DEPARTMENT OF HEALTH & HUMAN SERVICES

Centers for Medicare & Medicaid Services

200 Independence Avenue SW
Washington, DC 20201

November 30, 2005

Interested Investors and Analysts:

In the past year, I have received a number of detailed questions from many of you regarding the Medicare Inpatient Rehabilitation Facility (IRF) Prospective Payment System (PPS) and, in particular, recent changes to the so-called "75 percent rule." In order to more effectively respond to these questions, I have worked with my colleagues at CMS to provide some insight and analysis on key aspects of this policy area, which has also been of interest to health care providers and policy makers.

This memorandum highlights the IRF payment system, Medicare's rationale for treating inpatient rehabilitation facilities differently from standard acute care inpatient hospitals, the assumptions CMS uses to estimate the economic impact of regulatory changes, and the implication of these estimates. It also presents data on Medicare spending for IRFs over time, and illustrates how IRF admission and discharge practices have changed with the introduction of the prospective payment system in 2002, and during the two-year suspension on enforcement of the 75 percent rule. I hope this will serve as a valuable resource and help answer questions concerning Medicare payments to this industry.

In addition, I hope this memo will help to improve understanding of Medicare's policies for IRFs and CMS's responsibilities in evaluating and managing these policies. There are two key points in this regard. First, Medicare pays IRFs at a higher rate than other hospitals because IRFs are designed to offer specialized rehabilitation care to patients with the most intensive needs. CMS maintains criteria, such as the 75 percent rule, in order to distinguish between IRFs and acute inpatient hospitals that are paid under the inpatient hospital PPS (IPPS). Second, CMS's primary concerns in managing the IRF payment system are ensuring that Medicare's payments are accurate and that beneficiaries have access to high quality care in the most appropriate setting.

Finally, as noted above, this memorandum attempts to clarify the role and CMS's approach to regulatory impact analysis. This is an area where CMS has observed a number of misperceptions surrounding our analysis of the 75 percent rule. These analyses are an important part of the rulemaking process and represent CMS's best effort to project the economic impact of a rule change based on the data available at the time of publication. It is important to note that these are estimates and make no attempt to predict the behavioral response of providers related to a regulatory change, nor do they represent absolute budgetary or spending targets for the program. As an example, IRF expenditures after the introduction of the PPS were well in excess of CMS estimates (over 20 percent higher), which were based on historical rates of growth. Medicare, however, has no entitlement to recover these "excess" payments.

I hope this memorandum helps you to better understand Medicare payment for IRFs. Please do not hesitate to contact me with any questions you may have at lvanderwalde@cms.hhs.gov.

Sincerely,

Lambert van der Walde
Capital Markets Advisor to the Administrator

INPATIENT REHABILITATION FACILITY PPS AND THE 75 PERCENT RULE

EXECUTIVE SUMMARY

This memorandum highlights details of Medicare's Inpatient Rehabilitation Facility (IRF) payment system, the rationale for treating inpatient rehabilitation facilities differently from standard acute care inpatient hospitals, the assumptions we use to estimate the economic impact of rules changes, and the implications of these estimates. It also presents data on Medicare IRF spending over time and how IRF admission and discharge behavior changed with the introduction of the IRF prospective payment system (PPS) in 2002 and the suspension of the 75 percent rule.

Background

- Medicare pays IRFs at a higher rate than other hospitals because IRFs are designed to offer specialized rehabilitation care to patients with the most intensive needs.
- The "75 percent rule" has been part of the criteria for defining IRFs since the implementation of the hospital inpatient prospective payment system (IPPS) in 1983. The purpose of the criteria is to ensure that IRFs, which are exempt from the hospital inpatient PPS, are primarily involved in providing intensive rehabilitation services to patients that cannot be served in other, less intensive rehabilitation settings.
- In order for an IRF to be paid under the IRF PPS instead of the acute care hospital inpatient PPS, the 75 percent rule previously required that a certain percentage of the facility's patients require intensive multidisciplinary inpatient rehabilitation and have one or more of 10 medical conditions. In 2004, CMS updated the 75 percent rule, expanding the qualifying medical conditions to 13.

Payments and Expenditures at IRFs

- Preliminary estimates by the CMS Office of the Actuary show that industry margins comparing payments to costs for hospital-based IRF units are in the low-to-mid teens (i.e., 12.2 to 14 percent for FY 2003).
- The RAND Corporation has estimated that, for all IRFs in 2002, payments exceeded costs by 17 percent.
- Further, the RAND analysis shows that, by 2002, most IRFs had shifted their patient population from patients with the 10 medical conditions that had been used to determine compliance as an IRF to hip and knee joint replacement patients. However, these patients can generally be managed effectively in other, less intensive rehabilitation settings, according to numerous clinical reviews.
- For the five years prior to implementation of the IRF PPS, payments under the cost-based system grew at a compound annual growth rate (CAGR) of 4.8 percent. This expenditure increase correlates with significant increases in both the number of IRFs and the volume of IRF claims.
- IRF payments in the first 3 years of the new IRF PPS were in excess of CMS projections by about 25 percent each year and grew at an annual growth rate of over 13 percent.

Access to Rehabilitation Care

- CMS's primary concerns in managing the IRF payment system are ensuring that:
  - beneficiaries have access to high quality care in the most appropriate setting and
  - Medicare payments are appropriate for the services provided.

- There are significant state and regional differences in the distribution of IRFs. More than one-third of IRFs are located in just a handful of states, including Texas, Pennsylvania, California, New York, Louisiana, and Ohio. Further, IRFs are distributed unevenly across the Medicare population with densities that vary from less than one IRF per 100,000 Medicare beneficiaries to over ten per 100,000 Medicare beneficiaries.
    - Despite this variation in IRF distribution, patients requiring post-acute rehabilitation who reside in areas where there are no IRFs have access to such services, receiving care in other post-acute care settings, including skilled nursing facilities, long-term care hospitals, outpatient rehabilitation facilities, and in the home via home health care.
- It is also important to ensure that beneficiaries are receiving the appropriate level of rehabilitation care in the right setting. The 75 percent rule works to do this by insuring that IRFs continue to provide care to patients who have a need for a more intensive level of therapy than is generally required.
- During the gradually phased-in enforcement of the 75 percent rule, Medicare claims data show that patients, who might have been treated in an IRF but who have clinical conditions appropriate for care outside of an IRF, are now getting needed care in other more appropriate and less costly settings.
    - For example, industry data analysis has shown that the five categories of IRF diagnoses experiencing the greatest decrease in claims volume between 2003 and 2005 are: lower extremity joint replacement, miscellaneous, cardiac, osteoarthritis, and pain syndrome.
    - These five categories are associated with conditions that are not generally considered to require the intensive rehabilitation provided by IRFs and can often be more appropriately cared for in other less intensive settings.
    - Medicare admissions for musculoskeletal conditions (e.g., single joint replacements) and medical conditions (e.g., pain, pulmonary, miscellaneous, etc.) increased rapidly prior to and during the period of IRF PPS implementation and suspension of the 75 percent rule. Once monitoring procedures were reinstituted using the updated 75 percent rule, Medicare admissions for these conditions have appropriately decreased.
    - Admissions for nervous system and brain conditions, which are generally assumed to require intensive rehabilitation, decreased prior to and during the period of IRF PPS implementation and suspension of the 75 percent rule. Admissions for these complex conditions are now appropriately increasing.

Impact Analysis of the 75 Percent Rule

- In recent months, IRF industry stakeholders have used differences between the regulatory impact analysis included in the IRF classification criteria final rule (published on May 7, 2004) and actual provider experience since July 2004 to question the validity of the updated IRF classification criteria. It appears that some of the assumptions made by industry stakeholders are based on a misunderstanding of the purpose and scope of a regulatory impact analysis.
- CMS does not use impact analyses as expenditure targets and does not manage Medicare programs to meet the estimates set forth in regulatory impact analyses. Instead, CMS regularly conducts reviews and analyses of program data *after* the policy implementation in order to evaluate the actual impact and effectiveness of the policy change.
- The reality of the situation is that very few IRFs have been reclassified since enforcement of the criteria was reintroduced in 2004.

