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Medicare Postacute Care Payment Reforms Have Potential to Improve Efficiency, but May Need Changes to Cut Costs

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Abstract

The Affordable Care Act mandates changes in payment policies for Medicare postacute care services intended to contain spending in the long run and help ensure the program's financial sustainability. In addition to reducing annual payment increases to providers under the existing prospective payment systems, the act calls for demonstration projects of bundled payment, accountable care organizations, and other strategies to promote care coordination and reduce spending. Experience with the adoption of Medicare prospective payment systems in postacute care settings approximately a decade ago suggests that current reforms could, but need not necessarily, produce such undesirable effects as decreased access for less profitable patients, poorer patient outcomes, and only short-lived curbs on spending. Policy makers will need to be vigilant in monitoring the impact of the Affordable Care Act reforms and be prepared to amend policies as necessary to ensure that the reforms exert persistent controls on spending without compromising the delivery of patient-appropriate postacute services.

Each year, more than ten million Medicare beneficiaries are discharged from acute care hospitals into postacute care settings. These settings are long-term care hospitals, inpatient rehabilitation facilities, skilled nursing facilities, and patients' homes with services from home health agencies. Medicare beneficiaries receiving postacute services are some of the frailest and most vulnerable elders. Medicare's spending on them has more than doubled in the past decade, increasing from \$26.6 billion in 2001 to \$58 billion in 2010.[1]

The Affordable Care Act implemented changes to Medicare payment policy to curtail this growth in spending. The act establishes demonstration projects such as bundled payment and accountable care organizations to promote care coordination and reduce unnecessary spending. It also mandates reductions in payment increases for providers from fiscal years 2010–19.

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However, several questions about the impact of these changes remain unanswered. Will payment reforms slow long-term growth in Medicare spending? How will providers respond to the changes? And how might these reforms affect access to care and patient health?

Experience can help answer these questions. Between 1988 and 1997, Medicare spending for postacute care increased at an average annual rate of 25 percent.[2] This rapid rise in spending prompted Congress in the Balanced Budget Act of 1997 to mandate prospective payment systems for postacute care providers treating Medicare fee-for-service beneficiaries. These systems were designed to reduce spending and introduce incentives for more efficient care delivery.

In this article we first provide background on the postacute care payment changes under the Balanced Budget Act. Next, we review the intended and unintended consequences of these payment changes. Finally, we consider the implications of previous experience for postacute payment reform under the Affordable Care Act.

Background

Differences In Postacute Care Settings

Although some overlap exists, each of the four postacute care settings offers a different level of care as a result of statutory requirements and payment policies.

Long-term care hospitals treat patients who stay more than twenty-five days, on average, and who suffer from clinically complex problems, such as multiple acute or chronic conditions. Long-term care hospitals must also meet Medicare's conditions of participation for acute care hospitals.

Inpatient rehabilitation facilities are certified as hospitals or are units of hospitals and are oriented toward rehabilitation. They must provide at least three hours of therapy per day, have a staff of nurses working twenty-four hours per day, and retain a physician to oversee care daily. Sixty percent of patients must have one or more of thirteen qualifying medical conditions that are thought to require intensive rehabilitation services.

Skilled nursing facilities must follow a physician's plan of care, have nurses on staff eight hours per day, and have nurses on call twenty-four hours every day. Patients must require daily inpatient skilled care.

Home health agencies must provide skilled care to homebound patients consistent with physicians' orders and physicians' assessments of patients. Home health care includes therapy, nursing care, and assistance from home health aides.

Little clinical consensus exists on the most appropriate care setting for the majority of patients receiving postacute care. Moreover, the costs of providing care and payment methods vary considerably across settings.

For example, a recent study found that more intensive rehabilitation provided in inpatient rehabilitation facilities to stroke and hip fracture patients led to better patient outcomes but at a considerably higher cost than rehabilitating these patients at home.[3] The lack of clinical consensus on the most appropriate site of care allows providers to consider nonclinical factors, such as patient convenience and business affiliation with postacute care providers, in addition to clinical factors in choosing a site of care.

Thus, changes in Medicare reimbursement in one postacute care setting might affect the use of both that setting and one or more alternative settings. We return to this issue later, when we discuss the evidence for such substitution effects of payment changes.

