

C H A P T E R

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**Considering ways to lower  
Medicare payment rates for  
select conditions in inpatient  
rehabilitation facilities**

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# Considering ways to lower Medicare payment rates for select conditions in inpatient rehabilitation facilities

## Chapter summary

Medicare’s fee-for-service (FFS) payments to inpatient rehabilitation facilities (IRFs) are high relative to the cost of care; Medicare margins have exceeded 10 percent for the past 20 years. In 2018, the Office of Inspector General (OIG) concluded that the high profitability may have created incentives for IRFs to admit patients inappropriately. The Commission has recommended since 2009 that the Congress reduce the aggregate level of FFS payments to IRFs. In this chapter, we explore alternative approaches to lower FFS payment rates for beneficiaries admitted to IRFs with select conditions, in lieu of an across-the-board reduction to IRF payment rates, to better align payments with costs.

To differentiate IRFs from acute care hospitals, CMS requires that 60 percent of an IRF’s admissions be patients with 1 of 13 conditions (or have specified comorbidities and patient characteristics). We refer to these 13 conditions as “contributing to the compliance threshold” because they count toward the provider meeting the 60 percent rule required to be paid as an IRF rather than as an acute care hospital. The remainder of an IRF’s admissions can be patients with other conditions. We refer to these as “not contributing to the compliance threshold” because they do not count toward the 60 percent rule threshold. Though some have questioned whether a clinical condition is sufficient to identify patients

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who require intensive rehabilitation, CMS has consistently relied on a list of conditions that IRFs should be primarily engaged in treating because those conditions typically require intensive rehabilitation. However, all patients admitted to an IRF, including those who do not count toward the compliance threshold, must meet coverage rules about the need for intensive rehabilitation and medical supervision. Interviews with hospital discharge planners identified many factors that influence the placement of patients in IRFs or skilled nursing facilities (SNFs) or at home, but there are few evidence-based guidelines—except in the case of stroke—to assist discharge planners in making these decisions.

If it were possible to perfectly identify IRF patients who do not require IRF care, who could be treated in SNFs instead, policymakers could establish SNF rates for them, or narrow the payment differences between IRFs and SNFs. However, differentiating among patients who do or do not require IRF-level care is difficult without reviewing medical records. After conducting such reviews, CMS and OIG found that a substantial share of cases admitted to IRFs did not meet medical necessity criteria and documentation requirements.

To assess the impacts of lowering payments for select conditions, we used cases that do not contribute to the compliance threshold as a proxy for cases that may not require IRF-level care. This approach is imperfect because this group can include patients who do require intensive rehabilitation; similarly, it is possible that some patients who contribute to meeting the compliance threshold do not require this level of care. That said, using the proxy allows us to identify and compare patients treated in IRFs and SNFs and assess the impacts of lower payment rates for a select group of conditions. We emphasize that compliance with the 60 percent rule is not used to determine coverage for individual beneficiaries' admission to IRFs.

If IRFs and SNFs treated similar patients and the patients had similar outcomes, lowering payment rates for select conditions might be warranted. However, comparing patients treated in IRFs and SNFs and their outcomes is difficult due to unobserved differences in the patients admitted to the two settings. Looking at characteristics we could examine, we found that while patients treated in the two settings were similar across many dimensions, those treated in IRFs tended to be younger and less medically complex and impaired. Drawing conclusions about differences in the outcomes of patients treated in IRFs and SNFs was more challenging. Even with risk adjustment, underlying differences in the patient populations, not the care they received, could partly explain the

results. Because IRFs are licensed as hospitals and their users face different coverage rules (they must be able to tolerate intensive therapy), we would expect outcomes to differ.

Without being able to draw firm conclusions about differences in outcomes for patients treated in IRFs and SNFs, we evaluated lowering IRF payment rates for cases that do not contribute to the compliance threshold. We considered three approaches. In one, rates would be lowered to the amount paid to SNFs. The resulting rates would not cover IRFs' costs, which might encourage IRFs to scale back admissions of these patients. Further, to lower their costs, IRFs might reduce staffing and care delivery or shorten stays, which could worsen patient outcomes. Because some patients with conditions that do not contribute to the 60 percent rule still require an IRF level of rehabilitation, very low payment rates could disrupt their care. In the second approach, IRF payment rates would be lowered so that they would equal the aggregate cost of care. In the third, payment rates would be based on a blend of current rates and rates that equal the cost of care. Because these last two approaches would involve much smaller reductions in payment rates than SNF-based rates, IRFs would have less incentive to disrupt or change the care provided to beneficiaries.

In assessing whether a targeted reduction was a reasonable approach to lower IRF payments, the Commission considered several factors. First, the list of compliant conditions is imperfect at identifying beneficiaries who require IRF-level care. As a result, reductions targeted at patients with conditions that do not contribute to the compliance threshold could disrupt care for some beneficiaries. Second, cases that did and did not contribute to the compliance threshold were equally profitable overall. Therefore, it was not clear that rates should be lowered for only a subset of conditions. Third, unmeasured differences in the patients treated in IRFs and SNFs undermined our ability to draw conclusions about the characteristics and outcomes of the patients treated in each setting. Taken together, these factors persuaded the Commission that our standing recommendation to lower payment rates for all cases was the best course of action. We will reevaluate our recommendation about the aggregate level of payments in December 2024, when we consider the adequacy of Medicare's payments to IRFs for fiscal year 2026.

Aside from the level of Medicare's payments, CMS, in conjunction with the Congress, could take several steps to improve the definition and identification of cases that do and do not require IRF care. The list of conditions contributing

to the compliance threshold could be updated on a regular basis through rulemaking to include conditions that typically benefit from intensive therapy and exclude conditions that do not. To help prevent unnecessary admissions, CMS might glean useful information from a current demonstration that is reviewing 100 percent of IRF claims in selected states. The ongoing demonstration could identify coverage requirements that might be clarified and suggest best practices for providers' admission processes. CMS may also need to continue to educate providers and claims reviewers about medical necessity and documentation rules. With additional funds, CMS could increase its auditing of IRF admissions. ■

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## Introduction

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Beneficiaries who require recuperative or rehabilitative care are treated in skilled nursing facilities (SNFs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals and by home health agencies. Despite the overlap in the patients treated in the settings, Medicare uses separate payment systems that result in different payments for similar cases. The Commission previously concluded that a unified payment system could establish accurate payments, but it would be complex and take years to implement (Medicare Payment Advisory Commission 2023). The Commission stated that it would look for other opportunities to align payments more closely across settings for similar cases.

Beneficiaries who require rehabilitation and cannot go home receive care in IRFs or SNFs. IRF care is more intensive, yet the Commission and others have documented the overlap in the types of patients treated in IRFs and SNFs. The intensity of services furnished in IRFs makes them the appropriate settings for patients who require this level of care, while general rehabilitation can be delivered in other settings (Centers for Medicare & Medicaid Services 2004).

Medicare's fee-for-service (FFS) payments to IRFs are much higher than payments to SNFs for similar cases. The policy question is whether all cases treated in IRFs need this level of care or whether some cases could be treated in a lower-cost setting. The Commission has long maintained that Medicare should not pay higher rates when care can be safely and effectively furnished in a lower-cost setting (Medicare Payment Advisory Commission 2023).

The Commission has also found that Medicare's aggregate payments to IRFs are much higher than IRFs' costs. Concluding that the level was inappropriately high, the Commission has recommended each year since fiscal year (FY) 2009 that the Congress lower the level of payments. In this chapter, we explore approaches that would target payment reductions for beneficiaries admitted to IRFs who may not require intensive rehabilitation.

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## Background

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When the acute care hospital prospective payment system (PPS) was implemented in 1983, CMS identified facilities that primarily furnished extensive rehabilitation therapy and excluded them because they had significantly higher costs than acute care hospitals.<sup>1</sup> Between 1984 and 2002, the number of IRFs increased more than three-fold (from 357 to 1,181) and spending grew nine-fold (from \$0.5 billion to \$4.5 billion) (Centers for Medicare & Medicaid Services 2007). Since 2002, the number of IRFs has remained stable, though the mix has shifted away from nonprofit hospital-based to for-profit freestanding facilities. Despite this shift, about three-quarters of IRFs are hospital based, though they treat less than half of Medicare FFS discharges. In 2022, program spending was \$8.8 billion for 383,000 cases. FFS Medicare makes up half of IRF days.

Since the IRF PPS was implemented in 2002, Medicare margins have exceeded 10 percent each year. Concluding that the level of payments needed to better align with the cost of care, each year since 2009, the Commission has recommended lowering the level of payments. Between 2009 and 2017, we recommended zero updates (effectively lowering payment rates by the market basket update). Beginning in 2018, with record-high Medicare margins, we recommended lowering the payment rates by 5 percent. In 2022, the aggregate Medicare margin was 13.7 percent. For fiscal year 2025, the Commission recommended that payment rates be lowered by 5 percent (Medicare Payment Advisory Commission 2024).

Work conducted for CMS on a unified payment system for post-acute care discussed the overlap and distinct services furnished by IRFs and SNFs (Gage 2012, RTI International 2022). The Commission has previously discussed the reasons for the overlap: the variation in the supply and use of different settings across the country, the lack of clear criteria identifying which patients require what level of post-acute care, and a dearth of evidence-based guidelines to direct beneficiaries to the setting with the best outcomes (Medicare Payment Advisory Commission 2023, Medicare Payment Advisory Commission 2016). Placement of patients who may be referred to either setting may hinge on the specialized expertise, bed availability, or quality of the providers in the local market.

## Medicare's facility and coverage rules for IRFs

Licensed as hospitals, IRFs must meet all conditions of participation for acute care hospitals, such as having a physician present or on call 24 hours a day and a registered nurse (RN) supervising or providing care 24 hours a day. IRFs must comply with additional facility requirements that differentiate them from acute care hospitals. All potential admissions must be screened to ensure that a patient meets the requirements for admission to an IRF, and a physician must review the findings of the screening.<sup>2</sup> A physician-led interdisciplinary team (including a rehabilitation nurse, a social worker or case manager, and a licensed therapist from each therapy discipline involved in the patient's treatment) uses the review to establish a plan of care, which they must review at least weekly. IRFs are required to have a physician medical director who has rehabilitation expertise to supervise all care.

Medicare has additional coverage requirements for IRF services (Centers for Medicare & Medicaid Services 2009). For an IRF claim to be reasonable and necessary, patients must meet several requirements at admission. The patient must be sufficiently stable and is expected to participate in an intensive rehabilitation program. Patients are considered appropriate for IRF care if they require and would benefit from intensive therapy (usually three hours a day, five days a week) involving at least two therapy modalities, one of which must be physical or occupational therapy.<sup>3</sup> The patient must also require supervision by a rehabilitation physician (three visits a week).<sup>4</sup> In addition, a physician-led weekly interdisciplinary team must review the approach to care delivery.

Some IRFs have specialized programs to treat patients recovering from brain and spinal cord injuries, transplants, and cancer. Some facilities obtain accreditation by CARF (previously known as the Commission on Accreditation of Rehabilitation Facilities) for specialty programs in amputation, brain injury, cancer, spinal cord injury, and stroke care. Accreditation is a sign of a high-quality program that may give providers a competitive advantage in gaining referrals and securing external funding.