INTRODUCTION OF THE IRF PPS

The Balanced Budget Act of 1997 (BBA) and subsequent legislation directed CMS to develop and implement prospective payment systems for hospitals (and units of hospitals) that had been exempted from the acute care hospital inpatient PPS (IPPS) and paid under cost-based reimbursement rules. This included psychiatric hospitals, long-term care hospitals, and inpatient rehabilitation hospitals. After conducting a comprehensive research program in collaboration with the RAND Corporation and others, and publishing proposed and final regulations, CMS implemented the IRF PPS on January 1, 2002. The new PPS was specifically developed to account for the variation in resource use and costs of providing intensive rehabilitation care in IRFs.

The PPS provides for a single pre-determined payment rate per discharge. The payment rate is adjusted to reflect differences in patient resource use (case mix), age, and comorbitities. There are also a number of facility level adjustments including adjustments for the geographic wage index, rural location, a low income percentage, and teaching status. Data are derived from a comprehensive clinical assessment of each patient, which is used in establishing the case mix adjustment. Outlier payments for the most costly cases are also available. IRF payments are significantly higher than IPPS payments for comparable rehabilitation services. The base IRF PPS payment amount (prior to adjustments) is $12,762 per discharge in FY 2006 versus $5,152 for IPPS.

Providers have experienced strong financial performance under the new PPS as evidenced by an expenditure growth rate of 13.8 percent, and positive Medicare margins for hospital-based IRF units of between 12 and 14 percent (an expanded discussion of these results follows). Of note, Medicare accounts for an average of 70 percent of IRFs' patient population.[1] In addition, subsequent studies aimed at determining the impact of the PPS on patient utilization and access found no problems with access to care as a result of the introduction of the PPS.[2]

DEVELOPMENT OF THE IRF PAYMENT STRUCTURE

Prior to the introduction of the inpatient prospective payment system (IPPS), the intensive rehabilitation services that were furnished by specialized hospitals or hospital units were reimbursed under the same cost-based methodology that applied to other hospital services. With the adoption of the IPPS in 1983, IRFs were defined separately from acute care hospitals and exempted from the IPPS. This distinction was made by Congress because:

- CMS analyses indicated that there was a segment of the inpatient hospital population that needed intensive rehabilitation.
- These rehabilitation services had typically been performed as part of the inpatient hospital stay and had been reimbursed under the Medicare Part A hospital benefit.
- The DRG system that was developed for IPPS did not adequately account for the costs incurred by hospitals and units that specialized in providing inpatient rehabilitation services.

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[1] Carter, G.M., O. Hayden, S.M. Paddock, B.O. Wynn (2003). *Case Mix Certification Rule for Inpatient Rehabilitation Facilities.* Santa Monica, CA: RAND, DRU-2981-CMS.

[2] Beeuwkes Buntin, M., G.M. Carter, O. Hayden, C. Hoverman, S. Paddock, B.O. Wynn. (2005). *IRF Care Use Before and After Implementation of the IRF PPS.* Santa Monica, CA: RAND, DRR-3325-CMS.
Beeuwkes Buntin, M., J. Escarce, C. Hoverman, S. Paddock, M. Totten, B.O. Wynn. (2005). *Effects of Payment Changes on Trends in Access to Post-Acute Care.* Santa Monica, CA: RAND, DRR-3324-CMS.
http://www.rand.org/publications/TR/TR259/

CMS recognized the importance of ensuring that beneficiaries continued to receive these needed services by creating a modified cost-based reimbursement system for both hospital rehabilitation units and free standing rehabilitation hospitals. This payment system then remained in effect until the introduction of the IRF PPS in 2002.

ESTABLISHING PROVIDER CLASSIFICATION CRITERIA FOR IRFS – THE 75 PERCENT RULE

As explained above, IRFs were designed to meet the needs of the segment of the inpatient hospital population who required intensive rehabilitation therapy as the result of a major illness or injury. The intent of the policy was to guarantee care for this atypical subset of patients while, at the same time, minimizing incentives to "game" the IPPS by transferring other types of hospital patients to this cost-based unit. Similarly, treatment in an IRF was not expected to replace the traditional post-acute services used by the majority of beneficiaries such as outpatient rehabilitation, skilled nursing facilities, and home health care.

CMS developed a series of criteria to distinguish the IRF services from both traditional hospital care and traditional post-acute care. In developing these criteria, CMS staff consulted with a variety of sources including the Joint Commission on Accreditation of Hospitals (JCAH),[3] and other accrediting organizations. The criteria included in our definition of a rehabilitation hospital incorporated some of the accreditation requirements used by these organizations. In addition, in the September 1, 1983 inpatient hospital rule,[4] CMS established the "75 percent" rule as follows:

> The hospital must be primarily engaged in furnishing intensive rehabilitation services as demonstrated by patient medical records showing that, during the hospital's most recently completed 12-month cost reporting period, at least 75 percent of the hospital's inpatients were treated for one or more conditions specified in these regulations that typically require intensive inpatient rehabilitation.[5]

The eight original medical conditions specified in the regulation were stroke, spinal cord injury, congenital deformity, amputation, major multiple trauma, fracture of femur (hip fracture), brain injury, and polyarthritis, including rheumatoid arthritis.[6] On January 3, 1984, we published a final rule,[7] which responded to comments, adding neurological disorders (including multiple sclerosis, motor neuron diseases, polyneuropathy, muscular dystrophy, and Parkinson's disease) and burns to the 75 percent rule's original list of eight medical conditions.[8] (See Appendix A, "HCFA 10")

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[3] JCAH is currently known as the Joint Commission on Accreditation of Healthcare Organizations.

[4] *Medicare Program; Prospective Payments for Medicare Inpatient Hospital Services* Interim Final Rule with Comment Period (48 FR 39752)

[5] 48 FR 39756, This requirement was originally specified in §405.471(c)(2)(ii) of the regulations.

[6] This list of eight medical conditions was partly based upon the information contained in a document entitled *Sample Screening Criteria for Review of Admissions to Comprehensive Medical Rehabilitation Hospitals/Units.* This document was a product of the Committee on Rehabilitation Criteria for Professional Standards Review Organizations of the American Academy of Physical Medicine and Rehabilitation and the American Congress of Rehabilitation Medicine. In addition, we received input from with the National Association of Rehabilitation Facilities, and the American Hospital Association.

[7] *Medicare Program; Prospective Payment for Medicare Inpatient Hospital Services* (49 FR 234). On page 240 of that final rule, we summarized comments that requested inclusion of neurological disorders, burns, chronic pain, pulmonary disorders, and cardiac disorders in the 75 percent rule's list of medical conditions. Our analysis of these comments led us to agree that neurological disorders (including multiple sclerosis, motor neuron diseases, polyneuropathy, muscular dystrophy, and Parkinson's disease) and burns should be added to the 75 percent rule's original list of eight medical conditions. (49 FR 240)

[8] In this final rule, we did not agree with comments that we lower from 75 to 60 the percentage of patients that must meet one of the medical conditions. Nor did we agree with comments urging us to use IRF resource consumption, instead of a percentage of patients that must have one or more of the specified medical conditions, to help define an IRF. (49 FR 239-

Since the mix of services is different, the payment rates for IRFs are substantially higher for providing rehabilitation services than the IPPS rates for similar services. Thus, the purpose of the 75 percent rule is to ensure that the appropriate payment is made to each type of provider. An IRF that fails to meet the classification criteria, however, is NOT disqualified from participation in the Medicare program. The IRF is simply reclassified as an acute care hospital, and continues to be paid, but at the more appropriate IPPS rate. To date, CMS contractors confirm that seven providers have been reclassified since the 75 percent rule has been reinforced.

TRANSITION FROM IRF COST-BASED REIMBURSEMENT TO THE PROSPECTIVE PAYMENT SYSTEM

In accordance with the BBA requirement to introduce a prospective payment system for IRFs, CMS contracted with RAND to design, implement, and monitor the effectiveness of an IRF PPS. In the Fall of 2001, CMS became aware of inconsistencies in the methodology Medicare contractors were using to determine provider classification under the 75 percent rule. Due to concerns that these inconsistencies could negatively affect providers during the initial transition to the IRF PPS, CMS placed a moratorium on enforcing the provider classification regulations. On June 7, 2002, contractors were instructed to postpone any action to de-classify an IRF that failed to meet the classification percentage. CMS acted on the assumption that provider case mix and utilization would remain stable while CMS acted to standardize the provider classification procedures.

