SECTION 3C

Inpatient rehabilitation facility services

RECOMMENDATION

3C The update to the payment rates for inpatient rehabilitation facility services should be eliminated for fiscal year 2011.

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

SECTION 3C

Inpatient rehabilitation facility services

Section summary

More than 330,000 Medicare fee-for service (FFS) beneficiaries received care in inpatient rehabilitation facilities (IRFs) in 2008. Between 2007 and 2008, Medicare FFS expenditures for IRF services declined from $5.95 billion to $5.84 billion, largely due to declines in FFS enrollment and a small decline in IRF utilization.

Assessment of payment adequacy

Our indicators of Medicare payment adequacy for IRFs, discussed below, are generally positive. The Commission therefore recommends holding payments at 2010 levels after concluding that IRFs will be able to accommodate cost changes in fiscal year 2011 at current payment levels.

Beneficiaries' access to care—Our measures of beneficiary access to care suggest that beneficiaries have sufficient access to IRF services.

- ***Provider supply and capacity***—After declining slightly in 2006 and 2007, the aggregate supply of IRFs was unchanged in 2008. The IRF occupancy rate decreased continuously from 68 percent in 2004 to 61 percent in 2007, before increasing slightly to 62 percent in 2008. The stability in provider supply and low occupancy rates suggest that capacity remains adequate to meet demand.

In this section

- ***Volume of services***—The volume of Medicare FFS beneficiaries treated in IRFs, which decreased substantially in recent years due to factors unrelated to the adequacy of Medicare payments, stabilized in 2008. Our assessment of hospital discharge patterns to post-acute care suggests that beneficiaries who were not admitted to IRFs as a result of the 2004 reinstatement of the compliance threshold were able to obtain rehabilitation care in other settings, such as skilled nursing facilities and home health agencies.

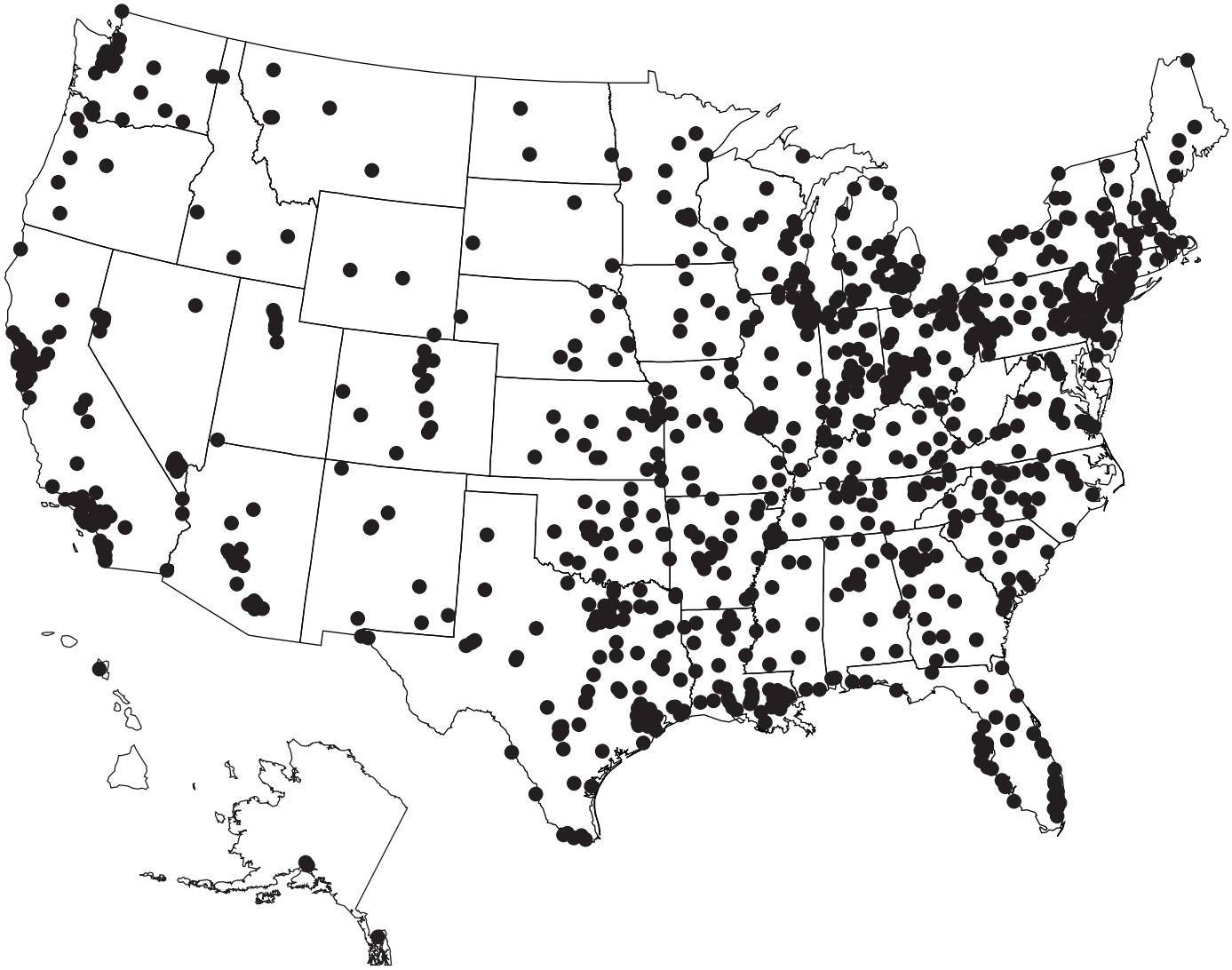
Quality of care—From 2004 to 2009, IRF patients' functional improvement between admission and discharge has increased, suggesting improvements in quality. However, changes over time in patient mix make it difficult to draw definitive conclusions about quality trends.

Providers' access to capital—Credit markets have begun to ease relative to the credit crisis of 2008 and are operating in a more normal manner. Hospital-based units, through their parent institutions, exhibit continued access to capital. Two major chains of freestanding facilities appear to have adequate access to capital. We are not able to determine the ability of independent freestanding facilities to raise capital.

