

CHAPTER

6

**Prospective payment for home
health services in rural areas**

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

6A The Congress should not exempt rural home health services from the prospective payment system.

***YES: 13 • NO: 1 • NOT VOTING: 0 • ABSENT: 2**

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6B The Secretary should study a sample of home health providers:

- to evaluate the impact of prospective payment on home health in rural areas,
- to evaluate costs that may affect the adequacy of prospective payments, and
- to find ways to improve all cost reports.

YES: 13 • NO: 0 • NOT VOTING: 0 • ABSENT: 3

***COMMISSIONERS' VOTING RESULTS**

Prospective payment for home health services in rural areas

Should rural home health services be exempt from the new prospective payment system? Rural health care advocates, among others, have suggested that the new payment system may not adequately account for unique conditions in rural areas. Lack of experience with the new system and other data limitations prevent a direct comparison of the costs in rural and urban areas. However, our analysis concludes that the components of the new payment system should work equally well in rural and urban areas. Accordingly, we recommend that rural home health services not be exempt from the prospective payment system. We also recommend that data collection be improved to assess whether any higher costs associated with providing care in rural areas are adequately taken into account.

In this chapter

- Evolving to the current system
 - Components of the prospective payment system
 - Home health agency closures
 - Need for better data
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The Balanced Budget Refinement Act of 1999 (BBRA) mandated that MedPAC examine whether rural areas should be exempt from the prospective payment system (PPS) for home health services. Advocates and policymakers have been concerned that the PPS does not adequately account for the costs associated with providing care in rural areas. They also have been concerned about the effects of closures of home health agencies in rural areas. The new system has not been in place long enough to assess its impact using claims and other administrative data from the PPS, but historical differences in the use of home health care in urban and rural areas provide no reason to think that rural areas would be affected differently by the components of the PPS. The Commission concludes that the new PPS should work equally well in both urban and rural settings and that closures of home health agencies have not affected access to home health services for rural beneficiaries.

Evolving to the current system

Rapid growth in home health spending in the early 1990s gave impetus to substantial changes in the home health payment system. Before 1998, home health was paid under a cost-based system with little incentive for efficiency; Medicare spending for home health grew to \$17.5 billion in 1997, compared with \$7 billion in 1992. The Balanced Budget Act of 1997 (BBA) required the Health Care Financing Administration (HCFA) to develop a prospective payment system to replace the cost-based system and control spending.

Also as required under the BBA, HCFA began an interim payment system (IPS) in 1997 as a transition to prospective payment. The IPS paid agencies based on their costs, subject to aggregate limits on per-visit or per-beneficiary costs. It was assumed that agencies would serve both

low- and high-cost beneficiaries to keep costs under the limits. However, some evidence suggests that beneficiaries with needs for high-intensity or chronic care may have had difficulties in obtaining care. Some agencies reported that they no longer accepted, or were more likely to discharge earlier, patients whose care they expected to be expensive (Stoner et al. 1999). After 1997, spending fell further than anticipated; by 1999, Medicare spending for home health had fallen to \$9.7 billion.

The PPS replaced the IPS in October 2000. Though movement from the IPS to the PPS has generally been viewed as a positive step, advocates and policymakers have been concerned about access to home health services. The Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA) increased payments for home health care by restoring the full market basket update to the base payment amount in 2001 and by delaying for one year a scheduled 15 percent reduction in Medicare home health spending.

To protect rural areas, the BIPA also increased payments for home health services in rural areas by 10 percent for a two-year period beginning April 1, 2001.¹ Because the 10 percent increase is not subject to the budget neutrality provision that applies to the PPS generally, it provides new funding. Home health care provided by either urban or rural home health agencies to beneficiaries living in non-metropolitan areas is eligible for this rate increase.

Components of the prospective payment system

Four components make up the PPS: the unit of payment, the base payment amount, the case-mix adjustment, and the wage index adjustment. Adjustments for several other special circumstances, such

as outliers, can also modify the payment. We examined the components of the PPS to determine whether the system can be applied in rural areas as well as it can in urban ones. We assessed whether, for rural areas:

- the unit of payment is appropriate,
- the base payment adequately accounts for the efficient costs of providing care, and
- the case-mix adjustment captures the relative resource needs of beneficiaries.

