

SECTION  
2E

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**Home health services**

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# R E C O M M E N D A T I O N S

**2E-1** The Congress should eliminate the market basket increase for 2010 and advance the planned reductions for coding adjustments in 2011 to 2010, so that payments in 2010 are reduced by 5.5 percent from 2009 levels.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....  
**2E-2** The Congress should direct the Secretary to rebase rates for home health care services in 2011 to reflect the average cost of providing care.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

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**2E-3** The Congress should direct the Secretary to assess payment measures that protect the quality of care and ensure incentives for the efficient delivery of home health care. The study should include alternative payment strategies such as blended payments and risk corridors and outcome-based quality incentives.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

## Home health services

### Section summary

Indicators of payment adequacy for home health services are positive. Access, volume, and the supply of agencies remained stable or increased, suggesting that Medicare beneficiaries have adequate access to care. Most quality measures improved slightly. Home health agencies (HHAs) continued to be paid by Medicare significantly more than cost, with margins of 16.6 percent in 2007. Because of the high margins and other positive indicators, the Commission has concluded that home health payments should be significantly reduced in 2010 and payments rebased and revised in 2011 to ensure that Medicare does not continue to overpay home health providers.

*Access to care and supply of facilities*—As in previous years, beneficiaries have widespread access to care in 2008. Ninety-nine percent of beneficiaries live in an area served by at least one HHA, and 97 percent live in an area served by two or more agencies. The number of HHAs continued to grow in 2008, with an increase of about 400 new agencies (overwhelmingly for profit) entering to bring the total number of HHAs to about 9,800. This increase is less than the gain of 644 agencies in 2006 but still is substantial.

### In this section

- Background: What is home health care and the home health payment system?
- Are Medicare payments adequate in 2009?
- How should Medicare payments change in 2010?
- Future refinements to the home health benefit

***Volume of service and spending***—In 2007, the year for which the most recent data are available, volume and average payment per episode continued to rise, with total payments growing 12 percent to \$16 billion. The number of home health users also rose, even as enrollment in Medicare fee-for-service declined. The share of beneficiaries using home health care reached 8.9 percent. The average length of stay also increased, and the average beneficiary had 1.9 episodes. The types of episodes provided continued to shift to higher paying services, with more episodes qualifying for a full-episode payment and more episodes with 10 or more therapy visits.

***Quality***—Quality trends remained mostly unchanged from previous years. Slight increases occurred in the number of beneficiaries who show improvement in walking, bathing, pain management, transferring, and medication management. However, in 2008, the rate of patients hospitalized while receiving home health care—a marker of potential quality problems—increased by 1 percentage point to 29 percent.

***Access to capital***—The continuing entry of new agencies and the acquisition of existing agencies by national home health companies suggest that agencies have adequate access to capital for growth. The recent turmoil in financial markets has not significantly affected access to capital for the publicly traded home health companies.

***Payments and costs for 2007***—In 2007, home health margins were 16.6 percent, about equal to the average of 16.5 percent for 2002–2007. Two factors have increased payments: Payment rates assume more services than are typically provided, and the rate of cost growth has been lower than assumed.

Payment rates for home health care were initially set by using data from 1998, when there were an average of 31.6 visits per episode. With implementation of the prospective payment system (PPS) in 2000, the average number of visits per episode dropped to about 21.8 visits. The type of visits also shifted. Because providers delivered fewer visits than expected, the payments under PPS have been consistently greater than providers' costs.

HHA costs have not increased significantly. In most years, the rate of actual cost growth has been lower than the rate of inflation indicated by the home health market basket. Because payment increases are based on the home health market basket, payment increases have exceeded cost growth even in years when the payment updates have been less than the full market basket.

The home health base rate will increase by about 0.1 percent in 2009, the net impact of the 2.9 percent market basket update required by law and a 2.75 percent reduction to the base rate for changes in coding practice in 2009.

Home health margins are estimated to be 12.2 percent for 2009.

*The Congress should eliminate the market basket increase for 2010 and advance the planned reductions for coding adjustments in 2011 to 2010, so that payments in 2010 are reduced by 5.5 percent from 2009 levels.*

### **Recommendation 2E-1**

**COMMISSIONER VOTES:**  
YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

*The Congress should direct the Secretary to rebase rates for home health care services in 2011 to reflect the average cost of providing care.*

### **Recommendation 2E-2**

**COMMISSIONER VOTES:**  
YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Home health payments will be more than adequate in 2009, and efficient providers should be able to absorb increases in the cost of care even at reduced payment levels in 2010 and 2011. The Commission has recommended two years of reductions because payments for HHAs have exceeded costs for all of the period under PPS by a wide margin, indicating that the payment rates need significant reduction to reach an appropriate level. The recommendation for 2010 would advance a reduction CMS has planned for 2011 by one year and eliminate the market basket update for 2010. These two actions, combined with a reduction CMS already has slated for 2010, would reduce payments by 5.5 percent.

Our recommendation for 2011 would lower payments to reflect the estimated cost of care for that year. The home health product has changed substantially since PPS was established, and the current rates are obviously well in excess of an efficient provider's cost. The reduction in 2010 will begin the process

of reducing payments to appropriate levels, but current margins suggest that further reductions will be necessary. The recommendation for 2011 will require that the Secretary base the rates for that year on the estimated cost of care for the average home health episode.

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## Recommendation 2E-3

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COMMISSIONER VOTES:  
YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

*The Congress should direct the Secretary to assess payment measures that protect the quality of care and ensure incentives for the efficient delivery of home health care. The study should include alternative payment strategies such as blended payments and risk corridors and outcome-based quality incentives.*

This recommendation charges the Secretary with developing additional changes to home health payments to safeguard beneficiary care. The Commission believes that two types of safeguards need to be developed: financial safeguards that can be proposed concurrently with the rebasing recommended for 2011, and quality-of-care safeguards that can be implemented as soon as practicable.

Financial safeguards, such as profit and loss corridors, should be proposed concurrently when the rebasing is implemented in 2011. These financial safeguards would help to mitigate any adverse effects of the across-the-board reductions in the two previous recommendations by redistributing payments based on agency losses and profits.