Adoption Of Prospective Payment In Postacute Settings

The mandated adoption of prospective payment systems in postacute care settings was phased in over several years for Medicare fee-for-service beneficiaries. Medicare introduced an “interim” payment system for home health agencies in 1997, followed by prospective payment systems for skilled nursing facilities in 1998, home health agencies in 2000, inpatient rehabilitation facilities in 2002, and long-term care hospitals also in 2002. In between and following these major reforms have been continuous efforts to fine-tune the payment systems.

Importantly, the prospective payment systems did not apply to Medicare Advantage (managed care) enrollees. Thus, the discussion and data presented below pertain only to the fee-for-service Medicare population.

Effects Of Prospective Payment

Prospective payment reforms entail both marginal and average payment changes.[4] Marginal payment refers to the amount of reimbursement for an additional unit of service--for example, an extra physical therapy session--while average payment refers to the generosity of payment for all units of service--for example, all care during an entire stay.

Following the implementation of the postacute prospective payment systems, inpatient rehabilitation facilities and long-term care hospitals are paid on a per discharge basis, a fixed payment per episode regardless of length-of-stay. The level of payment depends on patients' health status at admission, primary diagnosis, age, and other factors.[5, 6] Skilled nursing facilities are reimbursed on a per diem basis, and home health agencies are paid according to sixty-day periods (Exhibit 1).

The different bases of payment in the prospective payment systems in place in the various postacute care settings led to different marginal and average payment incentives for providers relative to the status quo in the period immediately following the reforms (Exhibit 2). The fixed per diem payments encouraged skilled nursing facilities to limit their costs per day but not lengths-of-stay, with an ambiguous effect on total Medicare spending. The skilled nursing facility prospective payment system decreased average payments per discharge.

The per discharge payment systems for long-term care hospitals and inpatient rehabilitation facilities provided a marginal incentive to limit spending per discharge. However, the systems in these two settings, unlike that in skilled nursing facilities, increased average payments per discharge instead of decreasing them.

The home health agency interim payment system lowered both average and marginal payments by reducing the per visit payment maximum and introducing an annual per beneficiary cap. Meanwhile, the subsequent home health agency prospective payment system increased average reimbursement relative to the interim payment system. It also decreased marginal reimbursement per sixty-day episode--the unit of reimbursement--by making no payment for additional visits after four per episode. However, facilities did receive additional payments for multiple episodes per beneficiary. Medicare subsequently reduced the base home health payment rate in 2003 by 5 percent.[7]

Because changes in average and marginal payment may affect quantity and quality of care, they may also affect patient outcomes, such as functioning, mortality, and hospital readmissions. Of course, quality of care would be unaffected if any additional units of care provided had no value to the patient.

A Government Accountability Office report on home health care took up this issue and concluded that characterizing the “appropriate” level of home health care is difficult because there are no agreed-upon standards for what constitutes necessary or appropriate care.[8] Similar challenges arise in defining an appropriate level of care in other postacute care settings.

Postacute Prospective Payment Lessons: From Adoption To 2010

Effects On Utilization And Costs

Postacute care providers strongly responded to prospective payment--hardly a surprise, because a large proportion of their revenues come from Medicare. In 2010, for example, 45 percent of home health agencies' revenue was from Medicare.[9]

Total Medicare spending for postacute care, after having increased from \$13.8 billion in 1990 to \$46.8 billion in 1996, declined to \$37.7 billion in 2001.[2, 10, 11]. Over the same time period, the number of Medicare beneficiaries using postacute care decreased 18 percent, from 4.3 million to 3.5 million per year--largely due to a major reduction in use of home health care. However, in subsequent years, spending growth resumed, with total Medicare postacute payments increasing from \$39.5 billion in 2002 to \$57.2 billion in 2010 for fee-for-service beneficiaries, primarily driven by spending increases on skilled nursing facilities and home health agencies.[1, 12]

Home Health Care—The effect of the interim payment system was swift and dramatic. More than 30 percent of home health agencies exited the market with its introduction.[13] As intended, it reduced both the probability of using home health and the number of visits per patient.[13–16] It also decreased both the intensity of services delivered and the overall length of time enrolled in home health care.[17]

Among stroke, hip fracture, and joint replacement patients, the interim payment system greatly decreased home health costs and the probability of home health agency use. In contrast, the home health prospective payment system that succeeded it led to a modest increase in costs through the first half of 2002.

