Chapter 5: Skilled Nursing Facilities

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Introduction

Medicare provides basic health insurance coverage for more than 34 million people. Although Medicare coverage is fairly comprehensive, it is far from complete because its benefit structure was developed to provide services to treat acute care illnesses. The coverage gap in the basic Medicare structure is most evident in the skilled nursing facility (SNF) benefit area, where expenditures for traditional long-term nursing home care are not covered.

The SNF benefit was designed to reduce the length of stay in acute care hospitals. This benefit covers a relatively small share of national nursing home expenditures. In 1970, for example, Medicare SNF stays accounted for only about 4.1 percent ($0.2 billion) of the $4.9 billion in personal health care expenditures (PHCE) for nursing home care in the United States (Table 5.1) (Levit et al., 1991). The Medicare Catastrophic Coverage Act (MCCA) of 1988 (Public Law 100-360) significantly liberalized the Medicare SNF benefit. This was reflected in the near quadrupling of Medicare SNF expenditures (to $3.8 billion) in 1989. The revised guidelines represented an administrative action to clarify the benefit and to bring coverage determinations into closer compliance with the intent of the law. The issuance of the revised guidelines was independent of the subsequent passage of MCCA, and they remain in effect despite MCCA's subsequent repeal in 1990. These changes are discussed in greater detail later in this section.

In 1990, following the revision of guidelines for the coverage of SNF services, Medicare still accounted for only 4.7 percent ($2.5 billion) of all nursing home expenditures ($53.1 billion). Medicaid, in contrast, accounted for about 26.5 percent ($1.3 billion) and 45.6 percent ($24.2 billion) of all nursing home expenditures in 1970 and 1990, respectively (Figure 5.2).

The Medicare SNF benefit covers post-hospital skilled nursing care in facilities certified to participate in Medicare. A nursing home can be certified in whole or in part for participation in Medicare and/or Medicaid. As of December 1990, 15,709 nursing homes were certified to provide care under Medicare and/or Medicaid. Of this number, 8,514 were certified to serve both Medicare and Medicaid patients, 6,407 were certified to serve only Medicaid patients, and 788 were certified to serve only Medicare patients (Health Care Financing Administration, 1990).

Although the Medicare SNF benefit was conceived as a post-hospital subacute care benefit, the legislative intent of SNF coverage has been misunderstood and debated, and has been the focal point of numerous legislative initiatives, administrative regulations, and court rulings. In this chapter, we describe some of the major legislative and administrative actions that have been implemented during the past decade to restructure and redefine the SNF benefit. Data are presented to show the changes in utilization and payments in the Medicare SNF benefit that have resulted from the actions mentioned. We also present a variety of SNF utilization and cost data, classified by selected demographic, utilization, and provider characteristics.

Eligibility criteria

Medicare hospital insurance (HI) can help pay for care in a Medicare-participating SNF if all of the following six conditions are met:

- The patient's condition requires daily skilled nursing or skilled rehabilitation services that, as a practical matter, can only be provided in an SNF.
- The beneficiary was in a hospital at least 3 consecutive days before being admitted to a participating SNF.
- The beneficiary was admitted to an SNF within 30 days after leaving the hospital.
- The care in the SNF is for a condition that was treated in the hospital or for a condition that arose while the beneficiary was receiving care in the SNF for a condition that was treated in the hospital.
- A medical professional certifies that the beneficiary needs skilled nursing or skilled rehabilitation services on a daily basis.
- The Medicare intermediary does not disapprove the stay.

Medicare HI does not pay for the stay if the beneficiary needs skilled nursing or rehabilitation services only occasionally, such as once or twice a week, or if the patient does not need to be in an SNF to get the skilled services. Also, Medicare does not pay for the stay if the beneficiary is in an SNF for only custodial care.

Medicare allows a maximum of 100 covered days of SNF care per beneficiary per episode of illness. An episode of illness (or benefit period) begins on the first day the beneficiary received hospital services and ends when the patient has not been a hospital or SNF patient for 60 consecutive days. If a beneficiary is eligible for SNF care, Medicare pays for all covered SNF expenses for the first 20 days. After the 20th day, patients are required to pay for part of their SNF care. During 1990, daily coinsurance payments for the 21st through 100th day were $74 per day. The coinsurance is equal to one-eighth of the HI deductible. After 100 covered days, beneficiaries are financially responsible for all of the expenses they incur for SNF care. Those whose personal resources do not allow them to pay for all the care they need often turn to Medicaid for financial assistance.

The Omnibus Reconciliation Act of 1980 (Public Law ORA 96-499) authorized the national swing-bed program, allowing rural hospitals with fewer than 50 beds to provide Medicare-covered SNF care. In passing this legislation, Congress envisioned that it

Table 5.1

Personal health care expenditures (PHCE) and distribution of nursing home care expenditures, by selected source of payment: Selected calendar years 1960-91[1]

Year	PCHE in billions	Nursing home care expenditures													
		Total Nursing in billions	Percent of PHCE	Out-of-pocket payments		Private		Government							
								Total		Medicare		Medicaid		Other[2]	
				Amount in billions	Percent of nursing home expenditures	Amount in billions	Percent of nursing home expenditures	Amount in billions	Percent of nursing home expenditures	Amount in billions	Percent of nursing home expenditures	Amount in billions	Percent of nursing home expenditures	Amount in billions	Percent of nursing home expenditures
1960	$23.9	$1.0	4.2	$0.8	80.0	$0.1	10.0	$0.1	10.0	—	—	—	—	$0.1	10.0
1970	64.9	4.9	7.6	2.3	46.9	0.2	4.1	2.3	46.9	$0.2	4.1	$1.3	26.5	0.8	16.3
1988	482.8	42.8	8.9	20.6	48.1	1.3	3.0	20.9	48.8	1.0	2.3	19.0	44.4	0.9	2.1
1989	529.9	47.7	9.0	20.8	43.6	1.4	2.9	25.4	53.2	3.8	8.0	20.6	43.2	1.0	2.0
1990	585.3	53.1	9.1	23.9	45.0	1.6	3.0	27.7	52.2	2.5	4.7	24.2	45.6	1.0	1.9
1991[3]	660.2	59.9	9.1	25.8	43.1	1.7	2.8	32.3	53.9	2.7	4.5	28.4	47.4	1.2	2.0
								Average annual rate of change							
1970-90	11.6	12.7	—	12.4	—	11.0	—	13.2	—	13.5	—	15.7	—	1.1	—

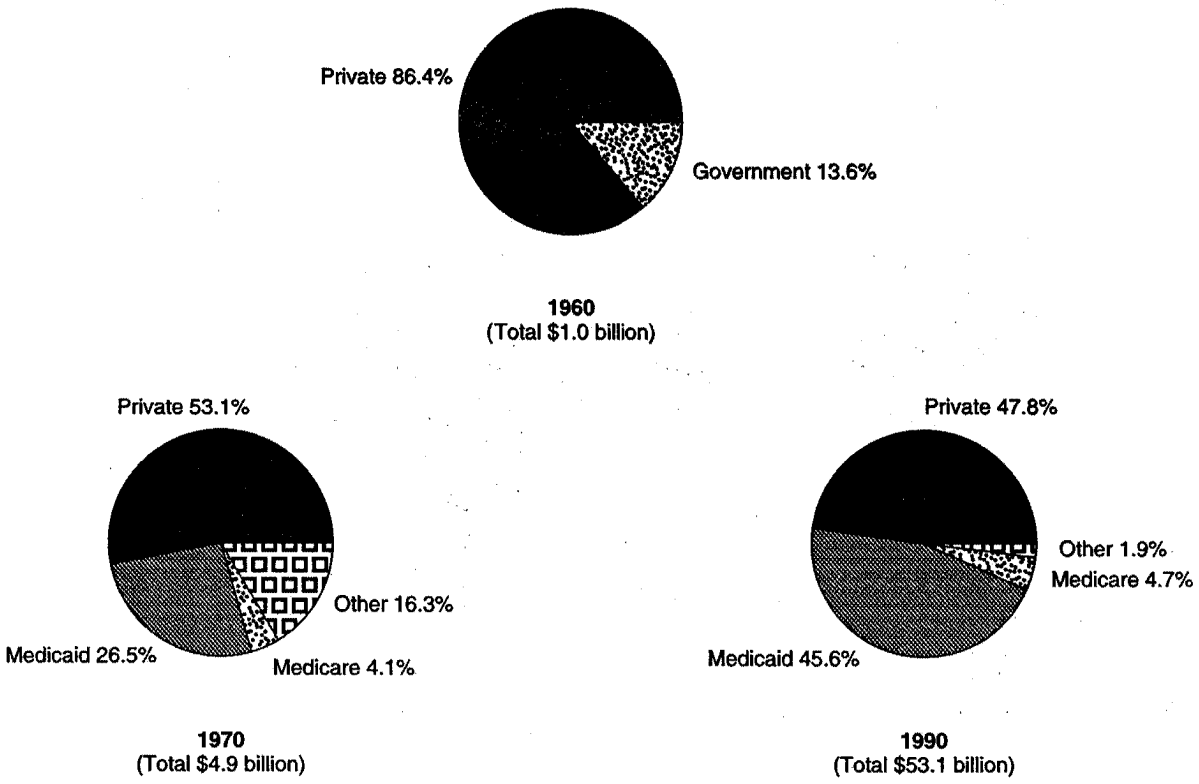
[1]Represents benefit payments aggregated on an incurred basis and 100-percent estimate. Because of differences in methodology and completeness, the benefit payments for Medicare skilled nursing home care are somewhat different than the Medicare program payments shown in the section.
[2]Includes non-Medicare/Medicaid Federal expenditures and non-Medicaid State and local expenditures.
[3]Preliminary data.