## Medicare's facility and coverage rules for SNFs

To qualify for Medicare-covered SNF services, a beneficiary must receive daily skilled services—care that requires the skills of technical or professional personnel who directly provide or supervise the services—that are ordered by a physician.<sup>5</sup> Beneficiaries are not required to receive a minimum amount of daily rehabilitation therapy. SNFs must provide 24-hour nursing services by a licensed nurse (either an RN or an licensed practical nurse) and have an RN working in the facility for at least 8 consecutive hours a day.<sup>6</sup> A physician must supervise SNF care and see a patient every 30 days for the first 90 days after admission and at least once every 60 days thereafter, but rehabilitation physicians are not regularly onsite at most SNFs. SNFs must have a medical director who oversees operations and coordinates care.<sup>7</sup>

SNFs vary considerably in the services they offer and the clinical conditions they can manage. Compared with IRFs, SNFs offer a lower level of rehabilitation care. SNFs often provide rehabilitation services to beneficiaries who do not meet the IRF coverage rules or were not approved for admission by the IRF. Almost all SNFs are dually certified as SNFs and nursing homes that provide long-term care services. SNFs vary in their mix of patients receiving long-term care and short-stay post-acute care, and some facilities focus on treating patients recovering from orthopedic surgery. A few SNFs offer ventilator care.

## IRFs must primarily provide care to patients who need intensive rehabilitation

To distinguish IRFs from acute care hospitals, IRFs must be primarily engaged in providing intensive rehabilitation. CMS requires that at least 60 percent of their admissions must be for patients with 1 of 13 conditions—stroke, spinal cord injury, congenital deformity, amputation, amputation of a lower limb, major multiple traumas, hip fractures, brain injury, certain neurologic disorders, burns, certain arthritic conditions, select hip or knee replacements, and polyarthritis—or for patients with these conditions as specified comorbidities.<sup>8</sup> We refer to these conditions as “contributing to the compliance threshold” because they contribute to compliance with the 60 percent rule, which IRFs must meet to be paid under the IRF



PPS. IRFs that do not meet the compliance threshold are paid as acute care hospitals. The large difference in payment rates between acute hospitals and IRFs—in 2021, the acute care hospital base rate was 38 percent lower than the IRF base rate—would act as a stiff “penalty” for noncompliance and is likely a factor in explaining why IRFs rarely fail to meet the compliance threshold. Since 2006, only three IRFs have failed to meet the threshold. The shares of cases contributing to the compliance threshold vary little across facilities. In 2021, the median compliance rate was 71 percent, with only a 7 percentage point difference between the 25th and 75th percentiles.

Up to 40 percent of an IRF’s cases may be patients who do not contribute to the compliance threshold. Cases that do not contribute to the compliance threshold must still meet Medicare’s IRF-specific criteria for Medicare coverage. Examples of these conditions include debility and pulmonary, cardiac, and certain neurologic and orthopedic conditions.

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### **Identifying cases that require intensive rehabilitation is difficult**

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Identifying cases that require intensive rehabilitation is not straightforward. The Office of Inspector General (OIG) and CMS’s assessment of improper payments found that IRFs admit patients who do not meet medical necessity and documentation rules for admission. Differences in clinical judgment may play a role in explaining why so many cases are admitted that, upon review, do not meet coverage rules. The list of conditions, though not used to determine Medicare coverage, indicates the conditions that typically require intensive rehabilitation (Centers for Medicare & Medicaid Services 2004, Health Care Financing Administration 1983). However, the list is imperfect: Some patients with these conditions do not need to be treated in an IRF, while some patients with other conditions do.

### **IRF admissions do not always meet coverage rules**

Although every beneficiary admitted to an IRF must meet coverage rules, there is evidence that beneficiaries who do not meet them are admitted.

In a 2018 report, OIG found that the majority of cases it reviewed did not comply with coverage and, separately, did not meet documentation requirements for reasonable and necessary care (Office of Inspector General 2018). Of the 220 stays it examined, OIG found that two-thirds did not meet both coverage and documentation requirements; 13 percent met coverage rules but not documentation rules; and 20 percent met both coverage and documentation rules. The report gave five reasons for the errors: IRFs lacked adequate internal controls to prevent inappropriate admissions; FFS Medicare Part A lacked a prepayment review for IRF admissions; CMS’s educational efforts and postpayment reviews were insufficient; the appeals process did not always include CMS participation to ensure that the coverage rules and documentation requirements were accurately interpreted; and Medicare’s high payment rates created an incentive for IRFs to admit patients inappropriately. OIG has follow-up work underway to identify coverage and documentation rules that could be clarified to help providers and reviewers meet them (Office of Inspector General 2024). In an innovative approach, OIG will give industry stakeholders the opportunity to provide input to the reviews. The participatory approach may identify aspects of the rules that could be clarified.

CMS audits a very small share of IRF claims—between 1 percent and 3 percent each year.<sup>9</sup> Most audits conducted by Medicare contract administrators focus on other types of claims since there are relatively few IRF claims. As a result, some auditors may lack the experience and knowledge to evaluate the documentation submitted to support the need for intensive rehabilitation.

Clinical judgment may be a factor when different conclusions are drawn about whether a case meets admission rules. The rules are sufficiently broad that clinicians could reasonably differ about the medical appropriateness of an admission. For example, opinions may differ about when patients are strong enough to tolerate IRF care but not so strong that they could be treated in a less intensive setting. Similarly, there could be different opinions of what is “reasonable and necessary.” Without documentation supporting the need for IRF-level care, the medical necessity of the admission cannot be substantiated.

The successful reversal of many appeals reflects these differing conclusions, though some of the reversals are explained in part by CMS's (or its contractors') inconsistent presence at the appeal hearings (American Medical Rehabilitation Providers Association et al. 2018, Office of Inspector General 2018).

Each year, CMS assesses the extent of improper payments with the Comprehensive Error Rate Testing (CERT) program. The program evaluates a statistically valid random sample of claims to determine program compliance with payment rules, regulations, and requirements (Centers for Medicare & Medicaid Services 2019). In 2023, CERT found that the improper payment rate for IRFs was 27.3 percent, and the projected improper payments totaled \$1.9 billion (Centers for Medicare & Medicaid Services 2024a).<sup>10</sup> Virtually all of the errors (99.7 percent) were due to documentation not supporting medical necessity of the service; the remainder (0.3 percent) was attributed to insufficient documentation.

As a response to high levels of improper payments to IRFs, CMS created the IRF Services Review Choice Demonstration (Centers for Medicare & Medicaid Services 2023b). The goal is to improve the methods of identifying potential fraud and compliance with Medicare's IRF program requirements (Centers for Medicare & Medicaid Services 2023a). The demonstration targets states with particularly high rates of improper IRF payments (Centers for Medicare & Medicaid Services 2020a). Under the demonstration, IRFs are subject to 100 percent claims review until their claim approval rate meets the "target affirmation rate."<sup>11</sup> If an IRF successfully complies with the target affirmation rate, it can forgo the 100 percent claims review and opt for a more selective review. If an IRF fails to meet the target affirmation rate while under a subsequent review option, they must revert to the 100 percent claims review.

The demonstration began in August 2023 for IRF providers in Alabama and will expand to Pennsylvania, Texas, California, and select Medicare administrative contractor (MAC) jurisdictions in the future. Participation is mandatory and requires IRFs to submit to CMS the documentation that supports the medical necessity of the admission and indicates that the beneficiary meets coverage requirements.

(IRFs already must have this information on file.) CMS estimates the additional costs to providers (for locating and submitting the supporting documentation, generally from the medical record) will be about \$3.1 million per year (once the program is fully phased in) and will cost the federal government \$114 million over five years (this amount does not consider any savings that might accrue due to averted unnecessary admissions) (Centers for Medicare & Medicaid Services 2021). The five-year demonstration is being administered by MACs. At the time of our report's publication, early results were not publicly available.

### **The list of conditions does not perfectly identify patients who require intensive rehabilitation**

The original list of conditions that contribute to the compliance threshold was developed by consulting with stakeholders and was intended to differentiate IRFs from acute care hospitals. At the request of the Health Care Financing Administration (the precursor to CMS), the American Academy of Physical Medicine created a committee to develop criteria for IRFs and identify common inpatient rehabilitation diagnoses. In 1978, the committee developed three criteria (the patient is medically stable, the patient is expected to improve within a reasonable period of time, and the patient is expected to tolerate and participate in 3 hours of therapy a day) and identified 10 diagnoses (Reinstein 2014). Eight of those diagnoses became the initial conditions that contribute to the compliance threshold, with the other two (burns and other neurologic conditions) added the following year. CMS also consulted with the American Hospital Association, the Joint Commission of hospitals, and the Commission on the Accreditation of Rehabilitation Facilities (Braddom 2005). There were no existing evidence-based guidelines for stakeholders to consider in developing the criteria for IRFs or the conditions that would count toward the compliance threshold.

While the list of conditions is used to determine whether an IRF is paid under the IRF PPS (and not the inpatient hospital PPS), it does not determine whether a patient meets coverage rules. This assessment is conducted by the IRF prior to admission (see p. 174).

Over the years, the list of conditions (and the associated diagnoses) contributing to the compliance threshold has been revised to include conditions that typically require intensive rehabilitation and exclude conditions that do not, though CMS does not conduct regular reviews (Centers for Medicare & Medicaid Services 2017b, Centers for Medicare & Medicaid Services 2014, Centers for Medicare & Medicaid Services 2013, Centers for Medicare & Medicaid Services 2004, Health Care Financing Administration 1984). (See text box on the history of the compliance threshold, pp. 178–179.) As required by the Medicare, Medicaid and SCHIP Extension Act (MMSEA) in 2009, CMS submitted a report to the Congress examining conditions that did not count toward the compliance threshold. The report concluded that there was little empirical evidence to assess whether IRF services were necessary for the treatment of these other conditions or whether the conditions could have been treated in a less intensive setting (Gage et al. 2009).

We appreciate that no list of conditions will identify each patient who requires IRF care. (Assessing whether a patient has met coverage rules can only be done with medical record review.) Not all patients with a condition contributing to the compliance threshold (e.g., those recovering from a hip fracture) need to be treated in an IRF; some could be treated in SNFs or at home with home health care or outpatient therapy. Conversely, some patients with a condition not contributing to the compliance threshold (e.g., cancer and transplant) require intensive rehabilitation. One IRF we visited had rehabilitation programs for cardiac and cancer care, though neither is one of the 13 conditions. Furthermore, the accuracy of the list of conditions contributing to the compliance threshold is limited by the general lack of conclusive evidence indicating that conditions benefit from IRF-level care. (Research on patients recovering from strokes is the exception.) A review of the available literature on other conditions that might be added to or removed from the list was beyond the scope of our work and expertise.

Stakeholders have requested that other conditions be added that, for the most part, CMS has not adopted because there was insufficient evidence in the literature to confirm that the conditions benefit from intensive therapy (Centers for Medicare & Medicaid Services 2017b, Centers for Medicare & Medicaid Services 2004, Health Care Financing Administration

1984). “Other specified myopathies” are one example of a condition that may not identify patients who require intensive rehabilitation.<sup>12</sup> In 2017, CMS proposed the removal of “other specified myopathies” from the “other neurological conditions” category, which contributes to the compliance threshold (Centers for Medicare & Medicaid Services 2017b). CMS stated that this condition was intended to represent myopathies that had been confirmed (through, for example, medical testing), but instead the agency found that the diagnosis code was being used by certain IRFs as a nonspecific diagnosis for muscle weakness. Indeed, the Department of Justice alleged that certain IRFs were inappropriately admitting patients with these conditions without supporting clinical evidence of their need for IRF services. The case was ultimately settled (Department of Justice 2019). In the end, CMS did not remove this code and stated that it would continue to monitor its appropriate use (Centers for Medicare & Medicaid Services 2017b). The Commission has found that IRFs that tend to be more profitable serve higher shares of patients with this diagnosis code (Medicare Payment Advisory Commission 2024).