Medicare payments and providers' costs—Growth in cost per case has slowed since 2007, but costs grew faster than payments due, in part, to a mid-year payment reduction in 2008. Nevertheless, the IRF aggregate Medicare margin for 2008 was 9.5 percent. We project that this figure will fall to 5.0 percent in 2010 due to elimination of the IRF update in the last half of 2008 that continued throughout 2009. To the extent that IRFs restrain their cost growth in response to fiscal pressure from the above-mentioned elimination of the IRF update, the decline in patient volume in prior years, or the recession, the projected 2010 margin could be higher than we have estimated. On the basis of our analyses, we conclude that IRFs could absorb cost increases and continue to provide care to clinically appropriate Medicare cases with no update to payments in 2011. We will closely monitor payment update indicators to reassess our update recommendation for the next fiscal year. ■

FIGURE 3C–1

Geographic distribution of IRFs, 2008



Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of the Provider of Services file from CMS.

Background

After an illness, injury, or surgery, some patients receive intensive inpatient rehabilitation services in an inpatient rehabilitation facility (IRF). IRFs may be specialized units within an acute care hospital, which constitute four of five IRFs, or specialized freestanding hospitals, which tend to be larger and make up the remainder of facilities.

In 2008, there were just over 1,200 IRFs in the United States, located in every state and the District of Columbia (Figure 3C-1). In 2008, the five states with the largest number of IRFs were Texas, Pennsylvania, California, New York, and Ohio—all states among the largest in general and Medicare population. The seven locations with the fewest IRFs were Hawaii, Maryland, Vermont, Delaware, Alaska, Wyoming, and the District of Columbia. IRFs are not the sole provider of rehabilitation services in communities; skilled nursing facilities (SNFs), home

TABLE 3C–1

Medicare FFS spending, volume, and utilization for IRFs

	TEFRA	PPS					Average annual change		
	2001	2002	2004	2005	2006	2007	2008	2002–2004	2004–2007	2007–2008
Medicare spending (in billions)	$4.51	$5.65	$6.43	$6.45	$6.29	$5.95	$5.84	6.7%	–2.6%	–1.8%
IRF FFS patients	N/A	398,000	451,000	410,000	369,000	338,000	332,000	6.5	–9.2	–1.7
IRF FFS patients per 10,000 FFS beneficiaries	N/A	115.2	124.9	112.5	103.0	96.2	95.6	4.1	–8.3	–0.6
Payment per case	$9,982	$11,152	$13,275	$14,248	$15,354	$16,143	$16,649	9.1	6.7	3.1
ALOS (in days)	14.0	13.3	12.7	13.1	13.0	13.2	13.3	–2.3	1.3	0.8

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), N/A (not available), ALOS (average length of stay). With respect to the number of IRF FFS patients in a particular year, each IRF FFS patient is counted only once during that year, regardless of whether the patient had multiple IRF admissions in that year.

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

health agencies, comprehensive outpatient rehabilitation facilities, and independent therapy providers also furnish rehabilitation services. Given the number and distribution of these providers of rehabilitation therapy services, it is unlikely that areas exist where IRFs are the only therapy provider available to Medicare beneficiaries.

About 332,000 Medicare fee-for-service (FFS) beneficiaries—nearly 1 percent of total FFS beneficiaries—received care in IRFs in 2008 (Table 3C-1). Relatively few Medicare beneficiaries use these services because they generally must be able to tolerate and benefit from three hours of therapy per day to be eligible for intensive rehabilitation treatment. Nevertheless, traditional Medicare is the principal payer for IRF services, accounting for about 60 percent of total discharges nationwide in 2008 (not including Medicare Advantage discharges).

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. 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 2004, all IRFs are paid under the IRF PPS.

Aggregate expenditures on IRF services in the Medicare FFS program grew after implementation of the PPS in 2002. In 2002, these expenditures totaled nearly $5.7 billion, and this figure grew at an annual rate of 6.7 percent to about $6.4 billion in 2004 (Table 3C-1). Between 2005 and 2008, however, aggregate FFS expenditures for IRFs fell, as more beneficiaries enrolled in Medicare Advantage plans and more facilities met the compliance threshold that CMS had reinstated in 2004 (see text box on compliance threshold, pp. 226–227). In 2008, aggregate FFS expenditures for IRF services totaled just over $5.8 billion.

To qualify as an IRF for Medicare payment, facilities must first 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 services;

- 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
- have no fewer than 60 percent of all patients admitted with at least 1 of 13 conditions, specified by CMS, as a primary diagnosis or comorbidity.[1]

Separate from these criteria that a facility must meet to be classified as an IRF, Medicare has coverage criteria that govern whether IRF services are covered for an individual Medicare beneficiary based on the patient's medical and rehabilitation needs. CMS recently updated and revised these coverage rules for the 2010 fiscal year[2] (see text box on the revised coverage requirements, pp. 234–235).

Are Medicare payments adequate in 2010?

To address whether payments for the current year (2010) are adequate to cover the costs that efficient providers incur and how much payments should change in the coming year (2011), 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, provider access to capital, and the relationship between Medicare's payments and providers' costs. Overall, the Medicare payment adequacy indicators for IRFs are generally positive.

Beneficiaries' access to care: IRF supply stable and volume changes minimal

We have no direct indicator of beneficiaries' access to care because there are no surveys specific to this population. However, our analyses of facility supply, occupancy rates, and volume of services provided suggest that beneficiaries' access to IRF care is sufficient.

Capacity and supply of providers: Stable supply of IRFs and relatively low occupancy rates in 2008

From 2002, the outset of the PPS, through 2008, the year for which we have the most recent data, the supply of IRFs has increased overall. From 2002 to 2005, the national supply of IRFs increased by 1.5 percent per year until it reached its peak of 1,235 facilities in 2005 (Table 3C-2, p. 228). After decreasing slightly by an annual rate of 1.3 percent between 2005 and 2007, the total number of IRFs was unchanged in 2008 at 1,202 facilities. Although the aggregate number of facilities did not change in 2008, the composition of providers shifted slightly to include more urban, freestanding, and for-profit facilities.

