

# Chapter 6: Home Health Agency Benefits

by Charles Helbing, Judith A. Sangl, and Herbert A. Silverman

## Introduction

The Social Security Amendments of 1965 (Public Law 89-97), effective July 1, 1966, established the Medicare home health agency (HHA) benefit to provide a less intensive and less expensive alternative to short-stay hospital inpatient care. The HHA was originally conceived as a stage in the continuum of care following hospitalization, where the patient's recovery and rehabilitation could be effectively continued at the patient's home at a lower cost than in a hospital or skilled nursing facility (SNF). Subsequent changes in legislation and regulations during the 1980s enhanced HHA services as a means of providing home health care services to the beneficiary in order to maintain health and to forestall the need for hospitalization or other institution-based care.

Changes in health care during the past decade have increased the need for home health care among the elderly. These changes include the increasing number of elderly in the population, especially in the number of enrollees 85 years of age or over (the number of aged enrollees grew about 1.9 percent per year during the 1980s); the shift from acute to chronic illness needs; increased life expectancy; and an increasingly complex array of expensive and sophisticated medical technologies that can be administered in the home.

This chapter presents data on the use of and program payments for Medicare-covered HHA services rendered to aged and disabled beneficiaries during calendar year 1990, by selected utilization, demographic, and provider characteristics. Data are examined in relation to national health care expenditure trends, and source of funds for selected calendar years 1970-90. Medicare HHA trend data are also presented for selected calendar years 1974-90 to analyze shifts in utilization and program payments in the Medicare HHA benefit that have resulted from a number of legislative, regulatory, and administrative changes (especially the issuance of the revised Hospital Insurance Manual (HIM-11) coverage provisions) implemented during the past two decades to redefine the HHA benefit.

## Eligibility criteria

Medicare pays for covered services furnished by a participating HHA if skilled health care is needed in the home for the treatment of an illness or injury. Medicare pays for HHA visits only if all of the following conditions are met:

- The beneficiary must be confined to the home. This does not mean that the beneficiary must be bedridden, however, his or her condition should be such that to leave home would require a considerable effort.
- The services are provided under a plan of care established and periodically reviewed by a physician

who reviews and signs it no less frequently than every 2 months.

- The beneficiary is under the care of a physician who signs the physician certification.
- The beneficiary needs intermittent skilled nursing care, physical therapy, or speech therapy. If these services are required, occupational therapy may also be provided.
- The HHA services are delivered by an agency certified to participate in the Medicare program.

## Covered services

Both the Medicare hospital insurance (HI) and supplementary medical insurance (SMI) programs cover HHA services without a deductible or coinsurance charge. An individual who is covered under both programs will always receive HHA benefits under the HI program. There is no annual limitation on the number of HHA visits covered under Medicare, and there is no prior hospitalization requirement.

Once eligibility for HHA services is established in accordance with the above criteria, Medicare will pay for all medically necessary HHA services. The term "home health services" means the following items and services provided in a patient's home:

- Part-time or intermittent skilled nursing care is care that requires the skills of a registered nurse, or a licensed practical nurse under the supervision of a registered nurse, and that must be reasonable and necessary to the treatment of the beneficiary's illness or injury. "Part-time" is used to mean up to 35 hours per week of combined nursing and home health aide services for less than 8 hours per day, for any number of days per week. "Intermittent" is considered to be up to 35 hours of combined nursing and home health aide services per week, provided for 6 or fewer days per week for any number of hours per day, or up to 8 hours per day on a daily basis for up to 21 consecutive days, or longer for a definite and predictable period in exceptional circumstances.
- Skilled physical therapy, speech therapy, and occupational therapy are skilled therapy services if their inherent complexity is such that they can be performed safely and effectively only by or under the general supervision of a skilled therapist. They must be reasonable and necessary to the treatment of, or the restoration or maintenance of the function affected by the beneficiary's illness or injury.

If the patient needs intermittent skilled nursing care, physical therapy, or speech therapy, Medicare will also pay for the following services:

- Management and evaluation of a patient care plan. This benefit constitutes skilled care (even if the services provided are unskilled) when the complexity of the necessary unskilled services requires the involvement of skilled nursing personnel to promote

the patient's recovery and medical safety in view of the beneficiary's overall condition.

- Part-time or intermittent home health aide services as previously defined. The home health aide provides hands-on personal care for services which are needed to maintain the beneficiary's health or to facilitate treatment of his or her illness or injury.
- Medical social services. The primary role of the medical social worker is to resolve social or emotional problems which are or are expected to be an impediment to the effective treatment of the beneficiary's medical condition or rate of recovery.
- Medical supplies (except drugs and biologicals) and the use of durable medical equipment (DME). Medical supplies are items which, because of their therapeutic or diagnostic characteristics, are essential to enabling HHA personnel to effectively carry out the prescribed care.
- Services of interns and residents. The Medicare HHA benefit includes the medical services of interns and residents-in-training under an approved hospital teaching program.
- Outpatient services. Under the HHA benefit, these include any of the previously described items or services which must be provided under arrangements on an outpatient basis at a hospital, SNF, rehabilitation center, or outpatient department affiliated with a medical school because they cannot be readily provided in the beneficiary's home; or which are furnished while the patient is at the outpatient facility to receive services that cannot be readily furnished in the home.

Medicare HHA services do not include coverage for 24 hour a day nursing care at home, drugs and biologicals, meals delivered to the home, homemaker services, or blood transfusions.

Medicare pays the full reasonable cost of all covered home health visits. The patient may be charged only for those services previously noted that Medicare does not cover. The only exception is DME, for which the beneficiary is responsible for a 20-percent coinsurance payment.

### Source of payment: Selected years 1970-90

As shown in Table 6.1, total personal health care expenditures (PHCE) for home health care amounted to \$6.9 billion in 1990; in 1970, the amount paid out was \$0.2 billion. Thus, the average annual rate of change (AARC) between 1970-90 was 19.4 percent. The home health care share of PHCE shown in Table 6.1 excludes HHA services and supplies furnished by facility-based HHAs (primarily hospital-based). For example, in 1990 an additional \$1.6 billion, not intended in the home health care category, was spent for care furnished by facility-based HHAs. Therefore, including facility-based HHA care, an estimated \$8.5 billion was spent for home health care services in 1990. The Medicare payments shown throughout this chapter include payments for facility-based HHA services. Because of differences in methodology and completeness, the PHCE for Medicare HHA care are somewhat different from the Medicare HHA payments.

Public sources financed nearly 75 percent (\$5.1 billion) of all national PHCE (\$6.9 billion) for home health care in 1990, up from about 50 percent (\$0.1 billion) of all expenditures (\$0.2 billion) for home health care in 1970. Medicare alone accounted for an estimated 42 percent (\$2.9 billion) of all PHCE for

Table 6.1

### Personal health care expenditures (PHCE) and distribution of home health care expenditures, by selected source of payment: Selected calendar years 1970-91

Year	Home health care (HHC) <sup>1</sup>													
	PHCE			Out-of-pocket payments		Private		Total		Government				
				Amount in billions	Percent of HHC	Amount in billions	Percent of HHC	Amount in billions	Percent of HHC	Amount in billions	Percent of HHC	Amount in billions	Percent of HHC	
1970	\$64.9	\$0.2	0.3	\$0.0	0.0	\$0.1	50.0	\$0.1	50.0	\$0.1	50.0	\$0.0	0.0	
1980	218.3	1.3	0.6	0.1	7.7	0.2	15.4	1.0	76.9	0.7	53.8	0.3	23.1	
1988	482.8	4.5	0.9	0.5	11.1	0.6	13.3	3.4	75.6	1.8	40.0	1.5	33.8	
1989	529.9	5.6	1.1	0.7	12.5	0.8	14.3	4.2	75.0	2.3	41.1	1.9	33.2	
1990	585.3	6.9	1.2	0.8	11.6	1.0	14.5	5.1	73.9	2.9	42.0	2.2	31.9	
1991 <sup>3</sup>	660.2	9.8	1.5	1.2	12.2	1.4	14.3	7.2	73.5	4.4	44.9	2.7	27.9	
1970-90	11.6	19.4	—	—	12.2	-6.0	21.7	—	18.3	—	—	—	—	

<sup>1</sup>Represents benefit payments aggregated on an incurred basis and 100 percent estimate. Because of differences in methodology and completeness, the benefit payments for Medicare HHC are somewhat different than the Medicare program payments shown in the section.

<sup>2</sup>Excludes personal health care expenditures for home health agency (HHA) services and supplies furnished by facility-based (primarily hospital-based) HHAs. In 1990, this amounted to an estimated \$1.6 billion in HHA expenditures for facility-based HHAs, for 1970, 1980, 1988, and 1989 the estimated HHA expenditures for facility-based HHAs were \$0.01 billion, \$0.1 billion, \$1.0 billion and \$1.3 billion, respectively.

<sup>3</sup>Preliminary data.

NOTES: \$0.0 denotes amounts less than \$50 million; 0.0 denotes less than 0.05 percent. Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Office of the Actuary: Data from the Division of National Health Statistics.

home health care in 1990, and Medicaid accounted for another 32 percent (\$2.2 billion).

PHCE for home health care grew faster than spending in any other category of personal health care in 1989 and 1990. The growth in spending for all home health care increased by about 53 percent from 1988 (\$4.5 billion) to 1990 (\$6.9 billion). Much of this growth was attributable to increased funding by Medicare, which revised its guidelines for home health coverage criteria (HIM-11 revisions) in 1989.

## Overview of benefits: 1990

During 1990, an estimated 1.97 million Medicare beneficiaries used home health services, at an annual utilization rate of 57 persons served per 1,000 enrollees. These persons received 70.3 million HHA visits, or an average of 36 visits per person served, and incurred HHA visit charges amounting to \$4.9 billion, an average of \$2,469 per person served, and \$69 per visit. Medicare paid about \$3.7 billion in HHA payments (including payments for service rendered in facility-based HHAs), an average of \$1,892 per person served and \$109 per enrollee. These payments to HHAs comprised an estimated 3.7 percent of all Medicare payments (\$101.4 billion) in 1990.

The data show that persons who use HHA services are most likely to be female and 80 years of age or over. Aged Medicare beneficiaries accounted for about 94 percent (1.85 million) of all persons receiving HHA services, and 93 percent (\$3.4 billion) of all Medicare HHA program payments during 1990.

## Utilization and payment trends: 1974-90

Data on Medicare home health services for selected calendar years 1974-90 are shown in Table 6.2. The use of and payments for Medicare HHA-covered services increased significantly during this period. Total HHA payments grew from \$141.5 million in 1974 to \$3.7 billion in 1990, an AARC of 22.7 percent. As shown in Figure 6.3, Medicare HHA payments, as a proportion of all Medicare payments, increased from 1.3 percent in 1974 to 3.7 percent in 1990.

This divides the trend data into three time periods: the years before 1984, marking the liberalization of the HHA benefit through legislation (1974-83); the years marking the implementation of the Medicare prospective payment system (PPS), 1983-87; and the years marking the clarification of the HHA benefit as a result of litigation and the subsequent revision of coverage provisions (1987-90).

The data show that the use of and payments for HHA services has had a rapid rate of growth since 1974, especially during the years 1974-83 and 1987-90. During the period 1974-83, the proportion of enrollees receiving HHA services nearly tripled (from 16 to 45 per 1,000 enrollees) and the actual number of persons using HHA services increased from about 392,700 in 1974 to about 1.4 million in 1983, an AARC of 14.7 percent. Payments for HHA services increased almost tenfold,

rising from about \$141 million in 1974 to almost \$1.4 billion in 1983, an AARC of 29.0 percent.

The rapid growth in the use of HHA services during the years 1974-83 reflect the liberalization of the HHA benefit through legislative changes. Among the more significant changes were: the Social Security Amendments of 1972 (Public Law 92-603) which eliminated the 20-percent coinsurance for HHA services furnished under SMI; and the Omnibus Reconciliation Act (ORA) of 1980 (Public Law 96-499), effective July 1, 1981. This Act contained the following major revisions to the HHA benefit:

- Eliminated the 3-day prior hospitalization requirement as a condition for the receipt of HHA services.
- Eliminated the requirement to meet the SMI deductible before Medicare payments for HHA services under SMI could be initiated.
- Eliminated the 100 visits per year limit on HHA visits.
- Permitted proprietary HHAs to furnish Medicare-covered services in States not having licensure laws. As a result of this provision, the number of proprietary agencies certified to participate in the Medicare program increased from 165 in 1980 to 1,841 in 1985 (Health Care Financing Administration, 1987).

