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THE NEED TO REFORM MEDICARE'S PAYMENTS TO SKILLED NURSING FACILITIES IS AS STRONG AS EVER

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MEDPAC Medicare Payment Advisory Commission

URBAN INSTITUTE

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The Medicare Payment Advisory Commission (MedPAC) is an independent Congressional agency established by the Balanced Budget Act of 1997 (P.L. 105–33) to advise the U.S. Congress on issues affecting the Medicare program. The Commission's statutory mandate is quite broad: In addition to advising the Congress on payments to private health plans participating in Medicare and providers in Medicare's traditional fee-for-service program, MedPAC is also tasked with analyzing access to care, quality of care, and other issues affecting Medicare.

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The need to reform Medicare's payments to skilled nursing facilities is as strong as ever

Executive summary

Well-documented shortcomings in the design of Medicare's payment system for skilled nursing facilities (SNFs) have prompted CMS to make many revisions to it, including shifting payments from therapy care towards nursing care. Payments for therapy services are tied to the amount of therapy provided rather than patient need and generally overpay facilities for the costs of those services. Payments for nontherapy ancillary (NTA) services do not vary with these services' costs or a patient's need for the services. As a result, SNFs face incentives to shift their patient mix toward intensive therapy case-mix groups by providing unnecessary therapy services.

This study compares the relationship between SNF payments and costs over time to assess whether changes CMS has made to the payment system have improved payment accuracy for therapy and NTA services. We find that between 2006 and 2014, payment accuracy for these services has steadily eroded. Payments are less able to explain differences in costs across both stays and facilities and payments are less proportional to costs. When more therapy is furnished, facility costs increase but program payments increase more quickly, to an even greater extent now than in the past. Payments for NTA services are unrelated to their costs. Current policies continue to advantage facilities that predominantly admit patients with rehabilitation care needs and poorly target payments for NTA services.

This study also compares current policy to an alternative design that would base payments for these services on patient characteristics and establish a separate payment component for NTA services. Compared with current policy, an alternative design would increase the accuracy of payments and dampen the incentive to furnish therapy for financial gain. We conclude that CMS's changes have not improved payment accuracy and more fundamental reforms are required. CMS should adopt an alternative design as quickly as possible.

Introduction

Medicare's payments for services furnished by skilled nursing facilities (SNFs) are estimated to be over $31 billion in 2014. About 20% of beneficiaries discharged from hospitals go to skilled nursing facilities to recover from conditions such as joint replacement or a stroke. During their post-acute stay, beneficiaries receive skilled nursing and rehabilitation services.

Accurate Medicare payments help ensure access to care, regardless of a beneficiary's care needs. Whether a beneficiary requires extensive rehabilitation or complex medical services, payments should track the average facility's costs so that a provider has no

financial incentive to admit certain beneficiaries over others. And when a provider selectively admits beneficiaries, it should not be financially rewarded for doing so. Another key reason for accurate payments is that Medicare's payment reforms, such as accountable care organizations and bundled payment initiatives, base their payments on Medicare's fee-for-service. The reform models run counter to the embedded incentives of Medicare's payment method to furnish unnecessary therapy services. Removing the payment distortions would help align the incentives providers face and encourage medically- necessary care.

Longstanding concerns about the design of the payment system for skilled nursing facilities have prompted CMS to make many revisions. While some changes targeted more accurate payments for therapy services, none correct the underlying design flaws that encourage the provision of therapy services and poorly target payments for nontherapy ancillary (NTA) services (such as drugs). We examine multiple measures of the accuracy of the payment system over time to assess whether the changes have resulted in more accurate payments and have reduced incentives to provide unnecessary therapy.

CMS's revisions to the payment system for skilled nursing facilities

Medicare's prospective payment system was implemented in 1998 and establishes a daily payment comprised of three components: one for nursing and NTA services, another for therapy care, and a uniform room and board amount.[1] The PPS was quickly criticized for encouraging the provision of unnecessary rehabilitation therapy services and not accurately paying for NTA services, such as drugs (GAO 1999; GAO 2002; White, Chapin, Pizer, et al 2002). Because the payments for therapy services (which comprise about a third of the daily costs) are based on the number of minutes of care, providers have a financial incentive to furnish unnecessary therapy care if payments exceed the marginal cost to furnish them. Criticisms were not directed at how nursing staff time was used to establish payments for the nursing component; rather, they questioned that nursing time was used to establish payments for NTA services (which comprise 14% of daily costs). The cost of NTA services vary much more than nursing costs and are not correlated with them (CMS 2006). Payments for patients with high NTA costs are higher only when the patients also require more nursing staff time. Because nursing weights and NTA costs are uncorrelated (as we show below), payments for NTA services are poorly targeted towards patients requiring costly NTA services.