Trends over time in occupancy rates provide another view of IRFs' capacity to serve patients. The data, in sum, indicate that IRF capacity is adequate to handle current demand and could accommodate future increases (Table 3C-3, p. 228). For both freestanding and hospital-based facilities, occupancy rates have fallen throughout the decade. The decline in occupancy rates accelerated in 2004, coinciding with renewed enforcement of the compliance threshold. In 2008, the overall rate increased from the previous year by 1 percentage point to 62.3 percent, remaining down from 68.7 percent in 2002. Given that total patient discharges did not change between 2007 and 2008, this slight increase in occupancy is indicative of declining bed counts, which would be expected as IRFs adjust to the decline in discharges that occurred in recent years due to renewed enforcement of the compliance threshold. In 2008, the occupancy rate of freestanding IRFs (66.2 percent) was higher than that of hospital-based units (60.0 percent). IRF occupancy rates also vary by state, with most states' aggregate occupancy rate ranging from 50 percent to 70 percent.

Volume of services: Volume of FFS patients in IRFs stabilized in 2008

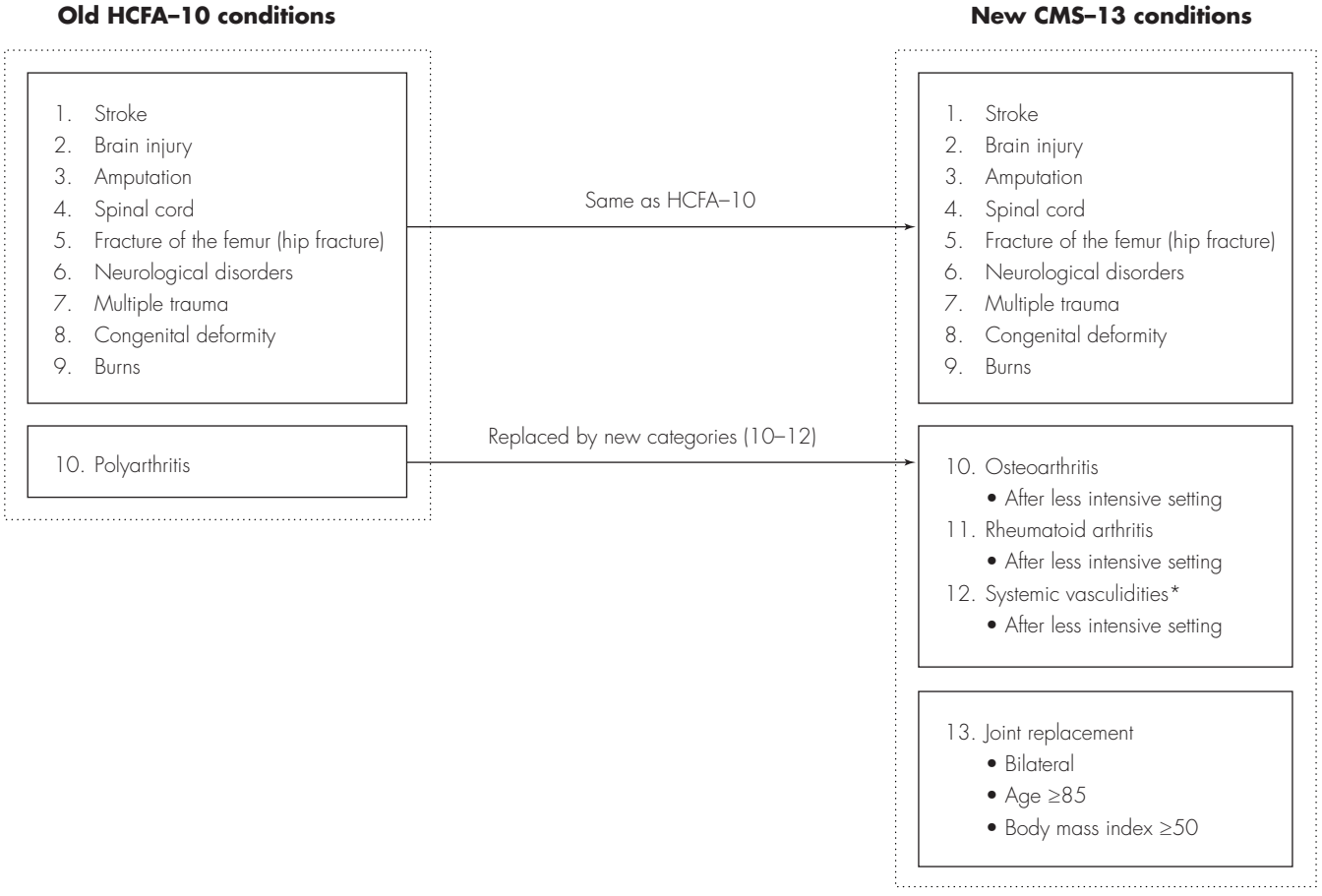
The volume of Medicare FFS beneficiaries treated in IRFs, which decreased substantially in recent years due to factors unrelated to the adequacy of Medicare payments, stabilized in 2008. We measure the volume of Medicare FFS patients in IRFs as the number of FFS IRF patients per 10,000 FFS beneficiaries. This measure of patient volume removes the impact of increased enrollment in Medicare Advantage and allows us to examine the

The compliance threshold for inpatient rehabilitation facilities

The "compliance threshold" refers to a requirement stipulating that inpatient rehabilitation facilities (IRFs) must serve a certain proportion of patients with certain diagnoses that CMS identified as typically requiring intensive inpatient rehabilitation. The intent of the compliance threshold is to distinguish IRFs from acute care hospitals in terms of primarily serving patients with conditions that CMS finds most indicative of the need for intensive inpatient rehabilitation. Currently, 60 percent of IRF cases at an individual facility must fall into 1 of the 13 diagnoses that CMS specified in 2004. Initially, from 1984 to 2004, the compliance threshold required that 75 percent of an IRF's cases fall in 1 of 10 diagnoses (Figure 3C-2). In 2002, CMS—at the time called the Health Care Financing Administration—discovered that its contracted fiscal intermediaries were using inconsistent methods to enforce the compliance threshold and that many IRFs did not comply with the rule. [3] As a result, CMS suspended its enforcement of the rule until it could determine whether the regulation should be modified.