The current compliance threshold is lower than the original level of 75 percent. CMS, after a period of not enforcing it, began in 2004 to enforce it again with a slow phase-in back to the 75 percent level. The Congress delayed the implementation of the 75 percent threshold (in the Deficit Reduction Act of 2005) and allowed CMS to set the threshold at no higher than 60 percent (as required by MMSEA), where it has remained. As of March 2024, there are no IRFs out of compliance. In 2021, cases that contribute to the compliance threshold made up 69 percent of FFS cases, compared with 80 percent for Medicare Advantage cases.

### **Many factors influence decisions about placing beneficiaries in IRFs**

Discharge decisions about placement of beneficiaries in IRFs are not well understood. One study found that aspects of hospitals (such as their affiliation with an IRF and location) were key factors, but there was wide variation across hospitals (Simmonds et al. 2023). We interviewed 12 hospital discharge planners to gain insights into the factors that are considered when referring a beneficiary to an IRF or a SNF in markets that have both types of facilities (L&M Policy Research

## History of the compliance threshold

When inpatient rehabilitation facilities (IRFs) were established as a provider category in 1983, at least 75 percent of their cases had to be admitted for treatment of one or more of eight conditions (stroke, spinal cord injury, congenital deformity, amputation, major multiple traumas, fractures of the femur, brain injury, and polyarthritis). These eight conditions were based on sampling criteria used to review the medical necessity of admissions to comprehensive medical rehabilitation hospitals or units and the quality of care they furnished.

Over time, CMS has revised the list of conditions contributing to the compliance threshold, though it does not conduct regular reviews and updates. In 1984, neurological disorders and burns were added, for a total of 10 conditions that contributed to the compliance threshold.<sup>13</sup> In 2004, the definition of osteoarthritis was narrowed to those cases that require intensive rehabilitation care (1 general condition was deleted and 3 specific ones were added), and certain joint replacement conditions were added (for a total of 13 conditions) (Centers for Medicare & Medicaid Services 2004).<sup>14</sup> CMS also expanded the number of cases contributing to the compliance threshold by including patients

admitted for a condition that does not contribute to the compliance threshold but who had one or more comorbidities that did. In fiscal years 2014, 2015, and 2018, CMS updated its lists of codes from the International Classification of Diseases, 10th revision, that are included in the 13 conditions, generally replacing certain general codes (such as the arthritis codes) with more specific ones that would be likely to require intensive rehabilitation therapy (Centers for Medicare & Medicaid Services 2017b, Centers for Medicare & Medicaid Services 2014, Centers for Medicare & Medicaid Services 2013). In fiscal year 2014, other conditions (such as certain amputation codes) were removed because patients would not necessarily require close medical supervision, and other conditions (certain congenital anomalies) were removed because the patients would be unlikely to benefit from IRF-level care (Centers for Medicare & Medicaid Services 2013). The intent of the revisions was to have lists of codes that, as accurately as possible, reflect conditions that require intensive therapy and count toward complying with the 60 percent rule.

Since the development of the original list of conditions contributing to meeting the compliance threshold, stakeholders have requested that the

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2023). Though this was admittedly a small sample, we learned about the various practices of discharge planners and IRF preadmission reviews.

Discharge planners said they focus primarily on whether a patient was expected to tolerate and benefit from intensive therapy, though some also considered whether the patient had a condition that contributed to the compliance threshold. In addition, discharge planners said they considered several other questions, including:

- Did the patient have a three-day prior hospital stay? Beneficiaries without a three-day prior hospital stay may be referred to an IRF (if they meet other Medicare requirements) rather than a SNF to avoid being denied Medicare coverage for the SNF stay.
- Is the patient likely to be discharged home after the IRF or SNF stay? Discharge planners told us that some IRFs prefer to admit patients who are expected to be discharged home, though it is not a CMS requirement.

## History of the compliance threshold (cont.)

list be expanded to include replacement of a single joint, chronic pain, debility, postsurgery cancer, transplant, multi-organ failure (shock/sepsis), and cardiac and pulmonary conditions requiring rehabilitation (Centers for Medicare & Medicaid Services 2015a, Centers for Medicare & Medicaid Services 2005, Centers for Medicare & Medicaid Services 2004). In 2004, CMS noted that it did not add these conditions because “we have not seen any studies indicating that medical conditions now listed in existing Section 412.23(b)(2) require the type of intensive rehabilitation that IRFs can uniquely deliver. Although the conditions listed by commenters have been treated in IRFs, we do not believe that they are the type of conditions that typically require intensive rehabilitation” (Centers for Medicare & Medicaid Services 2004). CMS also noted that IRFs are not necessarily the most appropriate setting for treating patients with complex medical conditions (Centers for Medicare & Medicaid Services 2005). In 1984, CMS did not add chronic pain to the list because it considered chronic pain a symptom, not a medical condition, and stated that many treatments for this condition were not considered rehabilitation (Health Care Financing Administration 1984). CMS has held that although prosthetic fitting or adjustment may require multidisciplinary services, it does not, by

itself, require IRF-level care (Centers for Medicare & Medicaid Services 2015c, Centers for Medicare & Medicaid Services 2014). CMS encouraged stakeholders to conduct research evaluating whether patients with any of these conditions require services unique to IRFs.

Several studies have explored whether patients with certain conditions that do not currently contribute to the compliance threshold benefit from intensive therapy. Though the studies have serious limitations (most were conducted at just one or a handful of IRFs with very small sample sizes), they examined patients recovering from cancer, chronic graft-versus-host disease, heart failure, and medically complex conditions (Forrest and Deike 2018, Fu et al. 2017, Gallegos-Kearin et al. 2018, Leung et al. 2018, Mix et al. 2017, Reilly and Ruppert 2023, Sliwa et al. 2016, Tay et al. 2022, Zhang et al. 2022). The studies found that the conditions benefited from inpatient rehabilitation. Three of the studies found that the improvements were similar to those made by patients with conditions that contribute to the compliance threshold (Fu et al. 2017, Reilly and Ruppert 2023, Sliwa et al. 2016). Some experts have questioned whether a clinical condition is sufficient to identify patients who require intensive rehabilitation care (Gage et al. 2009). ■

- Is the patient medically complex? Beneficiaries who require close medical supervision were referred to IRFs (if they met IRF admission criteria). Some patients who cannot tolerate intensive rehabilitation are discharged to SNFs, with the expectation that they will be referred to an IRF once they build up their strength.<sup>15</sup>
- What are the patient’s preferences? Patient preferences about proximity to family, experience with a SNF or IRF, or a facility’s amenities or reputation play an important role in discharge placement. Some patients who want to avoid SNFs

but are not approved by the IRF for admission will be discharged home with home health care or outpatient therapy.

Placement options were also shaped by how close the IRF was to meeting the compliance threshold. One IRF representative we spoke with said that on any given day, a patient with a condition not contributing to the compliance threshold might be admitted or not, depending on whether the facility was above or close to meeting the threshold. Clinical judgment and experience may result in different placement decisions. Industry stakeholders told us that IRFs admit less

than 40 percent of the patients who are referred to them because they do not meet Medicare coverage requirements, do not require intensive therapy, or do not have the potential to improve (American Medical Rehabilitation Providers Association 2023).

Given the differing requirements for IRFs and SNFs, it was not surprising that the hospital discharge planners we spoke with did not consider the care in SNFs and IRFs to be interchangeable. Furthermore, few evidence-based guidelines exist to help direct beneficiaries to the setting with the best outcomes. For example, one study of patients treated for debility in IRFs concluded that more research was needed to identify the most appropriate setting (Kortebein et al. 2008). However, stroke guidelines established by the American Heart Association/American Stroke Association outline best practices in the rehabilitation care for stroke patients (e.g., prevention of falls and skin breakdown and pain management) and recommend placement in IRFs (Winstein et al. 2016). The Canadian spinal cord injury guidelines outline the components of ideal care (e.g., diagnostic imaging) and the management of complications; it could serve as a model for evidence-based guidelines (Praxis Spinal Cord Institute 2021).

### **Using conditions that do not contribute to the compliance threshold as a proxy for cases that do not require IRF-level care**

IRFs may admit up to 40 percent of their cases for conditions that do not contribute to the compliance threshold if the patients meet IRF coverage rules (including medical necessity). As noted above, OIG and CMS concluded that IRFs admitted some patients who did not meet medical necessity rules and did not qualify for IRF care. However, identifying these patients is difficult without medical record review. We used cases not contributing to the compliance threshold as proxies for IRF cases that could qualify for lower payments because CMS determined that such conditions typically do not require intensive therapy (Centers for Medicare & Medicaid Services 2004). We appreciate that the approach is imperfect, but it gives us a starting point for considering whether lowering payment rates for a select set of conditions is a good alternative to the Commission's standing recommendation for an across-the-board reduction.

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### **Medicare pays less for many patients treated in SNFs than in IRFs**

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We found that the majority of IRF and SNF patients with conditions not contributing to the compliance threshold got their care in SNFs, even in markets that had an IRF. Some characteristics of patients treated in IRFs and SNFs were similar, but IRF patients were generally younger, less medically complex, and had fewer impairments. IRF patients received substantially more therapy per day compared with SNF patients. However, over the course of the longer SNF stays, the differences narrowed considerably. It is hard to draw conclusions about differences in the outcomes due to the underlying differences in the patients treated in the two settings and Medicare's differing requirements of each setting. IRF payments for these cases were substantially higher than SNF payments for similar cases.

### **Many patients with conditions not contributing to the compliance threshold get their care in SNFs**

We assessed the extent to which cases that do not contribute to the compliance threshold are currently treated in SNFs by examining the share of cases that were treated in SNFs in markets (defined as hospital service areas) that also had at least one IRF.<sup>16</sup> (See methodology text box on identifying IRF and SNF cases.) We found that among the 406,300 patients with these conditions in markets with IRFs and SNFs, the vast majority (323,600, or about 80 percent) of cases were treated in SNFs, indicating that these conditions can be treated in SNFs.

We also looked at IRF use by beneficiaries who lived in markets without an IRF. In 2021, while almost every market (defined as a hospital service area) had at least one SNF, about 30 percent of beneficiaries lived in a hospital service area without an IRF. Not surprisingly, beneficiaries' use of IRFs is considerably lower in markets with no IRFs than in markets with IRFs. In 2021, the share of all FFS beneficiaries using IRFs was 40 percent lower in markets without an IRF than the share of FFS beneficiaries using IRFs in markets with one or more IRFs. Hospital discharge planners we spoke with told us that patients who might otherwise go to an IRF may be treated in a SNF if there is no nearby IRF or no IRF with an available bed.

## Methodology for identifying IRF cases that do not contribute to the compliance threshold and comparable SNF cases

To identify inpatient rehabilitation facility (IRF) cases that contribute to the compliance threshold and comparable skilled nursing facility (SNF) stays, we started with 2021 Part A-covered SNF and IRF claims with positive fee-for-service (FFS) Medicare payments (Table 5-1). We excluded beneficiaries who were enrolled in Medicare Advantage plans, did not have continuous Part A enrollment through their stay, had a COVID-19 diagnosis, had a disaster-related condition code (that is, were admitted during the

public health emergency using a waiver), died during the stay, had a prior IRF or SNF stay within 30 days (that could be considered follow-on post-acute care), or were admitted from or discharged to hospice. Short IRF and SNF stays (three days or fewer) and stays with no matching patient assessment data were also excluded. (IRFs must submit patient assessment data gathered with the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI), and SNFs must submit patient assessment information using the Minimum Data

*(continued next page)*

**TABLE  
5-1**

**Cases included in the analysis, FY 2021**

	IRFs	SNFs
All Part A cases	363,180	1,756,870
Study population	269,810	860,290
Cases not contributing to the compliance threshold	82,980	519,490

Note: FY (fiscal year), IRF (inpatient rehabilitation facility), SNF (skilled nursing facility). Part A cases include IRF and SNF cases for beneficiaries continuously enrolled in Part A during the stay, who had no Medicare Advantage enrollment and had positive Medicare fee-for-service payments. The study population was drawn from the initial pool of all Part A cases but excludes Part A stays with a COVID-19 diagnosis, disaster-related condition code, short stays, readmissions to the same setting, admissions or discharges from hospice, discharges that end in death, stays with no matching admission assessment, and stays for which patients could not complete the brief interview for mental status (BIMS) section of the assessment tool. "Cases not contributing to the compliance threshold" are cases in the study population that did not meet the IRF compliance criteria applied to both IRF and SNF cases (<https://www.cms.gov/files/document/specifications-determining-irf-60-rule-compliance.pdf>).