The effect of these expansions to the Medicare HHA benefit was to liberalize the coverage provisions (especially the removal of the 3-day prior hospital requirement) and loosen the linkage of HHA services to the treatment of acute illnesses. In short, HHA services became increasingly viewed as an alternative to institutional forms of care, as well as a significant stage in the continuum of care following hospitalization.

There were expectations that the implementation of PPS, effective October 1, 1983, would have a major impact on the use of post-hospital benefits and would lead to further increases in the use of Medicare HHA services. These expectations were based on incentives in PPS for hospitals to discharge patients earlier, thereby encouraging more post-hospital nursing and rehabilitative services, particularly HHA services for those beneficiaries discharged to their home.

The changes during the post-PPS period (1983-87), however, were not as large as expected and, in fact, were sometimes contrary to expectations. Program data in Table 6.2 show that immediately after the implementation of PPS, the total number of persons served increased from 1.35 to 1.59 million between 1983-85; the annual utilization rate increased from 45 to 51 persons served per 1,000 enrollees. Between 1985-86, there was a small increase in the number of persons served but, after controlling for enrollment, there was actually a small decrease in the utilization rate. Finally, the total number of persons served in 1987 was lower than in 1985, and with the growth in enrollment, the utilization rate per 1,000 enrollees dropped from 51 to 48. During the period 1983-87, the number of HHA visits increased only once, going from 36.8 million in 1983 to 40.3 million in 1984. From 1984 to 1987, the number of HHA visits declined to 36.1 million visits in

Table 6.2

Trends in persons served, visits, total charges, and program payments for Medicare home health agency services, by year of service:  
Selected calendar years 1974-91

Year of service	Persons served		Visits			Total charges	Visit charges				Program payments			Percent of all Medicare program payments
	Number in thousands	Per 1,000 enrollees	Number in thousands	Per person served	Per 1,000 enrollees	Amount in thousands	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	1.3
1976	588.7	23	13,335	23	520	312,325	292,697	22	497	11	289,851	492	11	1.6
1978	769.7	28	17,345	23	639	500,747	474,498	27	617	18	435,322	566	16	1.8
1980	957.4	34	22,428	23	788	770,703	734,718	33	767	26	662,133	692	23	2.0
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	2.3
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	2.6
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	2.8
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	2.8
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	2.6
1987	1,564.5	48	36,088	23	1,113	2,210,670	2,104,753	58	1,345	65	1,791,589	1,145	55	2.4
1988	1,601.7	49	37,713	24	1,144	2,453,974	2,341,441	62	1,462	71	1,945,768	1,215	59	2.4
1989	1,724.9	51	47,258	27	1,407	3,240,071	3,113,345	66	1,805	93	2,431,643	1,410	72	2.6
1990	1,967.1	57	70,268	36	2,054	5,031,248	4,856,147	69	2,469	142	3,713,652	1,892	109	3.7
1991 <sup>1</sup>	NA	—	98,385	—	2,821	7,255,131	7,007,303	71	—	201	5,278,812	—	151	—
Average annual rate of change														
1974-83	14.7	12.2	18.4	2.8	15.3	30.8	31.3	10.9	14.5	27.4	29.0	12.5	25.7	—
1983-87	3.7	1.6	-0.5	-3.9	-2.4	7.5	7.1	7.8	3.3	5.2	6.4	2.6	4.0	—
1987-90	7.9	5.9	24.9	16.1	22.7	31.5	32.1	6.0	22.4	29.8	27.5	18.2	25.6	—
1974-90	10.6	8.3	14.5	3.4	11.9	24.7	25.0	9.2	13.0	21.9	22.7	10.9	19.9	—

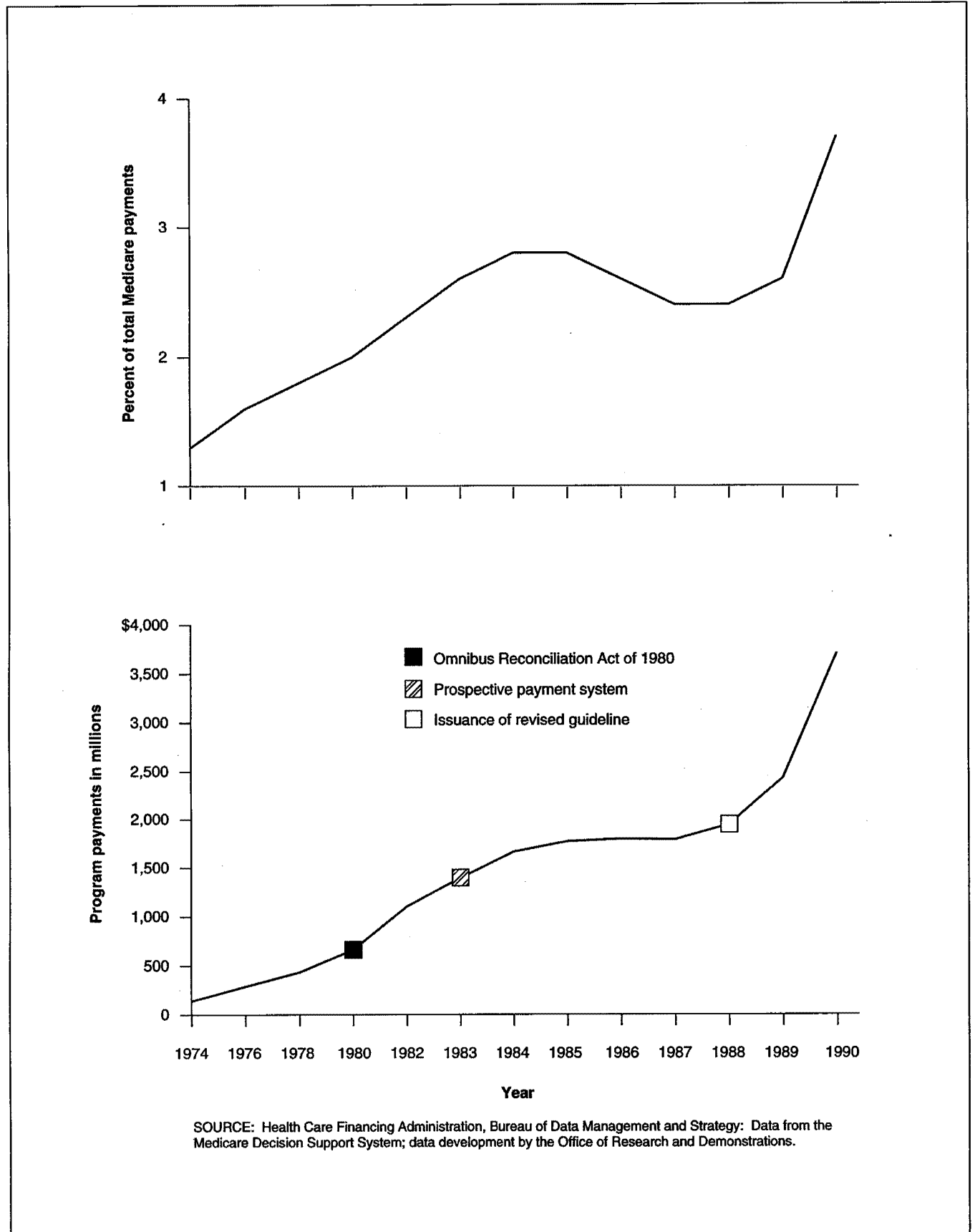
<sup>1</sup>Preliminary data.

NOTE: NA is not available.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

Figure 6.3

Medicare home health agency program payments: Selected calendar years 1974-90



1987. The average number of HHA visits per person served declined from 27 in 1983, to 23 in 1987. In addition, HHA payments grew at a much slower rate during the post-PPS period as compared with the period 1974-83. The amount of HHA payments increased from \$1.4 billion in 1983 to \$1.8 billion in 1987, an AARC of only 6.4 percent; in contrast, HHA payments grew at an AARC of 29.0 percent from 1974 to 1983. HHA payments, as a proportion of all Medicare payments, decreased from 2.6 percent in 1983 to 2.4 percent in 1987.

The effect of PPS is difficult to discern, however, from aggregate Medicare home health statistics. Not all Medicare HHA use can be linked to post-hospital use because hospitalization is not a requirement for eligibility. A study by Gaumer and Gianfrancesco (1988) estimated that in 1986 almost 40 percent of all Medicare home health visits occurred within 30 days of hospital discharge. This study also synthesized econometric analyses of PPS effects on Medicare post-hospital care (SNF and HHA) for the period 1981-86. It concluded that HHA services were affected by PPS. More persons received HHA services in the first 30 days after hospital discharge, and the number of visits increased slightly (Health Care Financing Administration, 1990a).

The increases attributable to PPS, however, were offset by a series of events regarding the administration and regulation of the Medicare HHA benefit by the Health Care Financing Administration (HCFA). First, there were several reports issued by the U.S. General Accounting Office in the early 1980s noting inconsistencies in the administration of HHA coverage provisions among the Medicare fiscal intermediaries. The reports suggested that up to 30 percent of Medicare HHA claims did not meet the specified conditions of coverage and thereby should have been denied Medicare HHA benefit coverage (U.S. General Accounting Office, 1981, 1986). HCFA undertook its own evaluation in 1984 with similar findings (U.S. General Accounting Office, 1990). Second, the Deficit Reduction Act (DEFRA) of 1984 (Public Law 98-369) directed that there be no more than 10 regional intermediaries to process HHA claims in order to provide greater consistency, uniformity, and expertise in the review of HHA claims.

In response to these evaluations and legislation, HCFA implemented a number of changes to improve administrative control over the program during this period. These changes included: implementing standardized medical information forms to provide better information for making payment decisions; increasing the number of claims medically reviewed before payment; consolidating processing of claims under 10 intermediaries; and evaluating the medical review practices of intermediaries before consolidation. Also for 1 year during this time (July 1985 through June 1986), HHA visit cost limits were applied on a discipline-specific rather than an aggregate basis, which was more of a constraint on payments for HHA visits. However, the Omnibus Budget Reconciliation Act (OBRA) of 1986 (Public Law 99-509) mandated a

return to HHA visit cost limits applied on an aggregate basis.

The activities previously noted intensified the review of HHA claims and resulted in an increased rate of denials of claims for coverage and payment. The denial rate for home health claims increased to 6.0 percent and 7.9 percent in 1986 and 1987, respectively; from 2.5 percent and 3.4 percent in 1984 and 1985 (Health Care Financing Administration, 1990b).<sup>1</sup> By the end of 1987, HCFA took several actions to address this increase in denial rates, and the denial rates returned to the levels before 1986 and 1987 (U.S. General Accounting Office, 1990).

The data in Table 6.2 show that for the period 1987-90, there was a large increase in the use and payments for HHA services. During this period, the number of HHA visits jumped from 36.1 million to 70.3 million, an AARC of 24.9 percent; the number of visits per 1,000 enrollees grew from 1,113 to 2,054, an AARC of 22.7 percent. Medicare payments for HHA services more than doubled, rising from \$1.8 billion in 1987 to \$3.71 billion in 1990, an AARC of 27.5 percent.

Much of the significant increase in the use of and payments for HHA services between 1987-90, particularly in 1989 and 1990, can be attributed to the revision of the coverage provisions contained in HIM-11. The manual revisions clarified Medicare coverage of home health services which was followed up by a nationwide effort to educate both the regional home health intermediaries and the HHAs in its provisions. The HIM-11 revisions were intended to reduce inconsistencies in interpretation of the Medicare HHA benefit by intermediaries.

The revision of the coverage provisions contained in HIM-11 are attributable to the settlement of litigation (*Duggan v. Bowen*, 1988), which was filed in February 1987. The suit lodged two separate charges. First, the plaintiffs claimed that the U.S. Department of Health and Human Services (DHHS) was using an unlawfully narrow definition of part-time or intermittent care to deny benefits to qualified patients. This issue was decided in favor of the plaintiffs in August 1988. The new definitions of part-time or intermittent home health care generally became effective in November 1988, except for certain claims pending from February 1987 on those grounds.