CMS then commissioned a study performed by the RAND Corporation to examine the 75 percent rule. RAND found that:

> The 75 percent rule…does not describe current Medicare case mix at IRFs, and has not since at least the mid-1990s. In 2002 only half the Medicare patients in IRFs had one of these ten conditions; only 13% of IRFs had at least 75 percent of their 2002 cases in one of these conditions. In most hospital groups that we examined, less than 40% conform to the rule.[9]

RAND also discovered that at IRFs, "Non-Medicare cases are more likely to be in one of the ten conditions than Medicare cases."[10] It was clear from the RAND report that many IRFs had shifted their patient population from the ten medical conditions used to determine compliance to hip and knee joint replacement patients. RAND found:

> More than half of the cases that are not in the ten conditions have osteoarthritis. Based on informal conversations, we believe that many persons in the hospital industry believe that osteoarthritis counts as one of the ten conditions. A definition of polyarthritis provided by the National Library of Medicine[11] defines polyarthritis as "arthritis involving two or more joints." There is a strong correlation between the cases with osteoarthritis and those with LE [lower extremity] joint replacement. Eighty-six percent of the excluded LE joint replacement cases have osteoarthritis. Some people may believe that, because osteoarthritis was the cause of the joint replacement, the patients are receiving rehabilitation for their arthritis. Further, all the cases in RIC 12[12] are receiving rehabilitation primarily for their osteoarthritis. Counting the osteoarthritis cases that are in RICs 8 and 12 would cut the number of cases not in the condition by half, raising the percent of cases in one of the ten conditions to roughly 75 percent. This, in turn, would greatly increase the proportion of hospitals that [comply with the classification criteria].[13]

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240) We also rejected suggestions, which proposed that when an IRF could not meet the 75 percent rule the facility could still be defined as an IRF, based on the types of services it furnished.

[9] Carter, G.M., O. Hayden, S. M. Paddock, B. O. Wynn (2003). *Case Mix Certification Rule for Inpatient Rehabilitation Facilities.* Santa Monica, CA: RAND, DRU-2981-CMS

[10] *ibid.*

[11] www.nlm.nih.gov/medlineplus/mplusdictionary.html

[12] Rehabilitation Impairment Category (a payment code)

[13] Carter, *et.al.* (2003)

Based on the RAND findings and our own internal review, CMS issued a Notice of Proposed Rulemaking that revised the old list of ten conditions and created a "new" list of thirteen conditions. We eliminated polyarthritis and replaced it with four codes that more accurately define several osteoporotic conditions requiring intensive inpatient rehabilitation. (See Appendix B, "CMS 13.")

On May 7, 2004, after a lengthy rulemaking process that included significant input from a wide range of stakeholders, we published a final rule[14] that revised the compliance percentage that the IRF's total inpatient population must meet. We initially set it at 50 percent, but specified that the percentage would gradually rise to 75 percent over four years. In addition, the rule implemented the revised list of thirteen medical conditions used to determine compliance. This rule became effective on July 1, 2004, lifting the moratorium on enforcing the provider classification criteria.

In the last few months, industry stakeholders have pointed to differences between our May 7, 2004 regulatory impact analysis and actual provider experience since July 2004. They have used these differences to question the validity of the provider classification criteria. The Moran Company presents this argument in an analysis commissioned by several trade associations. While we welcome industry analyses, we believe that some of the assumptions made in this report are based on a misunderstanding of the purpose and scope of a regulatory impact analysis. The Moran report used 2002 as the base year for comparison to 2003 through 2005. The Moran report itself acknowledges that it is difficult to definitively confirm trends over a short period of time. Another problem with using 2002 as the base year is that provider behavior patterns changed significantly between 2001 and 2002 in response to implementation of the IRF PPS beginning in 2002.

IMPACT ANALYSIS OF THE NEW 75 PERCENT RULE

An impact analysis is performed to provide the public with information needed to evaluate proposed policy changes. CMS is required to produce a regulatory impact analysis for most rules, and the May 7, 2004 IRF rule was no exception.[15] In order to put the proposed change in perspective, the impact analysis is projected on the assumption that all other variables remain constant. Thus, historical data on provider behavior, utilization of services, and expenditure levels are simply trended forward to better show the effect of the single policy change under review.

For example, when the impact analysis was performed for the August 7, 2001 final rule that implemented the IRF PPS, recent payments under the cost-based system grew at a compound annual growth rate (CAGR) of 4.8 percent from 1996 to 2001. CMS projected that under IRF PPS, the CAGR would be 5.6 percent, but actual experience from 2001 to 2004 shows a 13.8 percent CAGR in the first three years of the PPS (it is still too early to calculate actual spending for 2005).

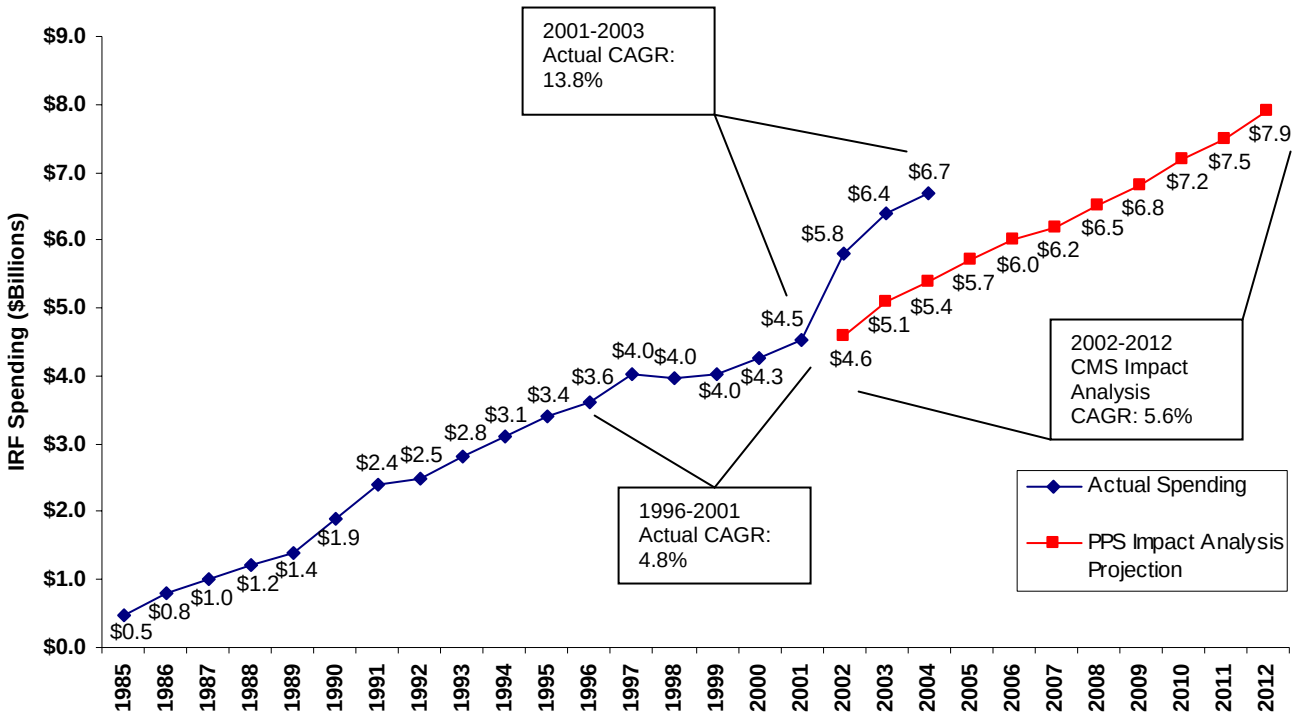
Likewise, actual payments in the first three years of IRF PPS, 2002-2004, were much higher than projected, with increases of $1.2 billion (26.1 percent), $1.3 billion (25.5 percent), and $1.3 billion (24.1 percent), respectively. As shown in Figure 1, while CMS predicted a moderate increase in IRF

[14] *Medicare Program; Changes to the Criteria for Being Classified as an Inpatient Rehabilitation Facility*, May 7, 2004 (69 FR 25752)

[15] Requirements include Executive Order 12866 for major rules with economically significant effects ($100 million or more); the Regulatory Flexibility Act (RFA) for small entities (most Medicare providers and suppliers are considered small entities, either by nonprofit status or by having revenues of $6 million to $29 million in any one year); and Section 1102(b) of the Social Security Act for any rule that will have a significant impact on the operations of a substantial number of small rural hospitals. For the reasons stated above, CMS prepared an analysis under the RFA and section 1102(b) of the Act because we determined that it was a major rule and the policies set forth in the proposed and final rule would have a significant impact on all IRFs (small entities and small rural hospitals).

expenditures based on historical growth rates, actual spending was significantly higher. These data suggest that other factors, including changes in provider behavior in 2002 and 2003 after enforcement of the 75 percent rule was suspended.