Source: Analysis of FY 2021 Medicare IRF and SNF fee-for-service claims, assessment data, and enrollment files conducted by Acumen LLC for MedPAC.

### IRF beneficiaries with conditions that do not contribute to the compliance threshold were younger and less medically complex than comparable patients treated in SNFs

Many clinical conditions are treated in IRFs and SNFs, and the literature indicates that their patients' observed characteristics are similar (Balentine et al. 2018, Buntin et al. 2010, Gage 2012, Mallinson et al. 2014, Medicare Payment Advisory Commission 2023, Medicare Payment Advisory Commission 2017, RTI International 2022, Wissoker and Garrett 2023,

Wissoker and Garrett 2019). If the patients in IRFs were reasonably similar to or healthier than patients in SNFs and their outcomes were similar, policymakers could consider paying SNF rates for IRF cases that do not contribute to the compliance threshold (or at least narrowing the differences in payment rates between the two settings). However, unobserved differences between the two populations could exist.

We found that IRF patients were similar to SNF patients in a Medicare-covered Part A stay in some ways but

## Methodology for identifying IRF cases that do not contribute to the compliance threshold and comparable SNF cases (cont.)

Set. The instruments differ in the elements included and the definitions and recording requirements for many of the elements.) These restrictions helped to keep the study population to IRF and SNF cases that are more typical for each setting. Our study population after these exclusions is shown in the second row of Table 5-1.

Throughout this chapter, we used CMS's specifications for presumptive compliance to identify patients with conditions that do not contribute to the compliance threshold.

"Presumptive compliance" refers to an algorithm developed by CMS that uses diagnosis codes on the IRF-PAI to determine whether an IRF meets the compliance threshold.<sup>17</sup> The Medicare administrative contractors (MACs) apply CMS's presumptive compliance algorithm to determine compliance if at least 50 percent of an IRF's patients are covered by Medicare. For IRFs that do not meet the compliance threshold using the algorithm or if Medicare patients do not compose at least 50 percent of the IRF's population, MACs must conduct a medical review of a sample of the IRF's cases to make a final determination on compliance (they may use the presumptive compliance algorithm as guidance) (Centers for Medicare & Medicaid Services 2015b).

The presumptive compliance algorithm uses patients' impairment group categories (IGCs), which are based on the etiologic diagnosis codes on the

patient's assessment, age, and body mass index. The presence of certain comorbidities can also meet the compliance threshold.<sup>18</sup> If the admission or discharge met CMS's presumptive compliance criteria, it was identified as contributing to the compliance threshold; if the case did not meet the criteria, it was identified as not contributing to the compliance threshold. We identified 82,980 such IRF cases (30 percent of the study population). The share of IRF cases that did not contribute to the compliance threshold varied by IGC (Figure 5-1).

To identify comparable SNF cases and assign an IRF IGC to them, we applied the same presumptive compliance algorithm to SNF cases using International Classification of Diseases, 10th revision, diagnosis codes and other items available on the SNF claims and SNF patient assessment data. Because identifying IRF cases that do not contribute to the compliance threshold uses some information that was not available for SNF cases, we used proxies for those factors. For example, we used information from the prior hospitalization to obtain necessary information about amputations and hip/knee replacements. If an IGC could not be assigned, the SNF case was categorized into IGC 13 ("other disabling impairments"). We identified 519,490 SNF cases (60 percent of the SNF study population) that were comparable with IRF cases that do not contribute to meeting the compliance threshold.

*(continued next page)*

notably different in others (Table 5-2, p. 184). Younger on average, IRF patients were much less likely to be over 85 years old. IRF patients had lower risk scores on average (based on CMS's hierarchical condition category (HCC) risk scores), and there were larger differences among high-risk (i.e., sicker) patients (those with risk scores at the 75th percentile or higher). Compared with SNFs, IRFs had slightly smaller shares of disabled patients (based on a patient's original

reason for Medicare entitlement) and patients with the greatest severity (identified as severity level 4 in the All Patient Refined Diagnosis Related Groups), but their patients had similar motor scores and JEN frailty scores (see text box on measuring motor functional status, p. 185).<sup>19</sup> SNF and IRF patients had similar median cognitive scores, but SNF patients with the lowest cognitive functioning were more impaired than those in IRFs. Interestingly, at the 75th percentile, SNF



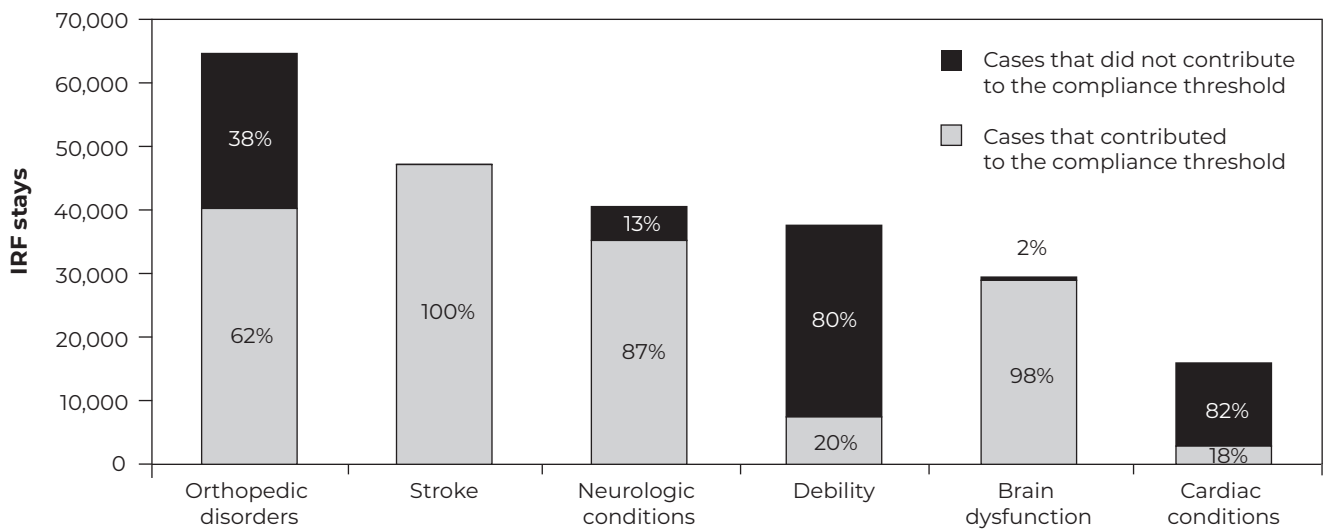
## Methodology for identifying IRF cases that do not contribute to the compliance threshold and comparable SNF cases (cont.)

Despite our best efforts to make accurate identifications, we found that the study populations of IRF and SNF cases could differ for multiple reasons. First, we had to use some proxy items to assign IGCs to SNF cases. Second, SNFs treat a broader range of patients compared with IRFs (for example, all IRF patients must be able to tolerate

and benefit from intensive therapy), so there were differences between the populations even after selecting cases that do not contribute to the compliance threshold. Finally, there will be inevitable differences in coding practices across providers and settings. ■

**FIGURE 5-1**

**In IRFs, the share of cases that did not contribute to the compliance threshold varied by condition, 2021**



Note: IRF (inpatient rehabilitation facility). Conditions were sorted by the broad impairment group categories (IGCs). Low-volume IGCs were excluded from the figure. See the IRF Patient Assessment Instrument manual Appendix A for the list of all IRF IGCs.

Source: Analysis of fiscal year 2021 Medicare IRF fee-for-service claims and assessment data from CMS.

patients had slightly higher motor scores at admission, perhaps because IRF patients must be able to benefit from intensive therapy (so they may have lower functioning). While all differences were statistically significant, some of them may not be clinically meaningful. SNF patients were generally more variable than IRF patients, consistent with the IRF coverage requirements that narrow the range of patients those facilities admit.

IRF patients with conditions that did not contribute to the compliance threshold were less medically complex than their SNF counterparts. They had lower rates of certain chronic conditions compared with similar SNF patients (including chronic kidney disease, heart failure, depression, Alzheimer's, and chronic obstructive pulmonary disease) but similar rates of diabetes. IRF patients had substantially lower rates

**TABLE  
5-2**

**FFS Medicare IRF beneficiaries with conditions not contributing to the compliance threshold were younger and healthier than comparable SNF FFS beneficiaries, 2021**

Characteristic	IRF cases not contributing to the compliance threshold	Comparable SNF cases
Median age (25th to 75th percentile)	77 (71 to 84)	79 (72 to 87)
Share of patients who are 85+ years old	23%	32%
Median risk score (25th to 75th percentile)	1.8 (1.0 to 3.3)	2.0 (1.1 to 3.6)
Share of patients who are disabled	7%	8%
Share of patients assigned to highest severity level	16%	17%
JEN frailty score (25th to 75th percentile)	6 (4 to 8)	6 (4 to 8)
Median motor score at admission (25th to 75th percentile)	30 (25 to 34)	30 (24 to 35)
Median cognitive score at admission (25th to 75th percentile)	14 (13 to 15)	13 (10 to 15)
Share of patients with:		
Chronic kidney disease	72%	76%
Heart failure	55	61
Diabetes	52	53
Depression	49	57
Alzheimer's disease	35	52
Chronic obstructive pulmonary disease	34	39
Bladder incontinence	5	12
Bowel incontinence	5	17
Swallowing difficulty	7	19

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility), SNF (skilled nursing facility). "IRF cases not contributing to the compliance threshold" refers to cases that do not contribute to meeting CMS's 60 percent rule for IRFs. "Comparable SNF cases" were identified by applying the same criteria as used for IRF to SNF cases. Numbers in parentheses are the values at the 25th percentile and 75th percentile. The highest severity level is defined as All Patient Refined Diagnosis Related Groups severity level 4. "Disabled" is defined using the beneficiary's current reason for Medicare enrollment from CMS. The risk score is CMS's hierarchical condition category risk score using diagnosis codes from the prior year. The JEN frailty index identifies frail older adults who may be at risk of institutionalization. The motor score is a composite of nine self-care and mobility items recorded in the Minimum Data Set and Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI) assessments. Higher scores indicate greater independence in functioning. The cognitive score was measured using the brief interview for mental status, a 15-point scale based on cognitive items on the IRF-PAI and the SNF Minimum Data Set. Higher scores indicate higher cognitive function; lower scores indicate cognitive impairment. Differences for IRF cases and comparable SNF cases were statistically significant at the 1 percent level for each of the characteristics. Means were compared for age, risk scores, JEN frailty scores, motor scores, and cognitive scores. Proportions were compared for all other characteristics. The study population is described in Table 5-1 (p. 181).

Source: Analysis of 2021 Medicare IRF and SNF FFS claims, FFS Medicare IRF and SNF patient assessments, Medicare enrollment file, and hierarchical condition category risk scores from CMS.

(one-third to one-half) of bladder incontinence, bowel incontinence, and swallowing difficulty compared with their SNF counterparts.