FIGURE 3C–2

Change in the inpatient rehabilitation facility compliance 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.

(continued next page)

The compliance threshold for inpatient rehabilitation facilities (cont.)

In 2004, CMS redefined the arthritis conditions that counted toward the 75 percent rule to include only three specific 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 that has occurred since 2004. The average case mix of IRF patients also increased during this period, as IRFs admitted fewer joint replacement patients and other types of patients who did not count toward the compliance threshold. These patients tended to be less complex, as measured by the IRF prospective payment system (PPS) relative payment weights, 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;
- 65 percent, in cost reporting years beginning on or after July 1, 2007, through June 30, 2008; and
- 75 percent in cost reporting periods beginning on or after July 1, 2008.

However, the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) rolled back the compliance threshold to 60 percent and capped it at that level permanently, starting with cost reporting periods beginning on or after July 1, 2007. It also made permanent, via statute, CMS's 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. In addition, the legislation set the update for IRF base payment rates at zero for the last half of fiscal year 2008 and for all of fiscal year 2009 and directed the Secretary of Health and Human Services to study access to IRF care under the compliance threshold. This study would include an examination of conditions that are commonly treated in IRFs but that do not count toward the compliance threshold, as well as an analysis of alternatives to or refinements of the compliance criteria, specifically with respect to patients' functional status, their diagnoses, and their comorbidities. The Secretary was required to submit a report on these analyses to the Congress no later than 18 months after the date of enactment of the MMSEA, but this report had not been published as of January 2010.

Renewed enforcement of the compliance threshold in 2004 was controversial. Even though a threshold had been in place since 1984, CMS did not consistently enforce it. The revised rule categorized large classes of admissions as not counting toward the compliance threshold. In particular, CMS concluded that most joint replacement patients did not need the intensive rehabilitation services that IRFs provided and could receive rehabilitation services from alternative providers, such as acute care hospitals, skilled nursing facilities, outpatient rehabilitation providers, and home health agencies. IRFs not in compliance with the revised rule would lose their IRF classification and would be paid acute inpatient PPS rates for all cases, which generally are much lower than IRF PPS rates.[4] ■

prevalence of IRF use among Medicare FFS enrollees. In 2002, 115 of 10,000 FFS beneficiaries had an inpatient stay at an IRF; in 2004, this figure grew to 125 IRF patients but, by 2007, it declined to 96 IRF patients, a 23.0 percent decrease over three years (Table 3C-1, p. 224). The substantial decline in IRF FFS patients between 2004 and 2007 was largely the result of providers' adjustment to the CMS compliance threshold. Increased medical review of IRF claims by CMS contractors may also have contributed to the decline in IRF admissions.[5] The sharp decline in volume tapered off in 2008, slowing down from an annual decrease of 8.3 percent between 2004 and 2007 to a minimal decrease of 0.6 percent in 2008. This stabilization in IRF volume in 2008 coincides with actions taken by the Congress in late 2007 to permanently cap the compliance threshold at 60 percent.

TABLE 3C–2

Supply of IRFs stabilizes in 2008

	TEFRA	PPS					Average annual percent change		
Type of IRF	2001	2002	2004	2005	2006	2007	2008	2002–2005	2005–2007	2007–2008
All IRFs	1,144	1,181	1,221	1,235	1,225	1,202	1,202	1.5%	–1.3%	0.0%
Urban	984	1,002	1,024	1,025	1,016	998	1,000	0.8	–1.3	0.2
Rural	160	179	197	210	209	204	202	5.5	–1.4	–1.0
Freestanding	212	214	217	217	217	219	221	0.5	0.5	0.9
Hospital based	932	967	1,004	1,018	1,008	983	981	1.7	–1.7	–0.2
Nonprofit	724	751	768	768	758	740	738	0.7	–1.8	–0.3
For profit	270	274	292	305	299	288	291	3.6	–2.8	1.0
Government	150	156	161	162	168	174	173	1.3	3.6	–0.6

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). For all years, the rural/urban breakdown is by Core-Based Statistical Area definition.

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

Changes in patient mix have also occurred over time, due largely to the admission of a higher percentage of patients with diagnoses that meet the compliance threshold. The percentage of IRF cases that involve 1 of the 13 CMS-specified conditions has increased over time, according to analysis of proprietary data for a sample of IRFs (Table 3C-4).[6] In the first three years of renewed enforcement of the compliance threshold (2004–2006), the aggregate percent of Medicare cases meeting the threshold increased rapidly from 44.9 percent to 59.8 percent. However, when the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) capped the compliance threshold permanently at 60 percent in 2007, the compliance rate increased a moderate 1.5 percentage points over the next three years, from 61.2 percent in 2007 to 62.7 percent in 2009.

The average case mix of IRF patients has also increased in severity, resulting in higher payments per case and increased average lengths of stay. Cases that did not meet the compliance criteria were less complex, as measured by the IRF PPS relative payment weights, than cases that met the criteria in each of the years between 2004 and 2009, based on our analysis of proprietary data from eRehabData.com for a sample of IRFs. In 2004, for example, the relative payment weight for compliant cases averaged

TABLE 3C–3

Occupancy rate declines until 2007, edges up in 2008

							Percentage point change		
Occupancy rates	2002	2004	2005	2006	2007	2008	2002–2004	2004–2007	2007–2008
Freestanding	74.3%	71.9%	67.7%	64.7%	64.6%	66.2%	–2.4%	–7.3%	1.6%
Hospital based	65.5	65.3	62.9	60.4	59.5	60.0	–0.2	–5.8	0.5
Total	68.7	67.5	64.6	61.9	61.3	62.3	–1.2	–6.2	1.0

Note: Occupancy rate calculated based on total patient days divided by bed days available during the facility's cost reporting period.