The second charge claimed that DHHS had delegated decisionmaking authority to fiscal intermediaries without adequate supervision or regulatory mandate. This complaint was made in the context of the increase in home health denials during the mid-1980s. The plaintiffs charged that many of the Medicare HHA claims that were denied during this period were not based on established Medicare law and regulation. The issue was settled in June 1989. The parties agreed to a revision of the HIM-11, which was released in

<sup>1</sup>These rates include bills denied but paid under the waiver of liability provision. If one considers only bills denied and not paid under waiver, the rates would be lower for these years: 1984, 1.6 percent, 1985, 2.3 percent, 1986, 4.2 percent, and 1987, 5.7 percent.

April 1989 and became effective on July 1, 1989. The revisions included clarifications of covered and non-covered HHA services.

The revised HHA manual clarifications include the following:

- Physicians' orders for care will be accepted unless objective clinical evidence contradicts their orders.
- The fiscal intermediaries cannot deny coverage based solely on utilization review screens.
- Coverage cannot be denied based solely on patients having chronic diseases or requiring long-term care, as long as skilled nursing care is still required.
- Patients can qualify for skilled nursing observation when there is reasonable potential for complications or a need for change in treatment.
- Patients can qualify for home therapy if they show the potential for material improvement in their functional ability.
- Patients can make out-of-pocket payments for certain supplemental home services without jeopardizing their Medicare home care coverage.
- Nurses are allowed to manage certain complex unskilled care cases as part of skilled services.

### Factors affecting payment growth: 1974-90

As shown in Table 6.4, an examination of the factors affecting the growth in HHA payments from 1974 to

1990 show a substantial shift in their relative contribution. These factors—enrollment, persons served per 1,000 enrollees, visits per person served, and average payment per visit—are each analyzed for the three study periods reported in the previous section on trends in HHA payments.

During 1974-83, 64.8 percent of the increase in payments was due to the increased volume of visits attributable to an increase in enrollment (8.9 percent), an increase in the number of persons served per 1,000 enrollees (45.4 percent), and a rise in the average number of HHA visits per person served (10.5 percent). The balance (35.2 percent) of the increase in HHA payments was due to a rise in the average payment per visit.

For the period 1983-87, there was a notable slowing in the rate of growth in the proportion of enrollees receiving HHA services, and a decrease in the average number of visits per person. This substantially reduced the rate of increase in the volume of HHA visits. Increases in Medicare enrollment accounted for 25.7 percent of the payment growth. Despite the previously noted attempt to constrain the rise in the average payment per visit, it was this rise that accounted for 106.8 percent of the increase in payments for the HHA benefit during this period.

During 1987-90, which marked the liberalization of the HHA benefit coverage provisions, almost two-thirds (65.2 percent) of the increase in HHA

**Table 6.4**  
**Medicare program payments for home health agency (HHA) visits and average annual rate of change, by factor: Calendar years 1974, 1983, 1987, and 1990**

Factor	Calendar year				Average annual rate of change			
	1974	1983	1987	1990	1974-90	1974-83	1983-87	1987-90
<b>Charges in thousands</b>								
Total HHA charges	\$147,499	\$1,657,024	\$2,210,670	\$5,031,248	24.7	30.8	7.5	31.5
Total visit charges	\$137,406	\$1,596,989	\$2,104,753	\$4,856,147	25.0	31.3	7.1	32.1
Ratio of visit to total charges	0.932	0.964	0.952	0.965	NA	NA	NA	NA
<b>Program payments and visits—in thousands</b>								
Total HHA visit program payments	\$141,484	\$1,398,092	\$1,791,589	\$3,713,652	22.7	29.0	6.4	27.5
HHA visit program payments	\$131,806	\$1,347,481	\$1,705,751	\$3,584,417	22.9	29.5	6.1	28.1
HHA visits	8,070	36,844	36,088	70,268	14.5	18.4	-0.5	24.9
Program payment per HHA visit	\$16.33	\$36.57	\$49.65	\$51.01	7.4	9.4	7.9	0.9
<b>Enrollment and use</b>								
Medicare enrollment in thousands	24,201.0	30,026.1	32,411.2	34,213.0	2.2	2.4	1.9	1.8
Persons served	392,700	1,351,200	1,564,500	1,967,100	10.6	14.7	3.7	7.9
Persons served per 1,000 enrollees	16	45	48	57	8.3	12.2	1.6	5.9
Visits per person served	21	27	23	36	3.4	2.8	-4.0	16.1
<b>Contribution to increase in HHA visit program payments</b>								
Total	—	—	—	—	100.0	100.0	100.0	100.0
Medicare enrollment <sup>1</sup>	—	—	—	—	10.3	8.9	25.7	7.3
Persons served per 1,000 enrollees	—	—	—	—	39.0	45.4	21.6	23.9
HHA visits per person served	—	—	—	—	16.0	10.5	-54.1	65.2
Average program payment per visit	—	—	—	—	34.7	35.2	106.8	3.6

<sup>1</sup>As of July 1 for the reporting year.

NOTE: NA is not applicable.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data developed by the Office of Research and Demonstrations.

payments were caused by the increase in the number of visits per person served, and, to a lesser extent, the number of persons served per 1,000 enrollees (23.9 percent). The change in the average payment per HHA visit and the growth in Medicare enrollment accounted for only 3.6 and 7.3 percent, respectively, of the increase in HHA payments during the 1987-90 period.

## Demographic characteristics

The patterns of use and payments for HHA services in 1990 by selected beneficiary demographic characteristics are shown in Table 6.5. The proportion of aged persons (65 years of age or over) receiving HHA services increased in each successive age group. Persons 85 years of age or over (131 persons per 1,000 enrollees) were nearly four times more likely to use HHA services than persons from 65 to 74 years of age (33 persons per 1,000 enrollees). There was an even greater difference between these two age groups in the annual rate of HHA visits per 1,000 enrollees (5,011 as compared to 1,098). In contrast, the number of visits per person and the average HHA payment per person increased only slightly with age.

The use of Medicare HHA services differs with the sex of the beneficiary. In 1990, the annual utilization rate per 1,000 enrollees for females was 31 percent higher (64 per 1,000) than for males (49 per 1,000). Females had a higher number of visits per 1,000 enrollees (2,339) than males (1,664). The average HHA payment per user was also higher for females (\$1,938) than males (\$1,810); similarly, the average payment per enrollee was higher for females than males (\$123 versus \$88).

As shown in Table 6.5, persons of all other races use more HHA services than white people. In 1990, persons of all other races had a higher number of persons served per 1,000 enrollees (62 versus 57) and a higher number of visits per user (43 versus 34), and a higher number of visits per 1,000 enrollees (2,690 versus 1,948). The payment for these HHA services was also higher for persons of all other races than white; their average payment per person was \$2,240 as compared with \$1,828 for white people.

The annual rate of aged beneficiaries using HHA services (61 per 1,000 enrollees) was substantially higher than that for the disabled (36 per 1,000 enrollees). Similarly, the number of visits per 1,000 enrollees was much higher for the aged than the disabled (2,141 versus 1,541); the average payment per aged enrollee was also higher (\$113 versus \$81). In contrast, on a per user basis, the disabled had a higher average number of visits (42 versus 35), and a higher average payment (\$2,238 versus \$1,866) than the aged. This pattern shows that the aged are more likely to use HHA services, but the disabled use more services per episode of illness, which suggests a greater severity of illness.

## Area of residence

As shown in Table 6.6, there was substantial geographic variation in the use of and payments for HHA services in 1990 by the residence of the beneficiary. These geographic differences have persisted for many years, but became even more pronounced between 1988-90 after the implementation of the HIM-11 revised coverage provisions (Kenney and Moon, 1992). This is due to the much greater increase in home health use in the South compared with other regions.

In 1990, the greatest use of HHA services was recorded in the South. The South had the highest number of persons served per 1,000 enrollees (65.9), the highest number of visits per 1,000 enrollees (3,119), and the highest number of visits per person served (47.4). The Northeast, which had the second highest use rate of HHA services (59.9 persons served per 1,000 enrollees), was substantially below that shown for the South; for example, the number of visits per 1,000 enrollees in the Northeast Region (1,787) was nearly 43 percent lower than for the South. The South and Northeast census Regions together accounted for more than 60 percent (1.21 million) of all persons served (1.97 million) and 70 percent (49.3 million) of all HHA visits (70.3 million). The South alone accounted for 39 percent (760,000) of all persons served and 51 percent (36.0 million) of all visits. In contrast, the use of Medicare HHA services was lowest in the West, which accounted for only 15 percent (304,000) of all persons served and 11 percent (7.9 million) of all HHA visits.

The number of visits per person served in the South (47.4) was 82 percent greater than that reported in the West (26.0). Similarly, the number of visits per 1,000 enrollees in the South (3,119) was 141 percent greater than that in the West (1,293).

The South accounted for nearly 47 percent (\$1.74 billion) of all Medicare HHA payments. The average payment per person served in the South was \$2,290, or about 21 percent higher than the national average (\$1,892). In contrast, the lowest average payment was in the North Central (\$1,560). The difference between the two regions in the average payment was primarily a result of the disparity in the average number of visits per user (47.4 versus 28.9).

Among the States, there was significant variation in the use of and payments for HHA services. The number of persons served per 1,000 enrollees ranged from a low of 22.0 in Hawaii to 105.0 in Mississippi, almost a fivefold difference. The number of HHA visits per 1,000 enrollees ranged from 450 in Hawaii to 7,563 in Mississippi, almost a seventeenfold difference. As shown in Figure 6.7, the lowest average payments per enrollee were concentrated in the States located in the West North Central Region; in contrast, the highest payments were found in States in the East South Central Region. The average payment per enrollee ranged from a low of \$33 in Hawaii to a high of \$323 in Tennessee, differing by a factor of nearly 10. The average HHA payment per person served ranged from



Table 6.5

**Persons served, visits, total charges, and program payments for Medicare home health agency services, by selected demographic characteristics: Calendar year 1990**

Demographic characteristic	Persons served		Visits			Visit charges					Program payments		
	Number in thousands	Per 1,000 enrollees	Number in thousands	Per person served	Per 1,000 enrollees	Total charges in thousands	Amount in thousands	Per visit	Per person served	Per enrollee	Amount in thousands	Per person served <sup>1</sup>	Per enrollee
Total	1,967	58	70,268	36	2,054	\$5,031,248	\$4,856,147	\$69	\$2,469	\$142	\$3,713,652	\$1,892	\$109
Age													
Under 65 years	118	36	5,011	42	1,541	368,415	347,126	69	2,931	107	264,455	2,238	81
65-74 years	591	33	19,396	33	1,098	1,421,218	1,372,640	71	2,325	78	1,043,939	1,772	59
75-84 years	828	83	29,416	36	2,935	2,092,746	2,028,376	69	2,451	202	1,551,866	1,879	155
85 years or over	431	131	16,445	38	5,011	1,148,870	1,108,005	67	2,573	338	853,392	1,986	260
Sex													
Male	708	49	24,065	34	1,664	1,744,379	1,673,376	70	2,363	116	1,279,481	1,810	88
Female	1,259	64	46,203	37	2,339	3,286,869	3,182,771	69	2,528	161	2,434,171	1,938	123
Race													
White	1,664	57	57,176	34	1,948	4,079,371	3,946,206	69	2,372	134	3,035,356	1,828	103
Other	303	62	13,092	43	2,690	951,878	909,940	70	2,999	187	678,296	2,240	139
Medicare status													
Aged	1,849	61	65,257	35	2,141	4,662,834	4,509,021	69	2,439	148	3,449,197	1,866	113
Disabled	118	36	5,011	42	1,541	368,415	347,126	69	2,931	107	264,455	2,238	81

<sup>1</sup>Does not reflect beneficiaries who did not receive program payments during the reporting year.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy. Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

Table 6.6

**Persons served, visits, total charges, visit charges, and program payments for Medicare home health agency services,  
by area of residence: Calendar year 1990**

