

CHAPTER

# 10

---

**Long-term care  
hospital services**

---

**R E C O M M E N D A T I O N**

- 10** The Secretary should eliminate the update to the payment rates for long-term care hospitals for fiscal year 2017.

**COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0**

## Long-term care hospital services

### Chapter summary

Long-term care hospitals (LTCHs) provide care to beneficiaries who need hospital-level care for relatively extended periods. To qualify as an LTCH for Medicare payment, a facility must meet Medicare’s conditions of participation for acute care hospitals and its Medicare patients must have an average length of stay greater than 25 days. In 2014, Medicare spent \$5.4 billion on care provided in LTCHs nationwide. About 118,000 fee-for-service (FFS) beneficiaries had roughly 134,000 LTCH stays. On average, Medicare accounts for about two-thirds of LTCHs’ discharges.

### Assessment of payment adequacy

**Beneficiaries’ access to care**—We have no direct measures of beneficiaries’ access to needed LTCH services. Instead, we consider the capacity and supply of LTCH providers and changes over time in the volume of services they furnish. Trends suggest that access to care has been maintained.

- **Capacity and supply of providers**—Growth in the number of LTCHs filing Medicare cost reports slowed considerably in recent years because of two moratoriums. The first, imposed by the Medicare, Medicaid, and SCHIP Extension Act of 2007 and subsequent legislation, was in effect through December 28, 2012. The second moratorium was established in the Pathway to SGR Reform Act of 2013 and amended by the Protecting Access to Medicare Act of 2014. This moratorium is in effect from April 1,

### In this chapter

- Are Medicare payments adequate in 2016?
- How should Medicare payments change in 2017?

2014, through September 30, 2017. We estimate that the number of LTCHs and LTCH beds decreased by about 2.3 percent in 2014.

- ***Volume of services***—From 2013 to 2014, the number of LTCH cases decreased by 2.8 percent. Controlling for the number of FFS beneficiaries, we found that the number of LTCH cases per beneficiary declined during this period by 2.6 percent. This decrease in per capita admissions is consistent with the decrease seen in other inpatient settings.

***Quality of care***—LTCHs began submitting quality of care data to CMS in 2012. LTCH quality data are not yet available for analysis; however, CMS will report quality data publicly for four measures beginning in the fall of 2016. Using claims data for 2014, we found stable or declining non-risk-adjusted rates of readmission, death in the LTCH, and death within 30 days of discharge for almost all of the top 25 LTCH diagnoses.

***Providers' access to capital***—For the past few years, the availability of capital to LTCHs has not reflected current Medicare payment rates but, rather, uncertainty regarding possible changes to Medicare's regulations and legislation governing LTCHs. The criteria to receive the higher LTCH payment rate specified in the Pathway for SGR Reform Act of 2013, beginning with cost reporting periods starting in fiscal year 2016, provide more long-term regulatory certainty for the industry compared with recent years. However, payment reductions implemented by CMS and a congressional moratorium on new LTCH beds and facilities through September 2017 continue to limit future opportunities for growth and reduce the industry's need for capital.

***Medicare payments and providers' costs***—From 2007 until 2012, LTCHs have held cost growth below the rate of increase in the market basket index, a measure of inflation in the prices of goods and services LTCHs buy to provide care. Between 2012 and 2013, Medicare payments continued to increase, albeit more slowly than provider costs. A similar trend between 2013 and 2014 resulted in an aggregate 2014 Medicare margin of 4.9 percent compared with 6.8 percent in 2013. Financial performance in 2014 varied across LTCHs, reflecting differences in cost control and responses to payment incentives. This year we added a new measure of payment adequacy, marginal profit, an indicator of whether LTCHs with excess capacity have an incentive to admit more Medicare patients. The resulting 2014 LTCH marginal profit equaled 20 percent.

We expect, but are uncertain of what, changes in admission patterns and cost structure will occur resulting from the patient-specific criteria implemented beginning in fiscal year 2016. This year, therefore, we provide a projected

margin range for qualifying cases that meet the specified criteria as part of this year's annual analyses. We project that LTCHs' aggregate Medicare margin for these qualifying cases will be between 3.3 percent and 5.9 percent in 2016. This estimate reflects current policy, including budget sequestration. On the basis of these indicators, the Commission concludes that LTCHs can continue to provide Medicare beneficiaries with access to safe and effective care and accommodate changes in their costs with no update to LTCH payment rates in fiscal year 2017. This update recommendation applies to the Medicare LTCH prospective payment system base payment rate. That is, it applies to payments for discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 and to the portion of the blended payment that reflects the LTCH payment rate for discharges that do not meet the specified criteria. ■



---

## Background

---

Patients with chronic critical illness—those who exhibit metabolic, endocrine, physiologic, and immunologic abnormalities that result in profound debilitation and often ongoing respiratory failure—frequently need hospital-level care for extended periods. These facilities can be freestanding or colocated with other hospitals, as hospitals-within-hospitals (HWHs) or satellites. To qualify as a long-term care hospital (LTCH) for Medicare payment, a facility must meet Medicare’s conditions of participation for acute care hospitals (ACHs), and its Medicare patients must have an average length of stay greater than 25 days.<sup>1</sup> By comparison, the average Medicare length of stay in ACHs is about five days. In 2014, Medicare spent \$5.4 billion on care provided in LTCHs nationwide. About 118,000 beneficiaries had roughly 134,000 LTCH stays. On average, Medicare fee-for-service (FFS) beneficiaries account for about two-thirds of LTCHs’ discharges.

Since October 2002, Medicare has paid LTCHs prospective per discharge rates based primarily on the patient’s diagnosis and the facility’s wage index.<sup>2</sup> Under this prospective payment system (PPS), LTCH payment rates are based on the Medicare severity long-term care diagnosis related group (MS–LTC–DRG) patient classification system, which groups patients primarily according to diagnoses and procedures. MS–LTC–DRGs include the same groupings used in ACHs paid under the inpatient PPS (IPPS) but have relative weights specific to LTCH patients, reflecting the average relative costliness of cases in the group compared with that of the average LTCH case. The LTCH PPS has outlier payments for patients who are extraordinarily costly.<sup>3</sup> The LTCH PPS pays differently for short-stay outlier cases (patients with shorter than average lengths of stay), reflecting CMS’s contention that Medicare should adjust payment rates for patients with relatively short stays to reflect the reduced costs of caring for them (text box, pp. 278–279). In addition, although currently only partly implemented, CMS uses the so-called “25-percent rule”—which prohibits an LTCH from having any more than 25 percent of its patients at any one time admitted from a single referring hospital—to discourage LTCHs from functioning as units of ACHs.

Beginning in fiscal year 2016, Medicare began phasing in a payment change for LTCH cases that do not meet certain criteria specified in the Pathway for SGR Reform Act of 2013 (text box, p. 281). Under the new dual payment

structure, qualifying Medicare cases will be paid under the LTCH PPS if the patient had an immediately preceding ACH stay during which the patient spent 3 or more days in an intensive care unit (ICU) or coronary care unit (CCU) or if the patient received mechanical ventilation services for at least 96 hours in the LTCH. LTCH cases not meeting the specified criteria receive a “site-neutral” rate, based on the lesser of an IPPS-comparable amount or 100 percent of cost for the case. The Commission recommended in March 2014 that LTCH rates be paid only for cases that received eight or more days of care in an ICU or received prolonged mechanical ventilation services during the previous ACH stay (see text box, pp. 282–283).

LTCHs’ cost reporting start dates are not the same, so the dual payment structure will begin for LTCHs throughout fiscal year 2016. Forty-three percent of LTCHs, representing about half of all LTCH cases, have cost reporting periods that start between July 1 and the end of September. Thus, these facilities will be paid differently for nonqualifying cases for less than one quarter of fiscal year 2016.<sup>4</sup>

In addition to a rolling facility-level phase-in, the payment changes associated with the LTCH criteria policy will be phased in over three years. Cases not meeting the specified criteria will receive payment equal to 50 percent of the LTCH PPS rate and 50 percent of the site-neutral rate for the first two full years of implementation. Following the start of a facility’s cost reporting in fiscal year 2018, all cases will be subject to the full effect of the policy. Because of the rolling phase-in by cost reporting period, fiscal year 2019 will be the first year the policy will be fully in effect for all LTCH facilities.

---

## Are Medicare payments adequate in 2016?

---

To address whether payments for 2016 are adequate to cover the costs that providers incur in providing services to Medicare beneficiaries and how much providers’ costs are expected to change in the coming year (2017), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries’ access to care (by examining the capacity and supply of LTCH providers and changes over time in the volume of services furnished), quality of care, providers’ access to capital, and the relationship between Medicare payments and providers’ costs.

## Payment for short-stay outliers in long-term care hospitals

In the long-term care hospital (LTCH) payment system, Medicare can adjust payments for cases with short stays. CMS defines a short-stay outlier (SSO) case as having a length of stay less than or equal to five-sixths of the geometric average length of stay for the case type. The SSO policy reflects CMS's contention that patients with lengths of stay similar to those in acute care hospitals (ACHs) should be paid at rates comparable with those under the ACH inpatient prospective payment system (IPPS). About 26.7 percent of LTCH discharges received SSO payment adjustments in fiscal year 2014, but this share varied across types of LTCHs. For example, in fiscal year 2014, 25.9 percent of for-profit LTCHs' cases were SSOs compared with 31.5 percent of nonprofit LTCHs' cases.