The Commission believes that both the financial measures and the quality-of-care measures need to be implemented, but it is critical that the rebasing for 2011 include a proposal for financial safeguards. The quality incentives should be implemented as soon as possible, but the proposal of the financial safeguards should take precedence and be concurrent with the rebasing. ■

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## **Background: What is home health care and the home health payment system?**

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Medicare home health care consists of skilled nursing, physical therapy, occupational therapy, speech therapy, aide service, and medical social work provided to beneficiaries in their homes. To be eligible for Medicare's home health benefit, beneficiaries must need part-time (fewer than eight hours per day) or intermittent (temporary but not indefinite) skilled care to treat their illnesses or injuries and must be unable to leave their homes without considerable effort. Medicare does not require beneficiaries to pay copayments or a deductible for home health services.

Unlike Medicare's coverage for skilled nursing facilities, Medicare does not require a hospital stay to qualify for home health care. The share of beneficiaries admitted from the community compared with admissions after a facility stay has increased significantly since 2000. In 2005, about 45 percent of home health episodes were preceded by a stay in an inpatient facility (acute care hospital, skilled nursing facility, inpatient rehabilitation facility, or long-term care hospital).

Medicare pays for home health care in 60-day episodes. Episodes begin when patients are admitted to home health care. Patients who complete their course of care before 60 days have passed are discharged. If they do not complete their care within 60 days, another episode starts and Medicare makes another episode payment. As long as they meet the eligibility standards for the benefit, beneficiaries may receive an unlimited number of consecutive home health episodes.

Agencies receive one payment per episode for home health services. Medicare adjusts this payment based on measures of patients' clinical and functional severity and the use of therapy during the home health episode. Medicare also adjusts for differences in local wages using the hospital wage index. Medicare makes additional adjustments to some episodes under special circumstances:

- An outlier payment is triggered if the cost of an episode exceeds Medicare's payments by a certain threshold.
- A low utilization payment adjustment makes a per visit payment if a patient receives four or fewer visits during an episode.

- A partial episode payment requires the initiating agency to split the payment for a patient who transfers from one agency to another during an episode.

Medicare implemented significant refinements to the home health prospective payment system (PPS) in 2008 (MedPAC 2008). The revised system bases payments on therapy use and an episode's timing in a sequence of consecutive episodes in addition to the patient's clinical and functional characteristics. It also expands the patient classification system known as the home health resource groups, or HHRGs, from 80 HHRGs to 153 HHRGs. The HHRGs measure the clinical, functional, and service severity of a patient's conditions. The Commission's analysis of the changes is discussed in our March 2008 report. (An overview of the home health PPS is available at [http://medpac.gov/documents/MedPAC\\_Payment\\_Basics\\_08\\_HHA.pdf](http://medpac.gov/documents/MedPAC_Payment_Basics_08_HHA.pdf).)

### **Substantial growth in spending for home health services occurred under PPS**

In the early 1990s, both the number of home health users and the amount of services they used grew rapidly. At the same time, the home health benefit increasingly began to resemble long-term care and look less like the medical services of Medicare's other post-acute care benefits (MedPAC 2005).

The trends of the early 1990s prompted stricter enforcement of program integrity standards and refinements to eligibility standards and culminated in replacement of the cost-based payment system with a PPS in 2000. The first major change was implementation of the interim payment system (IPS) in 1997, which cut reimbursement levels significantly. Between 1997 and 2000, the number of beneficiaries using home health services fell by about one million, and the number of visits fell by 65 percent (Table 2E-1, p. 190). Total spending for home health services declined by about 50 percent. IPS also had a swift effect on the supply of agencies, and by 2000 the number of agencies fell by 34 percent to 6,881. The Balanced Budget Act of 1997 (BBA) created a PPS for the home health benefit, which began operation in October 2000. Use of home health services continued to change after the PPS was implemented in 2000. Between 2000 and 2007, home health aide visits fell from about 30 percent of total visits to about 20 percent. In addition, the share of therapy visits increased from about 19 percent in 2000 to 26 percent in 2007. Medicare payments made up about 55 percent of the revenues for the average HHA in 2007.

**TABLE  
2E-1**

**Changes in home health spending, visits, and users**

	1997	2000	2007	Percent change	
				1997-2000	2000-2007
Agencies	10,447	6,881	9,676	-34%	41%
Total spending (in billions)	\$17.7	\$8.5	\$15.7	-52	84
Home health spending per FFS beneficiary	\$516	\$258	\$454	-50	76
Users (in millions)	3.6	2.5	3.1	-31	26
Number of visits (in millions)	258	91	114	-65	23
Visit type (percent of total)					
Home health aide	48%	31%	20%	-37	-35
Skilled nursing	41	49	54	20	10
Therapy	10	19	26	101	37
Medical social services	1	1	1	1	*
Visits per user	73	37	37	-49	-2
Percent of FFS beneficiaries who used home health	10.5%	7.4%	8.9%	-30.1	20.0

Note: FFS (fee-for-service).  
\*Changed by less than a half percent.

Source: Home health standard analytical file; Health Care Financing Review, Medicare and Medicaid Statistical Supplement, 2002; and Office of the Actuary, CMS.

It is difficult to assess completely how the BBA changed Medicare's home health benefit because this service lacks clear, practical guidelines to identify beneficiaries who would benefit from receiving home health care and what services they ought to receive. The steep declines in services between IPS and implementation of PPS do not appear to have adversely affected the quality of care beneficiaries received; one analysis found that patient satisfaction with home health services was mostly unchanged in this period (McCall et al. 2004). An analysis of all the BBA changes related to post-acute care, including IPS and changes for other post-acute care sectors, concluded that the rate of adverse events generally improved or did not worsen when IPS was in effect (McCall et al. 2003). The similarity in quality of care under IPS and PPS, despite the substantial decline in visits per beneficiary, suggests that the payment reductions in the BBA led agencies to be more efficient without compromising patient care (Schlenker et al. 2005).

The benefit's lack of definition contributes to significant geographic variations in the use of home health services. A recent analysis that examined patients with chronic

conditions found that home health spending between the highest and lowest regions varied widely, with spending equaling \$5,904 in the highest spending area compared to \$504 in the lowest (Wennberg et al. 2008). Better information about which patients would most benefit from home health care would be beneficial. This broader perspective on home health policy is consistent with our goal for post-acute care: to base decisions about where beneficiaries receive post-acute care services on patient characteristics and resource needs.