Area of residence	Persons served		Visits			Total charges in thousands	Visit charges			Program payments				
	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 visit	Per person served <sup>1</sup>	Per enrollee
All areas	1,967	57.5	70,268	35.7	2,054	\$5,031,248	\$4,856,147	\$69	\$2,469	\$142	\$3,713,652	\$53	\$1,892	\$109
United States	1,941	57.9	69,645	35.9	2,079	4,988,096	4,817,757	69	2,483	144	3,687,770	53	1,904	110
Northeast	446	59.9	13,286	29.8	1,787	965,615	947,806	71	2,127	127	747,841	56	1,683	101
North Central	431	51.3	12,455	28.9	1,482	870,846	850,640	68	1,974	101	670,937	54	1,560	80
South	760	65.9	36,000	47.4	3,119	2,480,879	2,373,361	66	3,122	206	1,738,237	48	2,290	161
West	304	49.7	7,904	26.0	1,293	670,765	645,951	82	2,126	106	630,754	67	1,751	81
New England	129	68.1	4,716	36.6	2,495	289,183	283,073	60	2,199	150	243,462	52	1,894	129
Connecticut	31	65.5	1,062	34.6	2,265	71,341	70,734	67	2,306	151	56,806	53	1,854	121
Maine	11	60.7	380	34.3	2,078	21,587	20,955	55	1,887	115	19,900	52	1,795	109
Massachusetts	62	71.2	2,403	38.9	2,769	143,890	141,646	59	2,293	163	121,472	51	1,969	140
New Hampshire	9	65.0	292	33.0	2,142	16,839	16,498	56	1,862	121	15,274	52	1,726	112
Rhode Island	9	57.4	315	34.5	1,978	22,834	20,880	66	2,284	131	17,537	56	1,920	110
Vermont	7	95.3	264	37.0	3,524	12,691	12,359	47	1,729	165	12,473	47	1,748	166
Middle Atlantic	317	57.2	8,570	27.0	1,545	676,432	664,733	78	2,097	120	504,379	59	1,597	91
New Jersey	57	52.3	1,435	25.1	1,316	101,888	100,264	70	1,757	92	71,239	50	1,257	65
New York	115	45.7	2,867	25.0	1,144	254,131	249,983	87	2,181	100	193,812	68	1,698	77
Pennsylvania	145	74.5	4,269	29.4	2,189	320,413	314,485	74	2,164	161	239,329	56	1,649	123
East North Central	308	53.2	8,864	28.8	1,533	628,885	614,435	69	1,996	106	488,161	55	1,589	84
Illinois	91	59.4	2,695	29.6	1,756	206,896	200,645	74	2,203	131	152,406	57	1,675	99
Indiana	34	45.4	1,112	32.4	1,472	69,436	67,458	61	1,966	89	56,613	51	1,652	75
Michigan	75	60.3	2,157	28.9	1,741	165,960	163,194	76	2,184	132	128,251	59	1,772	104
Ohio	76	49.4	2,082	27.3	1,351	139,177	136,611	66	1,793	89	108,602	52	1,427	70
Wisconsin	32	44.2	817	26.0	1,148	47,417	46,527	57	1,478	65	42,289	52	1,349	59
West North Central	123	46.9	3,591	29.2	1,369	241,961	236,205	66	1,919	90	182,775	51	1,488	70
Iowa	18	39.8	490	27.0	1,076	25,684	25,311	52	1,396	56	20,609	42	1,139	45
Kansas	13	37.3	463	33.7	1,257	30,946	30,079	66	2,238	83	22,023	49	1,642	61
Minnesota	17	29.2	380	22.2	648	24,326	23,773	63	1,387	41	20,168	53	1,181	34
Missouri	57	73.8	1,809	31.5	2,328	132,578	129,582	72	2,259	167	96,011	53	1,676	124
Nebraska	10	42.6	283	28.4	1,210	17,632	16,943	60	1,700	72	15,169	54	1,525	65
North Dakota	4	39.6	104	26.5	1,048	6,503	6,332	61	1,616	64	4,979	48	1,275	50
South Dakota	3	28.5	71	22.6	644	4,293	4,186	59	1,333	38	3,816	54	1,221	35

See footnotes at end of table.

Table 6.6—Continued

Persons served, visits, total charges, visit charges, and program payments for Medicare home health agency services, by area of residence: Calendar year 1990

Area of residence	Persons served		Visits			Total charges in thousands	Visit charges			Program payments				
	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 visit	Per person served <sup>1</sup>	Per enrollee
South Atlantic	383	62.0	15,504	40.5	2,514	\$1,084,821	\$1,042,410	\$67	\$2,725	\$169	\$792,155	\$51	\$2,076	\$128
Delaware	6	63.9	195	35.0	2,241	13,133	12,876	66	2,317	148	9,033	46	1,626	104
District of Columbia	4	52.1	129	30.6	1,594	10,397	10,232	80	2,430	127	8,552	66	2,045	106
Florida	174	74.3	7,513	43.2	3,207	543,032	529,162	70	3,041	226	371,331	49	2,140	159
Georgia	47	63.5	2,647	56.6	3,599	177,323	168,017	63	3,595	228	120,132	45	2,575	163
Maryland	30	55.6	863	28.5	1,582	67,418	65,232	76	2,151	119	52,659	61	1,741	96
North Carolina	47	53.1	1,659	35.0	1,856	107,358	100,021	60	2,108	112	93,205	56	1,968	104
South Carolina	22	49.4	694	31.5	1,556	46,361	42,879	62	1,948	96	41,712	60	1,900	94
Virginia	37	50.6	1,277	34.7	1,754	87,617	83,590	65	2,271	115	70,498	55	1,919	97
West Virginia	15	49.8	528	34.3	1,709	32,181	30,400	58	1,976	98	25,033	47	1,629	81
East South Central	181	83.0	11,432	63.1	5,239	733,669	700,556	61	3,868	321	501,015	44	2,769	230
Alabama	44	74.6	2,792	64.2	4,793	163,289	157,025	56	3,612	270	111,655	40	2,571	192
Kentucky	30	55.6	1,202	40.1	2,230	71,864	66,735	56	2,227	124	56,717	47	1,895	105
Mississippi	39	105.0	2,777	72.0	7,563	187,832	177,918	64	4,614	485	108,559	39	2,818	296
Tennessee	69	99.7	4,661	67.5	6,723	310,684	298,877	64	4,325	431	224,084	48	3,247	323
West South Central	197	61.6	9,063	46.1	2,838	662,389	630,395	70	3,206	197	445,067	49	2,266	139
Arkansas	23	58.8	1,072	46.5	2,737	71,731	69,126	65	3,002	177	47,907	45	2,083	122
Louisiana	42	80.3	2,286	53.9	4,333	158,635	149,920	66	3,539	284	106,074	46	2,506	201
Oklahoma	25	55.6	1,153	45.8	2,550	82,604	79,047	69	3,143	175	57,990	50	2,310	128
Texas	106	58.2	4,553	42.9	2,499	349,420	332,301	73	3,132	182	233,095	51	2,199	128
Mountain	72	44.1	2,485	34.4	1,516	179,098	173,084	70	2,394	106	139,038	56	1,928	85
Arizona	16	32.9	568	34.6	1,141	43,393	41,537	73	2,530	83	33,529	59	2,048	67
Colorado	18	51.1	595	32.4	1,659	45,512	44,703	75	2,438	125	35,779	60	1,954	100
Idaho	6	43.8	153	26.4	1,156	10,710	10,182	67	1,755	77	8,904	58	1,539	67
Montana	6	48.2	195	34.6	1,666	11,427	11,125	57	1,977	95	9,825	50	1,757	84
Nevada	6	45.4	218	33.8	1,537	17,036	16,328	75	2,538	115	13,279	61	2,072	94
New Mexico	9	48.1	256	29.7	1,429	17,549	16,676	65	1,936	93	13,328	52	1,548	74
Utah	9	58.0	447	47.8	2,773	29,998	29,153	65	3,117	181	21,573	48	2,313	134
Wyoming	2	33.4	53	31.1	1,039	3,473	3,381	63	1,966	66	2,820	53	1,642	55
Pacific	232	51.8	5,419	23.4	1,211	491,658	472,867	87	2,042	106	391,717	72	1,696	88
Alaska	1	25.4	14	22.4	567	1,515	1,475	102	2,287	58	1,404	100	2,176	55
California	181	55.4	4,237	23.4	1,295	396,992	381,194	90	2,104	117	310,835	73	1,720	95
Hawaii	3	22.0	57	20.5	450	5,072	4,797	84	1,721	38	4,241	74	1,530	33
Oregon	19	42.8	417	22.6	968	34,460	33,179	80	1,798	77	29,872	72	1,623	69
Washington	29	46.0	693	24.3	1,118	53,619	52,221	75	1,831	84	45,365	65	1,595	73
Outlying areas <sup>2</sup>	26	37.0	622	23.5	872	43,152	38,390	62	1,452	54	25,882	42	980	36

<sup>1</sup>Does not reflect beneficiaries who did not receive program payments during the reporting year.

<sup>2</sup>Includes Puerto Rico, Virgin Islands, Guam, and other outlying areas.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System, data development by the Office of Research and Demonstrations.

\$1,139 in Iowa to \$3,247 in Tennessee, a nearly threefold difference.

### Type of agency and service patterns

Table 6.8 shows the distribution of Medicare beneficiaries using HHA services during 1990, classified by type of agency and type of visit. Proprietary and private non-profit HHAs served more beneficiaries, provided more visits, and received more payments than any other type of agency. Proprietary and private non-profit HHAs accounted for an estimated 37.3 percent (734,000) of all persons receiving HHA services, 46.7 percent (32.8 million) of all HHA visits, and 46.1 percent (\$2.2 billion) of all HHA visit charges.

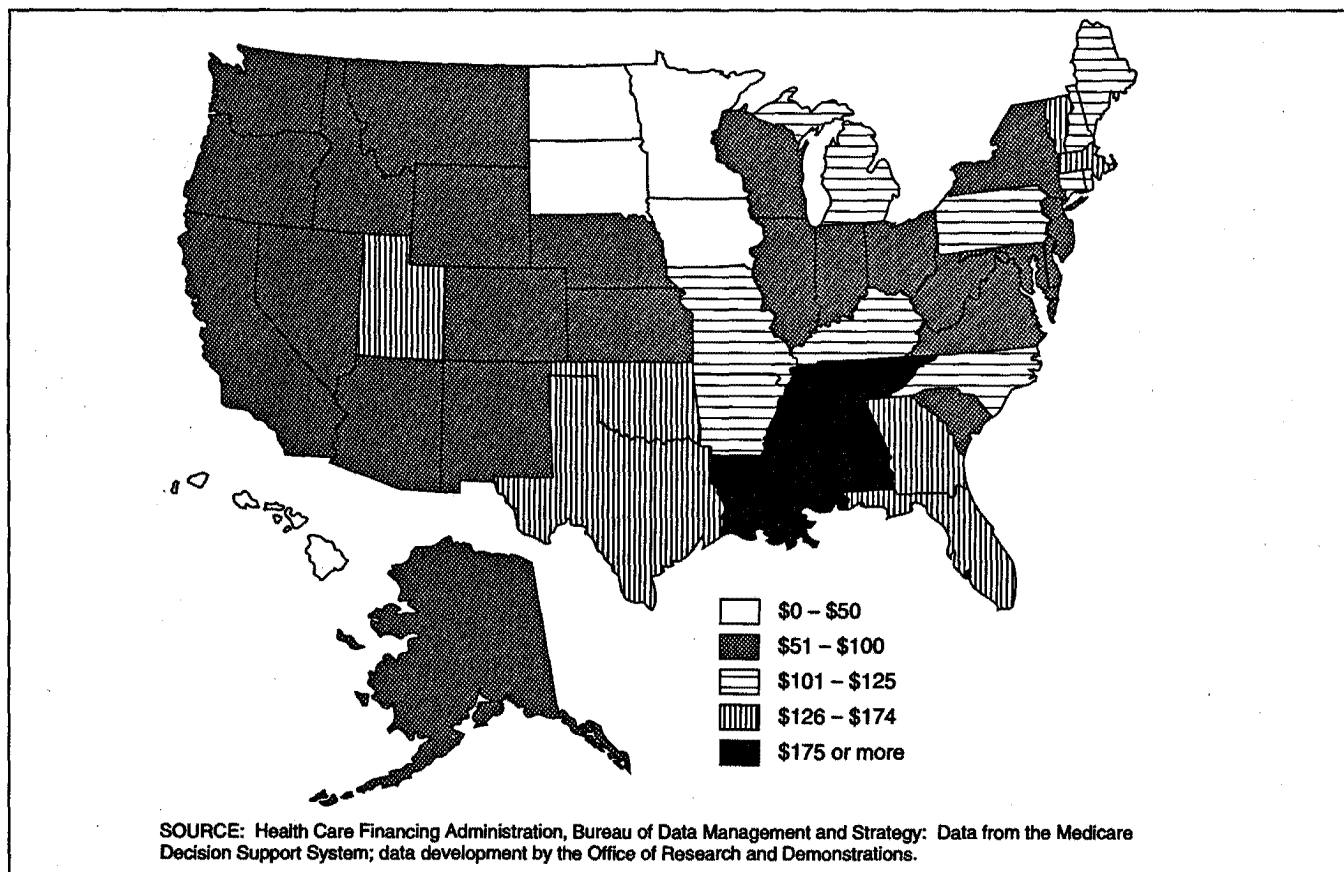
The pattern of service for proprietary and private non-profit HHAs differed notably from other types of HHAs. As shown in Table 6.8, the average total visit charge per person served for proprietary and private non-profit HHAs was \$3,049, or about 23 percent higher than the average visit charge for all HHAs

(\$2,469). Medicare beneficiaries served by proprietary and private non-profit HHAs received an average of 44.7 visits per person served, which was 25 percent higher than the national average (35.7).