We do not discuss the wage index in this chapter. The PPS payment comprises a labor and non-labor portion; the labor portion—77 percent—is adjusted by the hospital wage index to account for geographic differences in the cost of labor-related inputs to home health services. The index might not accurately reflect the cost of labor for home health providers, however, because HCFA's method for calculating the wage index does not discriminate between differences in labor costs due to differences in price and those differences due to the mix of inputs. This problem, which affects wage adjustments for all providers, is addressed in more detail in Chapter 4 and in the Commission's March 2001 report to the Congress (MedPAC 2001).

Unit of payment

An appropriate unit of payment for home health services should be short enough for reliable predictions of resource use over its span and long enough to allow agencies to manage care effectively within an episode of care. Under the home health PPS, the unit of payment is a 60-day episode of care that includes five or more home health visits. The 60-day episode was chosen after HCFA tested two lengths for the unit of payment: one visit and a 120-day episode.

One visit was deemed too small a unit for the home health prospective payment system. An evaluation of HCFA's

¹ For most services provided in facilities, the location of the facility providing the service determines the local area adjustment to payment. For home health services, the local area adjustment is determined by the location of the beneficiary receiving the service.

demonstration of prospective per-visit payments found no compelling evidence of an impact on agency cost per visit or the volume of home health services (Phillips et al. 1994). Agencies shortened the length of visits without harming quality of care, but there was no significant change in the management of care (Bishop et al. 1996). The system did not control costs.

A 120-day episode was more effective than one visit in controlling costs but was deemed too long. Under HCFA's demonstration of prospective 120-day episodes of care, cost per episode declined without an increase in the use of other Medicare services. Agencies reported improvements in their management of the care within the episode, decreasing total volume of care without a negative impact on quality or outcomes. However, most beneficiaries were discharged weeks or months before the end of the 120-day episode; about 60 percent were discharged in 60 or fewer days. Furthermore, the 120-day episode did not match the periods already established for key administrative tasks for the home health agencies: agencies develop plans of care for 60-day periods and physicians must re-certify the need for home health services every two months.

The 60-day episode was selected to meet the cost control objectives of the Congress while coordinating with administrative time frames. Agencies might change visit lengths, but we would not expect this to harm the quality of care. Key management improvements used under the 120-day episode—such as better review of the initial plan of treatment, tailoring care by diagnosis, and focusing on patient rehabilitation—are also expected under 60-day episodes. Sixty-day episodes also correspond more closely to most observed lengths of stay under HCFA's demonstration. Thus, shortening the episode length from 120 days to 60 days relieves some cash flow pressure by reducing the lag between rendering services, closing the claim, and receiving full reimbursement.²

None of the strengths or weaknesses of the unit of payment's duration is unique to urban or rural home health. Agencies in both urban and rural areas can use the flexibility of episode payment to change the management of care. Historically, rural agencies have had significantly longer lengths of stay than urban ones (Goldberg and Schmitz 1994). But because beneficiaries may receive an unlimited number of episodes of care—as long as they remain eligible for home health care—differences in length of stay should not be a problem. Further, outlier payments are made for cases with very high costs within a 60-day episode. As PPS data become available, the volume of care within urban and rural patients' episodes should be monitored.

Amount of base payment

An appropriate base payment amount should cover the costs that an efficient provider would incur in providing care. For each episode of care, the PPS base payment amount includes costs of visits, supplies, outpatient therapy that was not previously considered as part of the home health benefit, and patient assessment. If rural providers faced higher costs per episode than the national average because of circumstances beyond their control, then the base payment would not be adequate for the beneficiaries they serve.

We found two factors that could differentiate the costs of providing care in urban and rural areas: travel and volume of services. Traveling to serve sparse or remote populations may increase the costs of providing services to rural beneficiaries. Rural providers also may be at a cost disadvantage if their low volume of services provided does not permit them to spread fixed costs over a large number of episodes.

Examining travel costs is difficult because the data reported to HCFA are unreliable and the calculation of travel costs varies from agency to agency. We have been

advised against the use of these data by several researchers, including those at HCFA.

Moreover, some urban home health agencies (HHAs) may face higher-than-average travel costs as well. Some urban agencies may incur costs for safety measures such as escorts to serve unsafe neighborhoods. The need for safety measures could reasonably be considered part of the cost of travel in an urban area and could be as significant a cost factor as distance is in a rural area.

Rural areas have small, sometimes sparse populations, so that many rural HHAs operate at low volumes. More than 50 percent of agencies in the most rural counties delivered fewer than 5,000 visits in a year (Franco and Leon 2000); only 20 percent of urban home health agencies had volumes that low. Most urban HHAs delivered between 5,000 and 30,000 visits, and 30 percent delivered more than 30,000 visits annually. In contrast, only 12 percent of HHAs in the most rural counties delivered more than 30,000 visits. Because rural HHAs generally deliver fewer visits than their urban counterparts, their low volume could lead to higher per episode costs.