In 2008, the Medicare Payment Advisory Commission recommended changes to the payment system (MedPAC 2008). Since then, the Office of Inspector General of the

[1] The routine and therapy components are adjusted for differences in a patient's care needs using the resource utilization groups (RUG) classification system. The classification system is hierarchical, with patients assigned to the highest-payment case-mix group. The classification system's logic first asks how much therapy patients received. Within groupings based on minutes, patients are assigned to groups based on their ability to perform activities of daily living. Patients who do not receive 45 or more minutes of therapy a week are assigned to medical case mix groups based on diagnoses, special services (such as tracheostomy care), and other patient conditions (such as having severe pressure ulcers or a fever).

Department of Health and Human Services and MedPAC have found that changes in the patients' characteristics did not support the increase in the therapy use indicated by facilities' billing practices. The Inspector General recommended that CMS change the way it pays for therapy (OIG 2011, OIG 2012). In commenting on the fiscal year 2015 proposed rule for Medicare payments to skilled nursing facilities, the American Hospital Association noted the need for a better way to pay for NTA services.

CMS began working on refinements to the case-mix classification system within a year of implementing the payment system (CMS final rule in *Federal Register,* July 1999). In response to a requirement in the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000, CMS funded research on potential revisions. Studies funded by CMS and MedPAC have examined alternative ways to pay for therapy and NTA services (Maxwell et al. 2003, Urban Institute 2004, Liu et al. 2007, Garrett and Wissoker 2008). These studies explored ways to base payments on predicted patient care needs using diagnoses, functional status, and the use of special services (such as IV medications and tracheostomy care). They also examined decoupling payment for NTA services from nursing care and eliminating the fee-schedule approach to paying for therapy.

In 2013, CMS had a contractor identify and evaluate potential alternative ways to pay for therapy services. Based on its review, the contractor selected two approaches to pursue: using patient characteristics to predict expected costs and a hybrid approach that combines patient characteristics with some measures of resource use. The next step is to develop possible payment models for this component of the PPS. In October 2014, CMS announced that it would expand the scope of the therapy research project to include potential improvements to the entire PPS.

Though the basic structure of the PPS remains intact, CMS has made many revisions to the PPS. The revisions fall into three broad categories: refinements to the case-mix classification system, the shifting of dollars towards nursing care and away from therapy care, and basing payments on the costs of the care patients received.

The first refinement to the case-mix classification system was made to better account for differences in nursing costs across patients. In 2006, CMS added nine case-mix groups to the classification system for patients who qualify for a rehabilitation case-mix group (receiving at least 45 minutes per week of therapy) and an extensive service (such as intravenous medications or ventilator care). Within 4 years, 39% of days qualified for these highest-payment groups, in part because IV medications furnished during the prior hospital stay qualified days counted towards the assignment. In October 2010, CMS again revised the case-mix groups to: consider only care furnished during the skilled nursing facility stay; more accurately classify patients with similar costs using more recent data on resource use; and add 13 case-mix groups for clinically complex and special care days.[2]

[2] Clinically complex groups are used to classify patients who have burns, septicemia, or pneumonia or who receive chemotherapy, oxygen therapy, intravenous medications, or transfusions while a SNF patient. Special care groups include patients who are comatose; have quadriplegia, chronic obstructive pulmonary

The second type of revision, made in multiple increments, was to shift program dollars towards nursing care and specific medical case-mix groups and away from therapy care. Without altering the design of the therapy component (that is, payments remained a function of the amount of service), payments for the nursing component of select case-mix groups were raised in 2000 and for all groups in 2001. Also, with the addition of nine case-mix groups in 2006, payments for the nursing component were raised with the intention of addressing the variability of NTA costs. Later, in correcting the rates in 2012, CMS lowered payments for the therapy case-mix groups but retained the rates for the medical groups, protecting them from rate reductions. With one exception (payments were raised for patients with AIDS), higher nursing payments have not directly targeted patients with high NTA costs.