In addition to differing from other agencies in the volume of services furnished to Medicare beneficiaries, proprietary and private non-profit HHAs also differed in the distribution of visits by type of service. Proprietary and private non-profit HHAs had the lowest relative share of nursing care visits (44.7 percent) and the next to lowest share of physical therapy visits (8.4 percent). In contrast, they had the highest proportion of home health aide visits (44.2 percent) among all types of HHAs.

As shown in Figure 6.9, a substantial change occurred between 1974-90 in the distribution of visits and visit charges by type of HHA visit. Visits for home health aide services increased from 23.4 percent of all HHA visits in 1974 to 40.6 percent in 1990. A similar increase was noted in the proportion of visit charges for home health aide services (from 20.5 percent to

**Figure 6.7**  
**Average Medicare program payments per enrollee for home health agency services:**  
**United States, calendar year 1990**



**Table 6.8**  
**Number of persons using home health agency services, visits, and charges,**  
**by type of agency and type of visit: Calendar year 1990**

Type of visit	All agencies <sup>1</sup>	Visiting nurse association	Combined government and voluntary	Government	Hospital based	Proprietary and non-profit	Other
<b>Persons served in thousands</b>							
Total <sup>2</sup>	1,967	434	16	205	530	734	49
Nursing care	1,808	398	14	190	483	678	44
Home health aide	841	169	5	89	206	352	21
Physical therapy	619	147	5	53	166	231	17
Speech therapy	48	11	( <sup>3</sup> )	4	13	18	1
Occupational therapy	118	32	1	7	31	43	4
Other <sup>4</sup>	281	65	2	18	71	123	11
<b>Percent of persons served</b>							
Total <sup>2</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nursing care	91.9	91.8	90.2	93.1	91.0	92.4	90.8
Home health aide	42.8	38.9	34.9	43.3	38.8	48.0	42.2
Physical therapy	31.5	33.9	32.5	25.8	31.4	31.5	34.8
Speech therapy	2.4	2.6	1.9	2.1	2.4	2.5	2.7
Occupational therapy	6.0	7.4	8.1	3.4	5.8	5.8	8.9
Other <sup>4</sup>	14.8	15.3	10.0	8.8	13.5	16.7	22.3
<b>Visits in thousands</b>							
Total	70,268	13,216	389	7,130	15,219	32,790	1,524
Nursing care	33,079	6,612	202	3,286	7,608	14,648	723
Home health aide	28,532	4,682	122	3,090	5,548	14,510	581
Physical therapy	6,554	1,438	51	583	1,584	2,741	157
Speech therapy	578	119	3	55	142	246	13
Occupational therapy	851	209	7	65	195	349	26
Other <sup>4</sup>	681	155	4	52	147	300	23
<b>Percent of visits</b>							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nursing care	47.1	50.0	51.9	46.1	50.0	44.7	47.5
Home health aide	40.6	35.4	31.5	43.3	36.5	44.2	38.1
Physical therapy	9.3	10.9	13.1	8.2	10.4	8.4	10.3
Speech therapy	0.8	0.9	0.8	0.8	0.9	0.8	0.9
Occupational therapy	1.2	1.6	1.7	0.9	1.3	1.1	1.7
Other <sup>4</sup>	1.0	1.2	1.0	0.7	1.0	0.9	1.5
<b>Visit charges in thousands</b>							
Total	\$4,856,147	\$902,461	\$24,402	\$439,557	\$1,135,720	\$2,239,003	\$115,004
Nursing care	2,597,162	517,088	14,286	230,796	640,040	1,133,185	61,767
Home health aide	1,552,858	232,145	5,411	153,338	313,246	815,142	33,576
Physical therapy	523,536	111,822	3,595	42,249	136,064	216,325	13,481
Speech therapy	47,534	9,549	224	4,055	12,627	19,872	1,207
Occupational therapy	71,281	17,021	525	4,834	17,707	28,725	2,466
Other <sup>4</sup>	63,775	14,837	360	4,281	16,036	25,754	2,506
<b>Percent of visit charges</b>							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nursing Care	53.5	57.3	58.5	52.5	56.4	50.6	53.7
Home health aide	32.0	25.7	22.2	34.9	27.6	36.4	29.2
Physical therapy	10.8	12.4	14.7	9.6	12.0	9.7	11.7
Speech therapy	1.0	1.1	0.9	0.9	1.1	0.9	1.0
Occupational therapy	1.5	1.9	2.2	1.1	1.6	1.3	2.1
Other <sup>4</sup>	1.3	1.6	1.5	1.0	1.4	1.2	2.2
<b>Average number of visits per person served</b>							
Total	35.7	30.5	24.7	34.8	28.7	44.7	31.3
Nursing care	18.3	16.6	14.2	17.3	15.8	21.6	16.3
Home health aide	33.9	27.8	22.3	34.9	27.0	41.2	28.2
Physical therapy	10.6	9.8	10.0	11.0	9.5	11.9	9.3
Speech therapy	12.1	10.7	10.2	13.0	11.1	13.6	10.2
Occupational therapy	7.2	6.6	5.3	9.4	6.4	8.2	6.1
Other <sup>4</sup>	2.3	2.3	2.4	2.9	2.1	2.4	2.1

See footnotes at end of table.

**Table 6.8—Continued**  
**Number of persons using home health agency services, visits, and charges,**  
**by type of agency and type of visit: Calendar year 1990**

Type of visit	All agencies <sup>1</sup>	Visiting nurse association	Combined government and voluntary	Government	Hospital based	Proprietary and non-profit	Other
<b>Average visit charge per visit</b>							
Total	\$69	\$68	\$63	\$62	\$75	\$68	\$75
Nursing care	79	78	71	70	84	77	85
Home health aide	54	50	44	50	56	56	58
Physical therapy	80	78	70	72	86	79	86
Speech therapy	82	80	73	73	89	81	90
Occupational therapy	84	81	77	75	91	82	93
Other <sup>4</sup>	94	95	95	83	109	86	108
<b>Average visit charge per person served</b>							
Total	\$2,469	\$2,082	\$1,550	\$2,148	\$2,142	\$3,049	\$2,359
Nursing care	1,436	1,299	1,007	1,212	1,326	1,671	1,396
Home health aide	1,846	1,377	986	1,732	1,523	2,314	1,631
Physical therapy	845	760	704	800	818	936	796
Speech therapy	993	858	741	953	990	1,097	918
Occupational therapy	606	533	411	704	580	674	570
Other <sup>4</sup>	219	223	229	237	225	210	230

<sup>1</sup>Includes rehabilitation-based and skilled nursing facility-based agencies not shown separately.

<sup>2</sup>Numbers do not add to totals because persons may receive more than 1 type of service.

<sup>3</sup>Less than 500 persons served.

<sup>4</sup>Includes medical social services and other health disciplines.

NOTE: Numbers may not add to totals because of rounding.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

32.0 percent). During the period 1974-90, the proportion of nursing care visits to all visits dropped from 64.6 percent in 1974 (Ruther and Helbing, 1988) to 47.1 percent in 1990, and the proportion of nursing care visit charges dropped from 65.5 percent in 1974 to 53.5 percent in 1990.

## Changes in visit patterns

Table 6.10 shows the distribution of visits for Medicare beneficiaries receiving HHA services for calendar years 1987 and 1990. Approximately 32.8 percent (645,000) of all HHA persons served received less than 10 HHA visits during 1990 (Figure 6.11). On the other hand, about 8.8 percent (172,000) of the beneficiaries had 100 HHA visits or more.

As previously noted, there was a significant increase in the number of Medicare HHA visits from 1987 (36.1 million) to 1990 (70.3 million), which reflects the implementation of the HIM-11 coverage revisions. A large proportion of this growth in the number of visits was associated with beneficiaries who had more than 100 HHA visits during the year. That is, the proportion of Medicare beneficiaries who had more than 100 visits rose from 3.8 percent in 1987 to 8.8 percent in 1990. These beneficiaries accounted for 15.1 percent of all visits in 1987, which jumped to 44.0 percent of all visits in 1990; similarly, the proportion of payments for this group rose from 23.5 percent to 40.8 percent.

The percent of beneficiaries with fewer than 10 visits dropped from 41.8 in 1987 to 32.8 in 1990. These beneficiaries accounted for 8.8 percent and 4.5 percent,

respectively, of all HHA visits in 1987 and 1990; similarly, they accounted for 9.4 percent and 5.1 percent, respectively, of all HHA payments.