Differences in costs also could arise if small agencies lack the sophisticated management and patient care procedures of larger agencies (Goldberg and Schmitz 1994). Small agencies may not have access to the same range of professionals to manage specific tasks, such as a wound care specialist or a therapist dedicated to patient assessment. Small agencies also may not be able to invest in new technologies, which could also lower costs. If small agencies cannot make the same changes in the management of care that large agencies can, then even efficient small providers may have higher per-unit costs than larger ones. This is not unique to rural areas; low-volume agencies in urban areas may face the same cost disadvantages.

² Agencies are not fully reimbursed for a unit of care until the entire episode has elapsed. Because any unit of payment longer than one visit would delay the close of the claim for some beneficiaries whose length of stay is less than the episode length, HCFA has also split the payment so that much of the total episode payment is available before the entire episode has elapsed.

The case-mix adjustment

An appropriate case-mix system should account for predictable differences in costs due to the characteristics of the patients. The case-mix system for the home health PPS might not account adequately for rural costs because payments are based in part on the services that patients use. Urban and rural home health patients receive different services even though their diagnoses and functional limitations are similar.

In the home health PPS, an 80-category case-mix classification system adjusts the base payment rate. The categories—called home health resource groups or HHRGs—are based on three factors: patients’ clinical status, functional status, and use of services. Patients’ clinical status largely depends on their diagnosis. Functional status depends on their ability to perform a select set of activities of daily living. Service use is determined by discharge from a hospital or post-acute care facility before the home health episode and/or the receipt of at least 10 therapy visits during the episode.

According to recent claims data, urban and rural providers treat a clinically similar mix of patients. For five high-cost and common diagnoses—Alzheimer’s disease, congestive heart failure, diabetes, stroke, and wound—the proportion of admissions by diagnosis was the same for urban and rural agencies under cost-based

reimbursement in 1997 (Table 6-1). Although the proportion of admissions by diagnosis changed after the implementation of the IPS in 1998, the rural and urban proportions were still similar to each other.

Home health patients in urban and rural areas had similar functional status as well (Schlenker et al. 2000). Although upon admission, rural patients were somewhat more limited in function than urban ones, similarities appeared in a cross-sectional sample. The admission sample included more post-acute, short-stay patients than did a cross-sectional sample that included all patients receiving home health services at a given point in time. Cross-sectional samples showed no significant difference in either individual or aggregate measures of patient’s ability to bathe, eat, and perform other activities of daily living.

Despite similarities in diagnoses and functional status, rural and urban patients have different service use. Service use is both the total number of visits and the mix of therapy visits (physical, occupational, or speech therapy) and non-therapy visits (home health aide, skilled nurse, or medical social worker). In 1999, under the interim cost-based system, rural patients of home health received more total visits than their urban counterparts but fewer rural patients received therapy visits (Table 6-2).

The difference between rural and urban therapy use is in the number of therapy patients per home health patient, not in the amount of therapy used. Though rural home health patients were less likely to receive therapy than urban ones, those who received therapy used the same amount of therapy as urban patients (Sutton 1999). Given that rural and urban home health patients are functionally and clinically similar, it appears that some rural beneficiaries who would receive therapy if they were in an urban area do not receive any therapy in a rural area.

The population of rural therapy patients might include only those with moderate or heavy therapy needs while the population of urban therapy patients includes those with light therapy needs. If this were the case, we would expect average rural therapy use per therapy patient to be higher than urban use, but we instead observe that rural therapy use per therapy patient is the same as urban. Therapy use per home health patient is lower in rural areas but the number of total visits per patient (therapy and non-therapy) is higher. Because rural home health patients use less therapy but more visits than their diagnostically and clinically similar urban counterparts, the HHRGs may not account adequately for the non-therapy costs of caring for some rural home health users. (For further discussion of rural use rates, see Chapter 1.)

The use of therapy can substantially increase the total reimbursement for an episode. For example, if the only difference between an urban and a rural patient with moderate clinical and functional conditions is the receipt of 10 hours of therapy, then the case-mixed base payment would be twice as high for the urban beneficiary who received therapy.