The amount Medicare pays to LTCHs for an SSO case is the lowest of:

- 100 percent of the cost of the case,
- 120 percent of the per diem amount for the Medicare severity long-term care diagnosis related group (MS–LTC–DRG) multiplied by the patient's length of stay,
- the full MS–LTC–DRG payment, or

- a blend of the IPPS amount for the same type of case and 120 percent of the MS–LTC–DRG per diem amount. The LTCH per diem payment amount makes up more of the total amount as the patient's length of stay increases.

CMS applies a different standard to cases with the shortest lengths of stay—those with stays less than or equal to the IPPS average stay for the same type of case plus one standard deviation. These cases are also paid the lowest of the four payment amounts: the first three listed previously or an amount comparable with the IPPS payment rate rather than a blended amount. In fiscal year 2014, about 12.5 percent of LTCH discharges were very short-stay outliers (VSSOs); 47 percent of VSSOs received payment equal to 100 percent of costs, and another 41 percent received an amount equal to the IPPS per diem payment. As with SSOs, the share of VSSOs varied across type of LTCH. For example, in fiscal year 2014, 12.3 percent of for-profit LTCHs' cases were VSSOs compared with 14.2 percent of nonprofit LTCH cases.

If we consider only the cases that would have met the criteria to receive the LTCH prospective payment system (PPS) standard federal rate in 2014, the Commission estimates that in fiscal year 2016, 31.1 percent of cases would be SSO. Fifty-eight percent of these SSO cases—or 18 percent of all LTCH cases

*(continued next page)*

### **Beneficiaries' access to care: Growth over time in supply and volume suggests continued access to care**

We have no direct measures of beneficiaries' access to needed LTCH services. The absence of LTCHs in many areas of the country does not necessarily equate an inadequacy of supply since beneficiaries in areas without LTCHs have access to similar services in other settings (including ACHs and SNFs). Instead, we consider the overall capacity and supply of LTCH providers and changes over time in the volume of services they furnish.

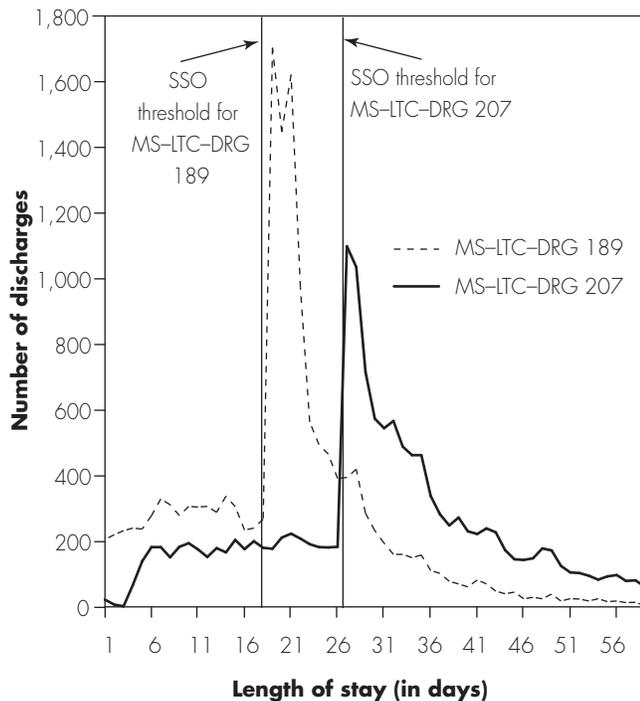
### **Capacity and supply of providers: Supply stabilized during the congressionally mandated moratorium**

The Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) and subsequent legislation imposed a limited moratorium on new LTCHs and new beds in existing LTCHs from December 29, 2007, through December 28, 2012. During this time, new LTCHs were able to enter the Medicare program only if they met specific exceptions to the moratorium.<sup>5</sup> The Pathway for SGR Reform Act of 2013 and subsequent legislation implemented a new moratorium from April 1, 2014, through September 30, 2017.<sup>6</sup> That moratorium provides

## Payment for short-stay outliers in long-term care hospitals (cont.)

**FIGURE 10-1**

**Many LTCH cases in fiscal year 2014 were discharged in the period immediately following the short-stay outlier threshold**



Note: LTCH (long-term care hospital), SSO (short-stay outlier), MS-LTC-DRG (Medicare severity long-term care diagnosis related group). Cases in MS-LTC-DRG 189 are those with pulmonary edema and respiratory failure. Cases in MS-LTC-DRG 207 are those with a respiratory system diagnosis that received prolonged mechanical ventilation.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

that qualify to receive the LTCH PPS standard federal payment rate—would be VSSOs.

VSSO cases were more likely to be of an extreme severity level and to require prolonged mechanical ventilation compared with non-SSO and non-VSSO cases. Many LTCH SSO and VSSO cases were short because the beneficiary was readmitted to an ACH or died. In 2014, 26 percent of VSSO cases were readmitted to an ACH, while 13 percent of SSOs and only 4 percent of longer stay cases were readmitted.

Similarly, 41 percent of VSSO cases died in the LTCH compared with 21 percent of SSO cases and 6 percent of longer stays. The remaining VSSO cases included beneficiaries discharged from the LTCH, typically to another post-acute care setting. Of these cases, only 25 percent were still living one year after discharge compared with about half of SSO and more than half of non-SSO cases.

Generally, for the same case type, the IPPS payment is substantially less than the LTCH payment under the LTCH PPS. For example, for a case assigned to MS-LTC-DRG 207 (respiratory system diagnosis with prolonged mechanical ventilation), the standard IPPS payment in 2016 is \$31,585, while the standard LTCH payment is \$77,541. LTCHs therefore have a strong financial incentive to keep patients until their lengths of stay exceed the SSO threshold for the relevant case type, and they appear to respond to that incentive (Figure 10-1). Analysis of lengths of stay by MS-LTC-DRG for 2014 shows that the number of discharges rose sharply immediately after the SSO threshold. This pattern held true across MS-LTC-DRGs and for every category of LTCH. The data strongly suggest that LTCHs' discharge decisions are influenced by financial incentives in addition to clinical indicators.

CMS could substantially reduce these financial incentives by lowering the payment penalty for discharging patients before the SSO threshold. For example, short-stay cases could be defined as cases with a covered length of stay that is more than one day shorter than the geometric average length of stay for the case type. As with the transfer policy for short-stay cases in the IPPS, payment for the first day of a short-stay LTCH case could be two times the per diem payment rate for the case type; payment for each additional day would then be set at the per diem rate, up to the maximum of the full standard per discharge payment (which would be reached one day before the average length of stay for the case type). This formula would reduce the substantial cliff in payments that exists under current policy and better match incremental payments for short-stay cases to the provider's incremental costs. ■

**TABLE  
10-1**

**The number of LTCHs has decreased since 2012**

Type of LTCH	Congressional moratorium							Average annual change			
	2004	2005	2009	2010	2011	2012	2013*	2014*	2004-2005	2005-2009	2009-2012
All	315	366	411	416	421	426	411	391	16.2%	2.9%	1.2%
Urban	299	342	388	390	396	400	384	365	14.4	3.2	1.0
Rural	16	24	23	26	25	26	27	26	50.0	-1.1	4.2
Nonprofit	67	78	79	82	77	79	78	75	16.4	0.3	0.0
For profit	229	265	313	314	326	329	315	300	15.7	4.2	1.7
Government	19	23	19	20	18	18	18	16	21.1	-4.7	-1.8

Note: LTCH (long-term care hospital). The Medicare, Medicaid, and SCHIP Extension Act of 2008 and subsequent legislation imposed a moratorium on new LTCHs and new LTCH beds in existing facilities from December 29, 2007, through December 29, 2012. The Pathway for SGR Reform Act of 2013 and subsequent legislation implemented a new moratorium from April 1, 2014, through September 30, 2017.

\*2013 and 2014 data should not be compared with prior years, given an anomalous number of facilities that underwent an acquisition and change in cost reporting period. Using the Provider of Services file, the Commission estimates that the number of facilities decreased from 437 in 2012 to 432 in 2013, and to 422 in 2014, about 2.3 percent (not shown).

Source: MedPAC analysis of cost report data from CMS.

exceptions to the establishment of new LTCHs and LTCH satellite facilities only; there are currently no exceptions for increases in the number of certified beds in existing facilities.

It is difficult to determine the precise number of LTCHs because of discrepancies in Medicare’s data sources on these facilities. The Commission has found inaccuracies in the ownership data in Medicare’s Provider of Services file, so we examined Medicare cost report data from 2004 to 2014 to assess the number of LTCH beds and facilities. We consistently found that growth in the number of LTCHs filing Medicare cost reports slowed considerably in the later years of the moratorium (Table 10-1). However, between 2012 and 2013 and again between 2013 and 2014, a larger than usual number of facilities underwent midyear changes to their cost reporting period. Cost report data indicate 391 LTCHs filed valid cost reports in 2014, 20 fewer than 2013, on net. More than 20 facilities were excluded from this year’s analysis because of their submission of partial year cost reports—most of which were from one major for-profit LTCH chain. These data also show that the number of LTCH beds nationwide decreased about 6 percent in 2014. The anomalous cost reporting trends during this period make it difficult to

accurately compare changes in the number of LTCH facilities and LTCH beds using cost report data. Using data from Medicare’s Provider of Services file, the Commission estimates that between 2013 and 2014, the number of LTCHs and number of beds decreased by about 2.3 percent.<sup>7</sup> The Commission found that a majority of the new LTCHs filing cost reports in 2014 were for-profit facilities. Consistent with historical trends, the Commission estimates that in 2014, more than 75 percent of LTCHs were for profit and 93 percent were located in urban areas.