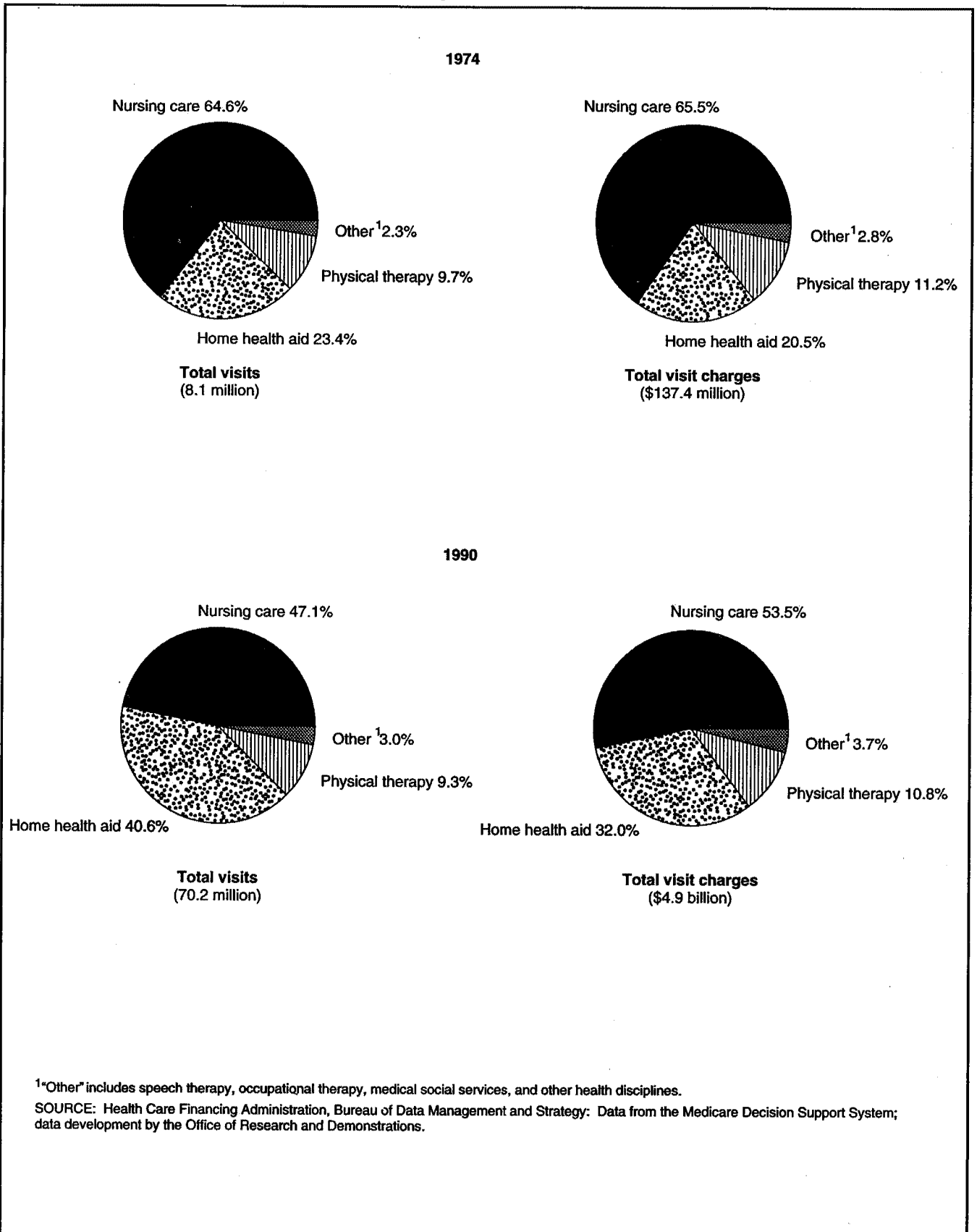
## Principal diagnosis

Data in Table 6.12 present the use of and payments for HHA services in 1990 by 35 selected leading principal diagnoses classified by major diagnostic category (MDC). The principal diagnosis is the condition reported by the attending physician as responsible for the patient needing HHA services. The principal diagnoses are derived from the HCFA-1450 billing form, and are coded on the basis of the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)* coding manual. The 35 leading diagnoses (based on frequency of occurrence) for HHA Medicare patients accounted for about 63 percent (1.24 million) of all persons served, and 64.4 percent (\$2.39 billion) of all HHA payments.

The most frequently reported diagnostic condition for HHA patients in 1990 was diabetes mellitus (code 250). This condition accounted for 6.9 percent (136,300) of all persons using HHA services, and about 8.3 percent (\$309.0 million) of all HHA payments. Beneficiaries with diabetes averaged 45 visits per person served, about 25 percent above the national average of 36; their average payment per person was \$2,271, or about 20 percent above that for all conditions (\$1,892).

The second and third leading diagnoses for HHA patients in 1990 were heart failure (code 428), and acute cerebrovascular disease (code 436), respectively. These two conditions, together, accounted for 11.8 percent

**Figure 6.9**  
**Percent distribution of Medicare home health visits and visit charges, by type of visit:**  
**Calendar years 1974 and 1990**



<sup>1</sup>"Other" includes speech therapy, occupational therapy, medical social services, and other health disciplines.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

(232.0 thousand) of all persons served, and 12.6 percent (\$467.4 million) of all HHA payments. Both of these diagnoses are included in the MDC diseases of the circulatory system; this MDC alone was responsible for 28.3 percent (556,200) of all persons served, and 27.6 percent (\$1,03 billion) of all HHA payments. HHA beneficiaries with heart failure received an average of 34 visits per person, and incurred an average payment of \$1,753; both of these figures were slightly below the national average. Patients with the principal diagnosis of acute cerebrovascular disease had an estimated 44 visits per person, and an average payment of \$2,383; both of these figures were substantially above that for all HHA beneficiaries.

There were two other common principal diagnoses for Medicare beneficiaries receiving HHA services in 1990. Persons with fracture of neck of femur (code 820) accounted for about 3.5 percent (69,300) of all persons served, and 2.9 percent (\$107.8 million) of all HHA payments. Beneficiaries with osteoarthritis and allied disorders (code 715) accounted for 4.0 percent (79,300) of all HHA beneficiaries, and comprised 2.6 percent (\$96.3 million) of all HHA payments.

The five most frequently reported HHA principal diagnostic conditions for 1990 are presented in Figure 6.13, which shows the number of persons served and average payment per person for each of these diagnoses; comparable data are also presented for each of these five leading conditions in 1987. Among these principal diagnoses, the greatest relative change in the number of persons served was recorded for osteoarthritis which increased 65 percent (from 48,000 in 1987 to 79,000 in 1990).

The use of and payment for HHA services varied considerably among the leading principal diagnoses.

The average number of visits per person served ranged from a low of 22 for patients with either malignant neoplasm of trachea, bronchus, and lung (code 162), or osteoarthritis and allied disorders (code 715) to a high of 74 for beneficiaries with other paralytic syndromes (code 344). Similarly, the average payment per person served ranged from \$1,218 for patients with osteoarthritis and allied disorders to \$3,972 for patients with other paralytic syndromes.

As shown in Table 6.14, there was a shift in the numbers and percent distribution of Medicare HHA beneficiaries for 15 selected leading principal diagnoses from 1987 to 1990. The largest relative change in persons served (80 percent) was noted for beneficiaries with the principal diagnosis of general symptoms (code 780); the proportion increased from 0.9 percent of all HHA persons served in 1987 to 1.3 percent in 1990. The average payment per person served for this principal diagnosis rose from \$933 to \$1,701 during this period. There was also a large rate of increase (67 percent) in the number of persons with the principal diagnosis of pneumonia, organism unspecified (code 486), which grew from 1.7 percent for all beneficiaries in 1987 to 2.2 percent in 1990. The average payment for this condition increased during this period from \$945 to \$1,527. In contrast, there was a slight decrease in the percent of persons served who had the principal diagnosis of acute myocardial infarction (code 410); their proportion of discharges dropped from 2.0 percent in 1987 to 1.7 percent in 1990.

## Supply and utilization differences

Table 6.15 shows that as of December 1990, there were 5,708 HHAs certified to participate in the

**Table 6.10**  
Number of persons using home health agency services, visits, total charges, and program payments, by number of visits: Calendar years 1987 and 1990

Number of visits	Persons served		Visits		Total charges		Program payments	
	Number in thousands	Percent	Number in thousands	Percent	Amount in thousands	Percent	Amount in thousands	Percent
<b>1987</b>								
Total	1,564	100.0	36,088	100.0	\$2,211,138	100.0	\$1,792,479	100.0
1-9	655	41.8	3,160	8.8	206,635	9.3	168,244	9.4
10-19	383	24.5	5,301	14.7	339,784	15.4	275,903	15.4
20-29	186	11.9	4,457	12.3	281,447	12.7	228,279	12.7
30-39	103	6.6	3,505	9.7	218,079	9.9	177,168	9.9
40-49	63	4.0	2,777	7.7	172,296	7.8	138,632	7.8
50-99	116	7.4	7,845	21.7	474,301	21.5	382,825	21.4
100 or more	59	3.8	9,043	15.1	518,595	23.5	421,428	23.5
<b>1990</b>								
Total	1,967	100.0	70,268	100.0	\$5,031,248	100.0	\$3,713,652	100.0
1-9	645	32.8	3,189	4.5	260,309	5.2	191,040	5.1
10-19	450	22.9	6,272	8.9	498,243	9.9	366,365	9.9
20-29	243	12.3	5,845	8.3	450,737	9.0	334,080	9.0
30-39	148	7.5	5,049	7.2	381,925	7.6	284,148	7.7
40-49	98	5.0	4,332	6.2	323,263	6.4	239,336	6.4
50-99	212	10.8	14,628	20.8	1,053,527	20.9	784,523	21.1
100 or more	172	8.8	30,952	44.0	2,063,345	41.0	1,514,160	40.8

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.



Medicare program. Selected utilization and payment data are presented for these agencies, classified by the type of agency.

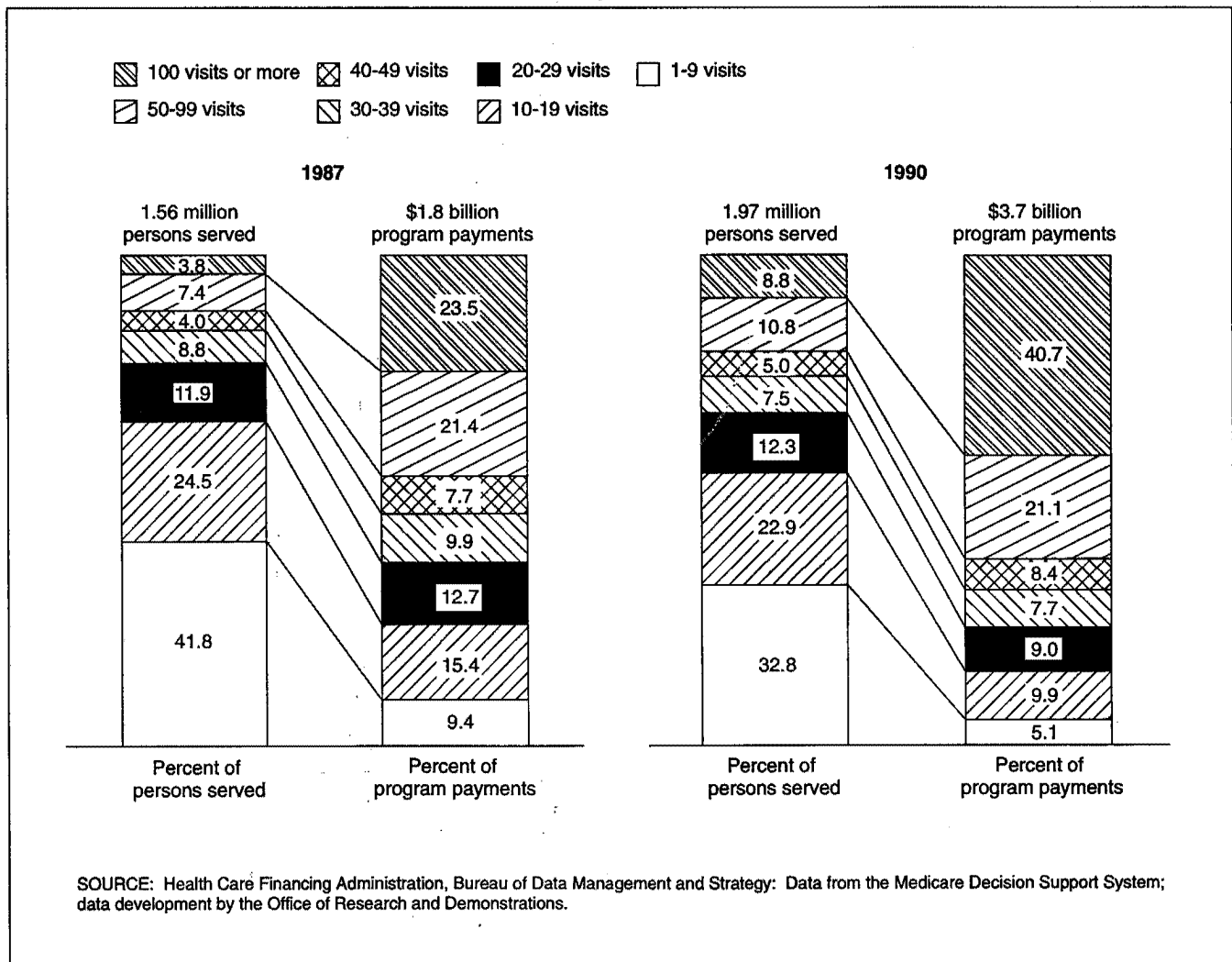
The number of Medicare-certified HHAs increased substantially since 1980 when there were 2,924 (Health Care Financing Administration, 1987). Most of this growth occurred in the early 1980s reflecting ORA 1980 (Public Law 96-499), which contained the provisions permitting proprietary HHAs to operate in States not having licensure laws. During this period, the distribution of HHAs by type of agency changed significantly. In 1980, the four main types of HHA were government (43 percent), proprietary and private non-profit (23 percent), visiting nurse association (VNA) (18 percent), and hospital-based (12 percent) (Health Care Financing Administration, 1987). In 1990, proprietary and private non-profit HHAs rose to 44 percent (2,533) of the total HHAs, and hospital-based HHAs increased to 27 percent (1,539) of all HHAs. At the same time, government HHAs dropped to 17 percent (996) of the total HHAs and VNA fell to 9 percent (492).