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

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

Figure 5.2

Nursing home care expenditures, by selected source of payment: Calendar years 1960, 1970, and 1990



SOURCE: Health Care Financing Administration: Data from the Office of the Actuary and the Office of National Cost Estimates.

would encourage more efficient and effective use of underutilized small rural hospitals for the delivery of skilled nursing care to Medicare beneficiaries in rural areas. Medicaid-covered SNF and intermediate care could also be provided if covered under State plans. Medicare payments for swing-bed nursing care are made only in those instances when the services furnished to Medicare beneficiaries meet the same skilled nursing or rehabilitation care criteria required for SNFs. The Omnibus Budget Reconciliation Act (OBRA) of 1987 (Public Law 100-203) extended the program to include rural hospitals with up to 99 short-stay certified beds.

Covered services

Nursing homes in the United States provide a variety of nursing and rehabilitation services for patients after an acute illness, as well as nursing and other services for persons with long-term chronic conditions. The Medicare SNF benefit, however, was specifically designed to provide only short-term post-hospital subacute and rehabilitative care needs. Approximately 54 percent of all nursing homes in the United States are certified to provide Medicare SNF care.

Medicare HI assists patients in paying for skilled nursing and rehabilitation services provided by SNFs participating in Medicare. The inpatient services in an SNF are at a lower level of care than that provided in a hospital, but SNF patients still require skilled nursing or rehabilitation services.

Medicare does not pay for custodial care when that is the only kind of care needed. Care is considered custodial when it is primarily for the purpose of helping the patient with personal needs and daily living activities, and the care could be provided safely and reasonably by staff without supervision from persons with professional health education or skill. For example, custodial care includes help in walking, getting in and out of bed, bathing, dressing, eating, and taking oral medicine.

A certified SNF is a facility that has the staff and equipment to provide skilled nursing care, skilled rehabilitation services, and other related health services and that meets the conditions of participation specified in regulations. Skilled nursing care means care that can only be performed by or under the supervision of licensed nursing personnel. Skilled rehabilitation services include physical therapy, occupational therapy, and speech pathology services performed by or under the supervision of a qualified professional.

If the SNF patient meets the level-of-care eligibility and coverage criteria, the following inpatient services provided by an SNF while the beneficiary is an inpatient of the SNF are covered:

- Nursing care provided by or under the supervision of a registered professional nurse.
- Bed and board in a semiprivate room (including special diets) in connection with the furnishing of nursing care.
- Physical therapy, occupational therapy, or speech pathology services furnished by an SNF or by other facilities under arrangement with the SNF.
- Psychological therapy for temporary depression or for dementia.
- Drugs, biologicals, supplies, appliances, and equipment that are for use in the SNF and that are ordinarily furnished by the SNF for the care and treatment of inpatients.
- Medical services of interns and residents-in-training under an approved teaching program of a hospital with which the SNF has in effect an agreement.
- Social services, activities, and other services necessary to the health of the patient.

Services considered beyond the scope of Medicare coverage include personal convenience items (such as television and telephone), private duty nurses, extra charges for a private room (unless needed for medical reasons), and the first three pints of blood in a benefit period. Physician services furnished to a beneficiary in an SNF are not covered under the SNF benefit, but are covered under the Medicare SMI program.

Legislative and administrative actions, 1983-90

The Federal regulations and provisions used to determine Medicare SNF eligibility and coverage guidelines have undergone substantial change during the past decade. The significant increase in the use and cost of Medicare SNF services during the period 1988-90 reflected, to a large degree, the following series of Federal administrative and legislative actions implemented during the period 1983-89:

Prospective payment system (PPS)—This was established, effective October 1, 1983, by the Social Security Amendments of 1983 (Public Law 98-21). Although PPS specifically concerns short-stay hospitals, the ramifications of the law affected all providers furnishing post-hospital care. PPS gives short-stay hospitals a financial incentive to discharge patients to appropriate post-hospital health care settings as soon as is medically feasible. It was expected that there would be a large increase in the use of post-hospital services.

Clarification of coverage—In April 1988, the Health Care Financing Administration (HCFA) clarified the coverage guidelines used by participating SNFs and fiscal intermediaries to assist them in determining which patients qualified for benefits. The revised guidelines provided a clearer understanding of the types of conditions that Medicare would cover under its SNF benefit; e.g., they provided positive examples of what services are covered and under what circumstances they are covered, rather than negative examples that specified when services would not be covered. These changes enabled SNF staff to more correctly identify patients meeting the Medicare SNF coverage requirements (Health Care Financing Administration, 1988).

Medicare Catastrophic Coverage Act (1988)—In January 1989, implementation of MCCA changed SNF eligibility provisions and reduced beneficiary out-of-pocket expenses. MCCA also liberalized eligibility requirements as follows:

- Removed the 3-day prior hospital stay required before an SNF admission.
- Increased the number of SNF days covered by Medicare from 100 to 150.
- Eliminated the episode-of-illness concept, providing a renewed period of 150 days of care each year for any qualifying medical condition.
- Changed the patient coinsurance structure, reducing patient financial liability and shifting most of the cost to Medicare. The SNF copayment was moved to the first 8 days of the 150-day coverage period, and the coinsurance amount was reduced to one-third of the cost of an SNF day of care (in 1989, this figure was $25.50 per day).

MCCA provided a clear financial incentive for SNFs to participate in Medicare (Office of Inspector General, 1991). Basically, MCCA significantly enlarged the potential SNF admission population. Instead of limiting the admission pool to only beneficiaries discharged from inpatient hospitals (6.5 million in 1990), the pool was expanded to include anyone who met the coverage requirements.

Omnibus Budget Reconciliation Act of 1987—This legislation changed the Medicaid facility participation requirements to match those for Medicare SNFs, e.g., criteria related to staffing, covered services, and care-need assessments. This legislation, for the most part, eliminated the incentive to remain a Medicaid-only nursing facility because the same conditions of participation apply to both programs.

Trends in benefits, 1967-90

The Medicare SNF benefit has historically covered only a relatively small share of total national expenditures for nursing home care. As intended by Congress, the Medicare SNF benefit was conceived as an acute care benefit to provide only relatively short-term post-hospital subacute care needs. As shown in Table 5.3, during the period 1967-90, Medicare SNF payments increased from $313 million to 1.8 billion in 1990, an average annual rate of change (AARC) of 8.0 percent. Medicare SNF payments, as a proportion all Medicare payments, have accounted for only about 1 to 2 percent during the study period (Figure 5.4).