The third set of changes tried to improve the accuracy of payments by reflecting the costs of the care patients received. Prior to 2010, the program paid for therapy care regardless of whether the services were furnished in more costly one-on-one therapy sessions or to multiple patients at the same time. In 2010 and 2011, CMS revised the payments for therapy furnished to multiple beneficiaries at the same time (versus in one-on-one sessions).[3] In another change, the program required providers to reassess patients if there have been changes in the provision of therapy that could affect the case-mix group assignment (and payments). These corrections were expected to increase payment accuracy because they account for the efficiencies of different therapy modalities and they establish payments based on the care actually furnished. They did not, however, change the underlying incentives to provide services, because therapy payment remains tied to therapy provision.

Study data and methods

The present study brings together findings from related prior studies conducted over several years, and reports new analyses that reflect the latest payment rules, to illustrate how the accuracy of Medicare SNF payments has shifted over time. The methods for the study have been reported elsewhere (Garrett and Wissoker 2008; Wissoker and Zuckerman 2012; Carter, Garrett, and Wissoker 2012; Wissoker and Garrett 2014). In brief, we used Medicare data from skilled nursing facility claims, patient assessments,

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disease, septicemia, diabetes requiring daily injections, fever with specific other conditions, cerebral palsy, multiple sclerosis, Parkinson's disease, respiratory failure, a feeding tube, pressure ulcers of specific sizes, or foot infections; receive radiation therapy or dialysis while a resident; or require parenteral or intravenous feedings or respiratory therapy for seven days.

[3] In 2010 (for fiscal year 2011), CMS lowered payments for therapy furnished concurrently (multiple patients engaged in different therapy activities at the same time) and required end-of-therapy assessments to prevent paying for therapy services after they have been discontinued. In 2011 (for fiscal year 2012), CMS lowered payments for therapy furnished in groups (multiple patients engaged in the same therapy activities at the same time). In the same year, CMS implemented the revised case-mix classification system. When CMS calculated an adjustment factor to ensure that payments under the new and old classification systems remained the same, CMS assumed the same mix of therapy furnished concurrently, in groups, and individually. However, with payments effectively discounted for therapy provided in groups or concurrently, the industry shifted its provision to individual therapy to receive higher payments. With a different mix of therapy modalities, the adjustment factor was very inaccurate and resulted an estimated $4.7 billion in overpayments to the industry.

and cost reports to estimate the daily costs and compared these to payments under Medicare's policies in 2006, 2011, 2012, and 2014. Service costs were estimated using charges from claims and converting them to costs using cost-to-charge ratios from the facilities' Medicare cost reports. Payments in each of the four years are modeled using the payment rates published in the *Federal Register* and counts of days reported in SNF claims. Claims from 2003 were used to estimate the relationship between payments and costs for 2006; claims for 2007 were used to estimate these relationships for 2011 and 2012; and claims for 2011 were used to estimate these relationships for 2014.

We designed an alternative to the current SNF payment system that establishes a separate component for NTA services (removing the payments from the nursing component), bases therapy payments on patient characteristics, and retains the nursing and other (room and board) components. The payments for the nursing component are based on the resource estimates made by CMS prior to adjustments it made to shift payments away from therapy care. Payment for a day of care would be the sum of four components, rather than the three components in the current design.

The alternative design uses a mix of patient and stay characteristics to predict therapy and NTA costs (Wissoker and Garrett 2014). Patient characteristics include age, the use of special services (such as intravenous medications or ventilator care), indicators of mental and cognitive status, ability to perform activities of daily living, and diagnoses. Characteristics of the stay include an indicator of whether the patient was assigned to a rehabilitation case-mix category, the existing nursing relative weights, and a proxy for length of stay to account for higher costs at the beginning of the stay.[4]