**Volume of services: Number of LTCH users decreased**

Beneficiaries’ use of LTCH services suggests that access is adequate. Growth in the number of LTCH cases was high in the first years of the LTCH PPS, but it declined from 2005 to 2007 (Table 10-2, p. 283). Much of this decrease is consistent with the decline in beneficiaries’ enrollment in FFS Medicare and their increased enrollment in Medicare Advantage plans. CMS regulations that reduced payments for LTCH services also likely slowed growth in LTCH admissions during that period and beyond. From 2007 to 2013, the number of LTCH cases increased by an annual average rate of 1.1 percent. However, between

## LTCH legislation

The Pathway for SGR Reform Act of 2013 included several provisions related to long-term care hospitals (LTCHs), including changes to payment rates for some cases, changes to the 25-percent rule, and a moratorium on new LTCHs.

### “Site-neutral” payments

The Pathway for SGR Reform Act of 2013 established “site-neutral” payments for specified cases in LTCHs, beginning in fiscal year 2016. Under the law, the LTCH payment rate will apply only to qualifying LTCH discharges that had an acute care hospital (ACH) stay immediately preceding LTCH admission and for which:

- the ACH stay included at least 3 days in an intensive care unit or
- the discharge is assigned to the Medicare severity long-term care diagnosis related group (MS–LTC–DRG) based on the receipt of mechanical ventilation services for at least 96 hours.

All other LTCH discharges—including any discharges assigned to psychiatric or rehabilitation MS–LTC–DRGs, regardless of intensive care unit use—will be paid an amount based on Medicare’s ACH payment rates under the inpatient prospective payment system or 100 percent of the costs of the case, whichever is lower. These site-neutral payments will be phased in over a two-year period. Beginning with cost reporting periods starting in fiscal years 2016 and 2017, cases that do not meet the specified criteria will receive a blended rate of one-half the standard LTCH payment and one-half the site-neutral payment. These cases will receive 100 percent of the site-neutral payment rate beginning with cost reporting periods starting on or after October 1, 2017. Given LTCHs’ varying cost reporting periods, the Commission expects fiscal year 2019 to be the first full year in which this policy is completely phased in.

### New criteria to receive the LTCH payment rate

Currently, to qualify as an LTCH for Medicare payment, a facility must meet Medicare’s hospital conditions of participation and its Medicare patients must have an average length of stay greater than 25 days. Under the Pathway for SGR Reform Act of 2013,

beginning in fiscal year 2016, the LTCH average length of stay will be calculated only for Medicare fee-for-service cases that are not paid the site-neutral rate. In addition, for cost reporting periods starting on or after October 1, 2019, an LTCH must have no more than 50 percent of its cases paid at the site-neutral rate to continue to receive the LTCH payment rate for eligible cases.

### The “25-percent rule”

The Pathway for SGR Reform Act of 2013 continues to delay the full phase-in of the so-called 25-percent rule for most LTCH hospitals-within-hospitals (HWHs) and LTCH satellites until October 1, 2016. In fiscal year 2005, CMS established the 25-percent rule in an attempt to prevent LTCHs from functioning as units of ACHs; decisions about admission, treatment, and discharge in both ACHs and LTCHs were to be made for clinical rather than financial reasons. The 25-percent rule uses payment adjustments to create disincentives for LTCHs to admit a large share of their patients from a single ACH.

The 25-percent rule initially applied only to LTCH HWHs and LTCH satellites. In July 2007, CMS extended the 25-percent rule to apply to freestanding LTCHs also. The Congress has delayed full implementation of the 25-percent rule so that most HWHs and satellites will be paid standard LTCH rates for eligible patients admitted from their host hospitals as long as the share of Medicare admissions from the host hospital does not exceed 50 percent (instead of the more restrictive 25 percent threshold). In addition, the Secretary is prohibited from applying the 25-percent rule to freestanding LTCHs before cost reporting periods that begin on or after July 1, 2016.

### Moratorium on new LTCHs

The Protecting Access to Medicare Act of 2014 amended the Pathway for SGR Reform Act of 2013 by imposing a moratorium on new facilities and new beds in existing facilities beginning April 1, 2014. The moratorium allows certain exceptions for new LTCHs but not for increases in the number of certified beds in existing LTCHs or satellite facilities. The moratorium expires on September 30, 2017.<sup>8</sup> ■

## Commission recommendations for long-term care hospitals

The Commission has maintained that long-term care hospitals (LTCHs) should serve only the most medically complex patients—the chronically critically ill (CCI)—and has determined that the best available proxy for intensive resource needs in LTCH patients is intensive care unit (ICU) length of stay during an immediately preceding acute care hospital (ACH) stay. The Commission has also long held that payments to providers should be properly aligned with patients’ resource needs. Further, subject to risk differentials, payment for the same services should be comparable regardless of where the services are provided. In March 2014, the Commission recommended that the LTCH payment system be reformed to better align payments for both CCI and non-CCI cases across LTCH and ACH settings.

The research supporting this recommendation consistently describes CCI patients as having long ACH stays with heavy use of intensive care services (Carson et al. 2008, Donahoe 2012, MacIntyre 2012, Nelson et al. 2010, Wiencek and Winkelman 2010, Zilberberg et al. 2012, Zilberberg et al. 2008). Further, in site visits and technical expert panel discussions conducted by Kennell and Associates Inc. and RTI under contract with CMS, LTCH representatives and ACH critical care physicians agreed that medically stable post-ICU patients are appropriate candidates for LTCH care (Centers for Medicare & Medicaid Services 2013, Dalton et al. 2012). In CMS’s Post-Acute Care Payment Reform Demonstration, length of stay in the ICU was significantly associated with post-acute care case complexity, and long ICU stays were a distinguishing characteristic of LTCH patients (Gage et al. 2011).

The Commission recommended that the Congress limit standard LTCH payments to cases that spent eight or more days in an ICU during an immediately preceding ACH stay. The Commission’s analysis of inpatient prospective payment system (IPPS) claims data found that cases with eight or more days in an ICU accounted for about 6 percent of all Medicare discharges and had a geometric mean cost per discharge that was four times that of IPPS cases with seven or fewer ICU days. Further, these cases were concentrated in a

small number of Medicare severity–diagnosis related groups that correspond with the “ideal” LTCH patients described by LTCH representatives and critical care clinicians (Dalton et al. 2012). Previous studies have found such severely ill patients more likely to benefit from LTCH care (Kennell and Associates Inc. 2010, Medicare Payment Advisory Commission 2004).

Setting the ICU length of stay threshold for CCI cases at eight days captures a large share of LTCH cases requiring prolonged mechanical ventilation—a service specialty of many LTCHs. However, the Commission is concerned that LTCH care may be appropriate for some patients requiring mechanical ventilation, even if they did not spend eight or more days in an ICU during an immediately preceding ACH stay. The Commission’s analysis of 2012 LTCH claims found that about 22,000 cases (15.8 percent of all LTCH discharges) received prolonged mechanical ventilation services during the LTCH stay. Of these cases, 69.7 percent had an immediately preceding ACH stay that included eight or more days in an ICU, while 15.6 percent had an ACH stay with fewer than eight days in an ICU. (An additional 14.7 percent did not have an ACH stay within three days of admission to the LTCH.)

For LTCH cases that did not spend eight or more days in an ICU during an immediately preceding ACH stay, the Commission recommended that the Secretary of Health and Human Services set the payment rates equal to those of ACHs. The Commission recommended that savings from this policy be used to create additional inpatient outlier payments for CCI cases in IPPS hospitals.

The Commission’s analysis of IPPS claims for patients who were discharged alive from ACHs in 2012 found that about 103,000 cases received prolonged mechanical ventilation services during their ACH stay. Of these cases, 79 percent would have met the CCI criterion because they spent eight or more days in an ACH ICU. The exception to the 8-day ICU threshold for cases that received prolonged mechanical ventilation in the ACH would thus have increased the

*(continued next page)*

## Commission recommendations for long-term care hospitals (cont.)

potential pool of CCI-eligible cases in LTCHs in 2012 by 21,000 nationwide.

The Pathway for SGR Reform Act of 2013 mandated changes to the LTCH prospective payment system (PPS), including limiting standard LTCH payments to cases that spent at least three days in an ICU during an immediately preceding ACH stay or to discharges that received an LTCH principal diagnosis indicating prolonged mechanical ventilation. Our analysis of IPPS claims data from 2012 found that 22.8 percent of IPPS discharges spent three or more days in an ICU.

The Commission is concerned that a threshold of fewer than eight days is too low to distinguish truly CCI patients and thus will allow Medicare to continue to pay too much for many cases that could be cared for appropriately in other settings at a lower cost to the program. The Commission remains concerned that the savings from the changes to the LTCH PPS included in the Pathway to SGR Reform Act of 2013 were not redistributed to ACHs to treat CCI cases; instead, CCI cases in ACHs continue to receive ACH rates, thus perpetuating the wide payment differential for similar CCI cases across hospital settings. ■

2013 and 2014, the number of LTCH cases decreased by 2.8 percent. On a per capita basis (per 10,000 FFS beneficiaries), the decline was 2.6 percent, in part because the number of FFS beneficiaries slightly decreased between 2013 and 2014. This decrease in per capita admissions is consistent with the decreases observed in other inpatient settings.