During the early years of Medicare, the use of SNF services exceeded the level first estimated by Congress (U.S. Senate Committee on Finance, 1970). In 1967, SNF payments amounted to $313 million,

Table 5.3

Trends in covered days of care, covered charges, and program payments for skilled nursing facility services used by Medicare hospital insurance beneficiaries, and total Medicare program payments, by type of entitlement: Selected calendar years 1967-91

Type of entitlement and year	Covered days of care		Covered charges		Program payments					Total Medicare program payments in millions
	Number in thousands	Per 1,000 enrollees	Amount in millions	Per day	Amount in millions	Percent of covered charges	Percent of total Medicare program payments	Per enrollee	Per day	
All beneficiaries										
1967	19,997	1,026	NA	NA	$313	NA	6.6	$16	$16	$4,711
1969	17,572	878	NA	NA	371	NA	5.5	19	21	6,717
1971	6,481	361	NA	NA	195	NA	2.4	9	30	8,077
1973	8,629	370	$282	$33	231	81.9	2.4	9	27	9,639
1975	8,874	360	420	47	261	62.1	1.8	11	29	14,747
1977	9,612	368	498	52	313	62.8	1.5	12	33	21,094
1979	8,294	302	536	65	324	60.4	1.1	12	39	28,267
1981	8,575	300	697	81	403	57.8	1.0	14	47	41,022
1983	9,032	305	897	99	456	50.9	0.8	15	51	54,895
1984	8,864	296	975	110	465	47.7	0.8	16	52	56,761
1985	8,268	270	1,028	124	480	46.7	0.8	16	58	58,996
1986	7,770	249	1,123	144	501	44.6	0.7	16	65	68,583
1987	7,041	221	1,188	169	544	45.8	0.7	17	77	75,817
1988	11,802	364	1,982	168	964	48.7	1.2	30	82	80,595
1989	28,571	865	4,537	159	2,837	62.5	3.3	86	99	86,038
1990	21,242	630	4,263	201	1,827	42.9	1.8	54	86	101,419
1991[1]	21,853	635	5,197	237	2,215	42.6	1.9	64	101	118,546
				Average annual rate of change						
1967-90	0.3	-2.1	NA	NA	8.0	—	—	5.4	7.7	14.3
Aged beneficiaries										
1967	19,997	1,026	NA	NA	$313	NA	6.6	$16	$16	$4,711
1969	17,572	878	NA	NA	371	NA	5.5	19	21	6,717
1971	6,481	361	NA	NA	195	NA	2.4	9	30	8,077
1973	8,523	395	$278	$33	210	75.4	2.3	10	25	9,218
1975	8,585	382	406	47	252	62.0	1.9	11	29	13,178
1977	9,278	395	478	51	300	62.9	1.6	13	32	18,519
1979	7,988	325	513	64	310	60.4	1.3	13	39	24,491
1981	8,269	323	669	81	387	57.9	1.1	15	47	35,521
1983	8,738	328	865	99	441	51.0	0.9	17	50	47,949
1984	8,578	361	940	110	449	47.8	0.9	17	52	49,999
1985	7,986	288	988	124	463	46.9	0.9	17	58	52,148
1986	7,493	265	1,075	144	482	44.9	0.7	17	64	60,459
1987	6,785	231	1,136	167	524	46.1	0.8	18	77	67,893
1988	11,360	388	1,893	167	926	48.9	1.3	32	81	71,780
1989	27,216	911	4,300	158	2,698	62.7	3.5	90	99	76,356
1990	20,398	669	4,067	199	1,752	43.1	2.0	57	86	89,620
1991[1]	21,049	678	4,968	236	2,128	42.8	2.0	69	101	105,349
				Average annual rate of change						
1967-90	0.1	1.8	NA	NA	7.8	—	—	5.7	7.7	13.7

See footnotes at end of table.

approximately 10 times the actuarial projection. In 1968, SNF expenditures increased further, to $402 million. It was apparent that the SNF benefit was being misinterpreted to provide long-term nursing home care beyond the scope described by the legislation. As a result, in April of 1969, the Social Security Administration (1969) issued Intermediary Letter No. 371, which re-emphasized the legislative intent of the SNF benefit: to provide skilled nursing services to treat acute care illnesses. These services were to be an alternative to continued hospital care for patients who still required general medical management and skilled nursing care on a continuing basis, but who did not require the constant availability of physician services found in a hospital setting. The effects of the intermediary letter were immediate, and Medicare SNF payments decreased substantially to $195 million by 1971. SNF payments, as a proportion of all Medicare payments, dropped from 6.6 percent in 1966 to 2.4 percent in 1971 (Figure 5.4).

The 1972 Amendments to the Social Security Act (Public Law 92-603) reversed the downward trend in the use of the Medicare SNF benefit. In addition to extending Medicare coverage to disabled persons, the

Table 5.3—Continued

Trends in covered days of care, covered charges, and program payments for skilled nursing facility services used by Medicare hospital insurance beneficiaries, and total Medicare program payments, by type of entitlement: Selected calendar years 1967-91

Type of entitlement and year	Covered days of care		Covered charges		Program payments					Total Medicare program payments in millions
	Number in thousands	Per 1,000 enrollees	Amount in millions	Per day	Amount in millions	Percent of covered charges	Percent of total Medicare program payments	Per enrollee	Per day	
Disabled beneficiaries										
1967	—	—	—	—	—	—	—	—	—	—
1969	—	—	—	—	—	—	—	—	—	—
1971	—	—	—	—	—	—	—	—	—	—
1973	—	—	—	—	—	—	—	—	—	—
1975	289	133	$15	51	$10	64.7	0.6	$4	$33	$1,568
1977	334	128	20	60	12	61.4	0.5	5	37	2,576
1979	306	105	22	73	13	59.2	0.4	5	43	3,776
1981	306	102	28	93	16	55.1	0.3	5	51	5,501
1983	293	101	33	111	16	48.0	0.2	5	53	6,945
1984	286	99	35	123	15	44.0	0.2	5	54	6,762
1985	282	97	40	143	17	42.5	0.3	6	61	6,848
1986	277	93	47	171	19	39.4	0.2	6	68	8,123
1987	256	84	51	201	21	40.0	0.2	7	81	7,923
1988	442	142	88	200	38	43.6	0.4	12	87	8,796
1989	1,355	427	237	175	139	58.8	1.4	44	103	9,682
1990	844	260	195	231	76	38.7	0.6	23	90	11,800
1991[1]	803	237	230	285	87	37.8	0.7	26	108	13,197
					Average annual rate of change					
1975-90	7.4	4.6	18.8	10.6	14.8	—	—	11.6	6.9	14.4

[1]Represents processing cut-off date (as of August 28, 1992).

NOTES: NA is not available. 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.

1972 amendments provided for a uniform definition of SNFs under both Medicare and Medicaid; it also liberalized the Medicare concept of SNF care by the following changes in coverage provisions:

- Altered the required frequency of skilled nursing care from "continuing" to "daily."
- Recognized a need for skilled rehabilitation services (5 days a week) as a basis for coverage.
- Accepted the concept of skilled management being needed for an aggregate of unskilled services.

The use of the Medicare SNF benefit and the amount of SNF payments increased slightly as the result of the 1972 amendments. As shown in Table 5.3, Medicare SNF payments rose to $231 million in 1973, an increase of 18 percent from the 1971 level. Similarly, the number of covered days of care (CDOC) per 1,000 enrollees increased from 361 in 1971 to 370 in 1973.

During the next decade (1973-83), there was a general decline in SNF expenditures as a proportion of total Medicare expenditures, from 2.4 percent in 1973 to 0.8 percent in 1983 (Figure 5.4). In terms of CDOC per 1,000 enrollees, the drop was from 370 in 1973 to 305 in 1983.

The decline in the rate of use of Medicare SNF days during the period 1973-83 has been attributed to more stringent interpretations of SNF coverage guidelines. In addition, many SNFs, in an effort to maintain a favorable "waiver of liability" status, tended to avoid filing Medicare SNF claims for patients whose coverage status was questionable; in these instances, the SNF billed the patient directly whenever possible or billed another third-party payer (e.g., Medicaid).

