Use and cost of home health agency services under Medicare

by Martin Ruther and Charles Helbing

Presented are 1986 data and trend data (1974-86) on the use and cost of home health agency services rendered to aged and disabled Medicare beneficiaries. Since 1974, reimbursements for these services have grown more rapidly than overall Medicare expenditures. From 1974 to 1986, Medicare expenditures for these services increased from $141 million to $1.8 billion, an average annual rate of 24 percent. HHA reimbursements, however, continue to represent only a small proportion (3.6 percent in 1986) of all Medicare expenditures.

Introduction

Congress established the Medicare home health agency (HHA) benefit as a less intensive and less costly alternative to short-stay hospital inpatient care. HHA services covered by Medicare include intermittent part-time skilled nursing care; physical, occupational, or speech therapy; part-time home health aide services; medical social services; and durable medical equipment. To be eligible for HHA services, Medicare enrollees must be confined to their homes[1] and must have a plan of treatment developed by the attending physician. The health care must include intermittent part-time skilled nursing care or physical/speech therapy, and the HHA services must be provided by an agency participating in the Medicare program.

The Omnibus Budget Reconciliation Act of 1980 (Public Law 96-499) stimulated the use of HHA benefits by removing the HHA 100-visit limit, eliminating the 3-day prior hospital stay under hospital insurance, and permitting proprietary HHA's to operate in States not having licensure laws. Medicare's hospital prospective payment system (PPS) also had an impact on the use of HHA services. The effect of these changes are examined in this article.

[1]The Omnibus Budget Reconciliation Act (OBRA) of 1987 (Public Law 100-203) specifically defines homebound; it was previously defined in the Health Care Financing Administration's program guidelines. The OBRA 1987 provision became effective January 1, 1988.

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Analysis

We focus on the number of persons served, visits, and amount of visit charges and reimbursements to measure the use and cost of HHA services. The data are classified by selected calendar years 1974 through 1986 (Table 1); age, sex, and Medicare status (Table 2); type of visit (Table 3); and principal diagnosis (Table 4).

The data in Table 1 can be used to measure changes in the use of HHA benefits for the 4 years prior to the start of the PPS (1980-83) and for a similar period of time following the implementation of the PPS (1983-86). (PPS started in October 1983.) The number of persons served using HHA benefits rose from 957,400 in 1980 to 1,351,200 in 1983, an average annual rate of growth of 12.2 percent; the comparable figure for the period 1983-86 was only 5.8 percent. Similarly, persons served per 1,000 enrollees rose from 34 to 45 during the period 1980-83, an average annual increase of 9.8 percent. From 1983 through 1986, the increase was only 3.6 percent. HHA visits rose at an annual rate of 18.0 percent from 1980 through 1983, compared with a rise of only 1.3 percent during the period 1983-86. Both visits per person served and per 1,000 enrolled increased in the pre-PPS period, but fell during the PPS period. Thus, for the measures presented in Table 1, the rate of use of HHA services was less during the PPS period than prior to PPS.

The slower rate of growth in the use of Medicare HHA services following the implementation of PPS may reflect a variety of possible causes, such as:

- The sharp decline among Medicare beneficiaries in the discharge rate from short-stay hospitals during the PPS period. On the other hand, the reduced lengths of hospital stay following the PPS could have resulted in greater need and use of HHA services following discharge.
- The slower growth of Medicare HHA use during the period 1983-86 may be representing movement toward a new level of equilibrium following the spurt during the period 1980-83 caused by the 1980 OBRA legislation.
- The competing growth in HHA use outside the Medicare sector, for example, in the Medicaid and private pay sectors (U.S. Department of Health and Human Services, 1987).