Medicare's coverage rules likely play a role in the differences between IRF and SNF patients. IRF patients must be able to tolerate and benefit from intensive

## Measuring motor functional status

**W**e measured functional status using a motor score composite of nine self-care and mobility items recorded in Section GG of the Inpatient Rehabilitation Facility Patient Assessment Instrument and the skilled nursing facility Minimum Data Set, including eating, oral hygiene, toileting hygiene, sit to lying, lying to sitting on the side of a bed, sit to stand, chair/bed-to-chair transfer, toilet transfer, and walking 50 feet. We computed the motor score using the same methodology used by RTI in its report to the Congress on a unified post-acute care payment (RTI International 2022). The motor score is computed by summing the responses to the nine items. Each item response ranges from 1 to 6, with higher scores indicating greater independence in functioning. Thus, the motor score can range from 6 to 54.

Clinicians may select an “activity not attempted” (ANA) response if they could not assess the patient on a particular activity. ANA responses include patient refused, “not applicable” (patient did not perform activity prior to illness), “not attempted due to environmental limitations,” and “not attempted due to medical conditions or safety concerns.” We recoded these ANA responses to a 1 to 6 response using RTI’s methodology. RTI used Rasch modeling to assess patients’ ability to perform functional items that were not coded as ANA and used the resulting relationships to recode ANA items to a more appropriate and (most often) higher level of function. Because a patient’s functional status at admission is used to assign cases to case-mix groups for payment, we do not know whether the scores are accurate. ■

therapy, whereas SNF patients do not (they must require a skilled service). Patients with lower cognitive function and more impairments and comorbidities would be less likely to tolerate and be able to participate in intensive therapy.

### **Conclusions about differences in IRF and SNF outcomes are hard to draw**

We examined differences in outcomes to provide context for aligning payments between the two settings. However, due to the underlying differences in the SNF and IRF populations, caution is warranted in interpreting our results. Despite our efforts to control for differences between the two patient populations, our results may in part reflect unmeasured differences, not the causal effect of the care received in one setting or another. To meet Medicare’s coverage rules, IRFs must necessarily be—and, according to industry stakeholders, are—selective in the patients they admit. Another factor is the differing regulatory requirements for each setting. Licensed as hospitals, IRFs can treat the worsening of many patient conditions that many SNFs cannot.

Ideally, we would compare functional status at discharge (controlling for ability at admission)

because maintaining or improving function is the main purpose of receiving inpatient rehabilitation. However, functional status at admission is used to establish SNF and IRF payment rates and therefore may reflect coding to boost payments rather than patients’ functional status (Medicare Payment Advisory Commission 2019). In our 2019 report, the Commission discussed ways to improve the function data.

We examined four claims-based measures—potentially preventable readmissions in the 30 days after discharge from the IRF or SNF, potentially preventable readmissions during the IRF or SNF stay, discharge to community, and Medicare spending per beneficiary (see text box on definitions of the measures and the methodology used to calculate them, p. 187). All measures were risk adjusted with demographic and clinical characteristics. To control for systematic selection not captured by the comorbidities included in the risk-adjustment model, we included an IRF setting indicator as a covariate in the risk adjustment. We also examined measures that did not include an IRF setting indicator as a covariate, and our conclusion remained the same.

**TABLE  
5-3**

**Comparison of risk-adjusted outcomes for cases treated in IRFs and SNFs, 2021**

Outcome measure	IRF cases		Comparable SNF cases	
	Case count	Rate	Case count	Rate
<b>Readmissions within 30 days after discharge from IRF or SNF</b>				
Cases not contributing to the compliance threshold	63,260	11.2%	382,380	11.3%
95% confidence interval		[10.9% -11.4%]		[11.2% -11.4%]
<b>Discharge to community</b>				
Cases not contributing to the compliance threshold	60,260	73.1%	397,380	55.8%
95% confidence interval		[72.7% -73.4%]		[55.6% -55.9%]
<b>Readmissions during the IRF or SNF stay</b>				
Cases not contributing to the compliance threshold	68,020	4.5%	451,660	10.3%
95% confidence interval		[4.3% -4.7%]		[10.3% -10.4%]
<b>Medicare spending per beneficiary</b>				
Cases not contributing to the compliance threshold	68,500	\$33,897	350,480	\$28,529
95% confidence interval		[\$33,881-\$33,912]		[\$28,513-\$28,545]

Note: IRF (inpatient rehabilitation facility), SNF (skilled nursing facility). IRF cases in the table are those with diagnoses that do not count toward the 60 percent compliance threshold to be paid under the IRF prospective payment system. Comparable SNF cases were identified using the same criteria as IRF cases. The case counts differed across the measures because of differing specifications for the denominators.

Source: Analysis of 2021 Medicare claims conducted by Acumen LLC for MedPAC.

The risk-adjusted rates of readmissions in the 30 days after discharge for IRF cases not meeting the compliance threshold and comparable SNF cases were almost identical (11.2 percent in IRFs and 11.3 percent in SNFs; lower rates are better) (Table 5-3). The rates for all IRF cases (those that contributed and did not contribute to meeting the compliance threshold) were the same (data not shown).

The rates of discharge to the community were considerably higher (better) for IRF cases not contributing to the compliance criteria compared with SNF cases (73.1 percent compared with 55.8 percent, respectively). Nursing home residents in a Medicare-covered skilled nursing stay who were discharged back to the same facility were counted as discharged to the community. These differences are consistent with what we heard from hospital discharge planners

we spoke with. They told us that IRFs are reluctant to admit patients who are unlikely to be discharged home; instead, those patients would be referred to SNFs. Some of the differences in the rates probably reflect differences in who is admitted to each setting and not necessarily only the differences in the care furnished. The rates for IRF cases that did and did not contribute to meeting the compliance threshold were comparable (data not shown).

Rates of readmission that occurred during the stay were substantially lower (better) for IRFs than for SNFs (4.5 percent compared with 10.3 percent). The difference may reflect a lack of comparability between the two settings that would not be captured in the risk adjustment. Because IRFs are licensed as hospitals, they are better equipped to manage many worsening patient conditions that, in a SNF, would require a hospital

## Methodology for estimating risk-adjusted quality measures

The measures we used are based on CMS's quality reporting measures (Centers for Medicare & Medicaid Services 2016a, Centers for Medicare & Medicaid Services 2016b). We used inpatient rehabilitation facility (IRF) and skilled nursing facility (SNF) claims and enrollment data from fiscal year 2021 to develop risk-adjustment models to estimate the rates of four quality measures: within-stay potentially preventable rehospitalizations, postdischarge potentially preventable rehospitalizations, discharge to community, and Medicare spending per beneficiary.

For all measures, we pooled IRF cases not contributing to the compliance threshold and comparable SNF cases to calculate the covariates included in the risk-adjustment model. (CMS's risk-adjustment models include covariates that were estimated using a setting-specific population of patients, not the combined pool of IRF and SNF cases.) Covariates used in the risk adjustment varied across quality measures but generally included demographic and eligibility covariates (e.g., age, gender), prior inpatient adjusters (prior surgery, prior acute hospital length of stay), and post-acute care (PAC) adjusters (e.g., patient had a prior PAC stay). Motor score ranges and rehabilitation impairment coding groups were included as covariates in the readmission and discharge to community models. An indicator for nursing home residents was added to the discharge to community measure to account for potential clinical differences in this population. Separate rates were calculated for the IRF cases and SNF cases included in the analysis.

The two measures of potentially preventable rehospitalization capture the rate at which beneficiaries had a potentially preventable hospital readmission during or after the IRF (or SNF) stay. Lower rates indicate better quality. The methodologies were the same as the methodologies used for current CMS programs, apart from the alignment of the pregnancy

exclusion across measures (previously implemented in SNF measures but not IRF measures). The postdischarge measure reports the risk-standardized rate of Medicare fee-for-service (FFS) beneficiaries who were discharged from an IRF (or SNF) but experienced a potentially preventable readmission to either an acute care hospital (ACH) or a long-term care hospital (LTCH) within 30 days after discharge from the IRF or SNF. The during-stay measure reports the risk-standardized rate of FFS Medicare beneficiaries who experienced a potentially preventable readmission to an ACH or LTCH in the period following admission to the IRF (or SNF) and including discharge from the IRF (or SNF).

The discharge to community measure assesses the rate at which beneficiaries are successfully discharged to the community from the IRF or SNF. Higher rates indicate better quality. For the SNF rate, we included long-term nursing home residents and considered them as having had a successful discharge to community if they were discharged back to same long-term nursing home (this aspect of the definition differs from the CMS measure for SNFs). The risk-standardized rate includes beneficiaries who were discharged to the community (with or without home health services), did not have an unplanned readmission to an ACH or LTCH, and remained alive during the 31 days after discharge.

The Medicare spending per beneficiary measure gauges the total Medicare spending on FFS Part A and Part B services during an episode of care (standardized for differences in prices across locations). The episode begins at admission to the IRF (or SNF) and ends 30 days after discharge from the IRF (or SNF). Certain services are excluded from the measure, including planned readmissions, routine maintenance of preexisting chronic conditions, routine screening (such as colonoscopies), and immune-modulating medications (e.g., immunosuppressants for beneficiaries with organ transplant or rheumatoid

readmission. Further, because IRF stays are typically much shorter than SNF stays, there is a shorter period during which a hospital readmission could occur.

Medicare spending per beneficiary (MSPB) is a measure of resource use. It captures Medicare program (Part A and Part B) spending during an episode that includes the post-acute care (PAC) stay and the following 30 days (see text box on estimating risk-adjusted measures, p. 187). Median episode spending was 19 percent higher for IRF cases that did not contribute to the compliance threshold than the spending for comparable SNF cases (\$33,897 vs. \$28,529). Almost all (97 percent) of the difference was attributable to the higher spending for the IRF stay. Other resource use was similar. IRF cases that did contribute to the compliance threshold had higher MSPB compared with cases not contributing to the compliance threshold because the IRF case-mix groups for cases meeting the compliance threshold tend to have higher payment rates.

We considered, but did not compare, other quality measures. Some measures (such as the share of patients who had falls with major injury or the share of patients with worsening skin integrity) may reflect providers' willingness to report these adverse events rather than the actual rates (Sanghavi et al. 2020). We did not consider process measures because they do not meet the Commission's principles for measuring quality (Medicare Payment Advisory Commission 2018). A patient experience survey has been developed for IRFs and is available for IRFs to use for their own purposes. However, IRFs are not required to use the tool, so there are no publicly reported data. We did not have data on patients' goals of care and motivation to return to community living to evaluate whether these factors contributed to differences in outcomes.

### **Other studies of outcome differences between IRFs and SNFs**

Our mixed results are consistent with the findings from other studies that examined differences in outcomes between IRFs and SNFs, though those studies have generally focused on patients recovering from strokes, joint replacement, and hip fracture—largely conditions that contribute to the compliance threshold. Studies of other conditions typically do not compare outcomes across PAC sites and, when they do, they are usually

very limited in the number of patients and facilities they include. Many studies lack controls for selection and the differences in the patients treated in the two settings. Finally, most studies do not consider the potential differences in patient motivation and long-run recovery potential that can dramatically affect patient outcomes.

In general, studies of stroke patients found that patients in IRFs had better outcomes than those in SNFs, though selection bias could have contributed to these findings (Alcusky et al. 2018, Chan et al. 2013, Hong et al. 2019). Consistent with earlier studies, more recent studies of patients with other conditions do not have consistent conclusions for similar measures (such as functional improvement) or across measures (Cogan et al. 2021, Cogan et al. 2020, Osundolire et al. 2024, Padgett et al. 2018, Riestter et al. 2023). In a study of patients recovering from hip replacement who were treated in IRFs and SNFs, researchers found that the risk-adjusted rates of discharge with an opioid and using an opioid in the year after discharge were higher among patients treated in IRFs compared with those treated in SNFs (Cupp et al. 2023). The authors noted that patients treated in IRFs have shorter stays, receive more intensive rehabilitation, and have fewer comorbidities, which may lead to greater use of pain medication during the IRF stays and after discharge.