This increase was likely attributable to the fact that higher average reimbursement was partially offset by a decrease in use for these three conditions.[18] Whereas the interim payment system sharply reduced Medicare spending on home health, the prospective payment system increased it. However, Medicare spending in 2010 in inflation-adjusted dollars was still short of the pre-interim payment system peak.[1]

Skilled Nursing Facilities—The skilled nursing facility prospective payment system is the most narrowly targeted of the systems we considered, in that it pays per day rather than per admission or per episode. Not surprisingly, given the per day nature of payment, postacute lengths-of-stay at skilled nursing facilities barely budged following the system's adoption.[19, 20]

The new system, however, paid higher per diem rates for additional rehabilitative therapy services. Skilled nursing facilities responded by increasing the amount of therapy provided, thereby raising their reimbursement.[19, 21, 22]

In addition, the Balanced Budget Refinement Act of 1999 and the Benefits Improvement and Protection Act of 2000 increased average skilled nursing facility payment rates. As a result, although the prospective payment system temporarily reduced Medicare spending on postacute care at skilled nursing facilities, that growth resumed by 2001.[19]

Inpatient Rehabilitation Facilities—The inpatient rehabilitation facility prospective payment system increased average payments nearly 25 percent but reduced marginal reimbursement, so its effect on the use of care is ambiguous. The evidence suggests that prospective payment increased the probability of admission to inpatient rehabilitation facilities, consistent with an observed increase in average payment rates, but led to a decline in average length-of-stay, as suggested by an observed decrease in marginal payment rates. [23–25] These factors roughly offset each other.

It was not until 2004, when increased enforcement of a rule that 75 percent of an inpatient rehabilitation facility's patients had to be in one of thirteen diagnostic categories, that Medicare spending in this setting fell.[7] This reduction in spending was driven by reduced overall inpatient rehabilitation facility volume, which more than offset the increase in cost per case under prospective payment.

Long-Term Care Hospitals—Coinciding with the increase in average reimbursement under the long-term care hospital prospective payment system, the number of such hospitals increased 20 percent between 2002 and 2004. During the same time period, total Medicare spending on post-acute care in these specialized hospitals increased 25 percent annually, and the payment per case increased 10 percent annually.[23] However, length-of-stay declined from 32.1 days to 28.7 days, which could reflect reduced marginal reimbursement or changes in the types of patients seen at these facilities.

Effects Of Prospective Payment On Patient Selection

The break in the rate of growth in use of postacute services and costs following the adoption of prospective payment just described could have been caused by treatment effects, providers' delivering fewer services; selection effects, providers' selectively admitting healthier patients; or both. Studies have attempted to tease apart these two effects.

In general, based on the prevalence of comorbidities present upon patient admission to each setting, these studies have found little impact of the inpatient rehabilitation prospective payment system, the home health interim payment system, or the home health prospective payment system on the average severity of patients' problems.[18, 25, 26]

These results suggest that the break in postacute service growth under prospective payment is attributable to less treatment rather than the admission of healthier patients. However, the mixed findings do suggest some amount of patient selection. Of note, Robin McKnight [16] analyzed the home health interim payment system and found reductions in home health use for relatively sick patients but no change for relatively healthy patients.

Exhibit 3 plots the average number of comorbidities present at the time of hospital discharge for hip fracture, stroke, and lower extremity joint replacement by quarter of acute discharge, 1996–2005. The exhibit includes data for patients receiving care from any of the four types of postacute facilities over a ninety-day postdischarge period. Comorbidities encompass those identified by Anne Elixhauser and colleagues,[27] omitting hypertension and cardiac arrhythmias. Hypertension is extremely prevalent in these populations, and cardiac arrhythmias were removed from Elixhauser and colleagues' list based on concerns over reliability.

Exhibit 3 shows smooth positive trends in the average number of comorbidities over this period with no distinct breaks around the introduction of the prospective payment systems. This implies that these systems did not dramatically affect the trend in the severity of patients seen in these settings.

Although some of the postacute prospective payment systems were phased in gradually, others, such as the skilled nursing and home health interim payment system, had immediate impacts on payment levels and incentives to admit healthier patients. The smooth upward trend shown in the exhibit may reflect population aging, changes in facilities' coding practices, or the movement of healthier Medicare beneficiaries from fee-for-service to managed care.