We evaluate the accuracy of payments by comparing estimated costs to payments using three measures. First, we examine the ability to explain cost differences across stays by looking at the percent of the cost variation explained by payments (R-squared). We care about accuracy at the stay level because systematic over- and under-payment could result in selective admission and treatment decisions. Even random over- and under-payment may matter for facilities with relatively small numbers of patients, so a higher R-squared is generally preferable as long as payment variation is based on measure of patient need. Second, we look at the percent of cost variation across facilities explained by payments. Over- and underpayments at the stay level may average out for a facility so we want to know if payments track with costs at the facility level. For this analysis, we measure the share of the log of average costs explained by average payments and whether the facility is in a rural area. Third, we examine whether facility payments are proportional to their costs to assess the biases in the therapy and NTA components of the payment system. We create a measure (a case-mix index [CMI] coefficient) of the proportionality of payments to costs, where a coefficient of 1.0 indicates that payments vary proportionately with costs. A facility would not face a strong financial incentive to select a more or less complex mix of cases if payments track costs proportionately. A CMI coefficient less

[4] The precise model underlying the alternative design differs across years, due in part to a change in the available data following implementation of Minimum Data Set 3.0 and the need in the most recent estimates to only include predictors that are also available for beneficiaries in inpatient rehabilitation facilities.

than 1 indicates that a facility with a more costly case-mix would be overpaid: costs increase more slowly than payments. A CMI coefficient above 1 indicates that a facility with a more costly case-mix would be underpaid: costs increase faster than payments. With the addition of 2014 estimates, these analyses have now been conducted at four points in time (2006, 2011, 2012, and 2014), which allows us to evaluate whether payments have become more accurate over time.

Payment accuracy has steadily eroded since 2006

Despite numerous revisions to the payment system, payments for therapy and NTA services have become less accurate over time. Since 2006, the ability of payments to explain cost differences across stays and facilities has eroded for both services, and payments are less proportional to costs.

Payments for nontherapy ancillary services

Current (2014) payment policy, in which payment for NTA services are part of the nursing payment, results in very inaccurate payments for NTA services. As seen in Table 1, the accuracy has gotten worse over time. In 2006, nursing payments were only slightly correlated with NTA costs. Payments for NTA services explained 5% of cost variability across stays. Under current (2014) policies, there is essentially no correlation between nursing payments and NTA costs, with payments explaining 0.1% of variability in costs. The ability to explain cost differences across facilities has gotten considerably worse, going from explaining 10% of the variation in 2006 to none in 2014. Because payments for NTA services have essentially zero statistical relationship to costs at the stay and facility levels, facilities with more patients with higher expected NTA costs due to higher need for those services will be underpaid for treating those cases.

Payments continue not to be proportional to costs, though the direction has shifted. Earlier payment policies (2006 and 2011) resulted in facilities with higher NTA payments (in the sense of having higher nursing weights) being underpaid and those with lower NTA payments being overpaid. Possibly reflecting policies that raised payments for nursing components for the medical case-mix groups, current policy appears to result in considerable overpayment for facilities with higher NTA payments given the CMI coefficient of 0.08. But with no relationship between NTA payments and costs in 2014, and no targeting of payments to patients requiring these services, SNFs will be underpaid for treating patients requiring these services and will have an incentive to avoid such patients.

Payments for therapy services

The ability of payments to explain cost differences in therapy care has also declined over time. At the stay and facility levels, policies in 2006 explained more of the variation in costs than current payment policies. This reduction likely reflects compositional shifts in the assigned case-mix group towards very high and ultra-high therapy case-mix groups as shown in Figure 1. The percent of variability in facility level costs explained by payments has also fallen since 2006. The CMI coefficients for therapy payments show a steady decline in the proportionality of payments to costs, so that facilities with a more costly therapy case-mix (i.e., facilities with higher therapy provision) are increasingly

overpaid for the services provided. Together, these results indicate that the relationship between payments and costs has deteriorated since 2006. More important than the degree of correlation between payments and costs, however, is the source of that correlation. The ability of current policy to explain cost differences (the R-squared values) for therapy services results from defining the case-mix groups according to how much therapy facilities choose to provide, rather than indicators of patient need for therapy services. This feature of the current system creates an incentive for facilities to overprovide therapy services.