Figure 1: IRF Spending 1985-2004 and PPS Estimates 2002-2012



Source: MedPAC: 1985-1996, CMS/OACT: 1997-2004 and projections 2002-2012

Similarly, in constructing the impact analysis for the revised 75 percent rule, CMS and its contractor, RAND, reviewed the data showing wide-spread non-compliance and made the following assumptions related to provider case mix and admission practices:

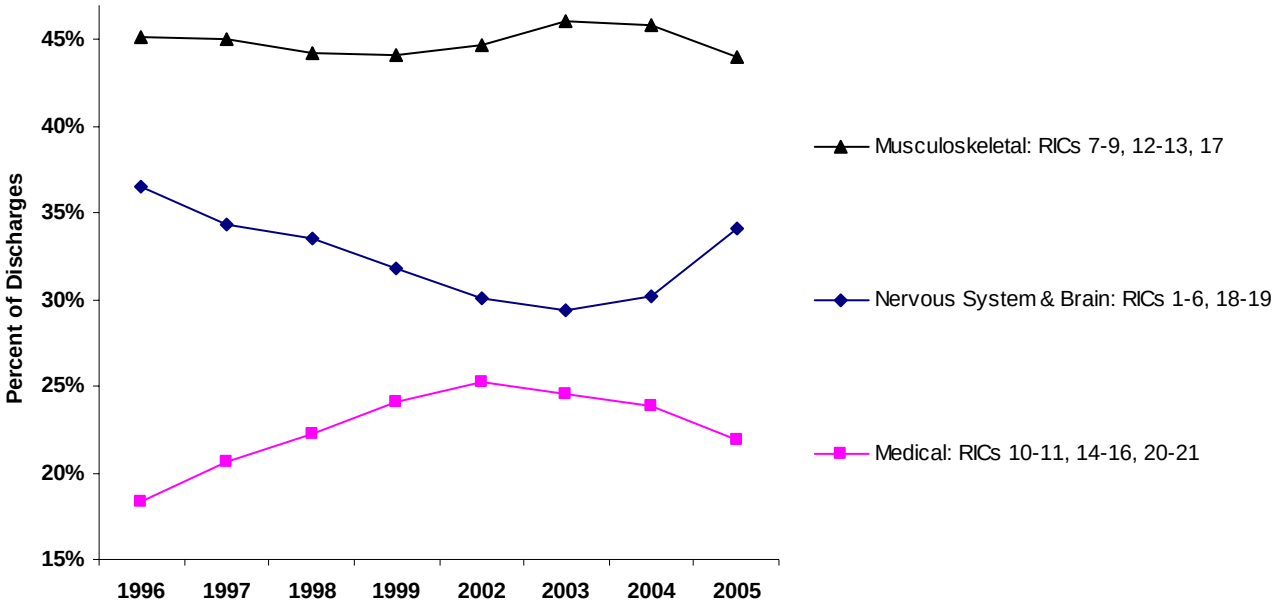
- Using the best available claims data to determine projected compliance percentages would result in a 10 percent underestimate due to poor clinical coding. In other words, 10 percent of the cases that were being identified as out of compliance would actually meet the criteria if the ICD-9 coding had been more accurate.
- When the updated classification criteria were applied, approximately 50 percent of the joint replacement cases would meet the clinical criteria set forth in the final rule.

In other words, CMS gave providers' historical application of the 75 percent rule the benefit of the doubt. More recent analyses have also shown changes in the mix of IRF patients. As shown in Figure 2, from the mid-1990s to the introduction of the IRF PPS, the volume of cases that would be likely to require IRF care was decreasing as providers admitted a greater number of patients with other treatment needs. This pattern became even more evident from 2002 to 2004 when the moratorium was in effect. In 2004, however, the pattern started reversing with IRFs increasing the number of stroke, brain injury, and nervous system patients while decreasing the number of lower extremity joint replacements. As noted in the Moran report, the decreased claims volume identified since 2004 is almost totally attributable to cases in one of five condition categories: lower extremity joint replacement, miscellaneous, cardiac, osteoarthritis, and pain syndrome. With respect to these conditions, the Moran Company notes that:

> Four of these represent diagnostic categories singled out by CMS, in the preambles to both the proposed and final rules, as being most likely to be subject to scrutiny under the Rule. The fifth category, 'Miscellaneous,' is by nature comprised of cases that are difficult to categorize by diagnostic category, and hence likely to be affected under the enforcement regime implemented in the Final Rule."[16]

Thus, the five categories that the Moran Company shows experiencing the greatest changes in IRF admissions between 2003 and 2005 are precisely those conditions that the 75 percent rule was designed to have an impact on because they are not generally thought to require the intensive rehabilitation provided by IRFs. The clinical experts that CMS consulted in revising the 75 percent rule criteria indicated that patients with these conditions could typically be appropriately cared for in other less intensive settings.

Figure 2: Changes in IRF Patient Mix by Type of Service



Note: underlying data shown in Appendix D. 1996-1999 from RAND Sample, 2002-2005 from CMS Medicare claims, 2000 and 2001 claims not available.

Since impact analyses cannot reflect unanticipated changes that occur after the analyses are completed, CMS underestimated the extent to which IRFs would increase the numbers of patients that did not meet the 75 percent rule criteria and, therefore, the degree to which IRFs would later need to adjust their operating procedures to meet the provider classification criteria. However, the difference between projections and actual experience does not invalidate the policy.

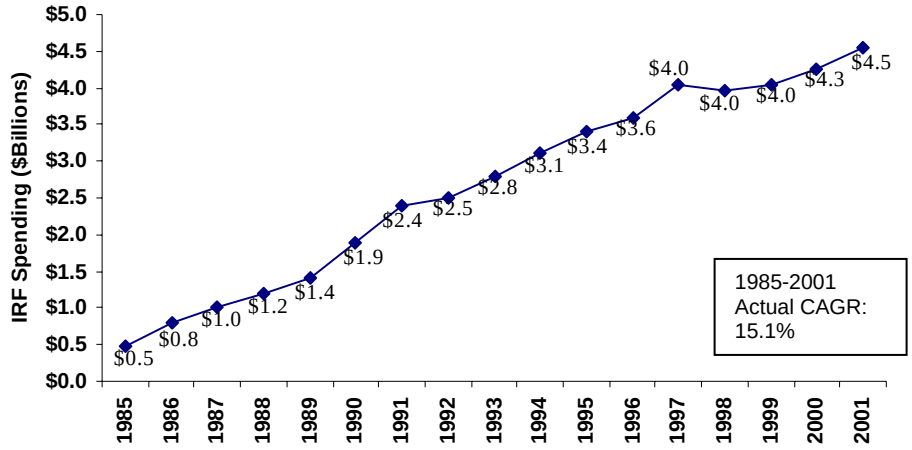
Due to the methodology used to develop a Medicare economic impact analysis, CMS does not use impact analyses as expenditure targets and does not manage Medicare programs to meet the estimates set forth in impact analyses Instead, CMS regularly conducts reviews and analyses of program data *after* the policy implementation in order to evaluate the actual impact and effectiveness of the policy change. The remainder of this memorandum presents the results of recent CMS analyses and examines actual changes in IRF utilization and provider activity over time.

[16] The Moran Company. (2005) *New Estimates of the Impact of Enforcement of the "75% Rule" on Inpatient Rehabilitation Services Volume*, p. 8, referencing Table One.

CMS Analysis of IRF Utilization and Provider Practices

CMS started monitoring IRF expenditure levels in 1985. At that time, total Medicare payment for IRF services was only $0.48 billion, indicating that the services were being furnished to a small beneficiary population, presumably the targeted population with atypical rehabilitation needs. From 1985 through 2001, IRF payments increased at an annual average rate of 15.1 percent, as shown below in Figure 3.