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

TABLE 3C–4

Compliance rate of Medicare IRF cases increases, 2004–2009

	2004	2005	2006	2007	2008	2009
Estimated compliance rate of Medicare IRF cases	44.9%	55.5%	59.8%	61.2%	61.4%	62.7%

Note: IRF (inpatient rehabilitation facility). The data for 2009 are limited to discharges that occurred between January and September 2009. The compliance rate is the percent of IRF cases that fall into 1 of 13 CMS specified diagnoses. As of July 2007, 60 percent of a facility's cases must fall into one of these diagnoses for the facility to be paid as an IRF.

Source: MedPAC analysis of data from eRehabData®.

about 1.3, compared with about 0.9 for noncompliant cases. In 2009, the relative payment weight for compliant cases was 1.4, compared with 1.1 for noncompliant cases. Consequently, as IRFs adjusted their admission patterns to meet the compliance threshold, the average case mix of the IRF patient population has increased over time. According to our analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument (IRF–PAI) data, IRFs experienced an overall 2.3 percent increase in Medicare case mix from the first half of 2008 to the first half of 2009. The continued growth in case mix for 2009 appears to reflect continued movement away from hip and knee replacements, which have lower weight, as well as some increase in the severity of other patients treated by IRFs. As the average case mix of IRF patients increases, payment per case and the average length of stay (ALOS) are expected to increase as well. In the three periods (2002–2004, 2004–2007, and 2007–2008), payments per case increased at average annual rates of 9.1 percent, 6.7 percent, and 3.1 percent, respectively (Table 3C-1, p. 224). Although the ALOS in IRFs declined between 2002 and 2004, a trend consistent with implementation of the IRF PPS, the ALOS reversed trends and increased gradually from 2004 to 2008 as case mix increased.

This change in case mix is also apparent if we look at the shift in the diagnosis profile of Medicare FFS IRF patients since 2004 (Table 3C-5). Notably, among these cases, the relative share of major joint replacements of

TABLE 3C–5

IRF patient mix has changed, 2004–2009

	Percent of IRF Medicare FFS cases						
Type of case	2004	2005	2006	2007	2008	2009*	Percentage point change, 2004–2009
Stroke	16.6%	19.0%	20.4%	20.9%	20.4%	20.6%	4.0
Fracture of the lower extremity	13.1	15.0	16.1	16.4	16.0	15.5	2.4
Major joint replacement of the lower extremity	24.0	21.3	17.8	15.0	13.1	11.4	–12.6
Debility	6.1	5.8	6.2	7.7	9.1	9.2	3.1
Neurological disorders	5.2	6.2	7.0	7.8	8.0	9.0	3.8
Brain injury	3.9	5.2	6.0	6.7	7.0	7.3	3.4
Other orthopedic conditions	5.1	5.1	5.2	5.5	6.0	6.3	1.2
Cardiac conditions	5.3	4.2	4.0	4.2	4.6	4.9	–0.4
Spinal cord injury	4.2	4.5	4.6	4.6	4.3	4.3	0.1
Other	16.4	13.8	12.8	11.3	11.3	11.5	–4.9

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 taken from January through June of 2009.

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

TABLE 3C–6

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

DRG	Discharge destination	Percent of DRG discharges					Percentage point change in DRG share	
		2004	2005	2006	2007	2008	2004–2007	2007–2008
Major joint replacement/ hip and knee replacement	IRF	28%	24%	20%	16%	14%	–12%	–2%
	SNF/swing bed	33	34	35	36	36	3	0
	Home health	21	25	27	29	30	8	1
	All other settings	18	18	18	19	19	1	0
Stroke	IRF	18	18	19	19	19	1	0
	SNF/swing bed	27	26	26	26	25	–1	–1
	Home health	11	11	12	12	12	1	0
	All other settings	45	44	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 home. Numbers (percent of DRG discharges) may not sum to 100 percent due to rounding.

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

the lower extremity fell from 24.0 percent to 11.4 percent between 2004 and the first half of 2009. This decline is consistent with the more limited definition of compliant joint replacement cases adopted by CMS in 2004. During the same period, the relative share of stroke and fracture of the lower extremity cases increased from a combined 29.7 percent of cases to 36.1 percent.

In contrast, cases of debility, neurological disorders, and brain injury in IRFs have increased in both relative and absolute terms. Collectively, between 2004 and the first half of 2009, the relative share of these three conditions of all Medicare FFS cases increased from 15.2 percent to 25.5 percent. Between 2004 and 2008, the total number of Medicare FFS cases in IRFs for these three conditions also increased: 6.9 percent per year for brain injuries, 3.3 percent per year for neurological disorders, and 2.2 percent per year for debility (total case numbers not shown in Table 3C-5, p. 229). This absolute growth is particularly notable in light of the decrease in the FFS population since 2005. Growth in neurological disorder and brain injury cases may in part reflect facilities' greater focus on patients with conditions that meet the compliance threshold. The growth in debility cases is more surprising because it is not 1 of the 13 conditions included in the compliance threshold.

The decline in IRF FFS volume coinciding with renewed enforcement of the compliance threshold has raised questions about the impact of the compliance threshold on beneficiaries' access to care. The decrease in IRF patient volume is difficult to interpret because we cannot identify beneficiaries who would have received care in an IRF if not for the compliance threshold. If patients who need intensive rehabilitation are able to obtain appropriate care in other settings, the reduction in IRF patient volume over the last few years—while significant—may not constitute an access problem. To draw inferences about the effects of the compliance threshold on beneficiary access to care, we analyzed changes in post-hospital discharge destinations for patients likely to need rehabilitation from 2004 to 2008. We found that among stroke cases—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 (Table 3C-6). In contrast, for hip and knee replacement cases, a condition for which CMS has limited the types of cases that count toward the compliance threshold, the relative share of hospital patients discharged to IRFs has halved between 2004 and 2008. However, the share of patients with hip and knee replacements discharged to SNFs and home health agencies has increased during this period, filling in for the drop in discharges going to IRFs and suggesting that these beneficiaries were able to obtain rehabilitation care in other settings.