In 1990, approximately 37.3 percent (734,238) of all Medicare beneficiaries using HHA services received those services from proprietary and private non-profit HHAs. As shown in Figure 6.16, these agencies accounted for 46.7 percent (32.8 million) of all HHA visits and 43.8 percent (\$1.6 billion) of all HHA payments. The average payment per person served was \$2,214 for beneficiaries incurring services in proprietary and private non-profit HHAs or about 17 percent higher than that for all HHAs (\$1,888).

The number of hospital-based HHAs grew substantially during the 1980s and represented the second most common type of agency in 1990. Hospital-based HHAs accounted for 27.0 percent (530,173) of all persons served, 21.7 percent (15.2 million) of all visits, and 24.1 percent (\$894.8 million) of all HHA payments during 1990. This growth may reflect the implementation of the Medicare PPS which provided incentives for short-stay hospitals to decrease the inpatient length of stay. Direct provision of post-hospital home health care by a hospital's own HHA was one mechanism to achieve

Figure 6.11

Distribution of Medicare home health agency persons served and program payments, by number of visits: Calendar years 1987 and 1990



**Table 6.12**  
**Number of persons using home health agency services, visits, total charges, visit charges, and program payments, by selected principal diagnoses within major diagnostic classification (MDC): Calendar year 1990**

Principal ICD-9-CM diagnosis <sup>1</sup> within major diagnostic classification	Principal ICD-9-CM codes	Persons served		Visits			Visit charges			Program payments			
		Number in thousands	Percent	Number in thousands	Per person served	Per 1,000 enrollees	Total charge in thousands	Amount in thousands	Per visit	Per person served	Amount in thousands	Per visit	Per person served <sup>2</sup>
Total, all diagnoses <sup>3</sup>	—	1,967.1	100.0	70,268	36	2,054	\$5,031,248	\$4,856,147	\$69	\$2,469	\$3,713,652	\$53	\$1,892
Total, leading diagnoses <sup>4</sup>	—	1,238.8	63.1	45,472	37	1,329	3,242,676	3,131,174	69	2,528	2,389,535	55	1,933
Infectious and parasitic diseases (MDC 1)	001-139	13.8	0.7	438	32	13	32,609	31,027	71	2,247	24,070	55	1,747
Neoplasms (MDC 2)	140-239	180.7	9.2	4,760	26	139	352,944	339,704	71	1,880	264,639	56	1,468
Malignant neoplasm of colon	153	12.5	0.6	305	24	9	23,051	22,083	72	1,772	17,197	56	1,384
Malignant neoplasm of rectum, rectosigmoid junction, and anus	154	14.9	0.8	382	26	11	29,374	27,891	73	1,869	21,615	57	1,452
Malignant neoplasm of trachea, bronchus, and lung	162	28.2	1.4	625	22	18	45,698	44,660	71	1,585	34,808	56	1,239
Malignant neoplasm of female breast	174	15.6	0.8	427	27	12	31,599	30,462	71	1,955	23,845	56	1,534
Malignant neoplasm of prostate	185	14.3	0.7	389	27	11	28,117	26,885	69	1,876	21,413	55	1,498
Endocrine, nutritional, and metabolic diseases and immunity disorders (MDC 3)	240-279	168.5	8.6	7,280	43	213	506,744	494,339	68	2,934	366,982	50	2,182
Diabetes mellitus	250	136.3	6.9	6,127	45	179	427,592	418,047	68	3,066	309,038	50	2,271
Disorders of fluid, electrolyte, and acid-base balance	276	19.5	1.0	695	36	20	47,227	45,449	65	2,331	34,436	50	1,768
Diseases of the blood and blood forming organs (MDC 4)	280-289	38.7	2.0	1,641	42	48	103,766	101,565	62	2,624	79,474	48	2,056
Other deficiency anemias	281	18.2	0.9	762	42	22	45,910	45,196	59	2,490	36,540	48	2,015
Mental disorders (MDC 5)	290-319	15.7	0.8	493	31	14	34,728	34,273	69	2,188	26,002	53	1,665
Diseases of the nervous system and sense organs (MDC 6)	320-389	65.8	3.4	2,713	41	79	188,043	179,375	66	2,725	144,157	53	2,198
Other paralytic syndromes	344	13.0	0.7	958	74	28	65,632	60,309	63	4,652	51,323	54	3,972
See footnotes at end of table.													

Table 6.12—Continued

Number of persons using home health agency services, visits, total charges, visit charges, and program payments, by selected principal diagnoses within major diagnostic classification (MDC): Calendar year 1990

Principal ICD-9-CM diagnosis <sup>1</sup> within major diagnostic classification	Principal ICD-9-CM codes	Persons served		Visits			Visit charges			Program payments			
		Number in thousands	Percent	Number in thousands	Per person served	Per 1,000 enrollees	Total charge in thousands	Amount in thousands	Per visit	Per person served	Amount in thousands	Per visit	Per person served <sup>2</sup>
Diseases of the circulatory system (MDC 7)	390-459	556.2	28.3	19,683	35	575	\$1,397,220	\$1,367,164	\$69	\$2,458	\$1,026,669	\$52	\$1,849
Essential hypertension	401	63.5	3.2	2,405	38	70	167,382	164,970	69	2,597	115,987	48	1,829
Acute myocardial infarction	410	33.7	1.7	800	24	23	57,934	57,276	72	1,699	43,539	54	1,294
Other acute and subacute forms of ischemic heart disease	411	17.3	0.9	502	29	15	37,428	37,079	74	2,146	26,362	53	1,529
Angina pectoris	413	13.1	0.7	397	30	12	27,974	27,729	70	2,122	20,423	51	1,566
Other forms of chronic ischemic heart disease	414	33.3	1.7	857	26	25	61,952	60,963	71	1,830	45,446	53	1,368
Cardiac dysrhythmias	427	30.6	1.6	941	31	28	67,911	67,031	71	2,188	48,420	51	1,585
Heart failure	428	134.4	6.8	4,511	34	132	315,249	309,723	69	2,304	235,217	52	1,753
Transient cerebral ischemia	435	13.9	0.7	427	31	12	29,565	29,114	68	2,098	22,167	52	1,601
Acute, but ill-defined, cerebrovascular disease	436	97.6	5.0	4,334	44	127	310,383	303,536	70	3,109	232,159	54	2,383
Other peripheral vascular disease	443	12.1	0.6	533	44	16	37,619	36,129	68	2,994	28,232	53	2,343
Diseases of the respiratory system (MDC 8)	460-519	161.3	8.2	5,112	32	149	361,771	354,346	69	2,197	270,207	53	1,679
Pneumonia, organism unspecified	486	43.4	2.2	1,234	28	36	87,779	85,488	69	1,970	66,251	54	1,530
Chronic airway obstruction, not elsewhere classified	496	52.6	2.7	1,713	33	50	122,023	120,526	70	2,292	90,847	53	1,731
Diseases of the digestive system (MDC 9)	520-579	94.8	4.8	2,669	28	78	192,683	186,822	70	1,971	143,365	54	1,516
Intestinal obstruction without mention of hernia	560	17.5	0.9	473	27	14	34,648	33,343	70	1,903	25,545	54	1,462
Gastrointestinal hemorrhage	578	14.3	0.7	400	28	12	28,455	27,865	70	1,951	21,661	54	1,521
Diseases of the genitourinary system (MDC 10)	580-629	52.8	2.7	2,084	39	61	145,483	137,779	66	2,608	106,933	51	2,028
Other disorders of urethra and urinary tract	599	22.1	1.1	1,038	47	30	72,131	68,211	66	3,084	52,181	50	2,363

See footnotes at end of table.

Table 6.12—Continued

**Number of persons using home health agency services, visits, total charges, visit charges, and program payments, by selected principal diagnoses within major diagnostic classification (MDC): Calendar year 1990**

Principal ICD-9-CM diagnosis <sup>1</sup> within major diagnostic classification	Principal ICD-9-CM codes	Persons served		Visits			Visit charges			Program payments			
		Number in thousands	Percent	Number in thousands	Per person served	Per 1,000 enrollees	Total charge in thousands	Amount in thousands	Per visit	Per person served	Amount in thousands	Per visit	Per person served <sup>2</sup>
Diseases of the skin and subcutaneous tissue (MDC 12)	680-709	83.1	4.2	4,747	57	139	\$365,620	\$334,302	\$70	\$4,025	\$259,083	\$55	\$3,125
Other cellulitis and abscess	682	22.0	1.1	860	39	25	67,272	62,996	73	2,864	48,968	57	2,231
Diseases of sebaceous glands	707	52.6	2.7	3,524	67	103	271,151	245,552	70	4,672	190,488	54	3,631
Diseases of the musculoskeletal system and connective tissue (MDC 13)	710-739	167.4	8.5	4,568	27	134	328,748	323,466	71	1,932	246,077	54	1,473
Osteoarthritis and allied disorders	715	79.3	4.0	1,768	22	52	129,415	128,209	73	1,618	96,344	54	1,218
Other and unspecified arthropathies	716	14.0	0.7	436	31	13	29,754	29,332	67	2,097	22,011	50	1,577
Other and unspecified disorders of back	724	13.4	0.7	334	25	10	24,379	24,110	72	1,803	18,444	55	1,383
Other disorders of bone and cartilage	733	16.2	0.8	591	37	17	41,629	41,150	70	2,541	31,206	53	1,929
Congenital anomalies (MDC 14)	740-759	3.9	0.2	99	26	3	7,169	7,030	71	1,824	5,272	53	1,371
Symptoms, signs, and other ill defined conditions (MDC 16)	780-799	109.5	5.6	5,059	46	148	352,106	327,504	65	2,991	264,520	52	2,420
General Symptoms	780	25.2	1.3	829	33	24	56,437	55,107	66	2,184	42,926	52	1,704
Symptoms involving urinary system	788	47.0	2.4	2,894	62	85	196,953	177,948	61	3,786	149,407	52	3,183
Injury and poisoning (MDC 17)	800-999	235.1	12.0	7,697	33	225	570,623	551,093	72	2,344	421,377	55	1,796
Fracture of neck and femur	820	69.3	3.5	1,959	28	57	142,434	140,347	72	2,027	107,782	55	1,560
Fracture of other and unspecified parts of femur	821	12.2	0.6	372	30	11	27,070	26,671	72	2,184	20,917	56	1,716
Open wound of other and unspecified sites, except limbs	879	15.9	0.8	672	42	20	53,551	49,787	74	3,141	36,387	54	2,299
Supplementary classification of factors influencing health status and contact with health services	V01-V82	12.9	0.7	409	32	12	29,791	28,153	69	2,177	22,783	56	1,766

<sup>1</sup>ICD-9-CM is *International Classification of Diseases, 9th Revision, Clinical Modification* (Volume 1). Although as many as 5 ICD-9-CM codes are reported on HCFA Form-1450, only the principal diagnosis (first listed) has been used.

<sup>2</sup>Does not reflect beneficiaries who did not receive program payments during the reporting year.

<sup>3</sup>Includes invalid codes not listed separately.