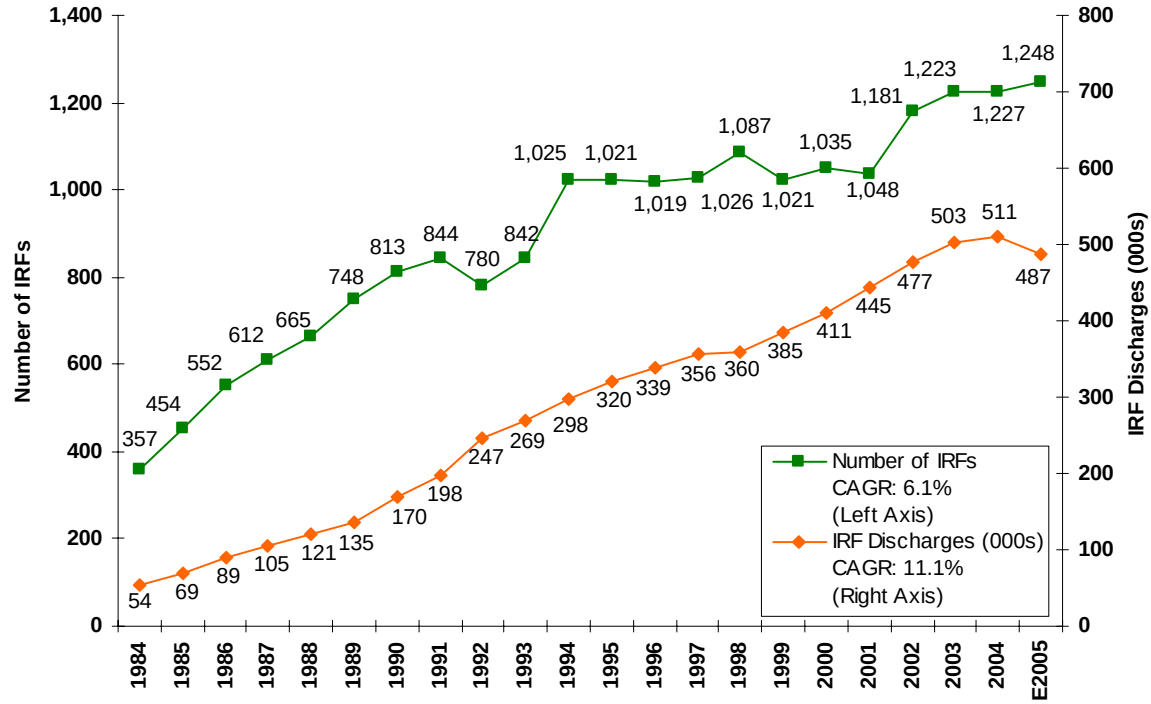
Figure 3: IRF Spending 1985 - 2001



Source: MedPAC: 1985-1996, CMS OACT 1997-2001

As one might expect, the increases in Medicare expenditures correlate with significant increases in both the number of IRFs and the volume of IRF claims. (See Figure 4.) One of the basic assumptions in the Moran report is that this increase was necessary and appropriate. However, a review of the claims data in itself is not an indicator of the appropriateness or necessity of the service. Additional research will be needed to determine the reasons for this growth.

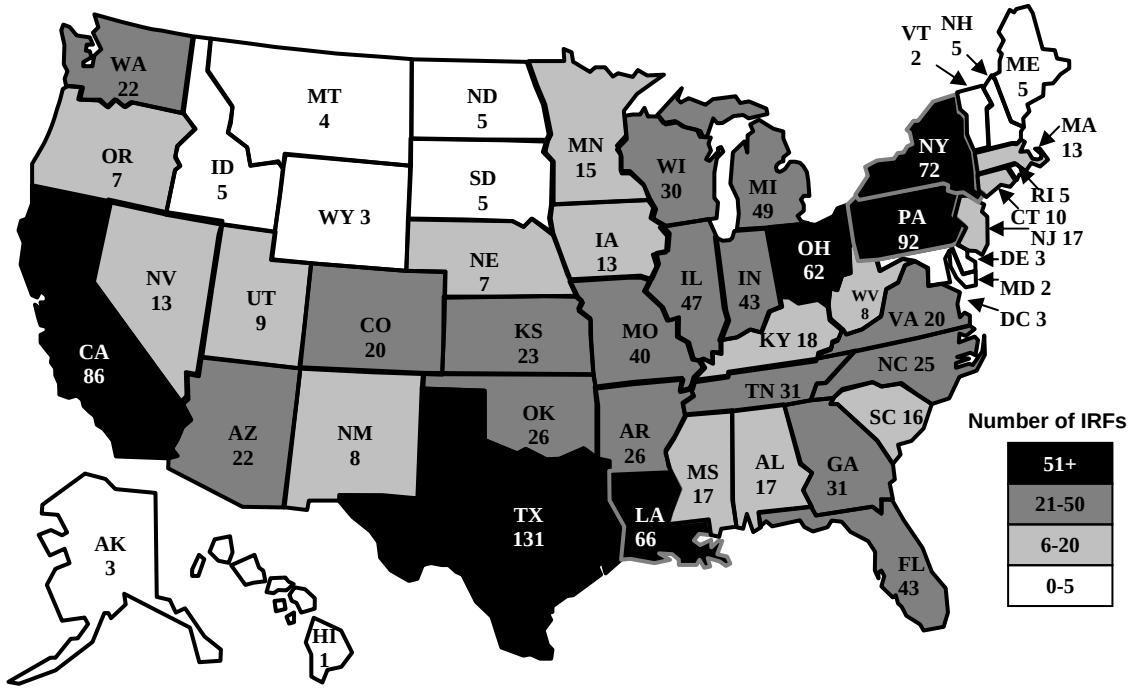
Figure 4: Growth in number of IRFs and IRF Discharges, 1984 - 2005



Source: CMS/CMM

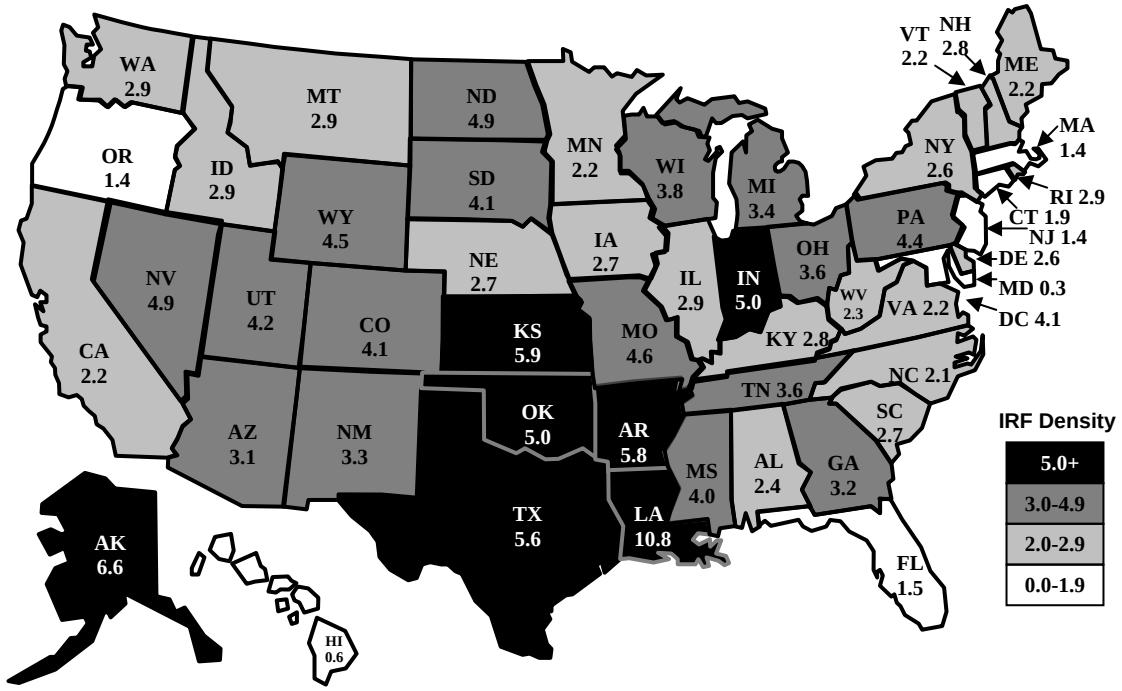
In addition, as shown in Figures 5 and 6, CMS data indicate that there are significant state and regional differences in the distribution of IRFs. Figure 5 shows distribution of IRFs by state and Figure 6 illustrates the density of IRFs in each state per 100,000 Medicare beneficiaries. More research will be needed to determine whether there are state and/or regional competitive pressures that are having an impact on admission decisions and the mix of services.