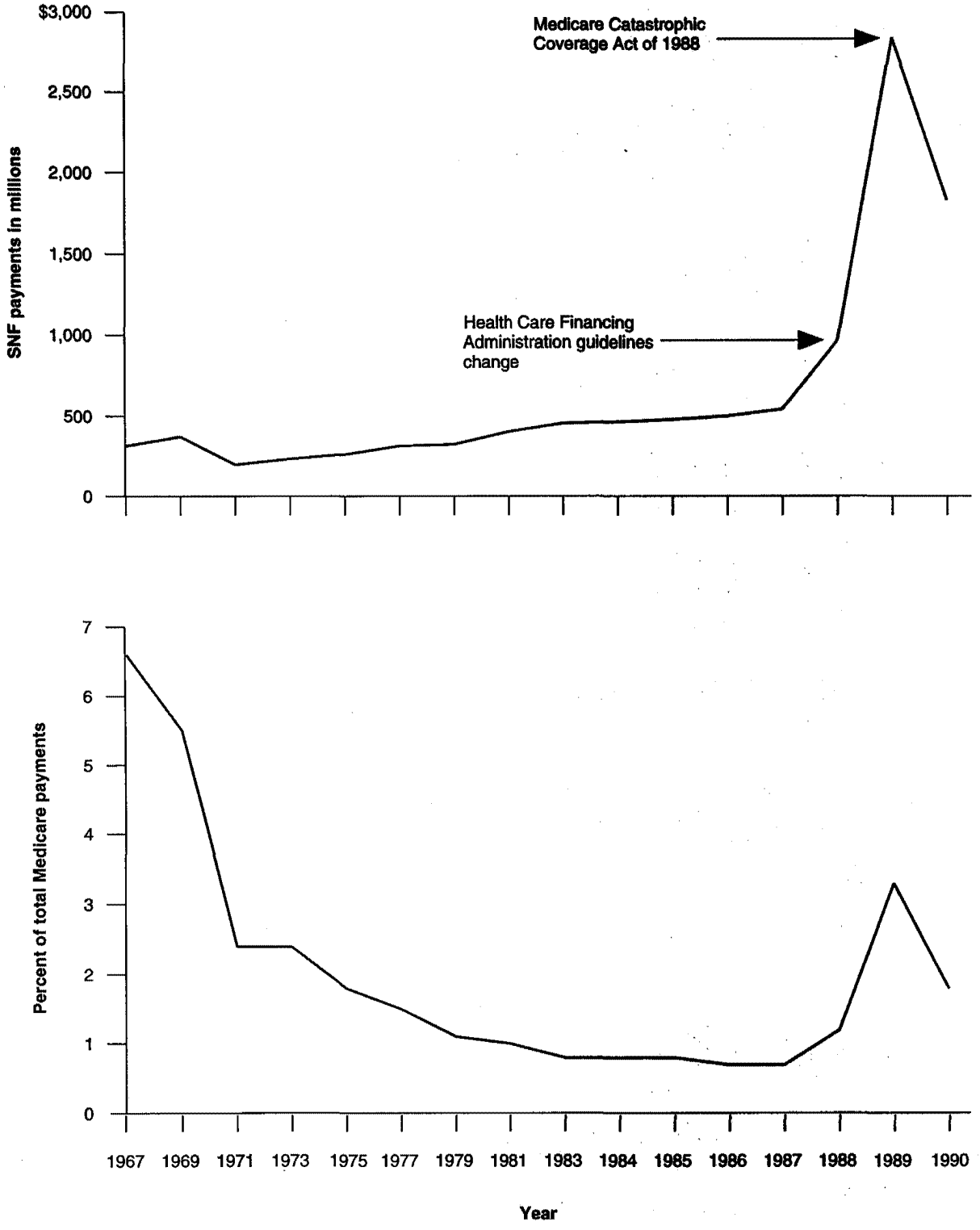
Another important factor affecting the use of the Medicare SNF benefit was the introduction of PPS. PPS (effective October 1, 1983) provided financial incentives for hospitals to discharge patients as soon as medically feasible to subacute care facilities or to the patient's home. PPS was expected to bring about an increased rate of admissions to SNFs for post-hospital acute care.

As shown in Table 5.5, there was a brief upturn in the use of the Medicare SNF benefit following the introduction of PPS. The number of SNF admissions increased from 309,000 in 1983 to 353,000 in 1985; the corresponding annual admission rate rose from 10 per 1,000 enrollees to 12 per 1,000 enrollees. Similarly, SNF admissions as a proportion of all Medicare short-stay hospital discharges rose from 2.7 percent to 3.4 percent. Medicare SNF payments increased 5 percent, from $456 million to $480 million (Table 5.3).

From 1985 through 1987, the use of the Medicare SNF benefit decreased. The number of Medicare SNF admissions dropped to 327,000 in 1987, a decline of 7 percent; the annual SNF admission rate per 1,000 enrollees dropped from 12 in 1985 to 10 in 1987. During this period, Medicare SNF admissions as a proportion of hospital discharges decreased from 3.4 percent in

Figure 5.4

Growth in Medicare skilled nursing facility (SNF) program payments: Selected calendar years 1967-90



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 5.5

Trends in the use of Medicare short-stay inpatient hospital and skilled nursing facility services, and rates of change: Selected calendar years 1981-90

Year	Short-stay hospital (SSH)				Skilled nursing facility (SNF)				
	Number of providers	Number of discharges in thousands	Rate per 1,000 HI enrollees	Average covered days of care	Number of providers[1]	Number of admissions[2] in thousands	Rate per 1,000 HI enrollees	Average covered days of care per admission	Admissions as a percent of SSH discharges
1981	6,067	10,660	368	10.1	5,295	273	10	29.2	2.6
1983	6,048	11,436	387	9.5	5,760	309	10	29.2	2.7
1984	6,029	10,896	363	8.6	6,183	333	11	26.6	3.1
1985	6,034	10,335	313	8.4	6,725	353	12	23.4	3.4
1986	5,912	10,044	322	8.4	7,148	347	11	22.4	3.5
1987	5,850	10,110	317	8.6	7,379	327	10	21.5	3.2
1988	5,733	10,256	316	8.6	7,694	445	14	26.5	4.3
1989	5,596	10,148	307	8.3	8,688	805	24	35.5	7.9
1990	5,504	10,522	312	8.5	9,318	738	22	28.8	7.0
				Percent change					
1981-90	−9.3	−1.3	−15.2	−15.8	76.0	170.3	120.0	−1.4	—

[1]Excludes swing-bed hospital providing SNF services.
[2]Includes SNF admissions with at least 1 day of covered care under Medicare; beginning in 1983, includes SNF covered admissions to swing-bed hospitals.

NOTES: HI is hospital insurance. 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.

1985 to 3.2 percent in 1987. The average CDOC per SNF admission also declined, from 23.4 days in 1985 to 21.5 days in 1987.

A number of factors probably neutralized the expected impact of PPS on the use of the Medicare SNF benefit:

- Intensified utilization review by fiscal intermediaries (intended to counter any premature transfers to SNFs induced by the incentives provided to hospitals under PPS).
- Growth in the SNF coinsurance liability, which, in many instances, was greater than the Medicare payment amount (after the 20th day of care) or the SNF's normal charge. In these instances, termination of coverage under Medicare could be requested and the entire payment made directly by the patient, the family, or Medicaid.
- Wide geographic and fiscal intermediary variation in the application of coverage (level-of-care) criteria (Smits, Feder, and Scanlon, 1982).

For whatever combination of reasons, the decreasing rate of use of Medicare-covered SNF services in the mid-1980s led to concern that beneficiaries were being denied access to SNF benefits. In 1986, a Federal District Court found in *Fox v. Bowen* (1987) that the U.S Department of Health and Human Services (DHHS) had administered the Medicare SNF benefit in ways that "arbitrarily" and "unlawfully restricted" coverage, while denying due process. In April 1988, HCFA implemented revised coverage guidelines to address these concerns. The revised guidelines clarified the criteria used to determine eligibility for Medicare SNF coverage. The guidelines changed the focus from what care was not covered to what conditions and types of care were covered. The guidelines stressed the importance of clear documentation to justify a denial of a claim for SNF coverage. The intent of the revised HCFA coverage guidelines was to make it easier for SNFs to obtain coverage for beneficiaries, to increase the consistency of coverage determinations by intermediaries, and to bring the SNF benefit in greater consonance with the intent of Congress.