Compared with all Medicare beneficiaries, those admitted to LTCHs are disproportionately disabled (under age 65), over age 85, or diagnosed with end-stage renal disease. They are also more likely to be African American. The higher rate of LTCH use by African American beneficiaries may be due to the concentration of LTCHs in areas of the country with larger African American

**TABLE  
10-2**

**The number of Medicare LTCH cases and users decreased between 2013 and 2014**

	2004	2005	2007	2012	2013	2014	Average annual change			
							2004-2005	2005-2007	2007-2013	2013-2014
Cases	121,955	134,003	129,202	140,463	137,827	133,984	9.9%	-1.8%	1.1%	-2.8%
Cases per 10,000 FFS beneficiaries	33.4	36.4	36.3	37.7	36.6	35.7	9.0	-0.1	0.1	-2.6
Spending (in billions)	\$3.7	\$4.5	\$4.5	\$5.5	\$5.5	\$5.4	21.6	0.0	3.5	-2.9
Spending per FFS beneficiary	\$101.3	\$122.2	\$126.5	\$148.8	\$146.7	\$142.7	20.7	1.7	2.5	-2.8
Payment per case	\$30,059	\$33,658	\$34,769	\$39,493	\$40,070	\$40,015	12.0	1.6	2.4	-0.1
Average length of stay (in days)	28.5	28.2	26.9	26.2	26.5	26.3	-1.1	-2.3	-0.3	-0.7
Users	108,814	119,282	114,299	123,652	121,532	118,288	9.6	-2.1	1.0	-2.7

Note: LTCH (long-term care hospital), FFS (fee-for-service).

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS and the annual report of the Boards of Trustees of the Medicare trust funds.

**TABLE  
10-3****The top 25 MS-LTC-DRGs made up two-thirds of LTCH discharges in 2014**

<b>MS-LTC-DRG</b>	<b>Description</b>	<b>Discharges</b>	<b>Percentage</b>
189	Pulmonary edema and respiratory failure	16,017	12.0%
207	Respiratory system diagnosis with ventilator support 96+ hours	15,224	11.4
871	Septicemia without ventilator support 96+ hours with MCC	8,809	6.6
177	Respiratory infections and inflammations with MCC	3,733	2.8
592	Skin ulcers with MCC	3,663	2.7
208	Respiratory system diagnosis with ventilator support <96 hours	3,105	2.3
949	Aftercare with CC/MCC	2,864	2.1
539	Osteomyelitis with MCC	2,785	2.1
682	Renal failure with MCC	2,437	1.8
919	Complications of treatment with MCC	2,321	1.7
314	Other circulatory system diagnoses with MCC	1,981	1.5
190	Chronic obstructive pulmonary disease with MCC	1,975	1.5
870	Septicemia with ventilator support 96+ hours	1,966	1.5
862	Postoperative and post-traumatic infections with MCC	1,955	1.5
559	Aftercare, musculoskeletal system and connective tissue with MCC	1,947	1.5
166	Other respiratory system OR procedures with MCC	1,925	1.4
4	Tracheostomy with ventilator support 96+ hours or primary diagnosis except face, mouth and neck without major OR procedure	1,840	1.4
193	Simple pneumonia and pleurisy with MCC	1,809	1.3
291	Heart failure and shock with MCC	1,739	1.3
638	Diabetes with CC	1,665	1.2
570	Skin debridement with MCC	1,629	1.2
853	Infectious and parasitic diseases with OR procedure with MCC	1,600	1.2
981	Extensive OR procedure unrelated to principal diagnosis with MCC	1,568	1.2
560	Aftercare, musculoskeletal system and connective tissue with CC	1,359	1.0
602	Cellulitis with MCC	1,328	1.0
	<b>Top 25 MS-LTC-DRGs</b>	<b>87,244</b>	<b>65.1</b>

Note: MS-LTC-DRG (Medicare severity long-term care diagnosis related group), LTCH (long-term care hospital), MCC (major complication or comorbidity), CC (complication or comorbidity), OR (operating room). MS-LTC-DRGs are the case-mix system for LTCH facilities. The sum of column components may not equal the stated total due to rounding.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

populations (Dalton et al. 2012, Kahn et al. 2010). Another contributing factor may be a greater incidence of critical illness in this population (Mayr et al. 2010). At the same time, African American beneficiaries may be more likely to opt for LTCH care since they are less likely to choose withdrawal from mechanical ventilation in the ICU, have do-not-resuscitate orders, or elect hospice care (Barnato et al. 2009, Borum et al. 2000, Diringer et al. 2001).

LTCH patient discharges are concentrated in a relatively small number of diagnosis groups. In fiscal year 2014,

the top 25 LTCH diagnoses made up about 65 percent of all LTCH discharges (Table 10-3). The most frequently occurring diagnosis was MS-LTC-DRG 189, pulmonary edema and respiratory failure. MS-LTC-DRG 207, respiratory system diagnosis with ventilator support for 96 or more hours, was the second most frequently occurring diagnosis. Nine of the top 25 diagnoses, representing 36 percent of all LTCH cases, were respiratory conditions or involved prolonged mechanical ventilation—a statistic that has been relatively stable since the 2008 implementation of the MS-LTC-DRGs.

## Quality measures for long-term care hospitals

The Patient Protection and Affordable Care Act of 2010 (PPACA) required CMS to establish a quality reporting program for long-term care hospitals (LTCHs) by fiscal year 2014 and further stipulated that LTCHs not participating in the program would have their annual payment update reduced by 2 percentage points starting in 2014. Beginning October 1, 2013, LTCHs receive a full payment update only if they successfully report on three quality measures—catheter-associated urinary tract infections (CAUTIs), central line–associated bloodstream infections (CLABSIs), and new or worsened pressure ulcers. Data on incidences of CAUTIs and CLABSIs are collected through the National Healthcare Safety Network (NHSN), an Internet-based surveillance system maintained by the Centers for Disease Control and Prevention (CDC). The data elements needed to calculate the pressure ulcer measure are collected using a data collection instrument called the LTCH Continuity Assessment Record and Evaluation (CARE) Data Set. These data are not yet available for analysis.

In 2014, CMS added two measures to the LTCH quality reporting program: the share of LTCH patients assessed for and appropriately given influenza vaccine and influenza vaccination coverage among facility health care personnel. Using the LTCH CARE Data Set, facilities collect data on the share of patients assessed for and appropriately given influenza vaccine, while the CDC’s NHSN collects data on influenza vaccination coverage among LTCH health care personnel. Payment

updates for fiscal year 2016 and after will be affected by LTCHs’ reporting on these two measures.

In 2015, LTCHs were required to begin reporting facility-acquired cases of methicillin-resistant *Staphylococcus aureus* and *Clostridium difficile* through the CDC NHSN. Reductions of LTCH payment updates for failing to report on these two measures will begin in fiscal year 2017. At that time, CMS plans to start using claims data to calculate LTCHs’ rates of all-cause unplanned readmissions to acute care hospitals.

CMS intends to add 4 more measures to the program beginning in fiscal year 2018, which will bring the total number of measures to 12. In January 2016, LTCHs must begin reporting on ventilator-associated events (such as pneumonia, sepsis, and pulmonary embolism) through the CDC NHSN. Starting in April 2016, CMS will begin collecting data on the following three measures using the LTCH CARE Data Set: share of patients experiencing one or more falls resulting in major injury, change in mobility among LTCH patients who require ventilator support, and share of LTCH patients with an admission and discharge assessment and care plan that address patient function.

CMS will begin public reporting of four LTCH quality measures in the fall of 2016, including measures for CAUTI, CLASBI, the percentage of patients with pressure ulcers that are new or worsened, and the all-cause unplanned readmissions. ■

Not unexpectedly, the MS–LTC–DRGs become increasingly concentrated when we consider only the cases that would have qualified to receive the LTCH PPS standard federal payment rate if that rate had been in effect at the time of discharge. The top 25 qualifying diagnoses would have accounted for approximately 78 percent of these cases.<sup>9</sup> More than half of these cases involved diagnoses that were respiratory conditions or involved prolonged mechanical ventilation. Given the implementation of criteria for receiving the LTCH PPS standard federal payment rate, we would expect to see an increase in the concentration of diagnoses over time.

### Quality of care: Meaningful measures not available, but trends for gross indicators are improving

Unlike most other health care providers covered by Medicare, LTCHs only recently began reporting to CMS on a limited set of quality measures (see text box); those data are not yet available for analysis. CMS will begin reporting quality data publicly for four measures in the fall of 2016. In the meantime, the Commission assesses aggregate trends in the quality of LTCH care by examining in-facility mortality rates, mortality within 30 days of discharge, and readmissions from LTCHs to ACHs. LTCH

cases are highly concentrated in a few MS–LTC–DRGs, and the vast majority of LTCH patients have multiple diagnoses and comorbidities.

For this report, we analyzed unadjusted readmission and mortality rates for the top LTCH diagnoses from 2010 to 2014. Although rates of readmission and death can vary from year to year, over the 5-year period, we found stable or declining rates of readmissions to ACHs and stable or declining mortality rates for these diagnoses, both in-facility and 30 days postdischarge. However, we caution that these measures are not risk adjusted and may not represent actual improvements in quality of care.