Figure 5: National IRF Distribution, 2005



Source: CMS/CMM, see Appendix E for underlying data.

Figure 6: IRF Density: Number of IRFs per 100,000 Medicare Beneficiaries



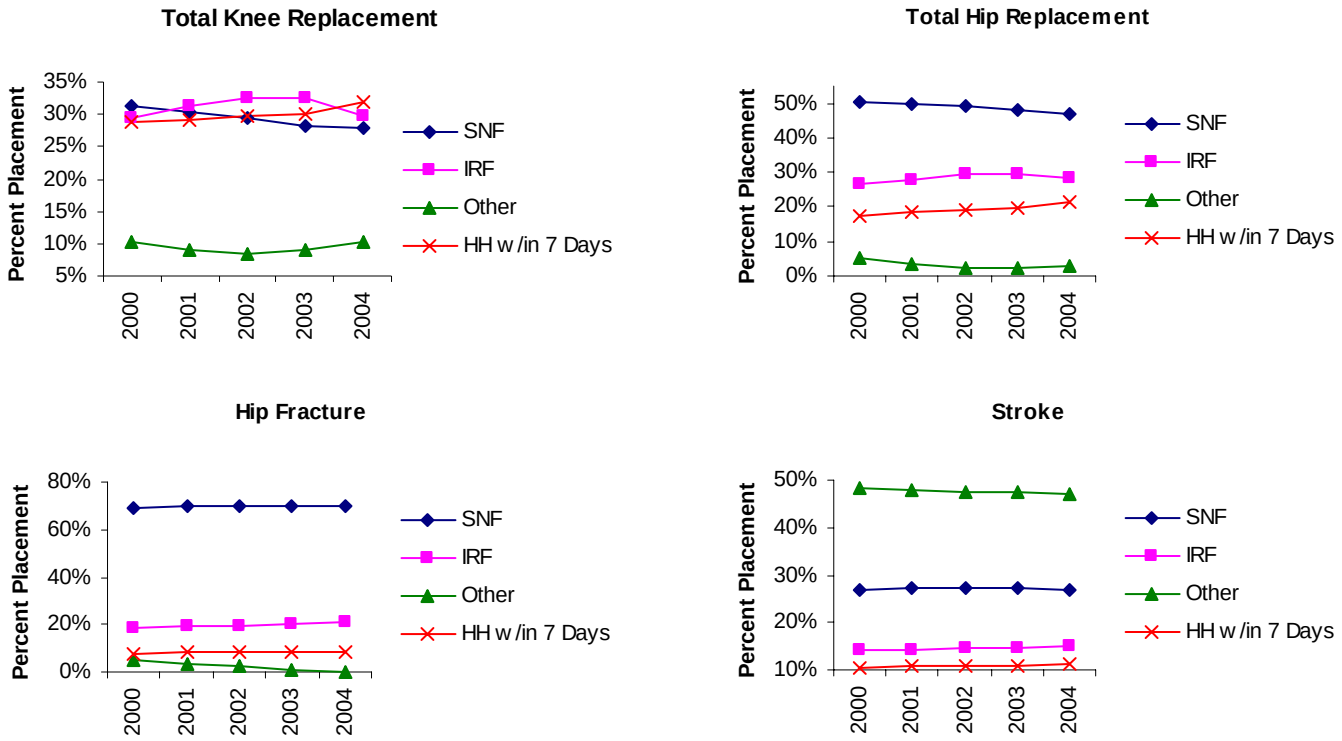
Source: CMS/CMM, see Appendix E for underlying data.

MEDICARE BENEFICIARY ACCESS TO REHABILITATION CARE

CMS is committed to maintaining access to rehabilitation care for all Medicare beneficiaries. As indicated below, patients requiring post acute rehabilitation care for four common conditions (total knee replacement, total hip replacement, hip fracture, and stroke) have access to and are receiving services in different settings. It is also important, however, to make sure that beneficiaries are receiving the appropriate level of care at an appropriate cost. The IRF classification criteria are a tool used to identify those patients who have a need for a more intensive level of therapy than is generally required.

For example, in looking at post acute care for total knee replacements, following the reinforcement of the 75 percent rule in 2004, the number of patients receiving care through home health has exceeded that of IRFs. CMS is committed to furnishing needed care and for appropriately paying providers for that care. Tools like the IRF classification criteria do not act as a barrier to access but, instead, help to ensure that care is being furnished to Medicare beneficiaries in the appropriate settings.

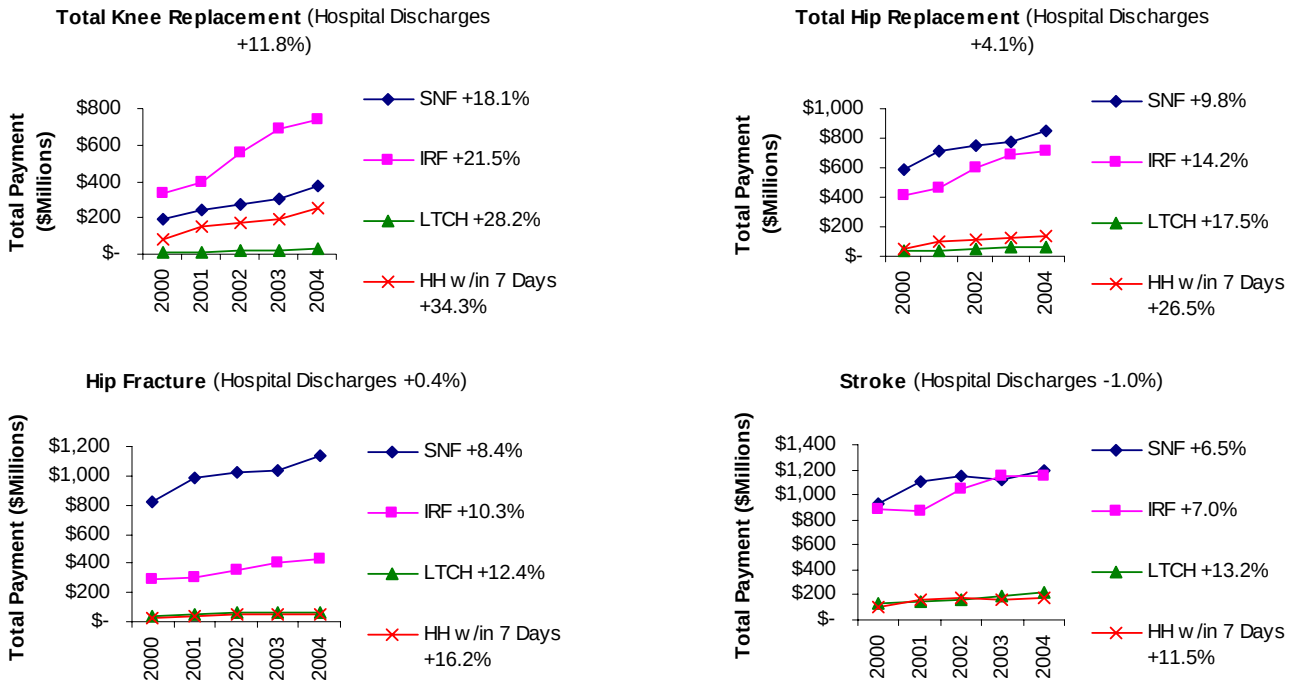
Figure 7: Access to Rehabilitation Care 2000-2004



Note: Other includes home self-care, home health in more than seven days of acute care hospital discharge, outpatient therapy, expiration, LTCH and other facilities. Source, CMS claims data.