The proportion of aged persons receiving HHA services increased in each successive age group (Table 2). The rate of persons served per 1,000 enrollees rose from 25.9 for those 65-66 years of age to 96.7 for those 85 years or over, an increase of 273 percent. There was a similar rise in the number of visits per

Table 1

Trends in the use and cost of home health agency services under Medicare, by selected years of service: Calendar years 1974-86

Year of service	Persons served		Visits			Total charges in thousands	Visit charges				Reimbursements		
	Number in thousands	Per 1,000 enrollees	Number in thousands	Per person served	Per 1,000 enrollees		Amount in thousands	Per visit	Per person served	Per enrollee	Amount in thousands	Per person served	Per enrollee
1974	392.7	16	8,070	21	340	$147,499	$137,406	$17	$350	$6	$141,464	$360	$6
1976	588.7	23	13,335	23	520	312,325	292,697	22	497	11	289,851	492	11
1978	769.7	28	17,345	23	639	500,747	474,498	27	617	18	435,322	566	16
1980	957.4	34	22,428	23	788	770,703	734,718	33	767	26	662,133	692	23
1982	1,171.9	40	30,787	26	1,044	1,296,454	1,232,684	40	1,052	42	1,104,715	943	37
1983	1,351.2	45	36,844	27	1,227	1,657,024	1,596,989	43	1,182	53	1,398,092	1,035	47
1984	1,515.9	50	40,337	27	1,324	1,982,033	1,843,706	46	1,216	61	1,666,253	1,099	55
1985	1,588.6	51	39,742	25	1,279	2,124,312	2,040,697	51	1,285	66	1,773,048	1,116	57
1986	1,600.2	50	38,359	24	1,208	2,190,238	2,102,253	55	1,314	66	1,795,820	1,122	57

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Division of Program Studies.

Table 2

Home health agency services under Medicare for persons served, visits, charges, and reimbursements, by age, sex, and Medicare status: Calendar year 1986

Age, sex, and Medicare status	Persons served		Visits			Total charges in thousands	Visit charges				Reimbursements		
	Number in thousands	Per 1,000 enrollees	Number in thousands	Per person served	Per 1,000 enrollees		Amount in thousands	Per visit	Per person served	Per enrollee	Amount in thousands	Per person served	Per enrollee
Total	1,600	50.4	38,359	24.0	1,208	$2,190,238	$2,102,253	$55	$1,314	$66	$1,795,820	$1,122	$57
Age													
Under 65 years	102	34.4	2,905	28.6	982	169,611	158,816	55	1,562	54	136,932	1,347	46
65-66 years	102	25.9	2,279	22.3	578	132,105	126,946	56	1,242	32	107,902	1,056	27
67-68 years	94	26.7	2,154	22.8	609	124,041	119,603	56	1,266	34	101,605	1,075	29
69-70 years	109	32.9	2,512	23.0	757	145,041	139,544	56	1,277	42	118,794	1,087	36
71-72 years	125	40.1	2,939	23.5	939	168,655	162,754	55	1,299	52	138,069	1,102	44
73-74 years	133	47.5	3,147	23.7	1,124	179,501	173,131	55	1,301	62	147,769	1,111	53
75-79 years	350	62.9	8,324	23.8	1,493	473,123	456,208	55	1,302	82	388,811	1,110	70
80-84 years	301	84.4	7,202	24.0	2,023	409,340	394,139	55	1,311	111	336,169	1,119	94
85 years or over	283	96.7	6,896	24.3	2,352	388,821	371,112	54	1,310	127	319,769	1,128	109
Sex													
Male	579	43.2	13,548	23.4	1,011	780,831	745,178	55	1,286	56	637,327	1,100	48
Female	1,021	55.7	24,811	24.3	1,353	1,409,406	1,357,075	55	1,329	74	1,158,493	1,135	63
Medicare status													
Aged	1,499	52.0	35,454	23.7	1,231	2,020,626	1,943,437	55	1,297	68	1,658,888	1,107	58
Disabled	102	34.4	2,905	28.6	982	169,611	158,816	55	1,562	54	136,932	1,347	46

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Division of Program Studies.