### **Patients treated in IRFs received much more therapy per day than patients in SNFs, but the differences narrowed over the course of the stays**

IRF patients with conditions that do not contribute to the compliance threshold receive substantially more therapy per weekday compared with comparable SNF patients (Table 5-4). The median number of minutes for IRF cases was 170 minutes per weekday compared with 80 minutes for SNF cases.<sup>20</sup> Even the 25th percentile for IRF therapy minutes per weekday (158 minutes) was higher than the 75th percentile for comparable SNF cases (97 minutes).<sup>21</sup>

However, the differences in the total amount of therapy furnished during the stays are much smaller. The median total number of therapy minutes for IRF cases not contributing to the compliance threshold was 1,355 compared with 1,250 minutes per stay for comparable SNF cases (8 percent higher). So while the minutes per day of therapy are much lower in SNFs, by the end of

**TABLE  
5-4**

**IRF cases not contributing to the compliance threshold had shorter lengths of stay and received more daily therapy compared with comparable SNF cases, FY 2021**

	IRF cases not contributing to the compliance threshold	Comparable SNF cases
Median minutes of therapy per weekday (25th to 75th percentile)	170 (158 to 184)	80 (63 to 97)
Median total minutes of therapy per stay (25th to 75th percentile)	1,355 (1,080 to 1,620)	1,250 (690 to 2,100)
Median length of stay in days (25th to 75th percentile)	12 (10 to 15)	22 (14 to 35)

Note: IRF (inpatient rehabilitation facility), SNF (skilled nursing facility), FY (fiscal year). "IRF cases not contributing to the compliance threshold" refers to only cases with clinical conditions that do not contribute to meeting CMS's 60 percent rule for IRFs. "Comparable SNF cases" were identified by applying the same criteria as used for IRF cases to SNF cases. The study population is defined in Table 5-1 (p. 181). The length of stay is calculated as the number of days from admission to discharge. "Minutes of therapy" refers to physical, occupational, and speech-language pathology therapies. The analysis of therapy minutes in IRFs was conducted on cases that were 14 days or shorter because these data are not collected past 14 days in IRFs. By limiting the stays that were 14 days or shorter, all therapy minutes for the stays are recorded (and thus are more comparable with the SNF data). Therapy minutes per day were calculated by summing the total minutes of therapy (excluding cotreatment) and dividing by the number of weekdays. Cases with outlier therapy values were excluded (defined as more than eight hours of therapy per day). Differences in the mean values for IRFs and SNFs were statistically significant at the 1 percent level.

Source: Analysis of 2021 IRF and SNF claims and assessment data from CMS.

the relatively longer SNF stays, the total amount was closer to the amount IRF users received. However, even when the total minutes are similar, some patients may benefit more from shorter, more intensive therapy, while others may benefit more from therapy spread over a longer duration.

Studies of whether more therapy furnished by IRFs results in better outcomes are limited but suggest that providing more therapy does not necessarily improve patient outcomes. The studies have small sample sizes (in terms of patients and facilities) and do not focus on patients with conditions not contributing to meeting the compliance threshold. One study of 581 patients with any condition found that the outcomes (as measured by discharge function score, changes in function, length of stay, and discharge home) were not better for patients who received therapy three hours per day compared with those who received less therapy (Forrest et al. 2019). Further, minutes of therapy per

day were not associated with improved outcomes, and more therapy did not shorten lengths of stay. Another study of brain injury patients found that compliance with the three-hour rule did not improve function but a patient's level of effort did (Beaulieu et al. 2019). Greater effort was associated with improved outcomes (including community participation, functional independence, and life satisfaction) nine months after discharge. A second study of brain injury patients also concluded that the patients' level of effort was a critical predictor of rehabilitation outcomes (Horn et al. 2015).

**SNF payments for comparable cases were considerably lower than IRF payments for cases not contributing to the compliance threshold**

We compared Medicare's FFS payments for IRF cases not contributing to the compliance threshold and comparable SNF cases using payments from 2021 claims. In 2021, Medicare's median payments for

**TABLE  
5-5**

**Medicare payments for SNF cases were about 40 percent lower than payments to IRFs for cases not contributing to the compliance threshold, FY 2021**

Condition category	Median payment		Percent difference
	IRF	SNF	
All cases not contributing to the compliance threshold	\$20,880	\$12,650	39%
Debility	21,060	12,690	40
Other orthopedic conditions	20,830	13,870	33
Cardiac disorders	20,100	11,430	43
Other neurologic conditions	21,490	14,570	32
Replacement of lower extremity joint	18,420	10,190	45
Other disabling impairment	21,830	11,590	47
COPD	21,130	13,110	38
Other	22,660	12,900	43

Note: SNF (skilled nursing facility), IRF (inpatient rehabilitation facility), FY (fiscal year), COPD (chronic obstructive pulmonary disease). "All cases not contributing to the compliance threshold" includes only cases with clinical conditions that do not contribute to meeting CMS's 60 percent rule for IRFs. Comparable SNF cases were identified by applying the same criteria used for IRF cases to SNF cases. The study population is defined in Table 5-1 (p. 181). The payments were not risk adjusted. IRF payments include wage index, rural, teaching, outlier, and low-income subsidy adjustments. IRF and SNF payments are rounded to the nearest \$10. Payments to IRFs and SNFs cover most ancillary services but do not include payments made to physicians under the physician fee schedule. Percentage differences were calculated using unrounded values. Conditions are classified by impairment group categories (IGCs). Cases mapped to IGCs with fewer than 1,000 IRF cases or SNF cases that were not assigned to an IGC were classified as "other."

Source: Analysis of fiscal year 2021 Medicare FFS claims conducted by Acumen LLC for MedPAC.

SNF cases were an estimated 39 percent lower than Medicare's payments to IRFs for such cases (Table 5-5). The median IRF PPS payment was \$20,880 compared with \$12,650 (including cost sharing) for SNFs. The differences ranged from 32 percent for cases in the "other neurologic conditions" category to 47 percent for cases in the "other disabling impairments" category. These large differences occurred despite SNFs' longer stays; for IRF cases not contributing to the compliance threshold, the median IRF length of stay was 12 days compared with the SNF stays' median of 22 days (data not shown).

As previously noted, IRFs provide a more costly mix of services compared with SNFs, and these higher costs were used to set the payment rates when the IRF PPS was established. In addition, IRFs receive additional payments based on their share of low-income patients and whether they are a teaching facility. That said, the IRF base payment, prior to any adjustments and to

classifying patients by case-mix group, was \$16,856 in 2021—still substantially higher than the SNF median payment per case. In addition, certain services are excluded from SNF payments but included in IRF payments (such as chemotherapy, certain prosthetic devices, imaging services, and preventive and screening services) (Centers for Medicare & Medicaid Services 2023c). Although about 20 percent of IRF cases not contributing to the compliance threshold included some services excluded from SNF payments, they represented only 1.5 percent of the costs of these IRF cases in 2021. Thus, these services would not have substantively affected the differences between IRF and SNF payments.

We also looked at the profitability of Medicare's payments (the payment-to-cost ratios, or PCRs) for IRF cases (Table 5-6). If IRFs had lower costs for treating cases not contributing to the compliance threshold than cases that did and if payments were not correspondingly



**TABLE  
5-6**

**IRF cases had similar Medicare profitability whether or not they contributed to meeting the compliance threshold, FY 2021**

Compliance	Case counts	Aggregate payment per case	Aggregate cost per case	PCR
Contributed to meeting compliance threshold	186,820	\$25,270	\$20,800	1.21
Did not contribute to meeting compliance threshold	82,980	\$21,800	\$17,920	1.22

Note: IRF (inpatient rehabilitation facility), FY (fiscal year), PCR (payment-to-cost ratio). The “compliance threshold” refers to CMS’s 60 percent rule for IRFs. Case counts were rounded to the nearest 10 cases, and aggregate payments were rounded to the nearest \$10. Aggregate payment per case is calculated by summing total Medicare payments and dividing by the number of cases. This calculation is different from the one in Table 5-5, which shows the average payment per case. Aggregate cost per case is calculated by summing total Medicare costs and dividing by the number of cases. A PCR is calculated as a ratio of Medicare payments divided by Medicare costs. A PCR greater than 1.0 indicates that the case would be profitable; a ratio less than 1.0 indicates that the case would be unprofitable.

Source: MedPAC analysis of 2021 IRF claims.

lower, cases not contributing to the compliance threshold would be more profitable and IRFs would have an incentive to admit them. However, we found that the profitability (the aggregate PCR) was only slightly higher for these cases compared with cases that contribute to the compliance threshold (1.22 compared with 1.21). Although cases that do not contribute to the compliance threshold had much lower aggregate costs compared with other cases, they were also paid less. In general, PCRs were similar across conditions, though there was some variation by condition. For example, cases in the “other neurologic conditions” had PCRs of 1.18 for cases contributing to the compliance threshold and 1.31 for cases not contributing to the compliance threshold (data not shown).

**Considering lower payments for IRF patients with conditions that do not contribute to the compliance threshold**

We explored three approaches to lower payment rates for cases not contributing to the compliance threshold: Make IRF payment rates for cases that do not contribute to the compliance threshold (1) equal to that of SNF cases, (2) equal to the aggregate cost of care, or (3) a blend of current IRF rates and rates equal to the aggregate cost of care. Given the variation in the mix of cases across IRFs, the impacts would differ by provider.

Our impact estimates are based on the current list of conditions that contribute to the compliance threshold, the compliance threshold, and IRF behavior (such as admission decisions). The impact of lowering IRF payment rates for patients with conditions that do not contribute to the compliance threshold would vary if any of these circumstances changed.

No list of conditions that count toward the compliance threshold will perfectly identify patients who require intensive rehabilitation. Therefore, lowering payment rates for conditions that do not count toward meeting the compliance threshold could disrupt their care. Depending on the size of the reduction, IRFs could avoid admitting these cases or lower the quality of care they furnish. Given the ambiguities in this approach—the difficulty in identifying patients who do or do not require intensive rehabilitation and the unmeasured differences in the patients treated in IRFs and SNFs—the Commission concluded that targeted reductions in payment rates for select conditions was not a preferred approach to lowering Medicare’s payments to IRFs.

**Lower IRF payment rates to SNF rates**

We considered lowering the IRF payment rates for patients with conditions not contributing to meeting the compliance threshold to the rates paid to SNFs. To implement this policy, CMS would convert the SNF per diem payment to a case-based payment using the average IRF length of stay for cases in the group. A

**TABLE  
5-7**

**Impacts on IRFs' profitability from lowering payment rates for IRF cases not contributing to the compliance threshold**

Rates for cases not contributing to the compliance threshold	Rate reduction	Cases not contributing to the compliance threshold		All Medicare cases PCR
		PCR	Marginal profit PCR	
Current IRF rates	N/A	1.22	1.50	1.22
Based on SNF payments	-66%	0.41	0.51	1.00
Equal to the aggregate cost of IRF cases not meeting the compliance threshold	-18%	1.00	1.23	1.16
Blend of current rates and rates equal to aggregate cost of care	-9%	1.11	1.37	1.19

Note: IRF (inpatient rehabilitation facility), PCR (payment-to-cost ratio), N/A (not applicable), SNF (skilled nursing facility). The "compliance threshold" refers to CMS's 60 percent rule for IRFs. A PCR is calculated as a ratio of Medicare revenues divided by Medicare costs. A PCR greater than 1.0 indicates that the case would be profitable; a ratio less than 1.0 indicates that the case would be unprofitable. The marginal profit PCR is calculated as Medicare payments divided by marginal costs. Marginal costs were approximated as 81 percent of total costs. "All Medicare cases" refers to all IRF Medicare cases, including those that do and do not contribute to meeting the compliance criteria.