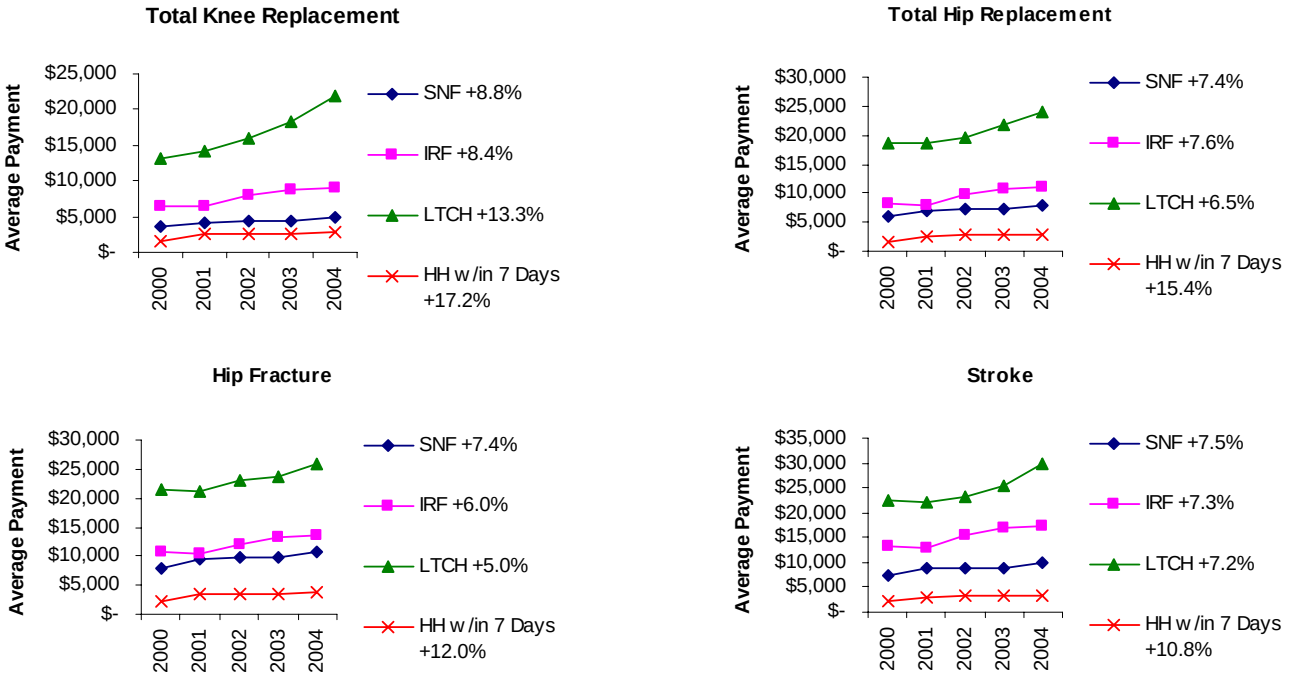
It is also worth noting that, while the enforcement of the 75 percent rule is helping to ensure that Medicare beneficiaries are getting rehabilitation care in more appropriate settings, spending (in aggregate and on average) continues to rise for IRFs and most other post acute care settings. (See Figures 8 and 9, below.) So, more people are getting rehabilitation, and they are now more likely to get that care in an appropriate setting.

Figure 8: Total Medicare Payments to Rehabilitation Providers by Provider Type, Annual Growth Rate of Condition Incidence and Medicare Payments, 2000-2004



Note: Growth rates shown are compounded annual growth rates (CAGRs). This is the average compound rate at which 2000 levels grew to reach 2004 levels. The growth rate listed by each medical condition is the 2000-20004 CAGR for all Medicare inpatient hospital discharges for that condition. The CAGRs listed by site of service are growth rates for spending in each site. Source, CMS claims data.

Figure 9: Average Medicare Payment to Rehabilitation Providers per Case and Annual Growth Rates, 2000-2004



Note: Growth rates shown are compounded annual growth rates (CAGRs). This is the average compound rate at which 2000 levels grew to reach 2004 levels. The CAGRs listed by site of service are growth rates for average payment per case for each site. Source, CMS claims data.

INDUSTRY PERFORMANCE

With only two publicly traded companies that have a large IRF line of business, it is difficult to get recent broad-based margin data from publicly disclosed financial statements. Two analyses performed using Medicare cost report data provide some preliminary information and are presented below.

CMS Analysis: 12.2% and 14.0%

An internal analysis by the CMS Office of the Actuary of Medicare hospital cost report data from the second quarter of 2005 shows the aggregate margins for hospital-based inpatient rehabilitation units (about 80% of all inpatient rehabilitation facilities) to be 12.2% in FY 2002 and 14.0% in FY 2003. These are preliminary estimates, and CMS has not yet finished analysis of freestanding inpatient rehabilitation facility margins.[17]

RAND Analysis: 17%

RAND[18] has estimated that, for all IRFs in 2002, payments exceeded costs by 17%. This is based on 2002 Medicare cost reports obtained in September 2003. Note that IRFs were transitioning to the IRF PPS in 2002, so not all IRFs were receiving all of their payments under the PPS in that year. RAND ran simulations to determine how much payment each IRF would have received in 2002 if it had been paid under the full IRF PPS payment rates in that year. The 17% payment to cost ratio is based on the simulated payments (as if all IRFs had been paid fully under the IRF PPS in that year), not on the actual payments.[19]

[17] Note that CMS calculates margins using the following formula: (total payments – total costs)/total payments

[18] Beeuwkes Buntin, M., G.M. Carter, O. Hayden, C. Hoverman, S. Paddock, B.O. Wynn. (2005). *IRF Care Use Before and After Implementation of the IRF PPS*. Santa Monica, CA: RAND, DRR-3325-CMS.

[19] Note that RAND calculated payment to cost ratios using the following formula, which is different from CMS's formula: total payments/total costs

APPENDIX A

"HCFA-10"

MEDICAL CONDITIONS TO DETERMINE THE CLASSIFICATION PERCENTAGE:

1. Stroke
2. Spinal cord injury
3. Congenital deformity
4. Amputation
5. Major multiple trauma
6. Fracture of femur (hip fracture)
7. Brain injury
8. Polyarthritis, including rheumatoid arthritis
9. Neurological disorders, including multiple sclerosis, motor neuron diseases, polyneuropathy, muscular dystrophy, and Parkinson's disease
10. Burns

APPENDIX B

"CMS-13"

MEDICAL CONDITIONS TO DETERMINE THE CLASSIFICATION PERCENTAGE:

1. Stroke
2. Spinal cord injury
3. Congenital deformity
4. Amputation
5. Major multiple trauma
6. Fracture of femur (hip fracture)
7. Brain injury
8. Neurological disorders, including multiple sclerosis, motor neuron diseases, polyneuropathy, muscular dystrophy, and Parkinson's disease
9. Burns
10. Active, polyarticular rheumatoid arthritis, psoriatic arthritis, and seronegative arthropathies resulting in significant functional impairment of ambulation and other activities of daily living that have not improved after an appropriate, aggressive, and sustained course of outpatient therapy services or services in other less intensive rehabilitation settings immediately preceding the inpatient rehabilitation admission or that result from a systemic disease activation immediately before admission, but have the potential to improve with more intensive rehabilitation.
11. Systemic vasculidities with joint inflammation, resulting in significant functional impairment of ambulation and other activities of daily living that have not improved after an appropriate, aggressive, and sustained course of outpatient therapy services or services in other less intensive rehabilitation settings immediately preceding the inpatient rehabilitation admission or that result from a systemic disease activation immediately before admission, but have the potential to improve with more intensive rehabilitation.
12. Severe or advanced osteoarthritis (osteoarthrosis or degenerative joint disease) involving two or more major weight bearing joints (elbow, shoulders, hips, or knees, but not counting a joint with a prosthesis) with joint deformity and substantial loss of range of motion, atrophy of muscles surrounding the joint, significant functional impairment of ambulation and other activities of daily living that have not improved after the patient has participated in an appropriate, aggressive, and sustained course of outpatient therapy services or services in other less intensive rehabilitation settings immediately preceding the inpatient rehabilitation admission or that result from a systemic disease activation immediately before admission, but have the potential to improve with more intensive rehabilitation. (A joint replaced by a prosthesis no longer is considered to have osteoarthritis, or other arthritis, even though this condition was the reason for the joint replacement.)
13. Knee or hip joint replacement, or both, during an acute hospitalization immediately preceding the inpatient rehabilitation stay and also meets one or more of the following specific criteria:
    I. The patient underwent bilateral knee or bilateral hip joint replacement surgery during the acute hospital admission immediately preceding the IRF admission.
    II. The patient is extremely obese with a Body Mass Index of at least 50 at the time of admission to the IRF.
    III. The patient is age 85 or older at the time of admission to the IRF.