We consider the adequacy of Medicare payment in terms of the efficient provider, as required by statute. In this regard, the Commission has consistently found that payments have been more than adequate for most of the years PPS has been in operation, with margins averaging 16.5 percent in 2002-2007. To the extent that these high margins reflect profits that stem from high payments, these margins suggest that neither beneficiaries nor taxpayers are receiving appropriate value for the funds Medicare spends on home health. The high margins indicate that a significant fraction of Medicare's home health payments do not contribute to quality or additional



services. The consistently high margins undermine the incentives for efficiency that are supposed to exist under a PPS. Specifically, providers are under less pressure to seek cost-reducing efficiencies when payments far exceed their costs. The payment update has been reduced in some years, but even with these reductions significant margins have remained.

### **Program integrity activity increased in 2007 and 2008**

The significant growth in the home health benefit under PPS has raised concerns that fraudulent providers have returned. In October 2007, CMS launched a demonstration to identify fraudulent providers in Los Angeles, California, and Houston, Texas. Providers in these areas are subject to additional review, including submitting ownership information and undergoing a special survey of their operations by state regulators. CMS will conduct the demonstration for two years, and if the techniques identify fraudulent providers, the demonstration may be expanded to other areas.

Concerns about alleged widespread fraud in Miami-Dade County, Florida, led CMS to expand its fraud efforts to this area (Weems 2008), noting that the county's HHAs accounted for 60 percent of the nation's outlier payments in 2007. Outlier payments constituted more than half of Medicare reimbursement for 200 of the county's HHAs. CMS suspended payments to 13 HHAs with the highest outlier payments and is reviewing their claims. In 2009, agencies in Miami-Dade County with outlier payments that exceed 5 percent of their Medicare payments will be subject to additional review.

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### **Are Medicare payments adequate in 2009?**

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Each year, the Commission makes payment update recommendations for home health services for the coming year. In our framework, we address whether payments for the current year (2009) are adequate to cover the costs efficient HHAs incur and how much efficient providers' costs should change in the coming year (2010). To make these judgments, we consider beneficiaries' access to care, changes in the volume of services, changes in the quality of care, access to capital, and the relationship between Medicare's payments and providers' costs.

### **Beneficiary access to HHAs is stable and supply of HHAs continues to rise in 2008**

Most beneficiaries live in an area served by one or more HHAs. In the 12 months preceding February 2008, 99 percent of all Medicare beneficiaries lived in a ZIP code served by at least one HHA; 97 percent of beneficiaries lived in areas served by two or more HHAs. These data indicate that the vast majority of beneficiaries live in an area served by home health.<sup>1</sup>

The Office of Inspector General and Agency for Healthcare Research and Quality, through the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) survey, have studied access to home health care (OIG 2006). Those studies found that most beneficiaries did not have difficulty accessing home health care, but these agencies have not conducted studies recently. For example, the last CAHPS survey that included home health care was for 2004. Updated studies would be useful to follow changes in access.

### **Changes in the supply of agencies**

Historically, the supply of agencies has been closely correlated with trends in total home health spending, and as spending has risen in recent years the number of agencies has increased significantly. Spending and the number of agencies rose rapidly in the early and mid-1990s when agencies were reimbursed through cost-based payment. The number of agencies declined in the late 1990s when IPS was implemented. After PPS was implemented, payments began to increase and so did the number of agencies. Since 2003, there has been an average increase of about 490 agencies every year. The growth peaked in 2006, when 644 new agencies were added. Between 2001 and 2008, the total number of agencies increased by 2,700, or about 39 percent.

In 2008, there was a net gain of about 400 agencies, or a growth of about 4 percent over 2007. The supply of agencies continues to increase faster than the growth in beneficiaries, as the number of agencies per 10,000 Medicare beneficiaries rose from 2.0 to 2.8 agencies from 2002 to 2008 (Table 2E-2, p. 192).

Growth has been concentrated in relatively few areas, and five states (Texas, Florida, Michigan, Nevada, and Utah) accounted for about 72 percent of the total increase in agencies between 2003 and 2007. Among these five states, Texas and Florida accounted for most of the new agencies. About 27 states experienced an increase in the number of agencies from 2003 to 2008, while 19 states

**TABLE  
2E-2****The number of home health agencies continues to grow**

	2002	2003	2004	2005	2006	2007	2008	Average annual percent change	
								2002-2007	2007-2008
Number of agencies	7,052	7,335	7,797	8,305	8,949	9,404	9,801	5.9%	4.2%
Change in agency supply	-6	283	462	508	644	455	397	N/A	N/A
Number of agencies per 10,000 beneficiaries	2.0	2.1	2.2	2.3	2.5	2.7	2.8	6.2	3.7

Note: N/A (not applicable).

Source: CMS's Providing Data Quickly database.

experienced declines (levels in the remaining 4 states remained steady). However, the magnitude of the increases was much greater than the magnitude of the decreases. Among the states with an increase, the average increase per state was 84 agencies, or 30 percent, from 2003 to 2008. For those states with a decrease, the average decline was about 4.5 agencies, or 7 percent, for the same period. Concerns about fraudulent business practices have led CMS to initiate investigations in areas that experienced high growth in HHA supply.

The growth in agencies has led CMS to curtail funding for the certification of new agencies. In 2007, CMS instructed state survey agencies to prioritize oversight of existing agencies over the certification of new ones. However, this action is not a moratorium on new agencies. Agencies that wish to become a Medicare provider may use an independent certification agency, such as the Joint Commission for the Accreditation of Health Care Organizations, Accreditation Commission for Home Care, or the Community Health Accreditation Program. Medicare accepts accreditation by one of these entities in lieu of a review by a state survey agency. The share of new agencies that are certified through these entities has increased significantly in the last two years. For example, in 2008, about 65 percent of the new agencies were certified through the accreditation agencies; in previous years, most new agencies were certified by state survey agencies. The greater use of private accreditation entities indicates that, in many areas, CMS is more concerned about policing existing agencies than about the need to certify new ones.

Because home health services are not delivered in a facility, the number of agencies in a market is not a

complete indicator of the availability of care. The size of agencies in an area is also important in determining market capacity. For example, in 2006, the agency at the 20th percentile of the caseload distribution provided care for about 150 episodes per year compared with 1,050 episodes for the agency at the 80th percentile. Agencies can also adjust their service areas and staffing as market conditions change.

### **Volume of and spending for home health services continued to grow rapidly through 2007**

The volume of home health services has risen rapidly under PPS; between 2002 and 2007, average annual growth in episode volume rose 7.2 percent per year to 5.8 million episodes, while spending grew at 10.5 percent, reaching almost \$16 billion (Table 2E-3). The spending growth reflects an increase in the number of users and high-paid episodes. Between 2008 and 2017, Medicare home health spending is expected to grow an average 5.4 percent annually (OACT 2008).