Effects Of Prospective Payment On Patient Outcomes

Despite the changes in use of care under postacute prospective payment, patient outcome measures have generally been stable or improved slightly. Two early studies found that mortality and readmissions after postacute care did not worsen as a result of the new home health agency and skilled nursing facility payment systems.[28, 29] More recent work has generally confirmed these findings, using more sophisticated research designs that take into account trends over time. For example, the inpatient rehabilitation prospective payment system appears to have had little or no impact on mortality, acute readmission, or the rate of return to community residence.[24, 25] Similarly, the payment cuts under the home health interim payment system did not affect mortality, acute readmissions, functional limitations, or body mass index.[16–18]

Exhibit 4 plots the per patient home health agency costs and ninety-day postdischarge readmission rates for home health patients with a primary acute diagnosis of stroke, by quarter of acute discharge. Per patient costs decreased greatly following the interim payment system. However, in the fourth quarter of 1997, indicated by the preceding vertical line in the third quarter of 1997, readmission rates trend positively after the introduction of the interim payment system but did not clearly deviate from the positive prereform trend.

The skilled nursing facility prospective payment system led to lower staffing and a greater number of regulatory deficiencies, but no link to patient outcomes has been established.[30] For example, the Centers for Medicare and Medicaid Services (CMS) skilled nursing facility case-mix demonstration found that prospective payment was not associated with increased rates of acute readmission.[21]

It should be noted that most studies examine only relatively extreme patient outcomes, especially mortality and readmissions, because of their importance and their relative ease of measurement across patients and postacute care settings. However, changes in treatment intensity and admissions policies over time may affect other important outcomes, such as patients' functional status.

Medicare mandates that inpatient rehabilitation facilities, skilled nursing facilities, and home health agencies submit assessment data on patients' medical, functional, and cognitive status. Unfortunately, the usefulness of these assessment data is limited because of the differences among postacute care settings with respect to clinical items covered, time frames for assessment, and measurement scales used to assess functioning.[31]

Given these differences, it is possible to trace only intermediate outcomes such as functional status over time within any given postacute care setting.[32, 33] Even within a given care setting, changes in the mix of patients over time make it difficult to identify affects driven by changes in admissions.

Finally, existing research is limited by the smaller sample sizes for which such outcome data are available.[34] Because of these multiple data limitations, the relationship between postacute payment systems and patient functioning is poorly understood. Similarly, postacute care outcomes such as independence, quality of life, and family (caregiver) stress are poorly understood.

The Role Of Substitution Effects Across Settings

The prospective payment systems led to shifts in the settings where patients received postacute care, the timing of which reflected the staggered implementation of payment reform across and within settings. The evidence for the strength and even the existence of such substitution effects is, however, mixed.

Immediately following the implementation of the Balanced Budget Act, fewer Medicare beneficiaries received postacute care. However, this reduction was concentrated in home health care and skilled nursing facility use; the use of inpatient rehabilitation facilities and long-term care hospitals increased slightly.[29]

The Medicare Payment Advisory Commission examined changes before and after the implementation of the prospective payment systems for skilled nursing facilities (1998) and home health care (2000). It found substantial declines in the use of home health care accompanied by increases in the use of skilled nursing facilities and other postacute care providers.[2]

For some diagnoses, the commission found that the increase in skilled nursing facility use could have partly replaced home health care. For example, among patients discharged from acute care with a diagnosis of septicemia between 1996 and 2001, use of home health care fell from 21 percent to 10 percent, while skilled nursing facility use increased from 21 percent to 27 percent.

In contrast, McKnight [16] found little change in nursing home or other long-term care use after the home health interim payment system took effect. This suggests that little substitution occurred. However, Ezra Golberstein and colleagues[35] found evidence of substitution of informal care for low-income patients following the implementation of the interim payment system. After the inpatient rehabilitation prospective payment system took effect, average costs for other postacute services increased slightly relative to a secular time trend. This suggests that additional rehabilitation services may have been delivered elsewhere.[25]

Implications For Payment Reform

Postacute Care Payment Changes

Policy makers continue to balance the simultaneous objectives of containing Medicare spending while improving outcomes of care, in postacute care as in other spheres. Reforms under the Affordable Care Act retain the prospective nature of the current postacute care payment systems. However, they make changes to average reimbursement and have the potential to alter marginal reimbursement.

Prospective Payment Updates—Congress updates Medicare payments in each postacute service each year based on the projected increase in a “market basket” index—a measure of the national average price level for goods and services that each postacute care provider purchases to provide care. The act decreased the annual postacute payment updates, which will reduce average reimbursement below what it would have been.

In particular, beginning in fiscal year 2012 the market basket updates for all four postacute facility types will be reduced by 1.1 percentage points--the ten-year moving average of non-farm business productivity. The application of this productivity adjustment may result in a negative overall market basket adjustment: lower nominal Medicare payment rates.