The enactment of MCCA (1988), effective January 1, 1989, had a much greater impact on the use of the Medicare SNF benefit. MCCA liberalized eligibility requirements and substantially reduced beneficiary cost-sharing expenses. The significant reduction in coinsurance under MCCA provided an incentive for patients to use the Medicare SNF benefit. A patient receiving SNF benefits for 100 days in 1988 would have paid a maximum of $5,400 in coinsurance during a benefit period (80 days at $67.50 per day). Under MCCA, beneficiary coinsurance during the 150 days of coverage during the calendar year was limited to a maximum of $204 in 1989 (8 days at $25.50).

The enactment of MCCA provided the catalyst that changed the SNF care environment by bringing more SNFs and beds into Medicare; approximately 1,624 new SNFs were certified to participate in Medicare between December 1988 and December 1990, and nearly 75,000 additional Medicare skilled care beds were certified during this period (Health Care Financing Administration, 1990).

The combined effect of expanded coverage and provider resources produced a dramatic increase in the use of Medicare SNF benefits during 1989—the only year that MCCA was in effect. During 1989, Medicare experienced an immediate and significant increase in the number of SNF admissions and covered days and in average length of stay. As shown in Table 5.3, Medicare SNF payments tripled between 1988 ($964 million) and 1989 ($2.84 billion). The unprecedented $2-billion expansion in SNF payments reflected the following changes in the utilization of SNF services between 1988 and 1989:

- The number of SNF admissions jumped from 445 million to 805 million, an increase of 81 percent.
- The annual SNF admission rate per 1,000 enrollees rose from 14 in 1988 to 24 in 1989.
- The number of SNF CDOC grew from 11.8 million to 28.6 million, an increase of 142 percent.
- The average number of SNF CDOC per admission increased from 26.5 to 35.5.
- SNF admissions as a proportion of short-stay hospital discharges rose from 4.3 percent in 1988 to 7.9 percent in 1989.
- SNF payments as a proportion of all Medicare payments rose from 1.2 to 3.3 percent.

With the repeal of MCCA in 1989, the return of the benefit structure to that in effect in 1988 (prior to MCCA) produced, as expected, a drop in the use of and payments for Medicare SNF services during 1990:

- Medicare SNF payments declined from $2.84 billion in 1989 to $1.83 billion in 1990, a drop of 36 percent.
- Medicare SNF CDOC decreased from 28.6 million in 1989 to 21.2 million in 1990, a drop of 26 percent.
- The proportion of SNF payments to all Medicare payments dropped from 3.3 percent in 1989 to 1.8 percent in 1990.

It appears unlikely, however, that Medicare SNF admissions and payments will return to the level experienced before MCCA (Office of Inspector General, 1991). SNF utilization and payments for 1990 were still about twice as high as those reported in 1988 (the year prior to MCCA). The demand for Medicare skilled nursing care is expected to remain high (relative to 1988) during the post-MCCA period (Office of Inspector General, 1991). This is based on the following combination of factors, which occurred during and immediately following MCCA:

- Many SNFs made a considerable investment in staff, new equipment, and training personnel (Health Care Financing Administration, 1991).
- Nursing homes that had previously avoided participation in Medicare were attracted by potential financial returns into certifying beds for Medicare skilled nursing care services.
- There is a much better geographical distribution of SNFs throughout the country, especially in rural areas; this reflects, in addition to MCCA, legislation in certain States requiring nursing homes to participate in Medicare if they want to be eligible to participate in Medicaid.
- New HCFA regulations (OBRA 1987), effective October 1990, standardized criteria for all nursing care facilities. That is, all Medicaid nursing homes must now meet the same standards as Medicare SNFs; all Medicaid facilities have been renamed "nursing facilities."

Utilization of benefits, 1990

During 1990, an estimated 590,904 Medicare beneficiaries had 737,700 covered SNF admissions, an average of 1.25 per beneficiary. These beneficiaries used 21.2 million SNF CDOC, an average of 28.8 CDOC per admission; beneficiaries incurred payments amounting to $1.83 billion, an average of $2,509 per admission and $86 per CDOC. Approximately 54 percent (319,935) of all SNF beneficiaries incurred beneficiary coinsurance liability. This cohort of beneficiaries utilized an estimated 12.0 million SNF coinsurance days and incurred coinsurance payments amounting to $893.5 million; their average coinsurance payment was $2,793 per admission, based on an average of 37.6 coinsurance days per beneficiary and a daily SNF coinsurance liability amount of $74.50. Aged Medicare beneficiaries accounted for 96 percent (20.4 million) of all Medicare SNF CDOC and 96 percent ($1.75 billion) of all Medicare SNF payments.

Demographic characteristics

As shown in Table 5.6, the use of Medicare SNF services for beneficiaries 65 years of age or over varied with age. The annual SNF admission rate for aged beneficiaries increased considerably with advancing age, rising from about 6 per 1,000 enrollees for beneficiaries 65-69 years of age to 76 per 1,000 enrollees for beneficiaries 85 years of age or over. On the other hand, the average CDOC per SNF admission increased only slightly with age (from 27.6 days to 29.4 days), while the average payment per admission declined with advancing age (from $2,654 to $2,411). This utilization pattern is probably the result of factors such as the greater number of deaths associated with increasing age and the fact that older persons are less likely to receive intensive and expensive services.

The use of SNF services differs with the sex of the beneficiary. In 1990, total SNF payments were more than twice as high for females ($1.25 billion) as males ($580 million), because females accounted for more than 60 percent of all Medicare enrollees with a higher admission rate (26 per 1,000 enrollees) than males (17 per 1,000 enrollees). Females also had a higher average number of CDOC per admission than males (29.7 days versus 26.9 days) and a higher average payment per admission ($2,547 versus $2,431).

The use of Medicare SNF services differs by the race of the beneficiary. White people used SNF services at a higher rate than did persons of other races during 1990 (23 admissions per 1,000 enrollees, compared with 17 per 1,000). Similarly, white people had a higher CDOC rate per 1,000 enrollees (640 versus 558). In contrast, persons of other races had a somewhat higher average CDOC per admission than did white beneficiaries (33.0 days versus 28.4 days) and a higher average payment per beneficiary ($2,828 versus $2,447).

An estimated 11.2 percent (82,625) of all Medicare-covered SNF admissions during 1990 ended with the death of the beneficiary. This cohort of patients had an average stay (20.7 CDOC) that was 9.1 days less than that for SNF patients who were discharged alive (29.8 CDOC). The average SNF payment for deceased patients ($2,007) was about 28 percent lower than that for survivors ($2,573). The average payment per day for decedents ($96), however, was slightly higher than that

Table 5.6

Covered admissions, covered days of care, covered charges, and program payments for skilled nursing facility services used by Medicare hospital insurance beneficiaries, by demographic characteristics, discharge status, and type of entitlement: Calendar year 1990