Therapy payments encourage the provision of therapy services

The overpayments to facilities with above-average therapy provision are likely to be driving the growth in the share of days assigned to a therapy case mix group and, within those, to the most intensive therapy group (Figure 1). Between 2000 and 2012, the share of days assigned to a rehabilitation case-mix group increased from 77% to 92%, and the share assigned to the most intensive therapy groups (the ultra high and very high case-mix groups) increased from 24% to 76%. The Office of the Inspector General found that increasingly, SNFs billed Medicare for more intensive therapy case-mix groups even though beneficiaries' ages and diagnoses had not changed much (OIG 2011, OIG 2012). In addition, MedPAC concluded that changes in the frailty of beneficiaries and shorter hospital stays do not support the increasing intensity of therapy provision (MedPAC 2014). Under the False Claims Act, the Department of Justice has increasingly focused its attention on companies for failing to ensure that services furnished were necessary (Department of Justice 2014).

Despite the expansion of the number of medical case-mix groups and increases made to the payment rates for them, the share of all days assigned to the groups remains small (6 percent in 2013, down from 15 percent in 2000). Providers continue to furnish enough therapy to qualify the vast majority of beneficiaries for therapy groups. We continue to hear that patients with high drug costs can be hard to place.

A facility's mix of case-mix groups affects its financial performance under Medicare payments. Using a measure that compares Medicare costs to Medicare payments, MedPAC found that in 2012 freestanding facilities with the highest shares (the top 10^{th} percentile) of days assigned to ultra-high and very-high therapy case mix groups have far higher Medicare margins compared with facilities with the lowest shares (the bottom 10^{th} percentile of these days, 16 percent versus 2.3 percent). Freestanding facilities with the lowest shares of medically complex cases have much higher Medicare margins (averaging 14 percent) compared with facilities with highest shares of these days (9 percent). Some publicly traded SNF chains report their shares of high-acuity rehabilitation as a performance measure in gauging the success of strategies to grow their Medicare rehabilitation business (Diversicare 2014, Ensign 2014a, Extendicare 2014a, Kindred 2014a, Skilled Healthcare 2014a, and AdCare 2014).

An alternative design could improve the accuracy of payments

An alternative design that establishes a separate component for NTA services and bases therapy payments on patient characteristics would result in payments that are more

accurate and proportional to facility costs (Table 2). For NTA services, an alternative design would explain far more of the variation (20%) in costs compared with explaining none of the variation under current payments. In addition, payments would be dramatically more proportional to costs (CMI coefficient=0.93 versus 0.08 under current payments). For therapy services, the alternative design would explain the same amount of the variation in therapy costs as current policy. However, because the alternative design bases payments on patient characteristics, providers' payments would increase based on patient care needs, not the amount of amount of therapy furnished. Therapy payments would be far more proportional to costs (CMI=1.11 compared with 0.42 under current policy) and would dampen the incentive to furnish therapy care for financial, rather than clinical reasons.

Changes in policy have not substantially changed the impacts an alternative design would have on payments to facilities

Despite the changes made to the PPS, the directional impacts of an alternative design would remain the same compared with policies in place in 2006, 2012, and 2014 (Table 3). Payments to facilities with the lowest shares of rehabilitation therapy would increase, while payments to facilities with the highest shares of therapy patients would decline, with the magnitudes changing slightly over time. The impacts on payments to facilities with the largest and smallest shares of intensive therapy days (the ultra-high and very-high therapy groups), ownership, location, and facility type are also comparable to estimates of the impacts of earlier policies. The estimated impacts on facilities with high and low shares of special care and clinically complex days are consistent over time: an alternative design would raise payments to facilities with high shares of these days and lower payments to facilities with low shares. The variation in the impacts of the policies in place in different years is likely to reflect the many changes made to the definitions and expansions of the case-mix groups for these types of stays. The impact on facilities with high NTA costs would be less than earlier years' policies but would still increase considerably (12 percent compared with current policy). The muted impact may also reflect changes to the case-mix groups, since medically complex patients are more likely to have high NTA costs.

Under the alternative design, the distribution of Medicare margins is likely to narrow. The majority of facilities with the lowest margins would see their payments increase, while payments would decline for the majority of facilities with the highest margins. Of the facilities with lowest margins (below -10 percent), over three-quarters would have increases in payments of more than 10 percent. Of facilities with the highest margins (more than 10 percent), almost half would see their payments decline.