### **The number of beneficiaries using home health services has risen significantly**

Between 2002 and 2007, the share and number of beneficiaries using home health services rose 23 percent. The number of users continued to grow, even as beneficiary enrollment in Medicare's traditional fee-for-service (FFS) program dropped. In 2006 and 2007, more beneficiaries enrolled in Medicare Advantage and the number of FFS beneficiaries dropped 2.2 percent each year; at the same time, the share of beneficiaries using home health services rose from 8.6 percent to 8.9 percent of FFS enrollees.

**TABLE  
2E-3**

**Changes in home health spending and utilization, 2002-2007**

	2002	2004	2006	2007	Average annual percent change	
					2002-2006	2006-2007
FFS beneficiaries (in millions)	34.6	36.0	35.4	34.7	0.6%	-2.2%
Home health users (in millions)	2.5	2.8	3.0	3.1	4.8	2.2
Share of FFS beneficiaries who used home health	7.3%	7.8%	8.6%	8.9%	4.2	4.4
Total spending (in billions)	\$9.6	\$11.5	\$14.0	\$15.7	10.0	12.2
Payments per:						
FFS beneficiary	\$277	\$318	\$396	\$454	9.4	14.7
Home health user	\$3,802	\$4,053	\$4,621	\$5,075	5.0	9.8

Note: FFS (fee-for-service).

Source: MedPAC analysis of home health standard analytical file.

**Beneficiary length of stay in home health care has increased**

The number of episodes per user has also increased, indicating that lengths of stay in home health care have become longer. From 2002 to 2006, the number of episodes per user increased an average of 2.7 percent per year (Table 2E-4). An analysis of home health stays (all the consecutive 60-day episodes that occur in a single home health stay) from 2001 to 2003 shows that stays with three or more episodes increased, indicating that the number of days in the average home health stay has risen (data not shown).

The rising length of stay may reflect a return of patients whom agencies may have avoided under IPS. Under this pre-PPS payment system in place from 1998 to 2000, agencies had a disincentive to serve patients with long

stays because of the per beneficiary payment and other limits. These limits were eliminated when PPS was implemented in 2000. A recovery from the IPS limits may explain the rise in length of stay in the early period of PPS, but the increase in length of stay persisted 7 years after IPS ended and appears to have accelerated in 2007. The alleged fraudulent outlier claims in Miami-Dade County were for patients with relatively long lengths of stay and may also be contributing to some of the growth in 2006 and 2007. Longer stays may reflect changes in patient need, but they also coincide with the incentive that exists under PPS to generate additional episodes.

**Volume trends have increased the average payment per episode**

Change in the mix of services—from lower paid episode types to higher paid ones—has contributed to the increase in average payment per episode. In 2007, average payment

**TABLE  
2E-4**

**Average number of episodes per user has increased**

	2002	2004	2006	2007	Average annual percent change	
					2002-2006	2006-2007
Episodes per home health user	1.6	1.7	1.8	1.9	2.7%	3.4%

Source: MedPAC analysis of home health standard analytical file.

**TABLE  
2E-5****Home health episode volume has increased**

	2002	2004	2006	2007	Average annual percent change	
					2002-2006	2006-2007
Episodes by type (in millions):						
Less than 10 therapy visits	3.2	3.6	4.0	4.3	6.2%	3.6%
10 or more therapy visits	0.9	1.2	1.5	1.6	11.9	11.0
Total	4.1	4.8	5.5	5.8	7.6	5.6
Average payment per episode	\$2,329	\$2,366	\$2,546	\$2,705	2.3	6.2
Share of episodes with:						
10 or more therapy visits	23%	25%	27%	28%	3.2	5.2
4 or fewer therapy visits	14	13	12	11	-2.8	-7.7

Note: Totals may not sum due to rounding.

Source: MedPAC analysis of home health standard analytical file.

increased by 6.2 percent, rising to \$2,705 per episode (Table 2E-5). However, again, like the growth in episodes per user, some of the increase in average payment per episode is likely attributable to the fraudulent outlier claims believed to have occurred in Miami-Dade County. In contrast, the growth in average payment per episode was 3 percent in 2006.

Between 2001 and 2007, episodes with 10 or more therapy visits qualified for significantly higher payments. During this time, these types of episodes grew at twice the rate of those with fewer than 10 therapy visits, increasing the share of episodes with 10 or more therapy visits from 23 percent to 28 percent of all episodes. In 2006 and 2007, these types of episodes accounted for more than 50 percent of the increase in episodes. Under the PPS refinements implemented in 2008, a series of consecutive thresholds that increase payment more gradually as the number of therapy visits increases replaced the 10 therapy visit threshold. The multiple threshold approach provides a more gradual increase in payment across the range of therapy visits provided, and this approach provides better financial incentives to provide the range of therapy services Medicare beneficiaries need.

Consistent with the increase in high therapy use episodes has been a decline in episodes with four or fewer visits in a 60-day period. These episodes receive a low utilization payment adjustment (LUPA), which is paid on a per visit basis at a rate significantly lower than the average

full-episode payment. Between 2002 and 2007, the share of LUPA episodes declined from 14 percent to 11 percent. The decline indicates that an increasing number of episodes include four or more visits and receive full-episode payments. The 2008 changes to PPS increased reimbursement for the first visit in a LUPA, and this increase may slow the rate of decline in the number of LUPA episodes.

A rise in the number of episodes qualifying as outliers has also increased the average payment per episode. Outlier payments, because they are intended to cover the cost of exceptionally high-cost cases, are much higher than the average full-episode payment. Because of difficulties in accurately targeting these cases, Medicare has typically paid out less than the 5 percent of total payments reserved for outliers. The share of outlier payments was about 2.5 percent in 2002 and has risen to about 6 percent in 2007 (CMS 2008a). The unusual number of outlier claims in 2007 attributable to alleged fraud in Miami-Dade County may be artificially inflating the average payment per episode for that year.