Demographic characteristic, discharge status, and type of entitlement	Covered admissions[1]		Covered days of care			Covered charges			Program payments			
	Number	Per 1,000 enrollees	Total in thousands	Per 1,000 enrollees	Per admission	Amount in thousands	Per admission	Per day	Amount in thousands	Percent of covered charges	Per admission[2]	Per day
Total	737,700	22	21,242	630	28.8	$4,262,641	$5,778	$201	$1,827,190	42.9	$2,509	$86
Age												
Under 65 years	27,031	8	846	260	31.3	195,412	7,229	231	75,706	38.7	2,837	90
65-69 years	56,758	6	1,566	164	27.6	368,099	6,485	235	148,446	40.3	2,654	95
70-74 years	93,986	12	2,612	334	27.8	574,262	6,110	220	239,364	41.7	2,584	92
75-79 years	143,827	24	4,066	682	28.3	847,174	5,890	208	359,934	42.5	2,538	89
80-84 years	170,473	44	4,926	1,275	28.9	964,355	5,657	196	418,539	43.4	2,486	85
85 years or over	245,625	76	7,226	2,225	29.4	1,313,339	5,347	182	585,201	44.6	2,411	81
Sex												
Male	241,733	17	6,495	453	26.9	1,389,865	5,750	214	579,522	41.7	2,431	89
Female	495,967	26	14,746	760	29.7	2,872,777	5,792	195	1,247,668	43.4	2,547	85
Race[3]												
White	655,784	23	18,620	640	28.4	3,716,213	5,667	200	1,603,936	43.2	2,447	86
Other	61,552	17	2,034	558	33.0	426,779	6,934	210	170,802	40.0	2,828	84
Discharge status												
Alive	655,075	NA	19,530	NA	29.8	3,875,275	5,916	198	1,663,335	42.9	2,573	85
Dead	82,625	NA	1,712	NA	20.7	387,366	4,688	226	163,855	42.3	2,007	96
Type of entitlement												
Aged	710,669	23	20,396	669	28.7	4,067,229	5,723	199	1,751,484	43.1	2,495	86
Disabled	27,031	8	846	260	31.3	195,412	7,229	231	75,706	38.7	2,837	90

[1]Includes skilled nursing care admissions involving at least one day of covered care under Medicare.
[2]Does not reflect admissions for beneficiaries with no payments in the reporting year.
[3]Excludes unknown race.

NOTES: NA is not applicable. 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.

for survivors ($85), which suggests that the decedents, in many cases, died before the beneficiary coinsurance payments kicked in, which would have lowered the average amount paid by Medicare.

Area of residence

As shown in Table 5.7, there were large variations in the use and cost of Medicare SNF services by area of residence of the beneficiary. Covered admissions and CDOC are shown along with the corresponding amounts of covered charges and program payments.

Among the U.S. census regions, the rate of covered SNF admissions ranged from 17 and 18 admissions per 1,000 enrollees in the Northeast and South Regions, respectively, to 28 and 29 admissions per 1,000 enrollees in the West and North Central Regions, respectively. Similarly, the lowest rate of CDOC per 1,000 enrollees was reported in the South (525) and Northeast (645) Regions, while the highest CDOC rate was noted in the West (663) and North Central (786) Regions. The average number of CDOC per SNF admission ranged from 23.3 days in the West to 37.0 days in the Northeast.

The average payments per admission were lowest in the North Central ($2,265) and South ($2,367) Regions. In contrast, average payments per admission were highest in the Northeast ($2,566) and West ($2,979) Regions. The high average payment in the West Region reflected an average payment per day ($126) that was 47 percent above the national average ($86). The high payment in the Northeast reflected an average CDOC per admission (37.0 days) that was 28 percent higher than the national average and 7 days more than the next-highest region.

Nationally, 22 out of every 1,000 HI enrollees were admitted to Medicare SNFs in 1990. Overall, the States in the New England (16) and South Atlantic (16) census divisions showed the lowest SNF admission rates per 1,000 enrollees (Figure 5.8). The States of Maine (8), Virginia (10), New Hampshire (11), and South Carolina (11) had the lowest SNF admission rates per 1,000 enrollees in these divisions. States with the highest admission rates per 1,000 enrollees were located in the West North Central Division (37), with a rate 2.3 times higher than that reported for the New England and South Atlantic Divisions. Minnesota (49) and North Dakota (43) had by far the highest admission rates in the country—nearly five times higher than that for States with the lowest admission rates.

The largest number of Medicare SNF covered admissions was recorded in California (101,886), which alone accounted for nearly 14 percent of all SNF admissions in the United States during 1990. The number of covered admissions in California was more than twice that recorded for the next highest State, Pennsylvania (49,324).

The average Medicare payment per admission (which does not include coinsurance payments), showed considerable variation by State. Among the States, North Dakota ($1,177), South Dakota ($1,356), Mississippi ($1,381), and Wyoming ($1,388) had the lowest average payments. Hawaii ($3,831), Alaska ($3,705), and Maine ($3,763) had the highest average payments. The average payment per CDOC ranged by State from a low of $47 in North Carolina and Michigan to a high of $171 in Louisiana.

The number of beneficiaries incurring coinsurance liability, the number of coinsurance days, and the amount of coinsurance payments, by State of residence of the beneficiary, are presented in Table 5.9. Approximately 54 percent (319,935) of all Medicare beneficiaries admitted to an SNF in 1990 (590,904) incurred a coinsurance liability. This cohort utilized 12.0 million coinsurance days, an average of 37.6 days per person with liability; their average coinsurance payment per person with any coinsurance liability was $2,793.

Among the States, the rate of persons incurring SNF coinsurance liability ranged from a low of 7 per 1,000 enrollees in Maine to 36 per 1,000 enrollees in Minnesota. The average number of coinsurance days per person ranged by State from 18.7 days in Iowa to 53.4 days in New York. The average payment per person with liability varied from a low of $1,390 in Iowa to $3,975 in New York.

Covered days of care

Medicare SNF covered days of care aggregated by the length of stay and by type of entitlement are the focus of Table 5.10. The SNF benefit is used almost exclusively by aged beneficiaries. In 1990, aged beneficiaries accounted for about 96 percent (710,678) of all Medicare SNF admissions (737,700) and 96 percent ($1.75 billion) of all Medicare SNF payments ($1.83 billion). The use and cost of services per admission for disabled beneficiaries was slightly higher than that for aged beneficiaries.

In 1990, an estimated 54.1 percent (319,935) of all persons using Medicare SNF services (590,904) incurred coinsurance liability amounting to $894 million (Table 5.9). SNF cost-sharing payments, therefore, accounted for almost one-third of all Medicare SNF expenditures[1] ($2.72 billion). In contrast, only about 2.0 percent of Medicare beneficiaries discharged from a short-stay hospital (6.5 million) during 1990 incurred inpatient hospital coinsurance payments, accounting for only about 1.0 percent of all Medicare inpatient hospital expenditures in 1990 (Health Care Financing Administration, 1990).

Based on unpublished HCFA program data, approximately 3.1 percent (22,925) of all beneficiaries admitted to an SNF in 1990 exhausted their SNF benefits. That is, these beneficiaries received the maximum number of covered days (100) allowed during a benefit period. Beneficiaries who exhausted their benefits accounted for an estimated 5.2 percent ($95.3 million) of all Medicare SNF payments. The average payment for beneficiaries in this cohort was

[1]For purposes of this chapter, Medicare SNF program expenditures reflect both program payments and beneficiary cost sharing. In 1990, SNF expenditures amounted to $2.72 billion, consisting of $1.83 billion in program payments and $0.89 billion in cost-sharing liability.

Table 5.7

Covered admissions, covered days of care, covered charges, and program payments for skilled nursing facility (SNF) services used by Medicare hospital insurance beneficiaries, by area of residence: Calendar year 1990