Source: Estimates were based on Acumen LLC's analysis of 2021 Medicare claims and Medicare cost reports.

case-based payment would avoid creating incentives for IRFs to extend stays for such cases. CMS would assign each case to a SNF case-mix group and calculate the aggregate rate difference between the SNF rates and the current IRF payment. IRF rates would be lowered by this aggregate difference.

Paying SNF rates for cases that do not contribute to meeting the compliance threshold would make them highly unprofitable, largely because IRFs incur the higher costs associated with meeting Medicare's facility and coverage requirements. Very low rates could threaten beneficiary care but would have the advantage of discouraging medically unnecessary admissions.

**Impacts on payment rates and profitability**

We modeled the impacts on IRF profitability of paying SNF rates for cases not contributing to meeting the compliance threshold (see text box on estimating SNF payments for IRF cases). We estimated that this approach would lower payment rates for such cases by 66 percent and would not cover the average costs of treating the cases. The PCR, a measure of profitability, would be 0.41 compared with the current PCR for these

cases of 1.22 (Table 5-7). (A PCR of 1.0 means payments equal costs.) There were small differences across the clinical conditions (data not shown). The estimated losses are not surprising: IRFs incur higher costs to meet Medicare rules that SNFs do not have to meet.

The aggregate PCR across all Medicare IRF cases would drop from 1.22 to 1.00, with average PCRs below 1.0 for hospital-based, small, nonprofit, and government IRFs. Within each group of providers, there was considerable variation in the size of the reductions to total Medicare payments. IRFs with larger shares of cases not contributing to the compliance threshold would incur larger reductions in payments. One-quarter of providers would experience a 12 percent or smaller reduction in total Medicare payments, and one-quarter would experience reductions of at least 21 percent (data not shown).

A key problem with this approach is that IRFs would be paid SNF rates but still be required to meet Medicare requirements that raise their costs. Yet waiving those requirements for IRF cases would remove the distinctions that differentiate IRF care from that of other providers. In addition, it would be complex to

## Methodology to estimate payments and costs in modeling ways to lower inpatient rehabilitation facility payment rates for cases that do not contribute to the compliance threshold

**W**e modeled the impacts of alternative ways to lower payment rates for cases treated in inpatient rehabilitation facilities (IRFs) that do not contribute to the compliance threshold. We started with the 2021 IRF stays included in the study (see text box, pp. 181–183, describing the method used to identify IRF cases that do not contribute to compliance threshold).

**SNF payments for IRF stays**—To estimate the skilled nursing facility (SNF) payments for cases treated in IRFs that do not contribute to the compliance threshold, we first calculated a SNF payment for each day using the Patient-Driven Payment Model (PDPM) case-mix groupings used in the SNF prospective payment system. We multiplied the SNF base rates for each component by the relative weight for each PDPM case-mix group and then summed the components' payments. We then applied the variable per diem adjustment factors for physical therapy, occupational therapy, and nontherapy ancillary components. We multiplied the daily payments by the number of days in the stay. Because IRFs receive additional payments for treating low-income patients and for teaching programs (if the IRF has one), we estimated the average size of each adjustment across all providers and boosted the SNF payment by this adjustment. Finally, the labor share of the payment was adjusted

by the wage index for the IRF's location. We estimated SNF payments for each IRF case that was identified as not contributing to the compliance threshold in fiscal year 2021. To assign these IRF cases to SNF case-mix groups, we used items from the IRF patient assessment and International Classification of Diseases, 10th revision; revenue center codes (to identify the use of certain services); and rehabilitation impairment categories from IRF claims.

**Cost per IRF stay**—The cost per IRF case was estimated in two parts. Routine costs per day were estimated from cost reports and multiplied by the number of days in the stay. Ancillary costs were estimated by multiplying ancillary charges reported in the claims for a case by department-specific cost-to-charge ratios as reported in each facility's Medicare cost report.

**Current IRF payment rates**—Medicare payments were gathered from IRF claims.

**Marginal profit**—The marginal cost was estimated as total costs minus fixed building and equipment costs. The marginal profit was estimated as (Medicare payments - marginal costs)/ Medicare payments. ■

administer two sets of coverage requirements for different types of conditions.

### Disruptions to care

Paying SNF rates for beneficiaries with conditions not contributing to the compliance threshold would likely be disruptive to beneficiaries with these conditions. We assessed whether IRFs would have a financial incentive to continue to admit beneficiaries with conditions that do not contribute to meeting the compliance threshold by estimating the marginal profit PCR of these cases. The marginal profit PCR is a measure of the attractiveness of a case for admission. It compares

the marginal revenue for cases (the Medicare payment) with marginal costs (the costs that vary with volume). If Medicare payments are higher than the marginal cost (i.e., the marginal profit PCR is greater than 1.0), a provider with excess capacity has a financial incentive to admit the beneficiary. A value below 1.0 indicates that a provider would not have an incentive to admit the beneficiary.

If these IRF cases were paid SNF rates, the marginal profit PCR would be well below 1.0 (PCR of 0.51), assuming IRFs did not lower their costs. These cases would not be attractive admissions. The low payment

rates (and resulting PCRs) could discourage admissions and could shift cases to SNFs. The SNF rates could disrupt care for those beneficiaries who need intensive therapy—either in terms of whether or how quickly they would be placed in IRFs.

### **Impact on care**

IRFs might respond to the unprofitable payment rates by lowering their costs, which could harm patient care. Cost-reduction strategies could include providing less therapy (though the three-hour rule would limit the size of the reductions) and shortening stays. As noted earlier, the literature is mixed on whether less therapy would impact patient outcomes. IRFs could substitute lower-cost group or concurrent therapy for individual therapy, but individual therapy should comprise the majority of minutes (per Medicare guidance). While some patients can benefit from limited group therapy, CMS considers individual therapy the standard of care (Centers for Medicare & Medicaid Services 2018).

IRFs could also lower the skill mix of staff, such as replacing physical therapists (PTs) with PT aides or replacing RNs with licensed practical nurses, though Medicare rules would restrict the changes that could be made. The therapy would have to remain under the supervision of a licensed therapist, and IRFs must meet hospital staffing rules for nursing care. We do not know whether such changes would negatively affect care or outcomes. Literature on the relationship between lower staffing levels and outcomes in nursing homes is mixed, finding worse outcomes for some measures but not others (Clemens et al. 2021, Jutkowitz et al. 2023). One study of COVID-related outcomes found that higher-level staffing was related to fewer deaths (Konetzka et al. 2021). We do not know whether the same outcomes would be true for staffing changes in IRFs.

If paid lower rates, IRFs could opt to shorten stays. We do not know whether shorter stays would worsen patient outcomes. In SNFs, cost sharing (that begins on day 21 of a stay) results in higher rates of discharge on day 20 (thus shortening stays), but studies of the effects on outcomes are inconclusive. One study found that shorter stays were not associated with worse outcomes, while two others found that they were (McGarry et al. 2021, Werner et al. 2023, Werner et al. 2019). One of the studies found that one additional SNF

day lowered readmission rates, but the effect was small and heterogenous across patient types (Werner et al. 2023). We do not know whether IRFs would respond to lower rates by shortening stays, and if they did, whether the shorter stays would affect outcomes.

### **Ease of implementation**

To implement SNF rates for IRFs, CMS would have to calculate payments in two ways: one using the IRF case-mix classification for cases that contribute to the compliance threshold and another calculation using the SNF case-mix classification system for cases not contributing to the compliance threshold. CMS would have to calculate IRFs' average length of stay for each group from the prior year to convert the SNF per diem payment to a case-based payment. After estimating the aggregate difference in payment rates, CMS would apply this average reduction to each case not contributing to the compliance threshold. In addition, CMS would have to recalibrate the relative weights for the cases that contribute to the compliance threshold by removing the cases that do not from the calculation.

### **Bottom line**

The large reduction in payment rates that would result from this approach would make cases that do not contribute to the compliance threshold highly unprofitable. This consequence could disrupt care and lower the quality of care furnished. Because beneficiaries who require intensive rehabilitation could be among patients with these conditions, their care could be at risk. An advantage of this approach is that it would discourage unnecessary admissions.

### **Lower IRF rates for cases that do not contribute to the compliance threshold so that aggregate payments equal the aggregate costs of care**

In this approach, IRF rates would be lowered by a percentage so that aggregate payments equaled aggregate costs. For each of these cases, a reduction would be applied to the IRF payment rate. Because payments would cover costs (in aggregate, not necessarily for each case or provider), providers would have less incentive to change their admitting practices or to lower their costs in ways that might harm patient care.

### **Impacts on payment rates and profitability**

If payment rates were set to equal the cost of care, we estimated that, in aggregate, base payment rates for cases that do not contribute to the compliance threshold would be reduced by 18 percent. The profitability of these cases would fall from the current PCR (1.22) to 1.0 (Table 5-7, p. 192). Because profitability differs by case-mix group, the reductions would vary by condition. Since costs vary by provider, the impacts on any given IRF could be different. One-quarter of providers would have PCRs for these cases well below 1.0 (0.85 or lower), and one-quarter of providers would have PCRs well above 1.0 (1.31 or higher). Across all Medicare cases, including cases that do not contribute to IRFs' compliance threshold, the aggregate PCR would be lowered from 1.22 to 1.16. Medicare would remain a very profitable payer.

### **Disruptions to care**

With the much smaller reduction to payment rates—compared with IRFs being paid SNF rates—this approach would be less likely to disrupt beneficiaries' care. The marginal profit PCR would be well above 1.0 (1.23), so providers would have a strong financial incentive to continue admitting these cases. The advantage of this approach is that it would likely protect beneficiary access; the disadvantage is that it would not dampen the incentive to admit cases that do not require an IRF stay.

### **Impact on care**

With payment rates that would, in aggregate, cover their costs, IRFs would be under far less pressure to change their staffing or service provision. However, the rate reductions might trigger changes in their practices that could adversely affect the care beneficiaries receive and their outcomes, especially if IRFs were under pressure to maintain their current profit levels.

### **Ease of implementation**

This approach would be relatively simple to implement. CMS would have to calculate the reduction to aggregate payments needed to make them equal to the cost of care. This percentage reduction would be applied to the base payment amounts for cases not contributing to the compliance threshold. The Congress could lower the rates by an across-the-board amount or, because profitability varies considerably by condition, the reductions could vary by condition. For

example, the reduction for cases with debility would be set so that payments for these cases equaled their cost.

### **Bottom line**

Compared with basing IRF payment rates on SNF rates, setting IRF payment rates equal to the cost of care would likely be less disruptive to beneficiaries and the care they receive. Because payments would cover the marginal costs of these cases, IRFs would have a financial incentive to continue to admit patients with conditions that did not contribute to the compliance threshold.

### **Set the payment rates for cases that do not contribute to the compliance threshold as a blend of current IRF rates and the IRF rates that equal the aggregate costs of care**

In this approach, payment rates for cases that do not contribute to the compliance threshold would be a blend of current rates and the rates set so that aggregate payments equaled aggregate costs. We modeled a 50/50 blend. CMS would apply a reduction to the current IRF payment for each stay that does not contribute to the compliance threshold. Because aggregate payments would more than cover providers' costs, providers would have much less incentive to change their admitting practices or to lower their costs in ways that might harm patient care. Of the three approaches, this third option would be the least likely to deter unnecessary admissions because it would preserve attractive rates.