In aggregate, in 2014, 8 percent of LTCH cases were readmitted to an ACH, 12 percent died in the LTCH, and another 11 percent died within 30 days of discharge from the LTCH. Mortality rates varied markedly by diagnosis group. For example, among patients with a principal diagnosis of septicemia with prolonged ventilator support (MS–LTC–DRG 870), 33 percent died in the LTCH and 13 percent died within 30 days of discharge. By comparison, among patients with a diagnosis group—including aftercare, musculoskeletal system and connective tissue with major complication or comorbidity (MS–LTC–DRG 560)—only 1 percent died in the LTCH and an additional 2 percent died within 30 days of discharge. Among the highest volume MS–LTC–DRGs in 2014, patients with a diagnosis of complications of treatment with major complication or comorbidity (MS–LTC–DRG 919) had the highest readmission rate (14.9 percent).<sup>10</sup>

If we consider only cases that would have qualified to receive the LTCH PPS standard federal payment rate if that rate had been in effect at the time of discharge, the rates of readmission, death in the LTCH, and death within 30 days of discharge would have been higher for a vast majority of highest volume MS–LTC–DRGs compared with all cases. This difference is not unexpected given the increase in severity of illness and case mix for this group of beneficiaries. In 2014, almost 9.7 percent of qualifying LTCH cases were readmitted to an ACH, 16.7 percent died in the LTCH, and another 13.3 percent died within 30 days of discharge from the LTCH. Mortality rates for qualifying cases continued to vary markedly by diagnosis group.

### **Providers' access to capital: Continued short-term uncertainty slows investment**

Access to capital allows LTCHs to maintain, modernize, and expand their facilities. If LTCHs were unable to access

capital, it might in part reflect problems with the adequacy of Medicare payments since Medicare accounts for about half of LTCH total revenues. However, for the past several years, the level of capital investment has reflected more about uncertainty regarding changes to regulations and legislation governing LTCHs than it has about current Medicare payment rates. The criteria to receive the higher LTCH payment rate specified in the Pathway for SGR Reform Act of 2013, beginning with cost reporting periods starting October 1, 2015, provide more long-term regulatory certainty for the industry compared with recent years. Short-run uncertainties regarding the industry's ability to comply with the new patient criteria has resulted in low levels of capital investment or improvements. Further, payment reductions implemented by CMS and congressional moratoriums on new LTCH beds and facilities from December 2007 through December 2012 and again from April 2014 through September 2017 continue to limit future opportunities for growth and reduce the industry's need for capital.

LTCHs and LTCH companies have been positioning themselves for the changing payment environment. For example, in this primarily for-profit industry, Kindred Healthcare, which owns about 20 percent of LTCHs, has continued to pursue an “integrated care market” strategy and diversify its portfolio. The company operates SNFs, inpatient rehabilitation facilities, home health agencies, outpatient rehabilitation providers, and LTCHs within a single market to position itself as an integrated provider of post-acute care (Kindred Healthcare 2013).<sup>11</sup> This strategy is intended to improve the chain's ability to control its mix of patients and costs and limit the impact of payment policy changes in any one post-acute care sector. As part of this strategy, in 2015 Kindred Healthcare acquired Gentiva Health Services, a large provider of home health and hospice care, and Centerre Healthcare Corporation, an inpatient rehabilitation hospital company (Cain Brothers 2014, Kindred Healthcare 2014).

### **Medicare's payments and providers' costs: Cost growth exceeded payment growth**

From 2007 until 2012, LTCHs held cost growth below the rate of increase in the market basket index, a measure of inflation in the prices of goods and services LTCHs buy to provide care. Starting in 2012, Medicare payments increased more slowly than the rate of provider costs. This trend continued between 2013 and 2014, resulting in an aggregate 2014 Medicare margin of 4.9 percent compared

with 6.8 percent in 2013. Financial performance in 2014 varied across LTCHs, reflecting differences in cost control and response to payment incentives.

### Reductions in the LTCH base rate slowed spending growth in 2013 and 2014

In the first three years of the LTCH PPS, Medicare spending for LTCH services grew rapidly, climbing an average of 29 percent per year. CMS's subsequent changes to LTCH payment policies slowed growth in spending between 2005 and 2008 to less than 1 percent per year. MMSEA halted or rolled back the implementation of some CMS regulations designed to address issues of excessive payments to LTCHs. As a result, between 2008 and 2010, spending jumped more than 6 percent per year.<sup>12</sup> Although some of the MMSEA provisions continued through fiscal year 2013, spending growth between 2010 and 2013 slowed to 2.1 percent, in part because of mandated reductions in Medicare's LTCH payment rate beginning in 2011.<sup>13</sup>

### LTCHs continue to restrain cost growth, but less so than in recent years

LTCHs appear to be responsive to changes in payment, adjusting their costs per case when payments per case change. In the first years of the PPS, cost per case increased rapidly after a surge in payment per case (Figure 10-2). Between 2005 and 2007, growth in cost per case slowed considerably because regulatory changes to Medicare's payment policies for LTCHs slowed growth in payment per case to an average of 1.3 percent per year.

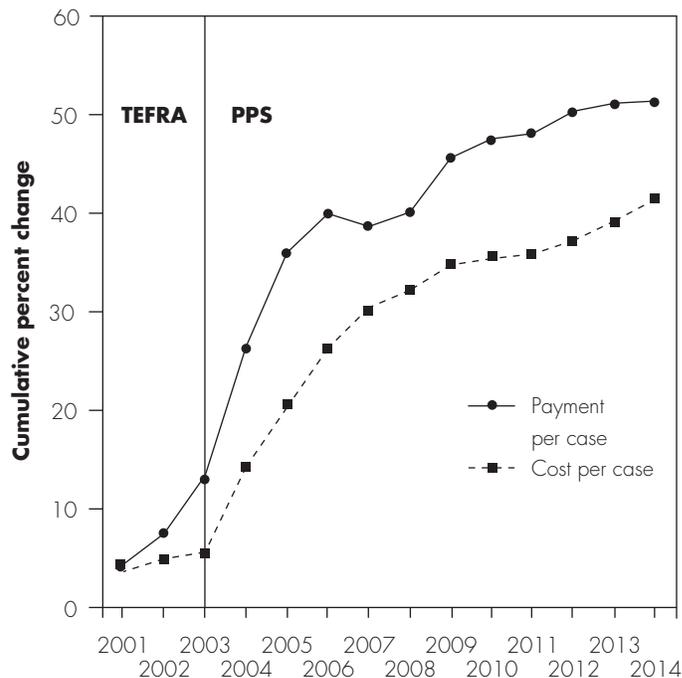
For most of the past decade, LTCHs have held cost growth below the rate of market basket increases, likely because of ongoing concerns about possible changes to Medicare's payment policies for LTCH services. The slowest growth in average cost per case occurred between 2009 and 2011, when the average cost per case increased less than 1 percent per year. Starting in 2011, the average cost per case increased more rapidly each year, equaling 2.2 percent between 2013 and 2014.

### Aggregate LTCH margins decreased

After the LTCH PPS was implemented in fiscal year 2003, margins rose rapidly for all LTCH provider types, climbing to 11.9 percent in 2005 (data not shown). At that point, margins began to fall as growth in payments per case leveled off. In 2008, LTCH margins reached 3.7 percent, the lowest since the implementation of the LTCH PPS in 2003. From 2009 through 2012, LTCH

**FIGURE 10-2**

**LTCHs' per case costs increased more than payments in 2014**



Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Percentage changes are calculated based on consistent two-year cohorts of LTCHs.

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

margins began to climb again as providers consistently held cost growth below that of payment growth. In 2013, the aggregate LTCH margin fell from 7.5 percent to 6.8 percent, primarily because of the first year of a three-year phase-in of the downward adjustment for budget neutrality and the effect of budget sequestration beginning April 1, 2013 (Table 10-4, p. 288). CMS began implementing a downward adjustment in response to unexpected changes in coding practices that increased payments to LTCHs relative to CMS's estimates in the first year of the PPS, fiscal year 2003. These adjustments in 2013, 2014, and 2015 were intended to bring payments to LTCHs more in line with what would have been spent under the previous payment method, decreasing the standard federal payment rate by about 3.75 percent in total. As anticipated, the second year of the downward adjustment for budget neutrality and the effect of a full year of sequestration resulted in the aggregate LTCH margin falling further to 4.9 percent in 2014.

**TABLE  
10-4**

**The aggregate average LTCH Medicare margin fell in 2013 and 2014**

Type of LTCH	Share of discharges	2008	2009	2010	2011	2012	2013	2014
All	100%	3.7%	5.7%	6.8%	6.9%	7.5%	6.8%	4.9%
Urban	94	3.9	6.0	7.1	7.1	7.7	7.0	4.9
Rural	6	-3.2	-3.0	0.6	3.1	3.7	2.5	4.1
Nonprofit	13	-2.5	-0.7	-0.3	0.5	-0.2	-1.4	-2.8
For profit	85	5.3	7.4	8.4	8.5	9.3	8.7	6.9
Government	2	N/A						

Note: LTCH (long-term care hospital), N/A (not applicable). Margins for government-owned providers are not shown. They operate in a different context from other providers, so their margins are not necessarily comparable.

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

### Differences in cost growth across the industry

Financial performance in 2014 varied across LTCHs. For-profit LTCHs had the highest margins at 6.9 percent, and those LTCHs account for more than three-quarters of all LTCHs and 85 percent of all LTCH cases. But between 2013 and 2014, the for-profit LTCH margin decreased by 1.8 percentage points, and the nonprofit LTCHs fell 1.4 percentage points.<sup>14</sup> This decline resulted from an increase in cost and a slight decrease in payments per case. Historically, nonprofit LTCHs have experienced higher cost growth than for-profit entities, yet in 2014, for-profit LTCHs experienced a higher rate of cost growth compared with nonprofit LTCHs. However, when we look at the cumulative cost growth over the last decade, for-profit facilities exhibit cost growth levels almost one-third lower than that of nonprofit LTCHs.

