urban	1.5	11.3	18.3	16.6	13.2	12.6	12.1
Rural	1.2	8.2	13.5	14.0	12.4	9.8	8.9
Freestanding	1.6	18.5	23.0	24.3	20.5	17.4	18.5
Hospital based	1.5	6.2	14.9	12.1	9.2	9.6	7.9
Nonprofit	1.6	6.7	14.5	12.8	10.2	10.6	9.3
For profit	1.3	18.7	24.3	24.1	19.4	16.3	16.9
Government	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), N/A (not available). Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

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

the aggregate Medicare margin for 2007 was 11.7 percent, a 0.6 percentage point decrease from 2006. In 2007, IRF margins were –5.7 percent at the 25th percentile and 19.2 percent at the 75th percentile, slightly lower than last year's margins at each of these points. Freestanding IRFs and for-profit IRFs, which had the highest margins in 2004 (greater than 20 percent), continued to exhibit the best financial performance in 2007, with margins of 18.5 percent and 16.9 percent, respectively. Hospital-based IRFs and nonprofit IRFs had comparatively lower margins that year—7.9 percent and 9.3 percent, respectively. In 2007, urban IRFs also showed a slightly higher aggregate margin (12.1 percent) than rural IRFs (8.9 percent).

Medicare margins for 2009

To project the aggregate Medicare margin for 2009, we model the policy changes that went into effect between 2007 (the year of our most recent data) and 2009 as well as any policies scheduled to be in effect in 2010 other than updates. The policies include:

- for fiscal year 2008, a market basket update of 3.2 percent for the first half of the year and a return to the 2007 base payment rate for the second half of the year in accord with the MMSEA;[16] and
- for fiscal year 2009, a zero update to the IRF base payment rate (i.e., a base rate at the 2007 level) and a projected 0.7 percent decrease in payments to maintain the 3 percent outlier target (CMS 2008, CMS 2007).

Over the past few years, the policy that we have anticipated to have the most significant impact on the projected margin was the phase-in of the revised 75 percent rule. However, with the 75 percent rule now permanently capped at 60 percent, we believe IRFs will not need to reduce admissions further to comply with this rule. Therefore, taking account of the recent legislation and other IRF policy changes that have taken place, we project that aggregate Medicare margins will decline from 11.7 percent in 2007 to 4.5 percent in 2009. The projected decrease in the margin is largely the result of the MMSEA provision that eliminated the IRF payment update for the second half of 2008 and for the full year of 2009. The margin projection for 2009 does not assume increased cost control efforts by IRFs in response to the MMSEA's elimination of the IRF update between 2007 and 2009 or the decline in discharges in recent years. IRFs have seen declining occupancy rates, suggesting that they may not have fully responded to recent decreases in volume. To the extent that IRFs restrain their cost growth in response to these changes, the projected 2009 margin would be higher than we have estimated.

How should Medicare payments change in 2010?

Generally, the statutory payment update for IRFs is the market basket for rehabilitation, psychiatric, and long-term care hospitals. However, the MMSEA reduced the IRF payment update to zero for the second half of fiscal year 2008 and for all of fiscal year 2009.

RECOMMENDATION 2F

The update to the payment rates for inpatient rehabilitation facility services should be eliminated for fiscal year 2010.

RATIONALE 2F

Our indicators of Medicare payment adequacy on net are more positive than negative. Capacity remains adequate to meet demand. Although the 75 percent rule has had significant impacts on IRF volume, this decline was consistent with the overall policy goal of the rule—to direct the most clinically appropriate types of cases to this intensive, costly setting. Our projected 2009 aggregate Medicare margin is 4.5 percent, down from 11.7 percent in 2007. To the extent that IRFs restrain their cost growth in response to the MMSEA's elimination of the IRF update between 2007 and 2009 or the decline in discharges in recent years, the projected 2009 margin would be higher than we have estimated. On the basis of these analyses, we believe that IRFs could absorb cost increases and continue to provide care to clinically appropriate Medicare cases with no update to payments in 2010. We will closely monitor indicators within our update framework as we develop our recommendation for the IRF payment update in the next fiscal year.

IMPLICATIONS 2F

Spending

- This recommendation would decrease federal program spending relative to current law by between $50 million and $250 million in 2010 and by less than $1 billion over five years.

Beneficiary and provider

- We do not expect this recommendation to have adverse impacts on Medicare beneficiaries' access to care. This recommendation may increase the financial pressure on some providers, but overall a minimal effect on providers' willingness and ability to care for Medicare beneficiaries is expected. ■

Endnotes

1 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; and hip or knee replacement when bilateral, body mass index ≥ 50, or age 85 or older. These conditions may count toward an IRF's compliance with the 75 percent rule if they are being actively treated in conjunction with the condition that is the primary cause for admission. For more information on Medicare's IRF payment system, see MedPAC's payment basics document at http://www.medpac.gov/documents/MedPAC_Payment_Basics_08_IRF.pdf.

2 This rule does not take the place of Medicare's general medical necessity requirements. For Medicare coverage of IRF services for an individual beneficiary, the services must be reasonable and necessary for treatment of the patient's condition, and it must be reasonable and necessary to furnish the care on an inpatient hospital basis rather than in a less intensive setting.