1,000 enrollees, from 578 for those 65-66 years of age to 2,352 for persons 85 years or over, an increase of 307 percent. In contrast, visits per person and reimbursements per person increased only slightly with age.

The proportion of females using HHA services (56 persons served per 1,000 enrollees) was 29 percent higher than that of males (43 persons served per 1,000 enrollees). Females had one-third more visits per 1,000 enrollees than did males, 1,353 and 1,011 respectively. By sex, visits per person were nearly the same.

The proportion of the aged using HHA services (52 per 1,000 enrollees) was 51 percent higher than the proportion among the disabled (34 per 1,000 enrollees). In contrast, the disabled had a 21 percent higher rate of visits per person served than did the aged (29 versus 24).

A substantial change occurred during the period 1974-86 in the distribution of visits and charges by type of HHA visit (Table 3). Visits of home health aides, physical therapists, speech and occupational therapists, and other health disciplines increased from 35 percent of all visits to nearly one-half of all visits during that period. A similar shift is evident in the proportion of visit charges by type of HHA visit. At the same time, there was a corresponding relative decrease in the use of nursing care services during the period 1974-86. The proportion of nursing care visits to all visits dropped from 64.6 percent in 1974 to 50.6 percent in 1986. Similarly, the proportion of nursing care visit charges dropped from 65.5 percent in 1974 to 54.5 percent in 1986.

Charges per visit for physical therapy increased from almost $20 in 1974 to slightly over $60 in 1986, and other types of visits increased by similar amounts (Figure 1).

The 10 leading principal diagnoses of persons using HHA services accounted for 25 percent of all persons using HHA services and 26 percent of both total charges and reimbursements, derived from Table 4.

The most frequent principal diagnosis (5.7 percent) for all persons using HHA services was acute, ill-defined cerebrovascular disease. Other circulatory system diagnoses were heart diseases—congestive heart failure (4.8 percent) and acute myocardial infarction, unspecified site (1.3 percent). Another common condition, fracture, unspecified, of neck of femur, closed, accounted for 2.5 percent of all persons served using HHA services. Persons with these cardiovascular and orthopedic conditions probably used HHA services following a hospital stay.

Reference

U.S. Department of Health and Human Services: *Report to Congress: Impact of the Medicare Hospital Prospective Payment System, 1985 Annual Report.* HCFA Pub. No. 03251. Office of Research and Demonstrations, Health Care Financing Administration. Washington. United States Government Printing Office, Aug. 1987.

Table 3

Distribution of home health agency charges and visits under Medicare, by type of charge and visit: Calendar years 1974 and 1986

Type of charge and visit	1974		1986		Average annual percent increase, 1974-86
	Number or amount	Percent	Number or amount	Percent	
Visit charges in thousands	$137,406	100.0	$2,102,253	100.0	25.5
Nursing care	89,989	65.5	1,146,225	54.5	23.6
Home health aide	28,187	20.5	570,302	27.1	28.5
Physical therapy	15,439	11.2	278,492	13.2	27.3
Other[1]	3,790	2.8	107,186	5.1	32.1
Visits in thousands	8,070	100.0	38,359	100.0	13.9
Nursing care	5,217	64.6	19,395	50.6	11.6
Home health aide	1,888	23.4	12,713	33.1	17.2
Physical therapy	784	9.7	4,631	12.1	16.0
Other[1]	181	2.2	1,629	4.2	20.1
Average charge per visit	$17.03	NA	$54.80	NA	10.2
Nursing care	17.25	NA	59.10	NA	10.8
Home health aide	14.93	NA	44.86	NA	9.6
Physical therapy	19.69	NA	60.14	NA	9.8
Other[1]	20.94	NA	65.80	NA	10.0

[1]Includes speech or occupational therapy, medical social services, and other health disciplines.

NOTE: NA is for not applicable.

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Division of Program Studies.