Based on experience, lower average payments will decrease the use of postacute services. However, the lower average payments will not necessarily translate into worse outcomes such as increased mortality or readmissions to acute care. Past experience also suggests that the type or mix of patients receiving postacute care is also unlikely to be affected.[18, 25, 26]

Two caveats are worth bearing in mind when one is attempting to predict and be on the watch for likely effects. First, major multiyear reductions in average postacute payments represent unexplored territory. It is possible not only that dramatic payment cuts will reduce treatment intensity but that clear-cut patient selection may begin to occur. As a result, less profitable patients may begin to experience access problems.

Second, the main outcome measures used in research to date, such as mortality and acute readmissions, are, as previously noted, not substitutes for other outcomes measures of interest. In particular, they may not be sensitive enough to detect small but important declines in physical functioning. Thus, future research should incorporate a more diverse set of outcomes to use in evaluating the impact of current payment reductions.

One positive step toward making this more feasible was the development of a common patient assessment instrument under the Deficit Reduction Act of 2005 for use in both acute care hospitals and all four types of postacute care settings.[31] Policymakers will want to consider future steps to improve upon, and ultimately implement, this tool across settings.

Bundled Payment—The Affordable Care Act includes bundled payment and accountable care organization demonstrations that reduce or even eliminate additional payments for increased postacute care services.[36, 37] Under the Bundled Payments for Care Improvement Initiative, CMS is experimenting with different models that bundle services around an acute hospitalization.

For example, under one model, a provider group could receive a single bundled payment not only for the base hospitalization, but also for any acute readmissions, any postacute care, and possibly even physician services. At the margin, this type of payment system offers an incentive to reduce the use of inefficient postacute services, because such services would not generate additional revenue under a bundled payment, subject to whatever provisions for outlier patients requiring particularly high levels of services are in place.

Experience suggests that this particular bundled payment model would decrease the intensity of postacute care delivered, with the size of the decline dependent on the average payment level for the bundled services. If average payments decreased, cost savings from lower marginal reimbursement would be amplified.

Once again, however, it should be borne in mind that decreased intensity of postacute service delivery does not necessarily result in worse patient outcomes, and--at least to date--has not been found to do so.

Given the possibility of reform-induced substitution effects, it would appear desirable to have more comprehensive payment bundling reforms that would apply across all postacute care settings, not just to a single setting. When marginal and average payment incentives vary across settings and care for similar patients can be provided in different settings--as is

the case now--patients may be admitted to the most profitable rather than the most clinically appropriate setting. Making payment rates neutral across postacute care settings may provide incentives for using the most clinically appropriate setting.

Hospitals now have an incentive to discharge patients to postacute care or home as soon as possible because hospitals receive no additional payment for an additional day of inpatient care. From 1988 to 1996, as hospitals substituted days in postacute facilities for days in the hospital, average length-of-stay for Medicare patients fell 27 percent, from 8.9 days to 6.5 days, while skilled nursing facility days per beneficiary more than tripled and home health visits went up by more than a factor of 7.[3] Hospital lengths-of-stay for Medicare patients have now fallen even further, to 4.8 days.[1]

A combined inpatient-postacute reimbursement system could shift some of these postacute days back toward the hospital. For example, once the holder of a bundled payment is responsible for all care occurring for some period after acute discharge, such as thirty days, a stronger incentive exists for longer inpatient stays, to the extent that such stays prevent readmissions or reduce the need for postacute care.

However, it could also be the case that hospitals may try to further substitute costly inpatient days for less costly postacute care days. The hope is that the financial incentives in bundled payment may promote the use of postacute care that is better aligned with what is the most efficient and beneficial for patients.

In addition to evaluating the bundled payment model discussed earlier, which includes both acute and postdischarge services, CMS is also seeking opportunities to test bundled payment models that include only inpatient hospital services or only those services delivered in the postdischarge period, such as postacute care and physician services.

Models that exclude postacute care from the bundle may provide incentives to increase the use of these services, although this approach is not much different from the status quo in which acute and postacute services are unbundled. In a model that bundles only postdischarge services, a strong incentive would be present to limit postacute care in the period after discharge by encouraging only those highest-value services.

Ultimately, the different bundled payment models--with their varying marginal and average payment incentives--will imply different effects on postacute care spending and use.

Can Current Postacute Payment Reforms Bend The Cost Curve?

A key distinction in efforts to lower health care spending is between policies that decrease the level of spending and those that decrease the trajectory of spending growth. A “one-time” decrease in the level of spending generates savings--both in the immediate term and out into the future, given that payment increases inflate from a lower baseline.