3 While the MMSEA rolled back and permanently set the compliance threshold to 60 percent, we continue to refer to the policy as "the 75 percent rule" in this chapter, as it governed IRFs' admission practices—and their associated costs and payments—through most of the period reflected in the analyses we report here.

4 The Health Care Financing Administration administered Medicare and was the predecessor to CMS.

5 Declassified IRFs that are units in critical access hospitals are paid 101 percent of their costs.

6 The number of critical access hospitals with IRF units increased from 4 in 2004 to 10 in 2007.

7 The 2006 estimate reflects significant upward revisions of IRF spending for this year by the CMS Office of the Actuary.

8 Members of the rehabilitation community point to the activities of CMS's recovery audit contractors (RACs) operating in a demonstration program in New York, California, and Florida as an additional cause of the reduction in IRF admissions during this period. The RACs—established under Section 306 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003—were charged with identifying and recouping overpayments in FFS Medicare. They have been criticized as being overly aggressive in complying with their mandate with respect to IRFs. Members of the rehabilitation community have also cited increased medical review activities among Medicare fiscal intermediaries and Medicare administrative contractors as leading to reductions in IRF admissions, particularly for joint replacement patients. The rehabilitation community has also criticized these medical review efforts as being overly aggressive.

9 eRehabdata.com has data on a subset of IRFs that subscribe to their inpatient rehabilitation outcomes system. The data include information related to the Inpatient Rehabilitation Facility–Patient Assessment Instrument, patient case mix, and protocols erehabdata.com has developed to assess whether a case satisfies the 75 percent rule.

10 The compliance threshold was 60 percent for cost reporting periods beginning on or after July 1, 2005, through June 30, 2007. The threshold was scheduled to increase to 65 percent for cost reporting periods beginning on or after July 1, 2007, through June 30, 2008. However, as a result of passage of the MMSEA in December 2007, the threshold was permanently capped at 60 percent retroactive to cost reporting periods beginning on or after July 1, 2007.

11 The first year that "discharge to IRF" was available on hospital inpatient claims was 2002, but our analysis of these data suggests that hospitals did not consistently use this discharge destination code that year.

12 In 2006, cases previously coded under DRG–209 were split into two new DRGs: DRG–544 and DRG–545.

13 The effects of the 75 percent rule on shares of hip and knee replacement patients discharged to IRFs may not be entirely straightforward, as the increased adoption of computer-assisted surgery and minimally invasive surgery for hip and knee replacements may confound the picture. As discussed in more detail in our March 2008 report, the literature on the efficacy of these procedures for hip and knee replacements is mixed. To the extent that these new procedures lead to shorter lengths of stay, less postoperative pain, and quicker rehabilitation after surgery, their use could also partly explain the shift of patients from IRFs to home health care, SNFs, or outpatient settings.

14 SNFs use the Minimum Data Set, home health agencies use the Outcome and Assessment Information Set, and IRFs use the IRF–PAI. Medicare does not require long-term care hospitals to use a specific patient assessment tool.

15 Members of the rehabilitation community attribute some of the cost increases in recent years to the added costs associated with appeals of medical necessity denials by the RACs, the fiscal intermediaries, and the Medicare administrative contractors.

16 In the fiscal year 2008 IRF final rule, CMS had projected a 0.7 percent decrease in payments in fiscal year 2008 relative to fiscal year 2007 due to an adjustment to the outlier threshold. In that rule, CMS estimated that outlier payments for fiscal year 2007 would be 3.7 percent of total payments, which is 0.7 percentage point above the 3.0 percent target. CMS adjusted the fiscal year 2008 outlier threshold to a level that was projected to hit the 3.0 percent target. However, in the fiscal year 2009 IRF final rule, CMS projected—based on more recent data—that actual outlier payments in fiscal year 2008 would be 3.7 percent of total payments. Consequently, a decrease in outlier payments in fiscal year 2008 to the 3.0 percent target does not appear to have been achieved and therefore was not modeled in our margin projections.

References

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2008. Medicare program; inpatient rehabilitation facility prospective payment system for Federal FY 2009. Final rule. *Federal Register* 73, no. 154 (August 8): 46370–46414.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2007. Medicare program; inpatient rehabilitation facility prospective payment system for Federal FY 2008. Final rule. *Federal Register* 72, no. 151 (August 7): 44284–44335.

Deutsch, A., C. V. Granger, R. C. Fiedler, et al. 2005. Outcomes and reimbursement of inpatient rehabilitation facilities and subacute rehabilitation programs for Medicare beneficiaries with hip fracture. *Medical Care* 43, no. 9 (September): 892–901.

eRehabData®. 2008. Unpublished data on Medicare discharges for consistent sample of IRFs, 2004–2008. Silver Spring, MD: eRehabData.

Medicare Payment Advisory Commission. 2008. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2007. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2006. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2005. *Report to the Congress: Issues in a modernized Medicare program*. Washington, DC: MedPAC.

Robeznieks, A. 2008. A speed bump for building boom. *Modern Healthcare* (March 24): 24–33.

Romano, M. 2007. Evidence of an evolution. *Modern Healthcare* (March 26): 24–32.