APPENDIX C

REHABILITATION IMPAIRMENT CATEGORIES (RICS) AND ASSOCIATED IMPAIRMENT GROUPS

Rehabilitation Impairment Category	Associated Impairment Groups
01 Stroke	Left body involvement (right brain) Right body involvement (left brain) Bilateral involvement No Paresis Other Stroke
02 Traumatic brain injury	Open injury Closed injury
03 Nontraumatic brain injury	Non-traumatic Other brain injury
04 Traumatic spinal cord injury	Paraplegia, unspecified Paraplegia, incomplete Paraplegia, complete Quadriplegia, unspecified Quadriplegia, incomplete c1-4 Quadriplegia, incomplete c5-8 Quadriplegia, complete c1-4 Quadriplegia, complete c5-8 Other traumatic spinal cord dysfunction
05 Nontraumatic spinal cord injury	Paraplegia, unspecified Paraplegia, incomplete Paraplegia, complete Quadriplegia, unspecified Quadriplegia, incomplete c1-4 Quadriplegia, incomplete c5-8 Quadriplegia, complete c1-4 Quadriplegia, complete c5-8 Other non-traumatic spinal cord dysfunction
06 Neurological	Multiple Sclerosis Parkinsonism Polyneuropathy Cerebral Palsy Neuromuscular Disorders Other Neurologic
07 Fracture of lower extremity	Status post unilateral hip fracture Status post bilateral hip fracture Status post femur (shaft) fracture Status post pelvic fracture
08 Replacement of lower extremity joint	Status post unilateral hip replacement Status post bilateral hip replacements Status post unilateral knee replacement Status post bilateral knee replacements Status post knee and hip replacements (same side) Status post knee and hip replacements (different sides)
09 Other orthopedic	Other orthopedic

APPENDIX C (cont.)

REHABILITATION IMPAIRMENT CATEGORIES (RICS) AND ASSOCIATED IMPAIRMENT GROUPS

Rehabilitation Impairment Category	Associated Impairment Groups
10 Amputation, lower extremity	Unilateral lower extremity above the knee Unilateral lower extremity below the knee Bilateral lower extremity above the knee Bilateral lower extremity above/below the knee Bilateral lower extremity below the knee
11 Amputation, other	Unilateral upper extremity above the elbow Unilateral upper extremity below the elbow Other amputation
12 Osteoarthritis	Osteoarthritis
13 Rheumatoid, other arthritis	Rheumatoid arthritis Other arthritis
14 Cardiac	Cardiac
15 Pulmonary	Chronic Obstructive Pulmonary Disease Other pulmonary
16 Pain syndrome	Neck pain Back pain Extremity pain Other pain
17 Major multiple trauma, no brain injury or spinal cord injury	Status post major multiple fractures Other multiple trauma
18 Major multiple trauma, with brain or spinal cord injury	Brain and spinal cord injury Brain and multiple fractures/amputation Spinal cord and multiple fractures/amputation
19 Guillian Barre	Guillian Barre
20 Miscellaneous	Spina Bifida Other congenital Other disabling impairments Developmental disability Debility Infection Neoplasms Nutrition (endocrine/metabolic) with intubation/parenteral nutrition Nutrition (endocrine/metabolic) without intubation/parenteral nutrition Circulatory disorders Respiratory disorders-Ventilator dependent Respiratory disorders-non-ventilator dependent Terminal care Skin disorders Medical/surgical complications Other medically complex conditions
21 Burns	Burns

APPENDIX D

DISTRIBUTION OF DISCHARGES BY IRF IMPAIRMENT CATEGORY

RIC	Descriptor	1996	1997	1998	1999	2002	2003	2004	2005
01	Stroke	25.8%	23.6%	21.8%	20.0%	17.8%	16.7%	16.6%	18.6%
02	Brain Dysfuction, Traumatic	1.1%	1.1%	1.1%	1.1%	1.3%	1.4%	1.6%	1.9%
03	Brain Dysfuction, Non-Traumatic	2.0%	1.9%	2.0%	2.0%	2.1%	2.1%	2.3%	3.0%
04	Spinal Cord Dysfuction, Traumatic	0.6%	0.5%	0.5%	0.5%	0.6%	0.5%	0.6%	0.6%
05	Spinal Cord Dysfuction, Non-Traumatic	3.0%	2.9%	3.1%	3.1%	3.5%	3.7%	3.7%	3.7%
06	Neurological Conditions	3.7%	3.9%	4.6%	4.8%	4.4%	4.6%	5.1%	5.9%
18	MMT With Brain/Spinal	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%
19	Guillain-Barre	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.2%
	Nervous System & Brain	**36.5%**	**34.3%**	**33.5%**	**31.8%**	**30.1%**	**29.3%**	**30.2%**	**34.1%**
07	Lower Extremity Fracture	12.7%	11.6%	11.1%	11.0%	12.0%	12.5%	13.0%	14.3%
08	Lower Extremity Joint Replacement	24.6%	25.2%	24.1%	23.3%	23.3%	24.2%	24.1%	22.0%
09	Other Orthopedic	4.2%	4.4%	4.7%	5.0%	4.8%	5.0%	5.1%	5.1%
12	Osteoarthritis	1.8%	1.9%	2.3%	2.7%	2.3%	2.2%	1.6%	0.9%
13	Rheumatoid And Other Arthritis	0.9%	1.0%	1.1%	1.3%	1.0%	1.1%	0.9%	0.8%
17	MMT Without Brain/Spinal Cord Injury	0.9%	0.9%	0.9%	0.9%	1.1%	1.2%	1.1%	1.0%
	Musculoskeletal	**45.2%**	**45.1%**	**44.3%**	**44.1%**	**44.6%**	**46.1%**	**45.9%**	**44.0%**
10	Amputation, Lower Extremity	3.8%	3.7%	3.5%	3.3%	2.7%	2.5%	2.6%	2.8%
11	Amputation, Non-Lower Extremity	0.3%	0.3%	0.3%	0.4%	0.3%	0.3%	0.2%	0.2%
14	Cardiac	3.2%	3.8%	4.1%	4.3%	5.6%	5.5%	5.2%	4.5%
15	Pulmonary	1.9%	2.4%	2.6%	2.9%	2.3%	2.0%	1.9%	1.9%
16	Pain Syndrome	1.0%	1.3%	1.5%	1.6%	2.2%	2.1%	1.9%	1.6%
20	Miscellaneous	8.0%	9.0%	10.3%	11.5%	12.2%	12.2%	12.0%	10.9%
21	Burns	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
	Medical	**18.3%**	**20.6%**	**22.2%**	**24.1%**	**25.3%**	**24.6%**	**23.9%**	**21.9%**
Total		**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

APPENDIX E

IRF DENSITY: IRFS PER 100,000 MEDICARE BENEFICIARIES

State	IRFs	IRFs/ 100,000 Beneficiaries	State	IRFs	IRFs/ 100,000 Beneficiaries	State	IRFs	IRFs/ 100,000 Beneficiaries
LA	66	10.8	WI	30	3.8	NY	72	2.6
AK	3	6.6	OH	62	3.6	DE	3	2.6
KS	23	5.9	TN	31	3.6	AL	17	2.4
AR	26	5.8	MI	49	3.4	WV	8	2.3
TX	131	5.6	NM	8	3.3	MN	15	2.2
OK	26	5.0	GA	31	3.2	ME	5	2.2
IN	43	5.0	AZ	22	3.1	VT	2	2.2
NV	13	4.9	RI	5	2.9	VA	20	2.2
ND	5	4.9	WA	22	2.9	CA	86	2.2
MO	40	4.6	ID	5	2.9	NC	25	2.1
WY	3	4.5	IL	47	2.9	CT	10	1.9
PA	92	4.4	MT	4	2.9	FL	43	1.5
UT	9	4.2	NH	5	2.8	NJ	17	1.4
SD	5	4.1	KY	18	2.8	OR	7	1.4
CO	20	4.1	NE	7	2.7	MA	13	1.4
DC	3	4.1	IA	13	2.7	HI	1	0.6
MS	17	4.0	SC	16	2.7	MD	2	0.3