The comparatively poor financial performance of nonprofit LTCHs reflects a number of differences in providers' ability to control their costs. First, though occupancy rates in 2014 for the two groups were fairly similar (64.1 percent for nonprofit LTCHs vs. 65.6 percent for for-profit LTCHs), nonprofit LTCHs were smaller and had fewer total cases than for-profit LTCHs (an average of 460 vs. 501). About 67 percent of nonprofit LTCHs had fewer than 50 beds compared with about half of for-profit LTCHs. Nonprofit LTCHs were therefore less likely than for-profit LTCHs to benefit from economies of scale. In addition, nonprofit LTCHs tend to be less able to control their input costs than for-profit LTCHs that are members of large

chains. For-profit LTCH chains that own other types of post-acute care providers within a market area likely have a distinct advantage over other LTCHs because they are better able to control their mix of patients and lengths of stay. Nonprofit LTCHs had a larger share of cases with extraordinarily high costs (21.4 percent of nonprofit LTCHs' cases qualified for high-cost outlier payments vs. 14 percent of for-profit LTCHs' cases), although it is not clear whether this difference stems from differences in efficiency, case complexity, or both. Nonprofit LTCHs had more short-stay outliers than for-profit LTCHs (31.5 percent vs. 25.9 percent). Nonprofit LTCHs had a higher share of very short-stay outliers (14.2 percent compared with 12.3 percent), which typically pay less than short-stay outliers, and thus received reduced payments for a larger share of their Medicare patients.

Differences in case mix between nonprofit and for-profit LTCHs are difficult to evaluate. By some measures, nonprofit LTCHs appear to care for a somewhat sicker patient population. For example, a higher share of cases in nonprofit LTCHs qualified for high-cost outlier payments. Similarly, nonprofit LTCHs had a higher share of cases that were high-cost outliers during their immediately preceding ACH stay (17.6 percent compared with 14.4 percent of for-profit LTCHs' cases). Another indicator suggesting a sicker patient population is length of stay: The average Medicare-covered stay in nonprofit LTCHs was two days longer than in for-profit ones (28 days vs. 26 days). However, longer stays could also result from

inefficient care. Other indicators of patient mix suggest fewer differences between the two types of facilities. The average case mix in nonprofit and for-profit LTCHs was similar. Nonprofit and for-profit LTCHs also had similar shares of cases that had ICU (or CCU) stays lasting longer than three days during an immediately preceding ACH stay.

### High-margin LTCHs had lower unit costs

In 2014, higher unit costs were the primary driver of differences in financial performance between LTCHs with the lowest and highest Medicare margins (those in the bottom and top 25th percentiles of Medicare margins) (Table 10-5).<sup>15</sup> After accounting for differences in case mix and local market input price levels, low-margin LTCHs had standardized costs per discharge that were 35 percent higher than high-margin LTCHs (\$36,952 vs. \$27,424). Low-margin LTCHs likely benefited less from economies of scale. Compared with their high-margin counterparts, low-margin LTCHs had fewer cases overall (an average of 411 compared with 516 for high-margin LTCHs) and lower occupancy rates (56 percent vs. 74 percent). Notably, high-margin LTCHs had a higher average share of Medicare discharges than did low-margin LTCHs (69 percent vs. 61 percent), which suggests that Medicare patients are financially desirable.

Outlier payments made up a larger share of total payments to low-margin LTCHs compared with high-margin LTCHs (5 percent compared with almost 14 percent). High-cost outlier payments per discharge for low-margin LTCHs averaged almost three times the amount paid to high-margin LTCHs (\$5,848 vs. \$2,041). When these outlier payments were removed from total payments, we found that the standard payment per discharge for low-margin LTCHs was 4.5 percent lower than that for high-margin LTCHs (\$36,074 vs. \$37,808). This difference was in part because the low-margin LTCHs had a lower average case mix (1.09 vs. 1.14 for high-margin LTCHs) and in part because they cared for a disproportionate share of short-stay outlier cases, which often are paid at reduced rates. Such cases made up 30 percent of low-margin LTCHs' cases compared with 25 percent in high-margin LTCHs.

### Financial incentives to serve Medicare beneficiaries across LTCHs

Another consideration in evaluating the adequacy of payments is to assess whether providers have a financial incentive to expand the number of Medicare beneficiaries they serve. In considering whether to treat a patient, the

**TABLE 10-5** LTCHs in the top quartile of Medicare margins in 2014 had lower costs

Characteristics	High-margin quartile	Low-margin quartile
Mean margin	18.9%	-15.3%
Mean total discharges per facility (all payers)	516	411
Medicare patient share	69%	61%
Average length of stay (in days)	26	27
Occupancy rate	74%	56%
Mean CMI	1.14	1.09
Mean per discharge:		
Standardized costs	\$27,424	\$36,952
Standard Medicare payment*	37,808	36,074
High-cost outlier payments	2,041	5,848
Share of:		
SSO cases	25%	30%
Medicare cases from primary-referring ACH	34	39
For-profit LTCHs	89	60

Note: LTCH (long-term care hospital), CMI (case-mix index), SSO (short-stay outlier), ACH (acute care hospital). Includes only established LTCHs—those that filed valid cost reports in both 2013 and 2014. High-margin-quartile LTCHs were in the top 25 percent of the distribution of Medicare margins. Low-margin-quartile LTCHs were in the bottom 25 percent of the distribution of Medicare margins. Standardized costs have been adjusted for differences in case mix and area wages. Case-mix indexes have been adjusted for differences in short-stay outliers across facilities. The primary-referring ACH is the acute care hospital from which the LTCH receives a plurality of its Medicare patients. Government providers were excluded. \*Excludes outlier payments.

Source: MedPAC analysis of LTCH cost reports and Medicare Provider Analysis and Review data from CMS.

provider compares the revenue it will receive for treating one additional patient (i.e., the Medicare payment) with its marginal costs—that is, costs that vary with volume, in this case, to treat one additional patient. If Medicare payments are larger than the marginal costs of treating an additional beneficiary, a provider has a financial incentive to increase its volume of Medicare patients. On the other hand, if payments do not cover the marginal costs, the provider has a disincentive to admit Medicare beneficiaries. To operationalize this concept, we compare

## Implementation of long-term care hospitals legislation

The Pathway for SGR Reform Act of 2013 established “site-neutral” payments for specified cases in long-term care hospitals (LTCHs), beginning in fiscal year 2016. At that point, only qualifying cases will be eligible to receive the full LTCH prospective payment system (PPS) standard payment rate. It will be some time before we see LTCHs’ full response to the legislation because this policy is being implemented based on the start of each individual LTCH’s fiscal year. Further, it is phased in at 50 percent of the LTCH PPS standard payment rate and 50 percent of the site-neutral payment rate. As of October 1, 2015, about 5 percent of facilities began receiving payment under the dual payment structure. About half of these facilities are nonprofit and have a slightly smaller share of qualifying cases. The rest of LTCHs will begin phasing in this policy throughout the federal fiscal year.

In discussing LTCH strategies to maintain profitability following implementation, the Commission has heard a variety of responses from the industry. For example, some facilities have discussed shifting their primary focus to qualifying beneficiaries only, no longer accepting beneficiaries that do not meet the specified criteria. Three of the for-profit LTCHs that started the dual payment rate in October have reported successfully accepting only qualifying cases and maintaining acceptable occupancy rates.

LTCHs have discussed other strategies, including expanding their market presence, expanding the payer mix to include more managed care, and reducing costs for nonqualifying cases through changes in staff mix. The success of these strategies will likely vary by facility and market area, and it will be another several years before the data reflect facilities’ responses to this new policy. ■

payments for Medicare services with marginal costs, approximated as:

$$\text{Marginal profit} = (\text{payments for Medicare services} - (\text{total Medicare costs} - \text{fixed building and equipment costs})) / \text{Medicare payments}$$

This comparison is a lower bound on the marginal profit because we ignore any labor costs that are fixed. In 2014, the average LTCH marginal profit was 20 percent across all Medicare cases. This percentage suggests that LTCHs with available beds have a financial incentive to increase their occupancy rates with Medicare beneficiaries and represents a positive indicator of access.

### **How would current law changes for 2015, 2016, and 2017 affect LTCHs’ Medicare payments?**

We project LTCH margins for 2016 based on margins in 2014 and policy changes that take place in 2015 and 2016. CMS implemented budget-neutrality adjustments in 2013,

2014, and 2015 to account for changes in coding practices that resulted in higher than expected LTCH spending in the first year of the PPS. These adjustments, intended to bring spending more in line with what would have been spent under the previous payment method, will decrease payments by about 3.75 percent over three years. The 2015 current law update for LTCHs was 2.2 percent, adjusted for the final year of the budget-neutrality adjustment, resulting in an approximate 1.1 percent payment update. In 2016, the update was 1.7 percent.

Beginning in 2016, LTCH discharges for beneficiaries who do not meet the specified patient criteria will be paid differently from the standard federal payment rate. Payment for these beneficiaries will be the lesser of an IPPS-comparable rate or 100 percent of cost. Because the payment for these cases relies on the update to the ACH IPPS rate or the individual LTCH’s growth in cost, we have excluded cases not paid under the standard LTCH payment rate from our margin projections.

The Commission continues to expect that substantial changes in provider behavior will mitigate the impact that the new payment methodology has on LTCH providers (see text box). The LTCH industry has repeatedly

demonstrated its responsiveness to payment policy changes, and the Commission has no reason to believe that the response to these most recent changes will be any different. This responsiveness, combined with the multiyear policy phase-in, results in the complexity of projecting future margins.