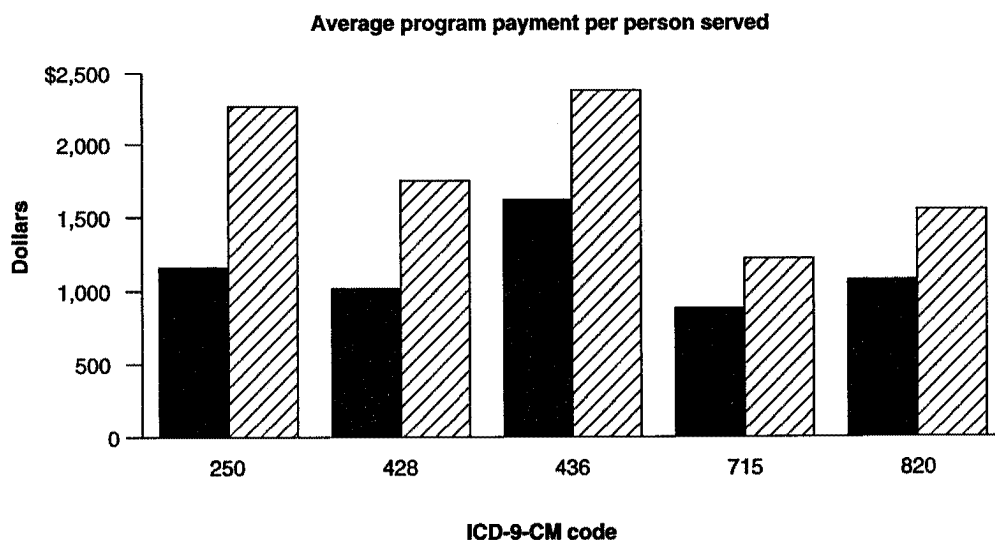
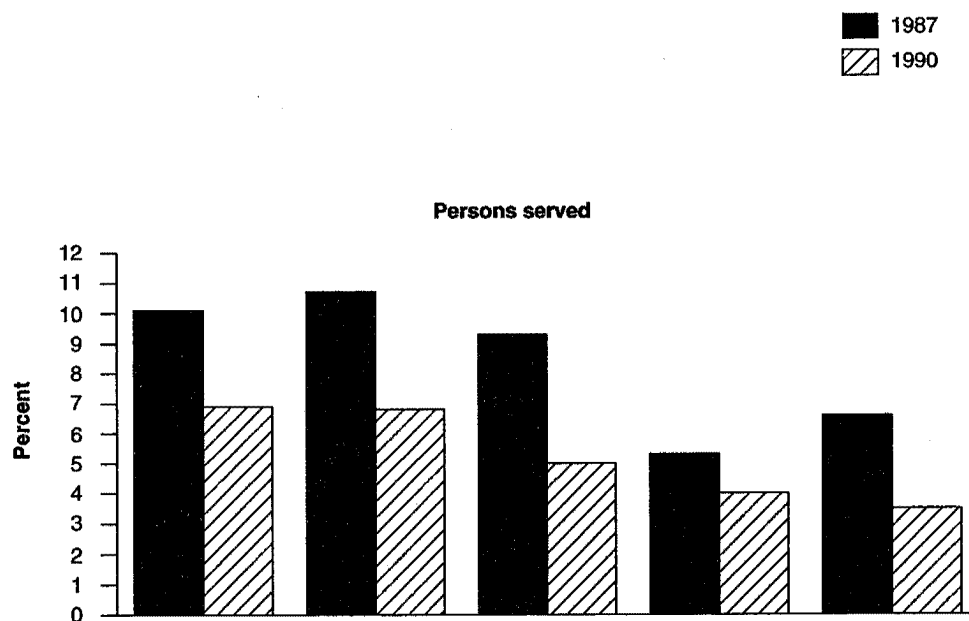
<sup>4</sup>Specific leading diagnostic categories were selected for presentation because of frequency of occurrences or because of special interest.

NOTE: Numbers may not add to totals because of rounding: MDC 11 and 15 were not shown separately (but included in the total), because they were not for the most part, not applicable to Medicare beneficiaries.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy; Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

Figure 6.13

Top five Medicare home health agency principal diagnoses based on frequency:  
Calendar years 1987 and 1990



NOTES: Diagnoses have the following codes from the *International Classification of Diseases, 9<sup>th</sup> Revision, Clinical Modification*: diabetes, 250; congestive heart disease, 428; acute cerebrovascular disease, 436; osteoarthritis, 715; fracture, neck of femur, 820. Total percent for persons served equals 1.97 million. Total dollars for average program payment per person served equals \$3.71 billion.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

Table 6.14

Persons served and program payments for Medicare home health agency services, by selected diagnoses:  
Calendar years 1987 and 1990

Principal ICD-9-CM diagnosis <sup>1</sup>	ICD-9-CM codes	1987					1990					Percent change 1987-90	
		Persons in thousands	Percent	Program payments			Persons in thousands	Percent	Program payments			Persons	Program payment
				Amount in thousands	Percent	Mean			Amount in thousands	Percent	Mean		
Total, all diagnoses	—	1,565	100.0	\$1,791,589	100.0	\$1,145	1,967	100.0	\$3,713,652	100.0	\$1,892	26	107
Total, selected leading diagnoses <sup>2</sup>	—	676	43.2	803,644	44.9	1,189	927	47.1	1,808,660	48.7	1,951	37	125
Malignant neoplasm of trachea, bronchus, and lung	162	25	1.6	20,479	1.1	819	28	1.4	34,808	0.9	1,236	12	70
Diabetes mellitus	250	92	5.9	107,311	6.0	1,166	136	6.9	309,038	8.3	2,267	48	188
Essential hypertension	401	40	2.6	40,470	2.3	1,012	64	3.2	115,987	3.1	1,826	59	187
Acute myocardial infarction	410	31	2.0	24,956	1.4	805	34	1.7	43,539	1.2	1,292	9	74
Other forms of chronic ischemic heart disease	414	21	1.3	18,832	1.1	897	33	1.7	45,446	1.2	1,364	59	141
Cardiac dysrhythmias	427	22	1.4	19,436	1.1	883	31	1.6	48,420	1.3	1,581	39	149
Heart failure	428	98	6.3	99,541	5.6	1,016	134	6.8	235,217	6.3	1,750	37	136
Acute, but ill-defined, cerebrovascular disease	436	85	5.4	136,903	7.6	1,611	98	5.0	232,159	6.3	2,378	15	70
Pneumonia, organism unspecified	486	26	1.7	24,561	1.4	945	43	2.2	66,251	1.8	1,527	67	170
Chronic airway obstruction, not elsewhere classified	496	34	2.2	34,111	1.9	1,003	53	2.7	90,847	2.4	1,728	55	166
Chronic ulcer of skin	707	41	2.6	83,287	4.6	2,031	53	2.7	190,488	5.1	3,624	28	129
Osteoarthritis and allied disorders	715	48	3.1	42,244	2.4	880	79	4.0	96,344	2.6	1,216	65	128
General symptoms	780	14	0.9	13,067	0.7	933	25	1.3	42,926	1.2	1,701	80	229
Symptoms involving urinary system	788	38	2.4	73,280	4.1	1,937	47	2.4	149,407	4.0	3,179	24	104
Fracture of femur	820	61	3.9	65,166	3.6	1,068	69	3.5	107,782	2.9	1,556	13	65

<sup>1</sup>ICD-9-CM is *International Classification of Diseases, 9th Revision, Clinical Modification* (Volume 1). Although as many as 5 ICD-9-CM codes are reported HCFA Form-1450, only the principal diagnosis code has been used.

<sup>2</sup>Based on frequency of occurrence in 1990.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

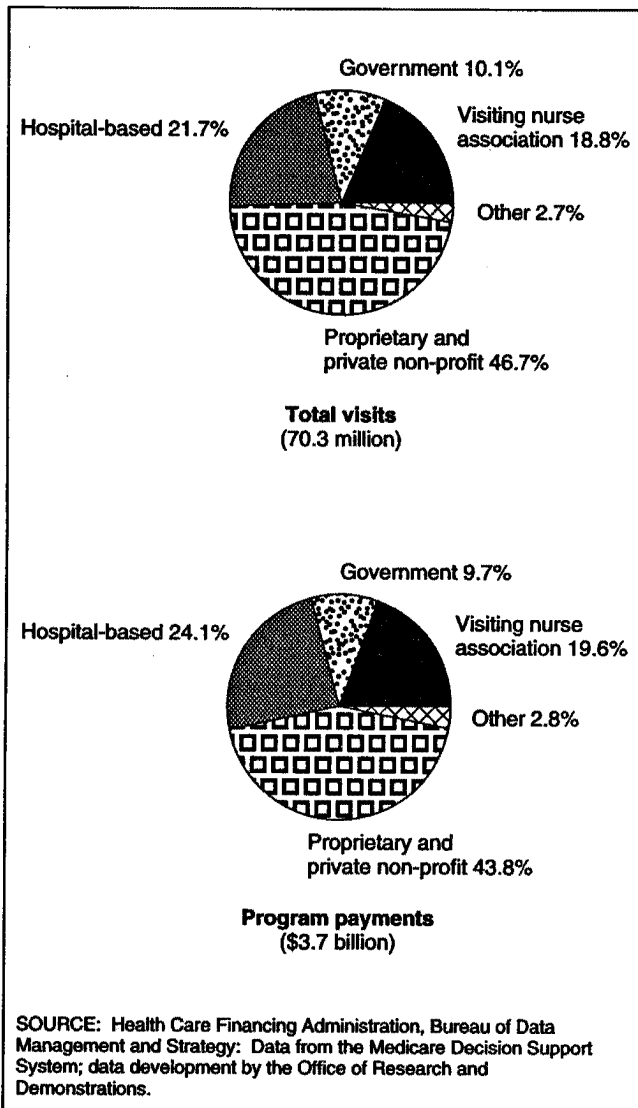
**Table 6.15**

**Number of providers, persons served, visits, visit charges, and program payments for Medicare home health agency services, by type of agency: Calendar year 1990**

Type of agency	Providers		Persons served		Visits			Visit charges			Program payments		
	Number	Percent	Number	Percent	Number in thousands	Percent	Per person	Amount in thousands	Percent	Per person	Amount in thousands	Percent	Per person
Total	5,708	100.0	1,967,085	100.0	70,268	100.0	36	\$4,856,147	100.0	\$2,469	\$3,713,652	100.0	\$1,888
Visiting nurse association	492	8.6	433,540	22.0	13,216	18.8	30	902,461	18.6	2,082	728,439	19.6	1,680
Combined government and voluntary	52	0.9	15,743	0.8	389	0.5	25	24,402	0.5	1,550	21,166	0.6	1,344
Government	996	17.4	204,645	10.4	7,130	10.1	35	439,557	9.0	2,148	359,098	9.7	1,755
Hospital-based agency	1,539	27.0	530,173	27.0	15,219	21.7	29	1,135,720	23.4	2,142	894,788	24.1	1,688
Proprietary and private non-profit	2,533	44.4	734,238	37.3	32,790	46.7	45	2,239,003	46.1	3,049	1,625,816	43.8	2,214
Other	96	1.7	48,748	2.5	1,524	2.2	31	115,004	2.4	2,359	84,346	2.2	1,730

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Decision Support System; data development by the Office of Research and Demonstrations.

**Figure 6.16**  
**Percent distribution of Medicare home health agency visits and program payments, by type of agency: Calendar year 1990**



shorter inpatient stays, and to provide additional revenues to make up for reduced revenues from the inpatient services.

## References

- Duggan et al. v. Bowen et al.*: U.S. District Court for the District of Columbia, Number 87-0383. Aug. 1, 1988.
- Gaumer, G., and Gianfrancesco, F.: *Post-hospital Care and PPS: A Synthesis*. Contract No. 500-88-0035. Prepared for Health Care Financing Administration. Oct. 1988.
- Health Care Financing Administration: Medicare participating providers and suppliers of health services. *Health Care Financing Research Brief*. No. 88-3. Office of Research. Baltimore, MD. Dec. 1987.
- Health Care Financing Administration: *Medicare Provider of Services Compendium, 1988*. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Spring 1990a.
- Health Care Financing Administration: Fiscal Year Data Derived from Bureau of Program Operations Quarterly Supplement to Intermediary Workload Report, HCFA Form 1566-A. Spring 1990b.
- Kenney, G. and Moon, M.: *Descriptive Analyses of Changes in Medicare SNF and Home Health Use*. Washington, DC. The Urban Institute, Aug. 1992.
- Ruther, M.: Medicare Participating Health Facilities, 1974-1980. *Health Care Financing Program Statistics*. HCFA Pub. No. 03148. Office of Research, Demonstrations, and Statistics. Health Care Financing Administration. Washington. U.S. Government Printing Office, Mar. 1981.
- Ruther, M., and Helbing, C.: Use and cost of home agency under Medicare. *Health Care Financing Review* 10(1):105-108. HCFA Pub. No. 03274. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Fall 1988.
- U.S. General Accounting Office: *Medicare Home Health Services: A Difficult Program to Control*, HRD-81-55, Gaithersburg, MD. Sept. 1981.
- U.S. General Accounting Office: *Medicare: Need to Strengthen Home Health Care Payment Controls and Address Unmet Needs*, HRD-87-9, Gaithersburg, MD. Dec. 1986.
- U.S. General Accounting Office: *Medicare: Increased Denials of Home Health Claims During 1986 and 1987*, HRD-90-14BR. Gaithersburg, MD. Jan. 1990.