Impacts on individual facilities would differ considerably from these overall averages depending on the mix of days and therapy practices (Table 4). Although most facilities (69%) with the lowest shares of therapy days would see large increases in payments (at least 10%), a small number of low-therapy facilities (5%) would experience declines in payments. Almost all hospital-based facilities would see their revenues increase by more than 10% but a small number of facilities (3%) would see their revenues decline. Over

80% of facilities that would experience large declines in payments (more than 10% reductions) had Medicare margins in 2012 of at least 10 percent.

Discussion

Despite many changes made to Medicare's payment system for skilled nursing facilities, its accuracy has worsened over time. Payments for NTA services are even more poorly targeted than earlier periods and are essentially unrelated to costs at both the stay and facility levels. The implication is that facilities that treat patients with high need for NTA services (such as patients requiring ventilator care or high-cost antibiotics) will not receive higher payment commensurate with their higher cost, and face an incentive to avoid such patients.

Therapy payments are less correlated with costs than they were in 2006, but more importantly, therapy payments are dependent on the amount of therapy that facilities choose to provide under the current system, rather than indicators of patient need. Facilities that provide more intense therapy services receive additional payments that exceed the additional costs and are therefore overpaid for those services. The industry's continued shift of days into the highest therapy case-mix groups, and the high Medicare margins for facilities that furnish this type of care, are testaments to this overpayment.

The study shows that an alternative design—including a separate payment for NTA services and payments for these and therapy services based on patient characteristics—would yield more accurate payments than current policy. Perhaps more importantly, the design would also dampen the incentive to furnish therapy care for financial, not clinical reasons. A design with these components would redistribute payments away from providers focused on furnishing intense therapy unrelated to care needs. It would also increase payments to providers with high NTA costs and those treating medically complex patients.

The design would be relatively straightforward to implement. The nursing component would remain the same, minus the dollars associated with NTA services. A new NTA component would establish payments for these services using dollars removed from the nursing component. A redesigned therapy component would replace the current therapy component. The fixed amount for room and board would remain the same. The daily payment would be the sum of four components, instead of the current three. This alternative has the effect of creating greater uniformity in the profitability of patients – which should result in less revenue-driven care and more clinically-driven care. Under this design, spending would be redistributed from highly profitable, therapy-focused (and typically for-profit) facilities to less profitable facilities that focus more on medically complex patients.

In past years, it might have been argued that a more prospective therapy component based on patient need rather than service provision would have resulted in an unacceptable decline in the correspondence between therapy payment and therapy costs, because alternative therapy models explained less of the variation in facility costs compared with current policy. With the decline in the accuracy of the current therapy

component, this is no longer the case. The R-squared of the alternative system is now comparable to that of the current system, yet results in payments that are more proportional costs and eliminates the incentive to over-provide therapy services. Setting payments prospectively based on patient characteristics could encourage providers to stint on services since providers will be paid irrespective of the services they furnish. Two policies could discourage stinting. First, tying a portion of payments to outcome measures would lower payments to SNFs with poor outcomes. Beginning, in 2018, SNF payments will be tied to readmission rates, and other quality measures, such as risk-adjusted changes in function, could be added to consider the efficacy of therapy.

A second approach could compare a facility's predicted costs for a stay to its actual costs, and would pay on the basis of its actual costs for stays with costs well below the predicted amount. If a provider stinted on care, its costs for the stay would be considerably lower than the predicted amount. In these cases, because the payments would be based on actual costs, a provider would not profit from withholding care that was assumed in the predicted amount, thus countering the incentive to stint (Carter, Garrett, and Wissoker 2012). Establishing the threshold for triggering cost-based payments would need to consider the costs per stay of efficient providers so they do not get mis-identified as stinting on care. This design would be akin to a short-stay outlier policy in other discharge-based PPSs that discourage stinting and premature discharges by paying considerably lower payments for unusually low use. For example, in Medicare's home health care PPS, payments switch from a 60-day episode-based payment to payments per visit for episodes with very low visits per episode.