### **Outcome measures suggest stable or improved home health quality in 2008**

On the basis of Medicare's Outcome and Assessment Information Set (OASIS), which measures patients' clinical severity and functional limitations at the beginning and end of an episode, home health quality either held steady or improved in 2008, with one exception. OASIS

**TABLE  
2E-6**

**Share of patients achieving positive outcomes continues to increase**

	2004	2005	2006	2007	2008
<b>Functional/pain measures (higher is better)</b>					
Improvements in:					
Walking	36%	37%	39%	41%	44%
Getting out of bed	50	51	52	53	53
Bathing	59	61	62	63	64
Managing oral medications	37	39	40	41	43
Patients have less pain	59	61	62	63	64
<b>Adverse event measures (lower is better)</b>					
Any hospital admission	28	28	28	28	29

Source: MedPAC analysis of CMS Home Health Compare data.

allows HHAs to track their patients’ outcomes and evaluate their use of resources, care planning, and other processes to improve services. CMS also uses OASIS to produce reports for agencies’ quality improvement efforts and publishes OASIS-based quality information to help consumers choose high-quality providers.

The quality measures in Table 2E-6 are some of the OASIS items Medicare reports to the public. The first five rows show the percent of patients who improved as a percentage of the total number who were admitted with some level of limitation for each time period; increases in these percentages indicate improving or stable quality. The final row shows the percentage of patients who used the hospital while under the care of an HHA. For this measure, lower scores suggest better care.

The home health quality indicators are risk adjusted to account for patients’ diagnoses, comorbidities, and functional limitations.<sup>2</sup> Thus, to the extent possible, improvements in the functional measures are intended to reflect small increases in the quality of care provided rather than changes in patient characteristics. In 2008, slight gains were made in most measures, but the rate of hospital admissions, an adverse measure, increased 1 percentage point.<sup>3</sup>

**Several factors suggest HHAs serving Medicare beneficiaries have little or no problem with access to capital**

Few HHAs obtain access to capital through publicly traded shares or public debt like issuing bonds. HHAs are not as capital intensive as other providers because they do not require extensive physical infrastructure, and

most are too small to attract interest from capital markets. Investor analyses of the leading publicly traded companies are limited indicators of the general industry for two reasons. Medicare home health care has a small share of the entire “home care” market that they analyze, which includes nonskilled Medicaid and private-duty nursing, nurse staffing services, home infusion, and home oxygen services. Also, publicly traded companies are a small portion of the total number of agencies in the industry. Though the recent financial turmoil has affected the ability of some health care providers to raise capital, the major publicly traded home health firms have been able to meet their capital needs with little problem. For example, Amedisys and LHC both expanded their lines of credit in 2008. Though credit markets may be troubled, issues with capital have not caused the major home health firms to adjust their plans for expansion.

The entry of new providers indicates that access to capital for the privately held agencies is adequate. In 2008 there was a net increase of 400 HHAs, and most of these agencies are for profit.

While most HHAs are independently operated or part of a small chain of local or regional agencies, many of the larger publicly traded companies are acquiring established agencies. Purchasing established agencies allows firms to enter markets with an established referral base in the local market as well as with the staffing and other infrastructure for delivering services. Consolidation activity is expected to continue. Like the overall growth in agencies, these acquisitions suggest that the publicly traded firms have adequate access to capital.

**TABLE  
2E-7**

**Margins for freestanding  
home health agencies**

	2006	2007	Percent of agencies (2007)
All	15.8%	16.6%	100%
Geography			
Urban	15.1	16.4	67
Mixed	17.3	18.7	17
Rural	16.3	14.0	16
Type of control			
For profit	15.8	18.6	79
Nonprofit	11.8	11.9	14
Government*	N/A	N/A	N/A
Volume quintile			
First	10.8	10.3	20
Second	11.4	11.6	20
Third	11.4	12.9	20
Fourth	15.5	16.7	20
Fifth	17.2	17.7	20

Note: N/A (not available).

\*Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of home health Cost Report files from CMS.

**Medicare home health payments continue to be overly generous relative to HHAs' costs**

In 2007, the aggregate Medicare margin (difference between payments and costs) for 4,629 freestanding HHAs was 16.6 percent (Table 2E-7). We focus on the freestanding HHAs because they are the majority of providers and do not reflect the impact of the allocation of overhead costs from the hospital.

The variation in freestanding home health margins is similar to our findings in prior reports. The agency at the 25th percentile in the distribution had a margin of 3.1 percent in 2007, and the agency at the 75th percentile in the distribution had a margin of 26.1 percent. The variation in margins indicates that agencies differ in their profitability. The fact that some agencies have losses under Medicare is similar to our findings in other payment systems and does not suggest specific problems in the home health PPS. About 20 percent of providers have losses under Medicare, and the composition of this group of HHAs with respect to ownership and geography

does not differ significantly from the full population of Medicare-participating HHAs. However, the agency size (as measured by number of episodes provided in a year) does appear to have a relationship with agency margins. Smaller agencies tend to have lower margins, and a higher rate of negative margins, than larger ones. We anticipate investigating further the factors underlying the variation in margins as part of our future work.

The data suggest that profitability does not affect quality. The Commission reviewed the quality data for freestanding providers and found that scores on a composite indicator and the rate of adverse events had virtually no correlation with profitability.

The Commission considers the margins of hospital-based HHAs separately. Hospital-based providers have higher costs, in part because hospitals allocate overhead costs to the home health provider; if these overhead costs were not allocated, the hospital-based providers' margins would be higher. The patient and other characteristics of hospital-based HHAs do not explain these higher costs. Hospital-based providers report higher costs per episode but provide fewer visits per episode than freestanding providers. Hospital-based providers also have a lower case-mix index, which suggests that they serve less costly patients. Finally, hospital-based and freestanding providers deliver care in the same setting—the beneficiary's home—so the differences we see in costs are not due to different settings. The financial performance of hospital-based HHAs is included in the Commission's analysis of hospital payments.

The Commission has found that payments consistently have been more than adequate for most of the years PPS has been in operation. Margins have remained high despite legislative changes to the market basket that reduced the annual increase in payment by an average of 1 percent from 2001 to 2005 and a rate freeze in 2006. These overpayments are a burden for the federal budget but also raise the premium beneficiaries must pay from their own funds, as a portion of home health care is funded by the Part B premium.

The BBA required that the PPS base rate for a home health episode, set in 2001 and therefore based on historical visit data under IPS, be budget neutral so that aggregate spending would equal the spending that would have occurred if IPS had remained in effect. However, the average number of visits dropped between 1998 and implementation of PPS. In 2007, the average episode

included 22 visits (Table 2E-8). The difference between the visit level included in the base rate calculation and the level actually provided under PPS means that the actual cost for an episode is significantly lower than what was assumed when the base rate was set in 2001. Because providers delivered fewer visits than expected, the payments under PPS have been consistently greater than providers' costs.