Limited data from a model that was used to develop the case-mix adjustment suggest that rural agencies will not be disadvantaged by the case-mix system (Goldberg et al. 1999). This research included data from 26 rural agencies in 8 states under the IPS in 1997 and 1998. Clinical status, functional status, and

TABLE 6-1 Total admissions to home health, by diagnosis, urban and rural agencies

Diagnosis	1997		1998	
	Urban	Rural	Urban	Rural
Alzheimer’s disease	2%	2%	2%	2%
Congestive heart failure	16	18	17	18
Diabetes	21	22	21	22
Stroke	10	10	10	10
Wound	11	10	6	5

Note: Rural home health agencies are located in non-metropolitan areas, as defined by the U.S. Office of Management and Budget.

Source: MedPAC analysis of the 1997 and 1998 HCFA standard analytic file claims data

**TABLE
6-2**

Home health visits and therapy visits, by location of patient's county of residence, 1999

Location of county (UIC)	Annual total visits per patient	Therapy visits as percent of all home health visits
Urban, in an MSA (1, 2)	37.5	18%
Rural		
Adjacent to an MSA and includes a town with at least 10,000 people (3, 5)	41.3	14
Adjacent to an MSA but does not include a town with at least 10,000 people (4, 6)	42.4	13
Not adjacent to an MSA but includes a town with at least 10,000 people (7)	41.2	13
Not adjacent to an MSA but includes a town with between 2,500 and 10,000 people (8)	43.9	11
Not adjacent to an MSA and does not include a town with at least 2,500 people (9)	43.8	12
All counties	38.8	17

Note: UIC (urban influence code, as defined by the U.S. Department of Agriculture), MSA (metropolitan statistical area, as defined by the U.S. Office of Management and Budget).

Source: MedPAC analysis of the 1999 HCFA standard analytical file claims data

service use were measured, and episodes were constructed. In the model, resource use by HHRG tended to be slightly overstated for rural agencies. However, more than half of the HHRGs contained fewer than 50 cases. The small number of cases in many HHRGs coupled with the narrow sample of rural agencies suggests caution in generalizing the results to all HHRGs for all agencies in rural areas.

In any case, patterns of care observed before the implementation of the PPS may not predict use under prospective payment. Incentives in the PPS are likely to change the mix of services provided by HHAs. The home health service mix has changed in recent years: 20 percent more home health users received therapy services in 1999 than in 1996 (GAO 2000).

Home health agency closures

Many of those who seek to protect access to home health in rural areas cite agency closures as a source of their concern.

Fewer HHAs serve Medicare beneficiaries now than in 1997. However, closures were more prominent in urban areas; the number of HHAs fell by 14 percent in urban areas between October 1997 and January 1999, compared with a 9 percent decrease in rural areas.

Counting the number of Medicare HHAs may be misleading because HCFA tracks parent agencies, not branches. For example, in a recent study, the General Accounting Office (GAO) interviewed more than 100 stakeholders in 34 rural counties that had experienced closures and found as many as 3 HHAs in counties that HCFA data identified as having none (GAO 1999). HHAs that remained had changed their practice patterns in response to the IPS. Some reported that they screened for potentially complex or chronic patients, which may have created difficulties and delays for placing some beneficiaries in care. Nonetheless, GAO found that despite closures and changes in practice patterns, access generally was not impaired. Even in counties where HCFA data indicated that the sole HHA had closed, hospital discharge planners and managers of nearby HHAs concluded that access was not a problem because branch agencies or agencies in neighboring counties were still providing services.

MedPAC's examination of home health use in 1999 also shows that many patients in rural areas did not rely upon agencies in rural areas to provide service (Table 6-3). For example, urban HHAs provided one-third of all visits to beneficiaries in rural counties adjacent to an urban county. Urban HHAs even provided 10 percent of

**TABLE
6-3**

Home health visits, by location of patient's county of residence and location of agency, 1999

Location of patient's county of residence (UIC)	Location of agency	
	Rural	MSA
Urban, in an MSA (1, 2)	3%	97%
Rural		
Adjacent to an MSA (3, 4, 5, 6)	67	33
Not adjacent to an MSA but includes a town with at least 2,500 people (7, 8)	90	10
Not adjacent to an MSA and does not include a town with at least 2,500 people (9)	90	10

Note: UIC (urban influence code, as defined by the U.S. Department of Agriculture), MSA (metropolitan statistical area, as defined by the United States Office of Management and Budget).