It is difficult to assess whether the rehabilitation care received is comparable across different post-acute settings in terms of quality, outcomes, and costliness. A Commission-sponsored study conducted by RAND found that post-acute care for a hip or knee replacement patient treated in an IRF cost Medicare roughly $4,400 more than care for a similar patient treated in a SNF in 2002 and 2003, but this finding must be interpreted cautiously (Beeuwkes Buntin et al. 2005). In measuring costs, this study did not consider costs associated with physician and outpatient services. In terms of outcomes, the study found that IRF patients were less likely than SNF patients to be institutionalized. The study made its best effort to control for observable and unobservable patient characteristics that influence the selection of a site of care, but the study acknowledged the difficulty of doing this fully and indicated that it could not rule out that some selection effects may remain. In addition, the study was unable to do a systematic analysis of functional gain, a more direct outcome measure for patients with hip and knee replacements than institutionalization, because of the lack of common patient assessment instruments across sites of service. As a result, given data and methodological limitations, it is difficult to draw definitive conclusions about the relative costs and outcomes for patients with hip and knee replacements in IRFs versus those in SNFs. In future work, we intend to continue to explore differences in costs and outcomes across post-acute care settings.

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. Efforts like this demonstration to develop a common patient assessment instrument are important for potential future efforts to develop a site-neutral payment system for post-acute care. The Commission supports the concept of a payment system for post-acute care that is based on a patient's clinical needs rather than on the location of care.

Quality of care: Indicators show improvement, but case-mix changes hinder drawing inferences about quality trends

Our indicators of quality of care provided by IRFs show some improvement from 2004 to 2009, although changes in IRF patient mix 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™), which is 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 a patient's caregivers (Deutsch et al. 2005). The total FIM score can range from 18 to 126, with a higher number meaning more functional independence.[7]

To measure quality improvement, we use the average FIM score at discharge minus the average FIM score at admission (commonly referred to as FIM gain). A larger number indicates more gain in functional independence between admission and discharge. We report this measure in two ways: we compare differences for all FFS Medicare patients treated in an IRF and for a subset of Medicare patients who were discharged home from an IRF.

Between 2004 and 2009, FIM gain between IRF admission and discharge increased for all Medicare FFS patients and the subset of patients who were discharged home (Table 3C-7, p. 232). Between 2004 and 2009, FIM gain increased 2.4 points for all FFS patients, from 22.4 to 24.8; among FFS patients discharged home, FIM gain increased 3.4 points, from 25.3 to 28.7.

The increases in FIM gain, however, may not represent actual quality improvements over time, as these estimates do not take into account underlying changes in patient case mix. For these FIM gains to accurately measure IRF quality over time, the functional status of patients at admission must be similar throughout the comparison period. In recent years, however, patients have had lower functional scores at admission than those in earlier years, reinforcing our observation that IRF patient severity has increased over time. Patients with a lower functional score at admission, by definition, have more potential to improve their FIM score over the course of their IRF stay. Consequently, it is unclear whether the higher FIM gain we observe over time is due to an improvement in quality or because IRFs have admitted a more impaired group of patients with more potential for improvement. We are analyzing risk-adjusted functional gain and other potential quality measures, which we anticipate will help us better measure trends in IRF quality in the future.

TABLE 3C–7

IRF patients' functional gain has increased

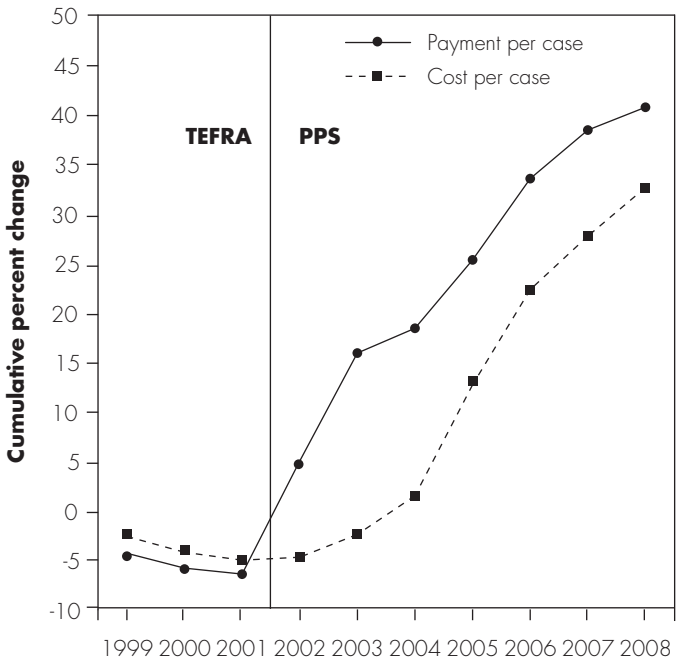
	2004	2005	2006	2007	2008	2009
All IRF patients						
FIM™ at admission	68.0	66.1	63.6	62.2	61.2	60.0
FIM™ at discharge	90.4	89.3	87.1	86.1	85.5	84.8
FIM™ gain	22.4	23.2	23.5	23.9	24.2	24.8
IRF patients discharged home						
FIM™ at admission	71.9	70.2	68.0	66.6	65.7	64.6
FIM™ at discharge	97.1	96.6	94.9	94.2	93.8	93.3
FIM™ gain	25.3	26.4	26.9	27.6	28.1	28.7

Note: IRF (inpatient rehabilitation facility), FIM™ (Functional Independence Measure™). FIM™ scores measure a patient's level of physical and cognitive functioning and range from 18 to 126, with a higher score indicating more functional independence. FIM™ gain may not equal FIM™ at discharge minus FIM™ at admission due to rounding. Data are for January 1–June 30 of each year.

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

FIGURE 3C–3

Overall, IRFs' payments per case have risen faster than costs, 1999–2008



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. Costs are not adjusted for changes in case mix.