Based on historical update patterns, the 2017 LTCH payment update is projected to equal 1.65 percent. This figure is the result of a 2.9 percent projected LTCH market basket, a 0.5 percentage point reduction for productivity, and a 0.75 percentage point reduction mandated by PPACA. In 2017, CMS will be in the second year of phasing in the criteria to qualify for the full standard LTCH PPS payment.

Two of the largest LTCH chains, Kindred Healthcare and Select Medical, indicated that their third quarter 2015 earnings show increases in the cost of contract labor, as well as additional training for current employees regarding the new patient criteria during (Kindred Healthcare 2015, Select Medical 2015). Nonprofit facilities are also experiencing increases in contract labor and higher staff costs for similar reasons. The increased demand for highly skilled nurses could start to push wages higher, consistent with the staffing concerns in the ACH sector.

Given the recent trends in higher cost growth and the potentially increasing costs associated with treating a higher percentage of beneficiaries who qualify for the full LTCH standard payment rate, we expect cost growth to equal projected LTCH market basket levels, which are slightly higher than projected payment growth during 2015 and 2016.

---

## How should Medicare payments change in 2017?

---

There is a high degree of uncertainty regarding changes in admission patterns and per case cost associated with the implementation of the new patient-specific criteria. There is also an industry-wide focus on lower cost sites of post-acute care through several initiatives, including the expansion of accountable care organizations and the ACH Value-Based Purchasing Program. It is reasonable to expect that changes in practice and referral patterns across the industry from these programs will result in lower LTCH use.

Because of the high degree of uncertainty associated with the implementation of the new patient-level criteria, we calculated a margin using only cases that would have qualified to receive the full LTCH standard payment rate. In both 2013 and 2014, these cases were more profitable than other cases. Using the most recently available claims data, combined with revenue center-specific cost-to-charge ratios for each LTCH, we calculated the 2014 margin for cases that would have qualified to receive the full LTCH standard payment rate to be 7.4 percent, 2.5 percentage points higher than the total aggregate Medicare margin.

We expect cost growth to be higher than both current law payment growth and recent LTCH cost growth for the qualifying cases while the LTCH dual payment structure is implemented. Using the projected growth in the LTCH market basket, we project that LTCHs' aggregate Medicare margin for qualifying cases paid under the LTCH PPS will be between 3.3 percent and 5.9 percent in 2016, reflecting current policy including the effect of budget sequestration. The lower bound of this range reflects a conservative approach, assuming the 2014 aggregate Medicare costs and payments projected forward for all cases. This lower bound is in contrast to a projection that includes only the cases that would have qualified to receive the full LTCH standard payment rate. LTCHs' 2016 total aggregate Medicare margin will differ from this projection to the extent that providers furnish care for beneficiaries who do not qualify to receive the full LTCH standard payment rate since we expect these cases to be less profitable under the new payment structure.

On the basis of these indicators, the Commission concludes that LTCHs can continue to provide Medicare beneficiaries with access to safe and effective care and accommodate changes in their costs with no update to LTCH payment rates in fiscal year 2017. Like we have historically, we plan to assess both our cost-growth assumptions and methodology for calculating the margin on cases that would qualify for the standard LTCH payment rate as the policy is phased in and data reflecting the new policy become available.

This update recommendation applies to the Medicare LTCH PPS base payment rate. As such, it applies to payments for qualifying discharges that meet the criteria specified in the Pathway for SGR Reform Act of 2013 and to the portion of the blended payment that reflects the LTCH payment rate for discharges that do not meet the

specified criteria (applicable during the second year of the policy's phase-in period).

## RECOMMENDATION 10

**The Secretary should eliminate the update to the payment rates for long-term care hospitals for fiscal year 2017.**

## RATIONALE 10

The supply of LTCH facilities and beds decreased slightly during 2014. The number of LTCH stays decreased both in total and per capita. On a per FFS beneficiary basis, the decline in the number of LTCH cases was consistent with the decline in the ACH and skilled nursing facility settings. These trends suggest that access to care in LTCHs has been maintained: A majority of LTCH cases come directly from ACHs, and LTCH occupancy rates are well under capacity. While the limited quality trends that we measure appear to be stable across all cases, we will continue to monitor these trends under the new dual payment system. Rather than current payment rates, the availability of capital to LTCHs reflects the implementation of a moratorium on new facilities and beds and the short-term uncertainties related to the implementation of the dual payment system. The aggregate Medicare margin for 2014

was positive, suggesting that LTCHs are able to operate under current payment rates. We continue to expect LTCHs to respond to the new payment incentives quickly and dramatically. Based on the historical trends and the increase in acuity of the beneficiaries who would now qualify for the full LTCH standard payment rate, we also expect to see increases in cost growth in 2015 and 2016 as the policy is implemented. Given the projected positive margin for qualifying cases, the 2017 LTCH base payment rate should be the same as the 2016 rate.

## IMPLICATIONS 10

### Spending

- Because CMS typically used the market basket as a starting point for establishing updates to LTCH payments, this recommendation would decrease federal program spending by between \$50 million and \$250 million in one year and by less than \$1 billion over five years.

### Beneficiary and provider

- This recommendation is not expected to affect Medicare beneficiaries' access to care or providers' willingness or ability to furnish care. ■

## Endnotes

---

- 1 The Medicare, Medicaid, and SCHIP Extension Act of 2007 also requires LTCHs to have a patient review process that screens patients to ensure appropriateness of admission and continued stay, physician on-site availability on a daily basis, and interdisciplinary treatment teams of health care professionals. The Pathway for SGR Reform Act of 2013 specified that beginning in fiscal year 2020, LTCHs will also be required to maintain a certain percentage of beneficiaries who qualify to receive the full LTCH standard payment rate.
- 2 More information on the prospective payment system for LTCHs is available at <http://medpac.gov/documents/payment-basics/long-term-care-hospitals-payment-system-15.pdf?sfvrsn=0>.
- 3 Medicare pays LTCHs outlier payments for patients who are extraordinarily costly. High-cost outlier cases are identified by comparing their costs with a threshold that is the MS–LTC–DRG payment for the case plus a fixed loss amount (\$16,423 in 2015). Medicare pays 80 percent of the LTCH’s costs above the threshold. In fiscal year 2014, high-cost outlier payments were made for about 15.3 percent of LTCH cases. The prevalence of high-cost outlier cases differed by LTCH ownership. About 14 percent of cases in for-profit LTCHs were high-cost outliers compared with 21.4 percent of cases in nonprofit LTCHs. Historically, some case types have been far more likely to be high-cost outliers than others. For example, almost a quarter of cases assigned to MS–LTC–DRG 4 (tracheostomy with prolonged mechanical ventilation) typically receive high-cost outlier payments each year.
- 4 Over 60 percent of LTCHs with cost report start dates during the last quarter of the fiscal year start on September 1. The new payment criteria will affect these facilities for one month of fiscal year 2016. All cases during the 11 months before implementation will be eligible to receive the full LTCH standard payment amount.
- 5 MMSEA and subsequent legislation allowed exceptions to the moratorium for (1) LTCHs that began their qualifying period (demonstrating an average Medicare length of stay greater than 25 days) on or before December 29, 2007; (2) entities that had a binding or written agreement with an unrelated party for the construction, renovation, lease, or demolition of an LTCH, with at least 10 percent of the estimated cost of the project already expended on or before December 29, 2007; (3) entities that had obtained a state certificate of need on or before December 29, 2007; (4) existing LTCHs that had obtained a certificate of need for an increase in beds, issued on or after April 1, 2005, and before December 29, 2007; and (5) LTCHs located in a state with only one other LTCH that sought to increase beds after the closure or decrease in the number of beds of the state’s other LTCH.
- 6 The Pathway for SGR Reform Act of 2013 as amended by the Protecting Access to Medicare Act of 2014 allows exceptions to the moratorium for (1) LTCHs that began their qualifying period (demonstrating an average Medicare length of stay greater than 25 days) on or before April 1, 2014; (2) entities that had a binding or written agreement with an unrelated party for the construction, renovation, lease, or demolition of an LTCH, with at least 10 percent of the estimated cost of the project already expended on or before April 1, 2014; and (3) entities that had obtained a state certificate of need on or before April 1, 2014.
- 7 Historically, the Commission has found that Medicare’s Provider of Services (POS) file includes a larger number of facilities than are found in the cost report file. The cost report file provides a more conservative estimate of total capacity because some LTCHs may not yet have filed a cost report for the applicable year when we completed our analysis, while others may have been exempt from filing cost reports because of low Medicare volume. However, POS data may overstate the total number of LTCHs because facilities that close may not be immediately removed from the file.
- 8 The Pathway for SGR Reform Act of 2013 implemented a moratorium, without any exceptions, on the establishment of new LTCHs or additional beds at existing LTCHs from January 1, 2015, through September 30, 2017. Subsequently, the Protecting Access to Medicare Act of 2014 changed the moratorium extension start date to April 1, 2014, and allowed exceptions on the establishment and classification of new LTCHs. This law still strictly prohibits increases in the number of Medicare-certified LTCH beds in existing facilities.
- 9 Across the top 25 diagnoses both for qualifying cases and all cases, 21 MS–LTC–DRGs overlap. The diagnoses that do not overlap in the top 25 represent relatively low-volume MS–LTC–DRGs in this group. Using a consistent definition of the top 25 MS–LTC–DRGs based on all cases captures 77 percent of qualifying cases.
- 10 We observed a higher readmission rate (19.6 percent) for cases with respiratory diagnoses with mechanical ventilation lasting less than 96 hours (MS–LTC–DRG 208). However, a higher rate of readmission is expected for this group because it is defined in part by the length of time a service (mechanical ventilation) is received. Any patient with a principal respiratory diagnosis with use of mechanical ventilation who is readmitted to a short-term ACH within 4 days is assigned to MS–LTC–DRG 208, while a similar patient who stays in the LTCH for a longer period likely is assigned to MS–LTC–DRG 207 (respiratory diagnosis with mechanical ventilation lasting more than 96 hours). When we combined cases assigned to MS–LTC–DRGs 207 and 208 and recalculated the

rate of readmission, we found that 11.7 percent of these cases were readmitted in 2014.