Policymakers likely anticipated that utilization would fall, and the BBA included a provision that reduced payments after PPS was implemented, but this adjustment did not significantly change home health financial performance. Margins for HHAs were 14.8 percent in 2003, after this reduction was implemented.

The significant change in visits illustrates that agencies can dramatically change the content and amount of services when the payment incentives change. Before PPS, agencies had an incentive to maximize the number of visits they provided. PPS has different incentives because payment is based on a beneficiary's characteristics, not the number of services provided. Agencies have reacted as expected, by decreasing the number of visits and increasing the number of episodes. There was also a shift in the type of services to provide more therapy. The change in the level of visits and mix of care did not change the quality of care provided. The Commission and others found that the quality provided under PPS was equal to the care provided during the IPS period (MedPAC 2004, Schlenker et al. 2005). That the average number of visits has remained steady at about 22 visits under PPS reflects the relative stability of the incentives under the system. That quality was maintained despite a 30 percent decline in visits per episode further demonstrates the malleable nature of the benefit, as agencies managed to deliver the same quality with significantly fewer visits.

### **Reductions to payment updates have not been effective in lowering home health margins**

The base rate in the home health PPS should more closely reflect the cost of the visits and other services delivered in the average home health episode. The Medicare statute specifies that home health payments are updated annually by the applicable market basket. However, because of the high margins, the annual payment update for home health care has been reduced or eliminated in most years since 2001. Despite these reductions, margins have remained high.

**TABLE 2E-8**

**Changes in average visits per episode, 1998 and 2007**

	1998	2007	Change in visits per episode	Percent change
Physical therapy	3.1	4.5	1.4	49%
Occupational therapy	0.5	0.9	0.4	63
Speech-language pathology	0.2	0.1	-0.1	-21
Skilled nursing	14.1	11.8	-2.3	-16
Medical social work	0.3	0.1	-0.2	-55
Home health aide	13.4	4.5	-8.9	-66
Total	31.6	22.0	-9.6	-30

Source: CMS 2000; MedPAC analysis of home health standard analytical file, excluding low utilization payment adjustment episodes.

The experience of 2006, a year when the home health payment update was eliminated, illustrates how agency margins have remained high despite changes to the payment update. The Deficit Reduction Act of 2005 eliminated the home health update for 2006, effectively freezing home health rates at the 2005 level. Despite this reduction, average payments per episode increased by 4.5 percent. This increase apparently offset most cost increases experienced in 2006, and the margin for freestanding providers fell between 2005 and 2006 by 1.6 percentage points, from 17.4 percent to 15.8 percent. Half of the decline in margins was made up in 2007, when HHAs received the full market basket update.

### **Projecting margins for 2009**

In modeling 2009 payments and costs, we incorporate policy changes that went into effect between the year of our most recent data, 2007, and the year of margin projection as well as those changes scheduled to be in effect in 2010. The major changes are:

- Implementation of the revised system of HHRGs. The new system of resource groups redistributes payments in a budget-neutral manner. However, in our modeling of margins for 2008 we assume, consistent with past experience, some changes in agency coding practices that increase payment.
- Impact of case-mix adjustment. CMS began to reduce payments in 2008 and will do so through 2011 to

correct for an increase in reported case mix that occurred between 2000 and 2005. The reduction will lower payments by 2.75 percent in 2008–2010 and by 2.71 percent in 2011. Our modeling assumes planned reductions of 2.75 percent in 2008–2010.

- Market basket. By statute, HHAs will receive a full market basket increase of 2.9 percent in 2008.

With these policies and the changes in episode cost discussed below, we estimate that HHAs will have margins of 12.2 percent in 2009. This estimate includes the effect of the 2010 coding adjustment CMS plans to implement to provide policymakers with an estimate that reflects what margins for HHAs would be if current policies and fiscal trends continued. If the estimate did not include the 2010 policy, the margin for 2009 would be 14.6 percent.

### **Changes in patient case mix and coding practices**

The implementation of refinements to PPS in 2008 will likely lead to an increase in the average home health case-mix index (i.e., a rise in the average payment per episode) and higher payments due to changes in coding practices. The home health PPS, like the other payment systems, sets payments on the basis of a patient’s health status and expected use of health care resources. For a patient with a range of clinical conditions, providers under PPS have an incentive to use billing codes for the clinical conditions that most affect payment. When Medicare payment changes are associated with particular clinical conditions, providers tend to change their coding practices accordingly. The reported prevalence of conditions linked to higher enhanced payments typically increases, and aggregate payments increase.

Implementation of the HHRG 153 system presents a substantial opportunity for changing coding. For example, the number of diagnostic conditions that affect payment is expanding from 4 to 22 categories. Consequently, our estimate of 2008 payments assumes that agencies will change their coding practices under the new HHRG 153. On the basis of CMS’s estimate of coding changes that occurred between 2000 and 2005, we assume that changes in coding practice will raise payments by 1.6 percent annually in 2008 and 2009. This increase is consistent with the nominal annual increase in the case-mix index between 2001 and 2007.

### **Growth in cost per episode**

Freestanding agencies in 2007 experienced a per case cost increase of less than 1 percent. While this increase

may appear modest compared with the experience of other providers, it is consistent with our findings for home health care in prior years. Between 2002 and 2007, episode costs rose an average 1.5 percent a year, with increases in individual years ranging from less than 1 percent to 3.5 percent. Because it is not clear how the economic changes of 2008 will affect HHAs, the Commission has assumed that cost growth will be at the levels estimated by the home health market basket in 2008 and 2009 (2.9 percent in both years). This rate of growth is high relative to experience but is similar to that of other Medicare providers.

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## **How should Medicare payments change in 2010?**

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The evidence suggests that payments for home health care are more than adequate and that significant changes are necessary to lower them.

### **RECOMMENDATION 2E-1**

**The Congress should eliminate the market basket increase for 2010 and advance the planned reductions for coding adjustments in 2011 to 2010, so that payments in 2010 are reduced by 5.5 percent from 2009 levels.**

### **RECOMMENDATION 2E-2**

**The Congress should direct the Secretary to rebase rates for home health care services in 2011 to reflect the average cost of providing care.**

### **RATIONALES 2E-1 AND 2E-2**

Medicare has overpaid for home health services since the PPS was implemented, and significant changes to payments are necessary to protect the program and beneficiaries. Our review of payments for 2007 and our estimate for 2009 reflect findings from previous years that payments are more than adequate. These high payments are counter to the Commission’s goal for payment: that Medicare payments cover the costs of care for efficient providers. Home health payments clearly exceed this level. The experience under PPS demonstrates that simply eliminating the market basket will not be adequate to lower home health margins; the Commission therefore recommends that payments be reduced through a two-step policy, with the goal of lowering 2011 payment rates to the average estimated cost of a home health episode.