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

Providers' access to capital: Credit markets appear to be normalizing

In our March 2009 report, we noted that economy wide disruptions in the credit markets had caused the health care sector to experience difficulties accessing capital and that this measure was probably not a useful indicator of Medicare payment adequacy under the circumstances (Medicare Payment Advisory Commission 2009). However, credit markets appear to be recovering from the previous year and are operating in a more normal manner.

Four of five IRFs are hospital-based units that have access to capital through their parent institution. As described in greater detail in our chapter on hospital inpatient and outpatient services, hospitals' access to capital has normalized throughout 2009, as evidenced by lower hospital bond interest rates, a level of bond offerings similar to that of 2007, and a steady amount of hospital construction. As a result, it is likely that hospital-based IRF units also have adequate access to capital.

As for freestanding facilities, an analysis of two major national chains finds that they continue to experience positive revenue growth and are able to access the capital markets. One major national chain of freestanding IRF providers is highly leveraged, but the providers' Medicare IRF margins remained high throughout 2008. In its quarterly report for the third quarter of 2009, the chain reported strong revenue growth, continued work

TABLE 3C–8

IRFs' Medicare margins, by type

	TEFRA	PPS					
Type of IRF	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
All IRFs	1.5%	10.9%	17.8%	16.6%	13.2%	12.4%	11.9%	9.5%
Urban	1.5	11.4	18.3	16.9	13.4	12.5	12.1	9.7
Rural	1.1	5.8	12.4	13.7	11.8	10.6	10.0	7.4
Freestanding	1.5	18.5	22.9	24.7	20.4	17.4	18.5	18.0
Hospital based	1.5	6.2	14.8	12.1	9.3	9.6	8.1	4.2
Nonprofit	1.6	6.6	14.6	12.7	10.3	10.7	9.7	5.3
For profit	1.2	18.6	23.8	24.4	19.3	16.2	16.8	16.8
Government	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beds								
1–10	0.8	2.1	5.0	5.9	1.2	–0.3	–1.4	–5.0
11–21	1.1	3.5	12.2	10.1	6.7	7.1	5.7	0.6
22–59	1.6	10.2	17.6	15.9	13.0	12.0	11.2	8.6
60+	1.7	17.0	22.7	23.1	19.0	17.7	18.0	17.0

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.

on several new facilities, and plans to refurbish existing facilities and expand into different markets, suggesting that it has access to the necessary capital. A second chain, operating six freestanding IRFs, has reported increased revenue and high margins in the third quarter of 2009; moreover, it financed its merger with another hospital company at the end of 2009 with a mix of fixed-income and equity offerings. Outside these two chains, most other freestanding facilities are independent or local chains of only a few providers (for profit or nonprofit). The extent to which these providers have access to capital is less clear.

Medicare payments and providers' costs: Overall, IRFs' payments have grown faster than costs since implementation of the PPS

With 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 3C-3). Renewed enforcement of the compliance threshold resulted in rapid growth in cost per case between 2004 and 2006, rising 10 percent per year on average, as case mix increased and the volume of cases declined. The decline in volume led to increased cost growth as occupancy rates fell and fixed costs were spread over a smaller volume of cases. Between 2006 and 2008, cost growth slowed to an average of 5.1 percent per year as patient volume steadied.[8] Part of this cost growth was due to an increase in patient case mix. From 2004 onward, payment increases have not kept pace with cost growth, but, on net, payments have still grown faster than costs since implementation of the PPS.

IRF Medicare margins declined in 2008 but remain healthy

In aggregate terms, the financial performance of IRFs with respect to Medicare remained substantially positive through 2008. 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 (Table 3C-8). After this rapid buildup, margins declined moderately each year but remained at a healthy 9.5 percent in 2008. The decline in margins over this period was mostly due to large drops in patient volume when fixed costs were being spread over fewer patients. The drop in margin from 2007 to 2008, however, was due largely to a mid-year drop in Medicare payment rates to 2007 levels.

Revised inpatient rehabilitation facility coverage requirements, effective January 2010

In its inpatient rehabilitation facility (IRF) prospective payment system 2010 final rule, CMS revised the coverage requirements for IRF services. The intent of this effort was twofold: (1) to update the existing coverage policy developed more than 25 years ago to better reflect current practices in inpatient rehabilitation services and (2) to promote greater transparency and consistency in the medical review of IRF claims (Centers for Medicare & Medicaid Services 2009). Under the coverage criteria that took effect on January 1, 2010, the following requirements must be met for a beneficiary's IRF admission to be considered reasonable and necessary:

- The patient requires therapy in at least two disciplines (physical therapy, occupational therapy, speech–language pathology, or prosthetics/orthotics), 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 three hours of therapy per day at least five days per week. Under this policy, an IRF admission for the purpose of assessing whether a patient is appropriate for IRF care is no longer covered. Moreover, therapy must begin within 36 hours from midnight of the day of admission.
- The patient is sufficiently medically stable at the time of the IRF admission to be able to actively participate in intensive therapy.
- 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.
- The patient requires an interdisciplinary approach to care.

(continued next page)

Like other Medicare sectors, margins vary substantially across providers. In 2008, IRF margins were –10.6 percent at the 25th percentile and 16.2 percent at the 75th percentile. Freestanding and for-profit IRFs—which had the highest margins in 2004 (greater than 20 percent)—continued to exhibit the best financial performance in 2008 with margins of 18.0 percent and 16.8 percent, respectively.[9] In comparison, hospital-based IRFs and nonprofit IRFs had lower margins, at 4.2 percent and 5.3 percent, respectively. In 2008, urban IRFs also showed a slightly higher aggregate margin (9.7 percent) than rural IRFs (7.4 percent), despite a 21 percent payment add-on for rural facilities.

Medicare margins also vary by the size of the IRF, with larger IRFs having higher margins than smaller IRFs. The difference in financial performance between large and small IRFs can also be observed within freestanding and hospital-based facility categories.[10] In addition to benefiting from economies of scale, large IRFs have higher occupancy rates than small IRFs, which likely contribute to their more favorable margins.