- 11 In 2014, over 75 percent of LTCHs were for profit; these for-profit facilities accounted for approximately 85 percent of LTCH cases.
- 12 Another factor was growth in the reported patient case-mix index (CMI), which measures the expected costliness of a facility's patients (Centers for Medicare & Medicaid Services 2010, Centers for Medicare & Medicaid Services 2009, Centers for Medicare & Medicaid Services 2008, Centers for Medicare & Medicaid Services 2007, Centers for Medicare & Medicaid Services 2006). Refinements to the LTCH case-mix classification system, implemented in October 2007, likely led to more complete documentation and coding of the diagnoses, procedures, services, comorbidities, and complications that are associated with payment, thus raising the average CMI, even though patients may have been no more resource intensive than they were previously (Centers for Medicare & Medicaid Services 2009, Medicare Payment Advisory Commission 2009, RAND Corporation 1990). Although some part of the increase in LTCHs' CMI between 2008 and 2009 was due to growth in the intensity and complexity of the patients admitted, CMS estimated that the case-mix increase attributable to documentation and coding improvements was 2.5 percent (Centers for Medicare & Medicaid Services 2010, Centers for Medicare & Medicaid Services 2009). Those improvements contributed to growth in payments to providers without corresponding increases in providers' costs. CMS reduced the update to the LTCH base payment rate in fiscal years 2010 and 2011 to partly offset payment increases due to documentation and coding improvements between 2007 and 2009.
- 13 PPACA specified that the annual update to the LTCH standard payment rate in 2011 be reduced by half a percentage point. That requirement, combined with a CMS offset to the 2011 update to account for past improvements in documentation and coding, resulted in a negative update to the LTCH payment rate in 2011. PPACA also mandated reductions in the LTCH standard payment rate of 1.1 percent in 2012, 0.8 percent in 2013, 0.8 percent in 2014, and 0.7 percent in 2015.
- 14 Medicare margins in nonprofit LTCHs have been negative since 2008 with the exception of 2011. The 2014 nonprofit margin is the lowest since 2000 when it equaled -2.9 percent (data not shown).
- 15 Many new LTCHs operate at a loss for a period after opening. For this analysis of high-margin and low-margin LTCHs, we examined only LTCHs that submitted valid cost reports in both 2013 and 2014. We excluded government-owned LTCHs.

## References

---

- Barnato, A. E., D. L. Anthony, J. Skinner, et al. 2009. Racial and ethnic differences in preferences for end-of-life treatment. *Journal of General Internal Medicine* 24, no. 6 (June): 695–701.
- Borum, M. L., J. Lynn, and Z. Zhong. 2000. The effects of patient race on outcomes in seriously ill patients in SUPPORT: An overview of economic impact, medical intervention, and end-of-life decisions. Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatments. *Journal of the American Geriatrics Society* 48, no. 5, supplement (May): S194–198.
- Cain Brothers. 2014. Centerre Healthcare announces definitive agreement to be acquired by Kindred Healthcare. News release. November 18.
- Carson, S. S., J. Garrett, L. C. Hanson, et al. 2008. A prognostic model for one-year mortality in patients requiring prolonged mechanical ventilation. *Critical Care Medicine* 36, no. 7 (July): 2061–2069.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2013. Medicare program; hospital inpatient prospective payment systems for acute care hospitals and the long term care hospital prospective payment system and proposed fiscal year 2014 rates; quality reporting requirements for specific providers; hospital conditions of participation. Proposed rule. *Federal Register* 78, no. 91 (May 10): 27486–27823.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2010. Medicare program; hospital inpatient prospective payment systems for acute care hospitals and the long term care hospital prospective payment system changes and FY 2011 rates; provider agreements and supplier approvals; and hospital conditions of participation for rehabilitation and respiratory care services; Medicaid program: accreditation for provider of inpatient psychiatric services. Final rule. *Federal Register* 75, no. 157 (August 16): 50042–50677.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2009. Medicare program; changes to the hospital inpatient prospective payment systems for acute care hospitals and fiscal year 2010 rates; and changes to the long term care hospital prospective payment system and rate years 2010 and 2009 rates. Final rule. *Federal Register* 74, no. 165 (August 27): 43754–44236.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2008. Medicare program; prospective payment system for long-term care hospitals RY 2009; annual payment rate updates, policy changes, and clarifications; and electronic submission of cost reports: revision to effective date of cost reporting period. Final rule. *Federal Register* 73, no. 91 (May 9): 26787–26874.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2007. Medicare program; prospective payment system for long-term care hospitals RY 2008; annual payment rate updates and policy changes; and hospital direct and indirect graduate medical education policy changes. Final rule. *Federal Register* 72, no. 91 (May 11): 26870–27029.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2006. Medicare program; prospective payment for long-term care hospitals RY 2007; annual payment rate updates, policy changes, and clarification. Final rule. *Federal Register* 71, no. 92 (May 12): 27798–27939.
- Dalton, K., D. Kennell, S. Bernard, et al. 2012. *Determining medical necessity and appropriateness of care for Medicare long-term care hospitals (LTCHs): Report on site visits to IPPS critical care services and LTCHs*. Prepared under contract by Kennell and Associates Inc., and Research Triangle International for the Centers for Medicare & Medicaid Services. Baltimore, MD: CMS.
- Diringer, M. N., D. F. Edwards, V. Aiyagari, et al. 2001. Factors associated with withdrawal of mechanical ventilation in a neurology/neurosurgery intensive care unit. *Critical Care Medicine* 29, no. 9 (September): 1792–1797.
- Donahoe, M. P. 2012. Current venues of care and related costs for the chronically critically ill. *Respiratory Care* 57, no. 6 (June): 867–886.
- Gage, B., L. Smith, M. Morley, et al. 2011. *Post-Acute Care Payment Reform Demonstration: Report*. Prepared under contract to the Centers for Medicare & Medicaid Services. Baltimore, MD: CMS. [https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Reports/Research-Reports-Items/PAC\\_Payment\\_Reform\\_Demo\\_Final.html](https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Reports/Research-Reports-Items/PAC_Payment_Reform_Demo_Final.html).
- Kahn, J. M., N. M. Benson, D. Appleby, et al. 2010. Long-term acute care hospital utilization after critical illness. *Journal of the American Medical Association* 303, no. 22 (June 9): 2253–2259.
- Kennell and Associates Inc. 2010. *Determining medical necessity and appropriateness of care for Medicare long-term care hospitals*. Prepared under contract to the Centers for Medicare & Medicaid Services. Falls Church, VA: Kennell and Associates Inc.
- Kindred Healthcare. 2015. Q3 2015 Kindred Healthcare Inc. earnings conference call, November 5.

Kindred Healthcare. 2014. Kindred announces definitive agreement to acquire Centerre Healthcare. News release. November 12. [http://phx.corporate-ir.net/phoenix.zhtml?c=129959&p=irol-newsArticle\\_Print&ID=1988763](http://phx.corporate-ir.net/phoenix.zhtml?c=129959&p=irol-newsArticle_Print&ID=1988763).

Kindred Healthcare. 2013. Annual report (Form 10-K). Filing submitted to the Securities and Exchange Commission.

MacIntyre, N. R. 2012. Chronic critical illness: The growing challenge to health care. *Respiratory Care* 57, no. 6 (June): 1021–1027.

Mayr, F. B., S. Yende, W. T. Linde-Zwirble, et al. 2010. Infection rate and acute organ dysfunction risk as explanations for racial differences in severe sepsis. *Journal of the American Medical Association* 303, no. 24 (June 23): 2495–2503.

Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2004. *Report to the Congress: New approaches in Medicare*. Washington, DC: MedPAC.

Nelson, J. E., C. E. Cox, A. A. Hope, et al. 2010. Chronic critical illness. *American Journal of Respiratory and Critical Care Medicine* 182, no. 4 (August 15): 446–454.

RAND Corporation. 1990. *Methodology for measuring case-mix change: How much change in the case mix is DRG creep?* E-90–5. Arlington, VA: RAND Corporation. April.

Select Medical. 2015. Q3 2015 Select Medical Holdings Corporation earnings conference call, October 30.

Wiencek, C., and C. Winkelman. 2010. Chronic critical illness: prevalence, profile, and pathophysiology. *AACN Advanced Critical Care* 21, no. 1 (January–March): 44–61.

Zilberberg, M. D., M. de Wit, and A. F. Shorr. 2012. Accuracy of previous estimates for adult prolonged acute mechanical ventilation volume in 2020: Update using 2000–2008 data. *Critical Care Medicine* 40, no. 1 (January): 18–20.

Zilberberg, M. D., R. S. Luippold, S. Sulsky, et al. 2008. Prolonged acute mechanical ventilation, hospital resource utilization, and mortality in the United States. *Critical Care Medicine* 36, no. 3 (March): 724–730.