Margins for 2009 suggest that efficient providers should be able to absorb any cost increase in 2010 at reduced payment levels. In addition to eliminating the market basket increase for 2010, the Commission is recommending that a payment reduction for 2011 be accelerated to 2010. Under current policy, CMS plans to reduce payments for home health care by 2.75 percent in 2010 and by 2.71 percent in 2011. Given current home health financial performance, there is no reason to delay the reduction planned for 2011. The Commission's recommendation for 2010 would add the 2011 reduction to the current reduction in 2010 and eliminate the market basket update for 2010. The combination of these actions would reduce rates for 2010 to 5.5 percent less than 2009 levels. The 2010 policy is intended as an initial step of the Commission's primary goal of lowering home health care rates to reflect the cost of providing care.

For 2011, the Commission is recommending that home health care rates be set to reflect the projected cost of the average home health episode. Our analysis of home health margins indicates that current rates far exceed providers' actual costs, and that would likely be the case even if the recommendation for 2010 is implemented. Under this recommendation, the Secretary would estimate the costs of care for 2011 by reviewing costs from a recent year. The costs would also be adjusted for any projected changes in service provision or costs between the year reviewed and 2011. Basing payments on providers' actual costs would effectively reset payment rates to levels that would not result in exorbitant profit margins. Lowering rates to actual costs would require CMS to review home health cost reports for a recent year, preferably for a period after implementation of the PPS refinements in 2008. With these data, CMS would set the rate for 2011 by estimating how the average episode cost would change between the year reviewed and 2011.

The Commission has noted that there is significant variation in the services provided to home health beneficiaries and that the payments made under PPS do not always accurately reflect the level of care provided. The Commission is concerned that rebasing may result in inadequate payments for some agencies or may encourage stinting. To safeguard against this possibility, the Commission believes that rebasing should be implemented concurrently with changes that safeguard beneficiary care and ensure accurate reimbursement (see Recommendation 2E-3).

### Spending

- The recommendation for 2010 would lower program spending relative to current law by between \$1 billion and \$5 billion for fiscal year 2010 and by between \$5 billion and \$10 billion over five years.
- The recommendation for 2011 would further reduce payments; the final amount would depend on the analysis by the Secretary.

### Beneficiary and provider

- Some reduction in provider supply, particularly in areas that have experienced rapid growth in the number of providers. Prior experience with home health care indicates that access to care should remain adequate even if the supply of agencies declines.

The recent experience of the home health industry suggests that the reductions in payment should not harm beneficiary access to care. For example, in fiscal year 2003 CMS implemented a 5 percent reduction to home health payment rates, similar in magnitude to our 2010 recommendation. In that year, the number of providers and the number of episodes increased, although the number of visits in an episode fell slightly. This finding suggests that the 5.5 percent reduction for 2010 would not disrupt access to care.

Our recommendation for 2011 would reset payments to cost and would likely result in some agencies exiting Medicare. However, even if the agency supply falls from the 2008 level, the experience of the last five years indicates that widespread access to care can be maintained with a smaller number of agencies than are in the program today. For example, in 2003 there were 2,466 fewer agencies than in 2008, but even the smaller number of agencies in 2003 was enough to ensure that 99 percent of beneficiaries lived in an area served by an HHA. The near universal access with fewer agencies suggests that if supply were to fall in the future access to care would remain adequate.

### RECOMMENDATION 2E-3

**The Congress should direct the Secretary to assess payment measures that protect the quality of care and ensure incentives for the efficient delivery of home health care. The study should include alternative payment strategies such as blended payments and risk corridors and outcome-based quality incentives.**

## RATIONALE 2E-3

This recommendation charges the Secretary with developing additional changes to home health payments to safeguard beneficiary care. The Commission believes that two types of safeguards need to be developed: financial safeguards that can be proposed concurrently with the rebasing recommended for 2011, and quality of care safeguards that can be implemented as soon as practicable.

Financial safeguards, such as profit and loss corridors, should be proposed concurrently when the rebasing is implemented in 2011. These financial safeguards would help to mitigate any adverse effects of the across-the-board reductions in Recommendations 2E-1 and 2E-2 by redistributing payments based on agency losses and profits. In addition, the Secretary should study possible refinements to PPS, such as altering the length of the episode and refinements to better account for patient characteristics related to chronic conditions. The results of the Secretary's analysis would be financial safeguards that can be proposed in 2011, concurrently with the rebasing.

Consistent with past Commission recommendations, CMS should also safeguard quality by implementing a pay-for-performance measure that penalizes agencies with high rates of adverse events (the rate at which their patients are hospitalized or use the emergency department). Adverse events can serve as a benchmark for identifying acceptable standards of care, as these outcomes are undesirable for beneficiaries and the Medicare program. This incentive would discourage inappropriate cost reductions by penalizing agencies with unacceptable rates of adverse events. A pay-for-performance incentive should be linked to actual changes in quality, rather than nominal changes that reflect changes in coding practices.

Linking payments to outcomes in home health care is particularly appropriate because of wide variation in the level of home health resources patients receive. By holding providers accountable for particular outcomes, the adverse event measures would set more specific expectations for home health care than those currently in effect and would serve as a tool for holding agencies accountable for an appropriate standard of care.

The Commission believes that both the financial measures and the quality-of-care measures need to be implemented, but it is critical that the rebasing for 2011 include a proposal for financial safeguards. The quality incentives should be implemented as soon as possible,

but the proposal of the financial safeguards should take precedence and be concurrent with the rebasing.

## IMPLICATIONS 2E-3

### Spending

- Small administrative cost for study.

### Beneficiary and provider

- No impact on access to care or provider willingness to serve beneficiaries is expected.

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## Future refinements to the home health benefit

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Physicians have a unique role in home health care because they are responsible for determining whether a beneficiary meets the eligibility standards for home health services. Providing authority to an individual outside the HHA can prevent an agency's financial self-interest from influencing the eligibility decision, but there is some uncertainty about how well physicians enforce the eligibility criteria in practice. A 2001 study by the Office of Inspector General found a gap in physicians' comprehension of Medicare requirements (OIG 2001). For example, about 38 percent of physicians reported that they were unclear about Medicare's definition of homebound, and 50 percent reported that they did not completely understand the skilled need requirement for home care.