Table 4

Home health agency services under Medicare for persons served, total charges, and reimbursements, by principal diagnosis: Calendar year 1986

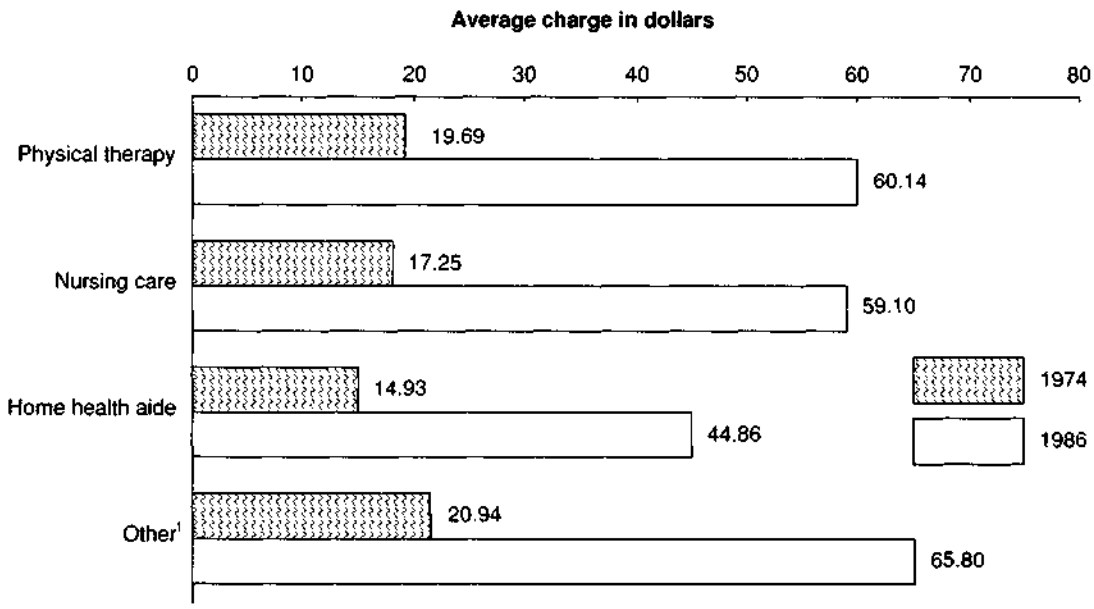
Principal diagnosis	ICD-9-CM[1] code	Persons served	Total charges		Reimbursements	
			Amount in thousands	Per person served	Amount in thousands	Per person served
Total, all diagnoses	—	1,589,202	$2,170,118	$1,365	$1,778,767	$1,119
Leading diagnoses	—	396,402	573,422	1,446	471,048	1,188
Acute, ill-defined cerebrovascular disease	436	90,217	176,136	1,952	144,746	1,604
Congestive heart failure	428.0	76,110	94,259	1,238	77,103	1,013
Fracture, unspecified, of neck of femur, closed	820.8	39,617	52,506	1,325	43,662	1,102
Chronic airway obstruction, not classified	496	36,567	43,993	1,203	36,575	1,000
Essential hypertension, unspecified	401.9	34,420	42,461	1,233	34,065	989
Diabetes mellitus, adult or unspecified type	250.00	29,655	38,703	1,305	32,558	1,097
Pneumonia, organism unspecified	486	25,020	28,444	1,136	23,319	932
Bronchus and lung, unspecified	162.9	23,580	23,011	975	19,065	808
Acute myocardial infarction, unspecified site	410.9	21,277	21,989	1,033	17,895	841
Incontinence of urine	788.3	19,937	51,915	2,603	42,055	2,109
All other diagnoses	—	1,192,800	1,596,695	1,338	1,307,718	1,096

[1] *International Classification of Diseases, 9th Revision, Clinical Modification.*

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Division of Program Studies.

Figure 1

Average charge per visit for home health agency services under Medicare, by type of visit: 1974 and 1986



[1] Includes speech or occupational therapy, medical social services, and other health disciplines.

SOURCE: Health Care Financing Administration, Office of Research and Demonstrations: Data from the Division of Program Studies.