Conclusion

The many changes made to the payment system have done little to address the shortcomings of Medicare's payment system for skilled nursing facilities that were identified soon after the system was implemented. The present payment system continues to encourage providers to furnish clinically-unnecessary services for financial gain. With a number of providers experimenting with various payment reform models, accuracy should remain a central concern since bundled payment and ACO reforms continue to rely on fee-for-service payments. Without changes to the prospective payment system, skilled nursing facilities will continue to have incentive to furnish care that runs counter to broader reforms. Our results confirm that changes more sweeping than those made to date are required. A revised payment system would improve the accuracy of payments to skilled nursing facilities, make providers more neutral to the types of patients they admit, and dampen the incentive to furnish therapy services unrelated to patients' care needs.

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Table 1. Accuracy of Medicare's payments to skilled nursing facilities under various years' policies

	2006 policies	2011 policies	2012 policies	2014 policies	Impact on payments over time
Nontherapy ancillary services					
Percent variation in stay-level costs explained	5%	4%	1%	0.1%	Steady erosion in accuracy. No correlation between 2014 payments and costs.
Percent variation in log facility-level costs explained	10%	6%	2%	0%	Steady erosion in accuracy. No correlation between 2014 payments and costs.
Proportionality of payments to cost CMI coefficient	2.34	1.28	0.61	0.08	Facilities with above-average nursing case-mix are overpaid for NTA services.
Therapy services					
Percent variation in stay-level costs explained	36%	24%	21%	19%	Steady erosion in accuracy
Percent variation in log facility-level costs explained	37%	15%	12%	15%	Erosion in accuracy since 2006, with small improvement from 2012
Proportionality of payments to cost CMI coefficient	0.79	0.56	0.43	0.42	Less proportional. Facilities with above-average therapy case-mix are overpaid; facilities with below-average case-mix are underpaid.

Note: CMI (case-mix index). A CMI coefficient of 1.0 indicates that facility payments are proportional to facility costs. A CMI greater than 1.0 indicates that a facility with a relatively costly case mix would tend to be underpaid, whereas a facility with a relatively inexpensive case mix would tend to be overpaid. A CMI coefficient below 1.0 indicates that a facility with a relatively costly case mix would tend to be overpaid, while a facility with less costly case mix would tend to be underpaid.

Source: Analysis conducted by the Urban Institute for MedPAC (2014).

Table 2. Comparison of the accuracy of current SNF payment policies to an alternative design

	2014 policies	Alternative design
Nontherapy ancillary services		
Percent variation in stay-level costs explained	0.1 %	20%
Percent variation in log facility-level costs explained	0%	10%
Proportionality of payments to cost CMI coefficient	0.08	0.93
Therapy services		
Percent variation in stay-level costs explained	19%	19%
Percent variation in log facility-level costs explained	15%	14%
Proportionality of payments to cost CMI coefficient	0.42	1.11

Note: CMI (case-mix index). A CMI coefficient of 1.0 indicates that facility payments are proportional to facility costs. A CMIS greater than 1.0 indicates that a facility with a relatively costly case mix would tend to be underpaid, whereas a facility with a relatively inexpensive case mix would tend to be overpaid. A CMI coefficient below 1.0 indicates that a facility with a relatively costly case mix would tend to be overpaid, while a facility with less costly case mix would tend to be underpaid.

Source: Analysis conducted by the Urban Institute for MedPAC (2014).

Table 3. An alternative design would change payments to facilities relative to current (2014) policy depending on their mix of patients and therapy practices

SNF subgroup	Change in payments under alternative design relative to		
	2006 policies	2012 policies	2014 policies
All facilities	0%	0%	0%
Mix of days			
Low share of therapy	17	16	16
High share of therapy	-6	-7	-4
Low share of intensive therapy	na	26	32
High share of intensive therapy	na	-10	-7
Low share of special care	-4	-7	-2
High share of special care	7	17	5
Low share of clinically complex	n/a	-4	-3
High share of clinically complex	n/a	18	7
Nontherapy ancillary cost/day			
Low	-1	-1	-2
High	23	18	12
Facility characteristic			
Freestanding	-2	-1	0
Hospital-based	20	27	21
Rural	0	2	4
Urban	0	0	0
Nonprofit	7	8	4
For-profit	-3	-2	-1
Government	7	8	7

Note: Percent are percent of facilities. Rehabilitation-only days excludes days assigned to rehabilitation plus extensive service groups. High includes facilities in the top 10^{th} percentile of the distribution; low includes facilities in the bottom 10^{th} percentile of the distribution. Intensive therapy days are those assigned to the ultra-high therapy case-mix groups. Medical days are those assigned to clinically complex and special care case-mix groups.