However, the preferred outcome of the Affordable Care Act was to decrease the trajectory of spending growth, which can be achieved only by continual “one-time” savings or by a fundamental change in the payment environment.

Medicare’s experience with the implementation of prospective payment for postacute care suggests that reforms often achieve only “one-time” cost savings. For example, after a hiatus in spending growth after the interim payment system took effect, home health spending growth returned after the implementation of the prospective payment system. A combination of provider behavior and payment rate increases also led to resumed Medicare spending growth on skilled nursing facilities after a temporary period of payment reduction.

In the case of the inpatient rehabilitation prospective payment system, patients used fewer services following the payment change, but overall spending growth did not decline because average reimbursement for services increased. Across these postacute care settings, prospective payment did little to bend the long-run cost curve downward.

Several current reforms, such as bundled payment and accountable care organizations, show promise toward lowering the long-run spending trajectory. Unlike the postacute prospective payment reforms, these policies include multiple settings, have strict update rules, and are politically sustainable. However, experience amply demonstrates that persistent cost containment is not a given.

Thus, policy makers will need to be vigilant in monitoring the rate of growth and be prepared to amend payment policies as necessary to achieve long-term containment of spending and longer-term financial sustainability for Medicare. Moreover, we need to continue to expand our understanding of the costs of care across each site, the services actually provided, and the benefit of the services given the patient's condition.

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Exhibit 3.

Average number of comorbidities for Medicare fee-For-Service patients using post-acute services 1996–2005

Notes: Figure shows average number of comorbidities at time of hospital discharge for fee-for-service Medicare patients with primary diagnosis of stroke, hip fracture, or joint replacement and who subsequently use home health, skilled nursing, inpatient rehabilitation, or long term care hospital services. Comorbidities include those identified by Elixhauser (1998), omitting hypertension and cardiac arrhythmias. Hypertension is extremely prevalent in these populations and cardiac arrhythmias were removed from Elixhauser's list based on concerns over reliability.

Source: Authors' calculations from 100 percent Medicare claims for acute hospitals and post-acute care, and Medicare denominator files.

Exhibit 4.

Home Health costs and readmission rate (conditional on use of home health use), Medicare Fee-for-service patients 1996–1999

Notes: Figure plots 90-day readmission rates and average 90-day home health costs for all fee-for-service Medicare patients discharged from acute hospitals with a primary diagnosis of stroke by quarter of acute discharge who received any home health services.

Source: Authors' calculations from 100 percent Medicare claims for acute hospitals and home health agencies, and Medicare denominator files.

Exhibit 1**Medicare Postacute Care Expenditures For Fee-For-Service Enrollees, By Postacute Care Setting, 2010**

	Postacute care setting			
	Skilled nursing facility (N=15,207)	Home health agency (N=11,654)	Inpatient rehabilitation facility (N=1,179)	Long-term care hospital (N=412)
Unit of payment	Day	60-day episode	Discharge	Discharge
Avg. payment per unit	\$414 per day ^a	\$2,853 per episode	\$17,085 per discharge	\$38,582 per discharge
Avg. length-of-stay	27.3 days ^a	2 episodes	13.1 days	26.6 days
Total expenditures (\$ billions)	\$26.2	\$19.4	\$6.32	\$5.2
Total users	1.7 million	3.4 million ^b	360,000	118,300

SOURCE Medicare Payment Advisory Commission, 2011 and 2012.

^aValue from 2009.

^bValue from 2011.

Exhibit 2

Changes In Marginal And Average Payments With Adoption Of The Postacute Prospective Payment Under The Balanced Budget Amendment, Relative To The Status Quo

Postacute setting and phase of prospective payment adoption	Effect on marginal payment	Effect on average payment
Home health agencies: interim payment system (1997)	Decrease	Decrease
Home health agencies: prospective payment system (2000)	Decrease	Increase
Skilled nursing facilities: prospective payment system (1998)	Ambiguous	Decrease
Inpatient rehabilitation facilities: prospective payment system (2002)	Decrease	Increase
Long-term care hospitals: prospective payment system (2002)	Decrease	Increase

SOURCE Authors' original work.

NOTES The average and marginal effects refer to a comparison of the incentives in the period immediately following the reform relative to the period immediately preceding the reform. The marginal payment effects are still in place today, while the average payment effects have varied over time as a result of changes in the generosity of reimbursement.