### **Impacts on payment rates and profitability**

We estimated that, if payment rates were based on a 50/50 blend of current IRF rates and rates equal to the cost of care, base payment rates would be lowered by 9 percent in aggregate (see Table 5-7, p. 192). Given the relatively modest drop in payment rates, cases that do not contribute to the compliance threshold would remain quite profitable, with a PCR of 1.11 compared with the current 1.22 (Table 5-7). One-quarter of providers would have PCRs below 1.0 (0.95 or lower), and one-quarter of providers would have PCRs well above 1.0 (1.45 or higher) (data not shown). Across all Medicare cases, the aggregate PCR would be lowered only slightly, from 1.22 to 1.19 (Table 5-7). Of the three approaches, this one would yield the most profitable rates and may not dampen the financial incentive to admit questionable cases.

### **Disruptions to care**

Because of the much smaller reduction to payment rates relative to the two other approaches, this approach would be less likely to be disruptive to beneficiaries. The marginal profit PCR would be well above 1.0 (1.37). Providers would have a strong financial incentive to continue admitting cases that do not contribute to the compliance threshold, including those that do not meet medical necessity requirements. While the rates are likely to protect beneficiary access, they would not discourage providers from admitting medically unnecessary cases.

### **Impact on care**

With payment rates that would, in aggregate, cover their costs, IRFs would be under far less pressure to change their staffing or service provision. However, if IRFs were under pressure to maintain their current profit levels, they might reduce services that could, in turn, affect beneficiaries' care and outcomes.

### **Ease of implementation**

To implement this approach, CMS would have to calculate rates two ways: using current rates and rates resulting from setting payments equal to cost. The final rate would be a combination of the two. In a 50/50 blend, the rate would be the average of the two rates. The Congress could lower the rates by an across-the-board amount or, because profitability varies considerably by condition, the reductions could vary by condition. For example, payments for all cases with other orthopedic conditions could be set equal to their cost.

### **Bottom line**

This approach would be the least disruptive to beneficiaries and the care they receive. Because the payment rates would remain relatively high, they would be unlikely to deter unnecessary admissions.

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## **Targeted reductions are not a preferred approach to lower Medicare payments to IRFs**

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To target reductions of payment rates, one would have to be able to identify patients who do not require IRF-level care. CMS's 13 conditions are intended to

differentiate IRFs from acute care hospitals and do not identify patients who meet coverage rules for IRF admission. No list of conditions can perfectly identify these patients; patients who require IRF-level care can have conditions that do or do not contribute to the compliance threshold. Moreover, there is a lack of evidence-based guidelines and research indicating which conditions benefit from intensive rehabilitation. A targeted reduction might be supported if the cases that do not contribute to the compliance threshold were more profitable, but we did not find this. Overall, cases with conditions that did contribute to the compliance threshold and those that did not were equally profitable. Furthermore, unobserved differences in the patients treated in IRFs and SNFs make it difficult to compare these facilities' patients and their outcomes. As a result of these ambiguities, the Commission concluded that there is not a solid evidence basis for lowering payment rates for conditions that typically do not require intensive rehabilitation. That said, the aggregate level of Medicare payments to IRFs is too high. The Commission urges the Congress to adopt our March 2024 recommendation to lower payment rates by 5 percent (Medicare Payment Advisory Commission 2024). As it does each year, in December 2024 the Commission will evaluate the adequacy of Medicare's payments to IRFs and consider many factors in its recommendation regarding the aggregate level of payments.

### **Actions policymakers could take to minimize medically unnecessary admissions**

The Commission is concerned that Medicare's high payment rates encourage IRFs to treat cases that do not require this level of care and unnecessarily increase Medicare spending. Although identifying these cases is difficult, policymakers could take several steps to minimize how frequently Medicare pays for inappropriate IRF stays. First, the Congress could direct CMS to regularly evaluate the list of conditions that count toward compliance and the compliance threshold. Second, CMS could clarify existing coverage rules, continue to educate providers about appropriate admissions and documentation, and expand its monitoring and review of claims.

### **Regularly evaluate the list of conditions that contribute to meeting the compliance threshold**

The list of conditions that count toward compliance in combination with the compliance threshold

limits admissions of patients with conditions that do not count toward compliance with the 60 percent threshold. While no list will capture the circumstances of any individual patient, the list should be periodically reviewed in terms of conditions that might be added or removed. CMS could propose revisions to the list through its regular rule-making process. Ongoing monitoring would detect patterns that might raise questions about conditions that may not need intensive therapy (for example, differences in coding between for-profit and nonprofit providers).

Concurrently, policymakers should consider how additions and exclusions would affect the compliance threshold. Excluding codes from the list of conditions that contribute to the compliance threshold would have the same effect as raising the threshold because it would be harder for providers to meet it. Conversely, adding codes would make it easier to meet the threshold. Separately, policymakers could consider raising the compliance threshold. The current threshold is relatively low compared with its original level (75 percent). Because the list of conditions and the threshold are in statute, changes would have to be made by the Congress.

### **Improve ways to prevent unnecessary admissions**

OIG and CMS's CERT program found that a large share of IRF admissions do not meet coverage (medical necessity) and documentation rules. CMS has implemented a demonstration that requires its administrative contractors to review 100 percent of

claims in select states. Even before it is completed, it is possible that the demonstration will identify coverage requirements that could be clarified, best practices for providers' admission processes, and opportunities to enhance education for providers and claims reviewers. Consistent with OIG's recommendations, CMS could enhance its education and training of IRF clinical and billing personnel on Medicare's coverage and documentation requirements. CMS held a comprehensive provider education webinar in November 2023, and the agency told us that it plans to conduct these regularly. Providers could improve their internal controls so that patients who do not meet IRF-specific coverage rules are not admitted. OIG's ongoing work may identify coverage and documentation rules that warrant clarification.

In addition, CMS could expand its monitoring and reviews of claims. CMS could monitor patterns of claim submissions, denials, and appeals to detect patterns of questionable provider behavior for investigation. Monitoring may identify coverage rules and documentation requirements that could be clarified. CMS could also increase the share of claims it reviews. The very low share of claims that are reviewed is unlikely to discourage providers from admitting cases that, on closer inspection, do not meet coverage rules. Conducting more reviews would likely require additional financial resources for CMS. CMS would need to weigh the benefit of the additional audits (such as fewer unnecessary admissions) with the cost of the audits. ■

## Endnotes

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- 1 The exempt facilities and units continued to be paid on a cost basis (with limits) until the IRF PPS was implemented in 2002.
- 2 The preadmission screening evaluates the beneficiary's condition and need for rehabilitation therapy and medical treatment, including the beneficiary's prior level of function, expected level of improvement, estimated length of time to achieve level of improvement, evaluation of the beneficiary's risk for clinical complications, conditions that caused the need for rehabilitation, treatment needed, and anticipated discharge destination. The screening must be done and signed by a rehabilitation physician in the 48 hours prior to IRF admission (Centers for Medicare & Medicaid Services 2017a).
- 3 Though not a requirement, the majority of therapy minutes should be provided on an individual basis, not in a group or concurrently.
- 4 The patient must require close medical supervision by a rehabilitation physician, demonstrated by face-to-face visits at least three days a week throughout the stay. A nonphysician provider may provide one of the three weekly visits after the first week (Centers for Medicare & Medicaid Services 2017a).
- 5 Technical or professional personnel include registered nurses, licensed (vocational) nurses, physical therapists, occupational therapists, and speech-language pathologists or audiologists.
- 6 In April 2024, CMS finalized new minimum staffing requirements for Medicare- and Medicaid-certified long-term care facilities (Centers for Medicare & Medicaid Services 2024b). In the new rules, nursing facilities must have an RN on site 24 hours per day, 7 days per week, and minimum staffing ratios for RNs of 0.55 hours per resident day (HPRD) and 2.45 HPRD for nurse aides.
- 7 Beginning January 1, 2022, the medical director must be (or will be within five years) a medical director certified by the American Board of Post-Acute and Long-Term Care Medicine.
- 8 If a case is admitted for rehabilitation for a condition that does not contribute to meeting the compliance threshold but (1) the patient has a comorbidity that is a condition that contributes to the compliance threshold and (2) that comorbidity has caused significant decline in functional ability such that the patient requires intensive rehabilitation, then the case counts toward meeting the compliance threshold. The neurologic conditions include multiple sclerosis, Parkinson's disease, cerebral palsy, and neuromuscular disorders. The arthritic conditions contribute to the compliance threshold if appropriate, aggressive, and sustained outpatient therapy has failed. Hip and knee replacements contribute to the compliance threshold when they are bilateral, the patient is obese, or the patient is at least 85 years old.
- 9 Interview with CMS staff, February 29, 2024.
- 10 The IRF error rate has varied over time, ranging from 19 percent in 2021 and 2022 to a high of 62 percent in 2016.
- 11 The target affirmation rate begins at 80 percent and increases incrementally to 90 percent as the demonstration progresses. Until the target is met, IRFs can choose to have their claims approved prior to payment or after claims are submitted for payment. In the first option, an IRF submits a preclaim review request (prior to the claim being submitted for payment) to the Medicare administrative contractor. Requests that are provisionally "affirmed" are not subject to further review, and the claim will be paid as long as all other requirements are met. Requests that are nonaffirmed may be resubmitted with additional documentation. In the second option, all claims are reviewed after final claim submission. Once the target rate is met, a provider can forgo the 100 percent review and choose between a review of a statistically valid randomly drawn sample of postpayment claims or a prepayment "spot check" of 5 percent of claims (Centers for Medicare & Medicaid Services 2023a).
- 12 Myopathies are a heterogeneous group of disorders that usually present with muscle weakness that interferes with activities of daily life. "Other specified myopathies" are identified by using diagnosis code G72.89.
- 13 Neurological disorders included multiple sclerosis, motor neuron diseases, polyneuropathy, muscular dystrophy, and Parkinson's disease.
- 14 Joint replacements were included as conditions that contribute to the compliance threshold if both joints were replaced or, for single joint replacement, if the patient was obese or 85 years or older.
- 15 In earlier work, we found that transfers from SNFs to IRFs occurred but were infrequent. In episodes of multiple post-acute care stays (such as back-to-back home health care stays or transfers from IRFs to SNFs), we found that about 0.2 percent of episodes included referrals from SNFs to IRFs (Medicare Payment Advisory Commission 2018).



- 16 Hospital service areas (HSAs) are local health care markets for hospital care. An HSA is a collection of ZIP codes in which Medicare residents receive most of their hospitalizations from hospitals in that area. HSAs are defined by assigning ZIP codes to the hospital area where the greatest proportion of their Medicare residents was hospitalized. There are 3,435 HSAs. See <https://www.dartmouthatlas.org>.
- 17 See the specifications at <https://www.cms.gov/files/document/specifications-determining-irf-60-rule-compliance.pdf>.
- 18 In our analyses, cases that required the presence of “combination codes” (multiple specific diagnosis codes) to contribute to the compliance threshold were excluded. These account for about 5 percent of stays and are mostly stays in the major multiple trauma IGC.
- 19 The severity level was based on information from the prior hospital stay if there was one and on information from the IRF (or SNF) stay when there was not a preceding hospitalization. The JEN frailty index was developed to identify frail older adults who may be at risk of institutionalization. The index is based on 13 grouped categories of diseases or signs found to be significantly related to concurrent or future need for long-term care services. The algorithm uses diagnoses from claims.
- 20 Only stays that were 14 days or shorter were included in the analyses of IRF stays because IRFs are required to report therapy minutes for that period but not for the entire stay. About 70 percent of IRF cases for conditions that do not contribute to the compliance threshold were 14 days or shorter.
- 21 The distributions of therapy minutes were similar across types of therapy provided (physical, occupational, or speech pathology (data not shown)).

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