In 2008, CMS considered two changes to physician involvement in home health supervision. The first—reducing the payments for completing home health certification paperwork—was driven by a concern that physicians were not spending the expected time completing paperwork. Lowering payment was a curious approach for an activity the program seeks to encourage, and this change was rejected. The second change would have required a physician to personally examine a patient when certifying a patient's eligibility for home health care (CMS 2008b). This change was also not implemented, but these concerns suggest that the value of the physician certification process could be improved.

In addition to certifying eligibility, the Medicare statute requires that home health care be delivered while a beneficiary is under a physician's care. The physician is supposed to act as a care manager for a beneficiary in home health care, reviewing the quality of care

provided by the agency and adjusting the plan of care as a beneficiary's needs change (AMA 2007). However, the effectiveness of the physician's care manager role in home health care has not been formally assessed. There is no requirement that a physician see the home health patient before, during, or after the home health episode, although most—but not all—beneficiaries visit a doctor during their episode (OIG 2001, Wolff et al. 2008). Examining the role of outpatient care during an episode may provide insights for policy changes to strengthen the role of physicians for home health beneficiaries.

The challenges for physician care vary depending on whether the beneficiary was admitted to home health care while residing in the community or after a hospitalization. Post-hospital episodes have risks associated with a beneficiary's transition from the hospital to the community after a major acute health incident, while the risks of a community-admitted patient reflect the challenges associated with maintaining a frail geriatric patient in the community. Further, some patients remain in home health care for years. Medicare's current policies for physician participation in home health care do not address the different needs of these populations. Encouraging physician accountability for effective use of the home health benefit may require approaches that reflect the needs of the diverse circumstances of patients. In the coming year, the Commission will examine the current requirements and incentives for physician participation in home health care to see if opportunities exist to improve them.

There are important similarities between these issues and concerns about the Medicare hospice benefit. Both the hospice and the home health benefits rely on physicians to certify beneficiaries as eligible for these services and to play a role in managing care for beneficiaries during an episode. For these reasons, ensuring adequate physician involvement is critical for the integrity and quality of both benefits. The Commission has made several recommendations in this report about hospice care, and similar opportunities may exist in home health care.

Many physicians have financial relationships with the HHAs where they refer patients, as it is common for agencies to hire physicians as medical directors. These financial ties may improve patient care, but they may also create conflicts between the commercial interests of HHAs and physicians' obligation to do what is best for their patients. The Commission has recommended public reporting of physicians' financial ties to drug and device manufacturers as well as physicians' investment in Medicare providers (including HHAs). Given the close relationships between many physicians and HHAs, it may be reasonable to expand these recommendations to include public reporting of physicians' financial relationships with HHAs (in addition to investment). Over the next year, the Commission plans to review existing financial disclosure practices for financial relationships between physicians and HHAs and assess the value of expanding our recommendations for disclosure to include them. ■

## Endnotes

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- 1 Our geographic measure of access is based on data collected and maintained as part of CMS's Home Health Compare database as of October 2008. The service areas listed in the database are postal ZIP codes where an agency provided service in the past 12 months. This definition may overestimate access because agencies need not serve the entire ZIP code to be counted as serving it. On the other hand, this definition may underestimate access if HHAs are willing to serve certain ZIPs but did not receive any requests from those areas in the preceding 12 months.
- 2 The Commission has noted the risk adjustment for Home Health Compare may not be adequately adjusting for the differences in severity between the caseloads of individual HHAs. The comparison in this section focuses on national level data, and in this case the risk adjustment is accounting for aggregate changes in the population.
- 3 In previous March reports the Commission has included a measure of unplanned emergent care use. However, due to inconsistent coding by HHAs this measure appears to be understated.

## References

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- American Medical Association. 2007. *Medical management for the home care patient: guidelines for physicians*. 3rd ed. Chicago, IL: AMA.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2008a. Medicare program: Home health prospective payment system rate update for calendar year 2009. Final rule. *Federal Register* 73, no. 213 (November 3): 65351–65384.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2008b. Proposed rule: Revisions to payment policies under the physician fee schedule. Final rule. *Federal Register* 73, no. 130 (July 7): 38502–38881.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2000. Medicare program; Prospective payment system for home health agencies. Final rule. *Federal Register* 65, no. 128 (July 3): 41128–41214.
- McCall, N., J. Korb, A. Petersons, et al. 2004. Decreased home health use: Does it decrease satisfaction? *Medical Care Research and Review* 61, no. 1 (March): 64–88.
- McCall, N., J. Korb, A. Petersons, et al. 2003. Reforming Medicare payment policy: Early effects of the 1997 Balanced Budget Act on post-acute care. *The Milbank Quarterly*, no. 2: 277–303.
- Medicare Payment Advisory Commission. 2008. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2005. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2004. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Office of Inspector General, Department of Health and Human Services. 2006. *Medicare beneficiary access to home health agencies*. OEI-02-04-00260. Washington, DC: OIG. July.
- Office of Inspector General, Department of Health and Human Services. 2001. *The physician's role in Medicare's home health services*. OEI-02-00-00620. Washington, DC: OIG.
- Office of the Actuary, Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2008. *Mid-session review*. Baltimore, MD: CMS.
- Schlenker, R., M. Powell, and G. Goodrich. 2005. Initial home health outcomes under prospective payment. *Health Services Research* 40, no. 1 (February): 177–193.
- Weems, Kerry. 2008. Speech before the Health Care Compliance Association/American Health Lawyers Fraud and Compliance Forum. October 6. <http://www.cms.hhs.gov/apps/media/press/speech.asp?Counter=3293&intNumPerPage=10&checkDate=&checkKey=&srchType=1&numDays=3500&srchOpt=0&srchData=&keywordType=All&chkNewsType=11&intPage=&showAll=&pYear=&year=&desc=&cboOrder=date>.
- Wennberg, J., E. Fisher, D. Goodman, et al. 2008. *The Dartmouth atlas of health care 2008: Tracking the care of patients with severe chronic illness*. Lebanon, NH: Dartmouth Institute for Health Policy and Clinical Practice.
- Wolff, J., A. Meadow, C. Weiss, et al. 2008. Medicare home health and the role of physicians. Presentation at Academy Health, Medicare and Post-Acute Care. June 8.