Area of residence	Covered admissions[1]		Covered days of care			Covered charges			Program payments			
	Number in thousands	Per 1,000 enrollees	Number in thousands	Per 1,000 enrollees	Per admission	Amount in thousands	Per admission	Per day	Amount in thousands	Percent of covered charges	Per admission[2]	Per day
All areas	737,700	22	21,242	630	28.8	$4,262,641	$5,778	$201	$1,827,190	43	$2,509	$86
United States	736,466	24	21,210	688	28.8	4,256,292	5,779	201	1,824,011	43	2,509	86
Northeast	127,683	17	4,720	645	37.0	818,626	6,411	173	323,976	40	2,566	69
North Central	237,984	29	6,549	786	27.5	1,204,478	5,061	184	533,316	44	2,265	81
South	201,276	18	5,983	525	29.7	1,175,114	5,838	196	469,615	40	2,367	78
West	169,523	28	3,958	663	23.3	1,058,073	6,241	267	497,104	47	2,979	126
New England	30,180	16	1,034	550	34.2	183,688	6,086	178	69,422	38	2,321	67
Connecticut	10,912	23	415	893	38.0	70,850	6,493	171	26,387	37	2,423	64
Maine	1,377	8	41	224	29.6	11,650	8,460	286	5,178	44	3,763	127
Massachusetts	11,733	14	380	439	32.4	70,585	6,016	186	26,107	37	2,267	69
New Hampshire	1,443	11	34	250	23.5	7,870	5,454	232	2,803	36	1,953	83
Rhode Island	3,685	23	136	864	36.9	18,087	4,908	133	7,472	41	2,037	55
Vermont	1,030	14	28	376	27.1	4,647	4,512	166	1,476	32	1,437	53
Middle Atlantic	97,503	18	3,686	677	37.8	634,938	6,512	172	254,554	40	2,642	69
New Jersey	10,725	10	402	375	37.5	66,528	6,203	165	27,797	42	2,599	69
New York	37,454	15	1,582	649	42.2	270,784	7,230	171	95,175	35	2,587	60
Pennsylvania	49,324	26	1,702	882	34.5	297,625	6,034	175	131,582	44	2,692	77
East North Central	142,252	25	4,347	759	30.6	758,482	5,332	174	323,800	43	2,305	74
Illinois	40,758	27	1,138	751	27.9	248,414	6,095	218	117,390	47	2,902	103
Indiana	22,093	29	667	885	30.2	124,987	5,657	187	61,858	50	2,844	93
Michigan	27,324	22	988	804	36.2	134,278	4,914	136	46,583	35	1,730	47
Ohio	33,115	22	998	657	30.1	165,421	4,995	166	61,462	37	1,894	62
Wisconsin	18,962	27	556	785	29.3	85,383	4,503	154	36,507	43	1,935	66
West North Central	95,732	37	2,201	844	23.0	445,996	4,659	203	209,517	47	2,206	95
Iowa	13,613	30	222	490	16.3	61,237	4,498	275	33,630	55	2,483	151
Kansas	12,712	35	212	590	16.6	55,168	4,340	261	24,259	44	1,919	115
Minnesota	28,729	49	847	1,451	29.5	110,510	3,847	130	54,696	50	1,926	65
Missouri	26,942	35	630	818	23.4	168,905	6,269	268	74,044	44	2,764	118
Nebraska	6,988	30	144	616	20.6	30,234	4,327	211	14,623	48	2,100	102
North Dakota	4,203	43	97	986	23.0	11,886	2,828	123	4,823	41	1,177	50
South Dakota	2,545	23	49	451	19.4	8,055	3,165	163	3,441	43	1,356	70
South Atlantic	97,746	16	3,221	529	33.0	560,605	5,735	174	221,593	40	2,304	69
Delaware	1,136	13	41	473	36.0	5,613	4,941	137	2,298	41	2,057	56
Dist. of Columbia	1,118	15	43	566	38.5	8,770	7,844	204	3,635	41	3,283	84
Florida	46,617	20	1,443	618	30.9	282,764	6,066	196	114,361	40	2,504	79
Georgia	12,065	17	394	547	32.7	60,673	5,029	154	21,913	36	1,836	56
Maryland	8,450	16	280	524	33.1	41,339	4,892	148	19,625	48	2,344	70
North Carolina	12,138	14	456	518	37.6	61,874	5,098	136	21,391	35	1,776	47
South Carolina	4,787	11	174	398	36.3	29,225	6,105	168	9,645	33	2,127	55
Virginia	7,393	10	263	368	35.5	46,798	6,330	178	17,995	39	2,443	68
West Virginia	4,042	13	128	416	31.7	23,549	5,826	184	10,731	46	2,679	84

See footnotes at end of table.

Table 5.7—Continued

Covered admissions, covered days of care, covered charges, and program payments for skilled nursing facility (SNF) services used by Medicare hospital insurance beneficiaries, by area of residence: Calendar year 1990

Area of residence	Covered admissions[1]		Covered days of care			Covered charges			Program payments			
	Number in thousands	Per 1,000 enrollees	Number in thousands	Per 1,000 enrollees	Per admission	Amount in thousands	Per admission	Per day	Amount in thousands	Percent of covered charges	Per admission[2]	Per day
East South Central	41,228	19	1,301	605	31.5	$209,687	$5,086	$161	$74,764	36	$1,842	$57
Alabama	11,934	21	379	664	31.8	56,412	4,727	149	20,172	36	1,716	53
Kentucky	9,029	17	314	594	34.8	50,528	5,596	161	20,697	41	2,319	66
Mississippi	5,850	16	155	434	26.6	24,812	4,241	160	7,897	32	1,381	51
Tennessee	14,415	21	452	653	31.3	77,935	5,407	173	25,998	33	1,833	58
West South Central	62,302	20	1,462	464	23.5	404,822	6,498	277	173,258	43	2,809	119
Arkansas	6,254	16	128	331	20.4	30,616	4,895	240	13,455	44	2,167	105
Louisiana	12,244	24	247	478	20.0	97,379	7,953	394	42,336	44	3,488	171
Oklahoma	7,065	16	136	303	19.0	43,749	6,192	321	20,642	47	2,928	151
Texas	36,739	20	950	528	26.0	233,078	6,344	245	96,824	42	2,669	102
Mountain	43,063	27	972	599	23.0	224,258	5,208	231	105,189	47	2,467	108
Arizona	12,521	25	274	556	22.0	66,009	5,272	241	30,667	47	2,463	112
Colorado	10,220	29	224	635	22.0	61,138	5,982	273	29,480	48	2,928	131
Idaho	3,569	27	85	641	24.0	13,273	3,719	157	6,819	51	1,918	81
Montana	4,483	39	120	1,033	27.0	15,082	3,364	125	6,780	45	1,527	56
Nevada	2,173	15	63	447	29.0	14,776	6,800	235	7,202	49	3,328	115
New Mexico	2,494	14	60	344	24.0	16,264	6,521	269	7,687	47	3,250	127
Utah	6,081	28	115	723	19.0	31,437	5,170	272	14,452	46	2,378	125
Wyoming	1,522	20	30	578	19.0	6,279	4,126	212	2,102	34	1,388	71
Pacific	126,460	29	2,986	687	24.0	833,815	6,594	279	391,915	47	3,155	131
Alaska	320	13	8	306	24.0	2,276	7,111	294	1,182	52	3,705	153
California	101,886	32	2,348	743	23.0	702,068	6,891	299	325,664	46	3,234	139
Hawaii	1,122	9	37	298	33.0	8,580	7,647	233	3,421	40	3,831	93
Oregon	8,869	21	220	515	25.0	47,179	5,320	214	26,399	56	3,111	120
Washington	14,263	23	383	607	26.0	73,713	5,168	198	35,249	48	2,551	95
Outlying areas[3]	1,234	2	32	45	26.0	6,349	5,145	199	3,179	50	2,593	100