Source: MedPAC analysis of the 1999 HCFA standard analytical file claims data

**TABLE
6-4**

Number of home health agencies, by ownership of facility, 1997 and 2001

Ownership	1997	2001	Percent change
Total	10,498	7,121	-32%
Visiting nurse association	556	432	-22
Government and voluntary	1,192	950	-20
Hospital-based	2,695	2,138	-21
SNF-based	199	150	-25
Freestanding, other	5,856	3,451	-41

Note: SNF (skilled nursing facility)

Source: HCFA, Medicare Decision Support System, Office of Strategic Planning

all visits delivered in the most rural areas. Thus, the effects of rural agency closures might have been mitigated by the availability of care from agencies outside of the rural area for some rural beneficiaries.

One reason that national closures affected rural areas less than urban areas is that patients in rural areas rely more on government and voluntary agencies and less on freestanding agencies than their urban counterparts. Between 1997 and 2001, more than 70 percent of the agencies that closed were freestanding (Table 6-4).

Some observers have suggested that having only a small number of agencies per Medicare beneficiary in an area may impair access, but there is no evidence to suggest that this is a meaningful measure of access. Furthermore, the national distribution of HHAs does not suggest that rural areas are at a disadvantage; about one-third of all HHAs but only one-fourth of beneficiaries are located outside of urban areas (Franco and Leon 2000).

RECOMMENDATION 6A

The Congress should not exempt rural home health services from the prospective payment system.

No component of the PPS—unit of payment, amount of base payment, or case mix adjustment—should be less adequate

for rural home health services than for urban. The current payment system, especially with the 10 percent increase in payments provided under the BIPA, should ensure adequate payment and allow assessment of the impact of the PPS and whether any changes may be appropriate.

Need for better data

Significant data limitations restrict our ability to fully assess differences in the costs of providing care to urban and rural patients. Chief among these limitations is the lack of data under the new payment system. According to HCFA, cost report data from the PPS will not be available before September 2003. However, while cost report data will be essential for assessing and maintaining adequate payments under the PPS, their quality may decline unless some improvements are made.

Home health intermediaries—the organizations that process claims—report challenges for cost reporting. Many HHAs are small and lack staff to dedicate to cost reporting. Further, definitions of key costs, how to document them, and how to allocate them are unclear. Costs not directly related to patient care—such as costs for travel or for providing escorts to employees who see clients in unsafe neighborhoods—seem to be especially difficult to allocate. The

intermediaries with whom we spoke believed that declining budgets for education and audits also will contribute to problems with the quality of cost data.

The quality of cost data may decline further under PPS because the new system moves payment away from agencies' reported costs toward a nationally determined prospective rate. Because agencies' payments are no longer tied to their reported costs, the incentive to report their own costs accurately has been reduced.

Reliable cost data are important in a PPS to assess the adequacy of payments. Cost report data will be needed not only to assess the payment system's ability to account for potential differences between urban and rural home health but also to ensure that the system reflects appropriate changes in costs. Given the need for accurate cost report data, we recommend that:

RECOMMENDATION 6B

The Secretary should study a sample of home health providers:

- to evaluate the impact of prospective payment on home health in rural areas,
- to evaluate costs that may affect the adequacy of prospective payments, and
- to find ways to improve all cost reports.

Offsetting a potential decline in the quality of cost data by increasing the audit rate could require substantial new resources and the development of new and meaningful penalties for inaccurate data. However, it may be difficult to generate sufficient incentives to report accurate data through increasing audits without burdening providers and making Medicare's relationship with them unacceptably punitive. Furthermore, to the extent that cost data are inaccurate due to a lack of clear definitions and requirements, penalizing providers who attempt to comply would be inappropriate.

Instead, HCFA could create a pool of providers, perhaps similar to the group whose cost reports were thoroughly audited and used to make the PPS. With some statistical adjustment, that group constituted a nationally representative sample of agencies. It may be desirable to increase the number of rural providers in the pool to enable distinctions among rural areas, especially to examine isolated rural providers. It may also be desirable to focus attention on travel costs in both rural and urban settings.

New and substantial resources would be needed to support continuing, comprehensive audits of cost reports from the pool. An incentive for agencies to join the highly audited group may be needed if the group is composed of volunteers. However, such additional spending may be worthwhile if it produces timely and accurate cost data and reveals ways to target resources for improving the quality of all home health cost data from all agencies. Input from members of the

group could also inform efforts to clarify and streamline the cost reports or to consider the incorporation of new costs, such as the use of telehealth.

Devoting resources to the improvement of cost data should not be allowed to decrease the attention given to utilization data. Utilization data will continue to be important for monitoring access to home health services. ■

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