Source: Analysis conducted by the Urban Institute for MedPAC (2014).

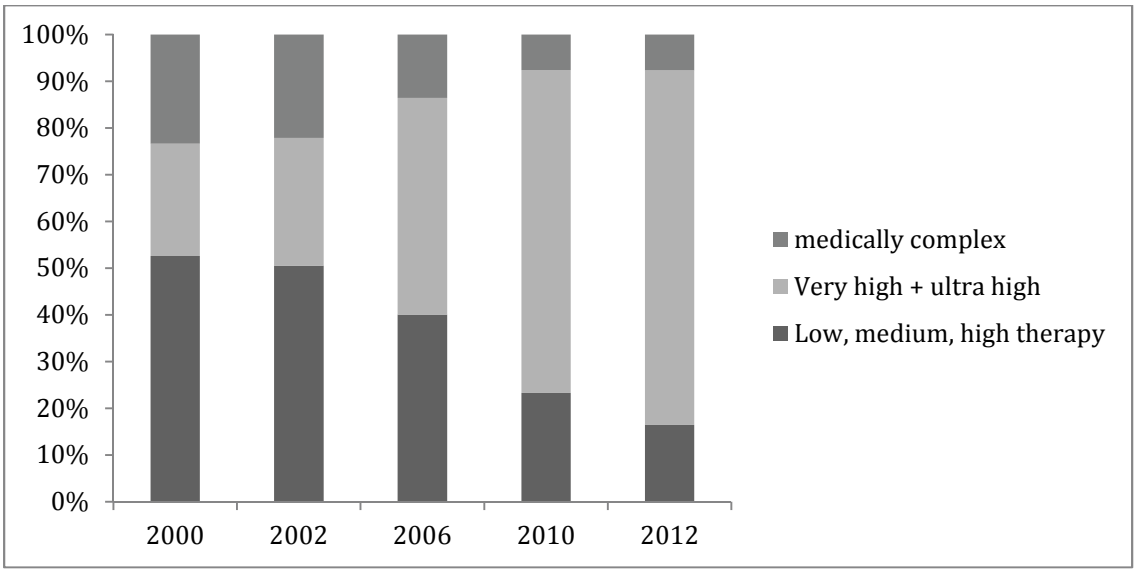
Table 4. The impacts of an alternative design on individual facilities would vary considerably by patient mix and therapy practices

Facility subgroup	Distribution of impacts (% of facilities)				
	Payments lower by		About the same (-1% to +1%)	Payments higher by	
	More than 10%	1 to 10%		1 to 10%	More than 10%
All facilities	2%	37%	10%	29%	22%
Mix of days					
Low share of therapy	0	5	4	23	69
High share of therapy	7	46	8	22	17
Low share of intensive therapy	0	0	0	5	95
High share of intensive therapy	16	81	2	1	0
Low share of medically complex	7	39	8	24	24
High share of medically complex	0	6	4	21	68
Nontherapy ancillary cost/day					
Low	5	32	8	25	29
High	1	3	7	28	49
Facility characteristic					
Freestanding	2	39	10	29	19
Hospital-based	0	3	2	14	81
Rural	1	25	8	30	38
Urban	3	43	11	28	16
Nonprofit	2	25	8	29	36
For-profit	2	43	10	28	16
Government	0	14	7	29	50

Note: Percent are percent of facilities. Rehabilitation-only days excludes days assigned to rehabilitation plus extensive service groups. High includes facilities in the top 10^{th} percentile of the distribution; low includes facilities in the bottom 10^{th} percentile of the distribution. Intensive therapy days are those assigned to the ultra-high therapy case-mix groups. Medical days are those assigned to clinically complex and special care case-mix groups.

Source: Analysis conducted by the Urban Institute for MedPAC (2014).

Figure 1. Skilled nursing facility days have increasingly been assigned to the most intensive rehabilitation case mix groups, 2002-2012



Source: Medicare cost reports for freestanding and hospital-based skilled nursing facilities, 2000-2012.

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