Medicare margins for 2010

To project the aggregate Medicare margin for 2010, we model the policy changes that went into effect in 2009 and 2010 as well as any policies scheduled to be in effect in 2011 other than the 2011 update. These policies include:

- holding the IRF base payment rate for fiscal year 2009 at the 2007 level, in accord with the MMSEA (this rate represents a 1.6 percent decrease in payments from the 2008 average level);[11]
- decreasing outlier payments for fiscal year 2009 by 0.7 percentage point to maintain a 3 percent outlier target (Centers for Medicare & Medicaid Services 2008);[12] and
- increasing payment rates by the full 2.5 percent market basket update for fiscal year 2010.

In recent years, the policy that we anticipated to have the most significant impact on projected margins was the phase-in of the compliance threshold. However, with

Revised inpatient rehabilitation facility coverage requirements, effective January 2010 (cont.)

As part of the coverage criteria, CMS established the following process and documentation requirements IRFs must follow to demonstrate that a patient meets the above coverage criteria:

- Comprehensive preadmission screening—Before an IRF admission (generally within 48 hours immediately preceding admission), a qualified clinician designated by a rehabilitation physician must adequately document the patient's condition and care needs to allow the rehabilitation physician to make an informed decision to admit the patient.
- Post-admission evaluation—A post-admission evaluation by a rehabilitation physician must occur within 24 hours of admission to verify that the preadmission screening information is accurate, identify relevant changes in the patient's condition, and begin development of a care plan.
- Individualized overall plan of care—Within 4 days of admission, an individualized overall plan of care must be developed by a rehabilitation physician for each patient.
- Interdisciplinary team—The interdisciplinary team is required to meet once per week, in contrast to the prior requirement of once every two weeks. The team must include a rehabilitation physician, a registered nurse with specialized training or experience in rehabilitation, a social worker or case manager, and a licensed therapist from each therapy discipline involved in treating the patient.
- A rehabilitation physician is required to approve the results of the preadmission screening, conduct the post-admission evaluation, and lead the interdisciplinary team. ■

the threshold now permanently capped at 60 percent, we believe IRFs will no longer need to reduce admissions to remain compliant. Occupancy rates for IRFs started to improve in 2008, with total patient volume also holding steady, suggesting that the decline in patient volume experienced by IRFs since 2004 has tapered off. Therefore, taking account of the recent legislation and other IRF policy changes, we project that aggregate Medicare margins will decline from 9.5 percent in 2008 to about 5.0 percent in 2010. 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 2009. The margin projection for 2010 assumes that costs will increase at the market basket and does not assume increased cost control efforts by IRFs in response to fiscal pressure from the MMSEA's elimination of IRF updates, the decline in discharges in recent years, or the recession. To the extent that IRFs restrain their cost growth in response to these economic pressures, the projected 2010 margin could be higher than we have estimated.

How should Medicare payments change in 2011?

The statutory payment update for IRFs is the market basket for rehabilitation, psychiatric, and long-term care hospitals, which is currently forecast to be 2.4 percent for 2011.[13] IRFs should be able to accommodate cost changes in fiscal year 2011 with payments held at 2010 levels.

RECOMMENDATION 3C

The update to the payment rates for inpatient rehabilitation facility services should be eliminated for fiscal year 2011.

RATIONALE 3C

Our indicators of Medicare payment adequacy are relatively positive. Capacity remains adequate to meet demand. Although IRFs' efforts to meet the compliance threshold since 2004 had a significant impact on IRF

volume, this decline was consistent with the underlying reason for the compliance threshold—to direct the most clinically appropriate types of cases to this intensive, costly setting. With the compliance threshold permanently set at 60 percent, the decline in the volume of Medicare FFS patients in IRFs tapered off in 2008. Our projected 2010 aggregate Medicare margin is about 5.0 percent, down from an estimated 9.5 percent in 2008. To the extent that IRFs restrain their cost growth in response to fiscal pressure from the MMSEA's zero updates, the decline in patient volume in prior years, or the economic downturn, the projected 2010 margin could 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 2011. 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 3C

Spending

- This recommendation would decrease federal program spending relative to current law by between $50 million and $250 million in 2011 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 with respect to access to care or out-of-pocket spending. 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 meeting the compliance threshold 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 the Commission's payment basics document at http://www.medpac.gov/documents/MedPAC_Payment_Basics_09_IRF.pdf.

2 Before January 2010, for Medicare coverage of IRF services for an individual beneficiary, the services had to be reasonable and necessary for treatment of the patient's condition, and it had to be reasonable and necessary to furnish the care on an inpatient hospital basis rather than in a less intensive setting.

3 The Health Care Financing Administration administered Medicare and was renamed the Centers for Medicare & Medicaid Services.

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

5 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.

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

7 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.

8 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.

9 The freestanding and for-profit IRFs are dominated by one provider chain that accounts for about one-half of freestanding and for-profit IRF capacity and revenues and about one-fifth of capacity and revenues for the industry.

10 In 2008, for example, the aggregate margin for hospital-based IRFs with 60 or more beds was 9.0 percent, while that of hospital-based IRFs with 10 or fewer beds was –5.7 percent.

11 IRFs received a 3.2 percent market basket update for the first half of 2008, with the base rate returning to the 2007 level for the second half of the year. In fiscal year 2009, the base rate continued at the 2007 level. As a result, the 2009 base rate was 1.6 percent lower than the average base rate for 2008.

12 In the fiscal year 2009 IRF final rule, CMS projected that actual outlier payments in fiscal year 2008 would be 3.7 percent of total payments. Consequently, CMS adjusted the outlier threshold for fiscal year 2009 to achieve the standard target of outlier payments equaling 3.0 percent of total payments for fiscal year 2009. This adjustment is projected to result in a 0.7 percentage point decrease in total IRF payments in 2009 relative to 2008 (Centers for Medicare & Medicaid Services 2009).

13 This forecast was made in the fourth quarter of 2009. CMS will use the most recent forecast available when setting updates, likely the second quarter 2010 forecast for 2011, which may differ from the number we report here.

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