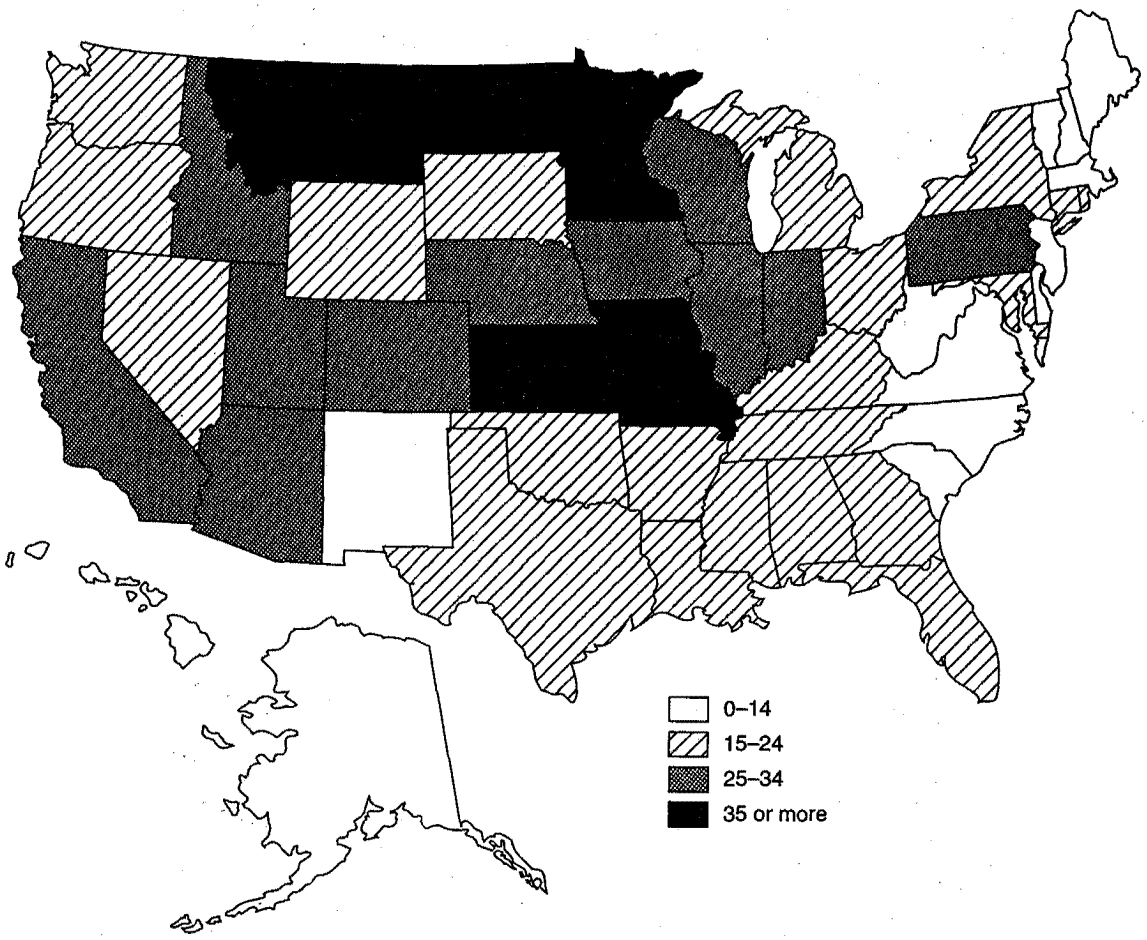
[1]Includes SNF admissions with at least one day of covered care under Medicare.
[2]Average payment per admission does not reflect admissions for beneficiaries with no payments in the reporting year.
[3]Includes Puerto Rico, Virgin Islands, and other outlying areas.

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.

Figure 5.8

Medicare covered admissions to skilled nursing facilities per 1,000 enrollees: United States, calendar year 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.

$4,232, or 1.7 times higher than the average payment ($2,423) for beneficiaries who did not exhaust their benefits.

In 1990, an estimated 54.4 percent (401,058) of all SNF covered admissions had less than 21 CDOC; this cohort of patients accounted for 19.0 percent (4.0 million) of all SNF CDOC and 30.1 percent ($549.1 million) of all SNF payments. Approximately 23.8 percent (175,450) of all SNF admissions involved stays of 8 CDOC or fewer, accounting for 4.1 percent (863,911) of all SNF CDOC and 6.5 percent ($118.7 million) of all SNF payments. On the other hand, only about 14.3 percent (106,142) of all SNF admissions in 1990 had a stay of 61 CDOC or more. They accounted for 28.9 percent ($527.7 million) of all Medicare SNF payments, an average payment of $4,971.

The average number of CDOC per SNF admission increased substantially with each successive CDOC interval (e.g., 1-8 days, 9-20 days, as shown in Table 5.10), from 4.9 days for stays of 1-8 CDOC to 96.5 days for stays of more than 81 CDOC. Similarly, the average payment per SNF admission increased with each successive CDOC interval, from $687 to $5,302. Conversely, as the number of SNF CDOC increased, the average SNF payment per day decreased, from $137 to $55, reflecting the fact that beneficiary coinsurance liability had a substantial impact on the per diem amount for covered stays of more than 20 days. In 1990, for SNF stays of 40 CDOC or more, the Medicare payment was nearly the same (for stays of 41-60 days) or progressively less (for stays of 61-100 days) than the beneficiary coinsurance payment per day.

This pattern indicates that SNF beneficiaries were probably inhibited from using covered days of care with coinsurance liability because this amount was frequently greater than the Medicare payment or the SNF's normal daily charge. In such cases, the beneficiary might prefer to pay the full provider charge, rather than seek continued Medicare coverage with accompanying coinsurance liability. This is especially true when the skilled services (e.g., enteral feeding, physical therapy) can be covered under the SMI program.

Table 5.9

Persons served, coinsurance days, and coinsurance payments for skilled nursing facility (SNF) services used by Medicare beneficiaries, by area of residence: Calendar year 1990

Area of residence	Persons[1]			Coinsurance days			Coinsurance payments		
	Number	Per 1,000 enrollees	With coinsurance liability	Number	Per 1,000 enrollees	Per person with liability	Amount	Per person with liability	Per coinsurance day
All areas	590,904	18	319,935	12,015,938	356	37.6	$893,547,926	$2,793	$74
United States	589,843	18	319,330	11,999,973	363	37.6	892,366,018	2,794	74
Northeast	102,745	14	65,219	2,995,298	409	45.9	223,286,886	3,424	75
North Central	189,454	23	97,611	3,663,439	440	37.5	271,419,312	2,781	74
South	162,441	14	90,154	3,413,297	300	37.9	252,774,061	2,804	74
West	135,203	23	66,346	1,927,939	323	29.1	144,885,759	2,184	75
New England	24,614	13	15,086	626,748	334	41.5	46,776,900	3,101	75
Connecticut	8,769	19	5,744	264,701	570	46.1	19,764,357	3,441	75
Maine	1,210	7	705	20,680	114	29.3	1,550,340	2,199	75
Massachusetts	9,480	11	5,571	224,917	260	40.4	16,785,414	3,013	75
New Hampshire	1,255	9	670	15,836	117	23.6	1,180,595	1,762	75
Rhode Island	3,044	19	1,925	85,080	540	44.2	6,341,417	3,294	75
Vermont	856	12	471	15,534	209	33.0	1,154,777	2,452	74
Middle Atlantic	78,131	14	50,133	2,368,550	435	47.2	176,509,986	3,521	75
New Jersey	8,594	8	5,530	255,856	239	46.3	19,033,733	3,442	74
New York	30,414	12	20,009	1,067,509	438	53.4	79,535,426	3,975	75
Pennsylvania	39,123	20	24,594	1,045,185	541	42.5	77,940,827	3,169	75
East North Central	113,628	20	63,146	2,553,123	446	40.4	189,602,110	3,003	74
Illinois	32,312	21	17,014	629,361	415	37.0	46,684,207	2,744	74
Indiana	17,713	23	9,767	387,311	514	39.7	28,840,167	2,953	74
Michigan	21,706	18	13,353	622,599	507	46.6	46,181,890	3,459	74
Ohio	26,594	17	14,541	596,468	392	41.0	44,269,964	3,044	74
Wisconsin	15,303	22	8,471	317,384	448	37.5	23,625,882	2,789	74
West North Central	75,826	29	34,465	1,110,316	426	32.2	81,817,202	2,374	74
Iowa	11,738	26	4,090	76,678	169	18.7	5,687,036	1,390	74
Kansas	10,545	29	3,801	75,493	211	19.9	5,609,041	1,476	74
Minnesota	21,190	36	11,994	513,183	879	42.8	37,517,513	3,128	73
Missouri	21,108	27	9,772	311,571	404	31.9	23,172,436	2,371	74
Nebraska	5,845	25	2,352	63,310	271	26.9	4,693,865	1,996	74
North Dakota	3,273	33	1,592	48,281	492	30.3	3,520,835	2,212	73
South Dakota	2,127	19	864	21,800	199	25.2	1,616,476	1,871	74
South Atlantic	79,579	13	48,537	1,901,086	312	39.2	141,574,060	2,917	74
Delaware	958	11	585	24,770	287	42.3	1,843,069	3,151	74
District of Columbia	873	11	548	28,548	375	52.1	2,124,003	3,876	74
Florida	37,837	16	22,607	812,680	348	35.9	60,404,265	2,672	74
Georgia	9,539	13	5,787	236,765	328	40.9	17,388,603	3,005	73
Maryland	6,564	12	3,948	176,074	330	44.6	13,072,381	3,311	74
North Carolina	10,210	12	6,575	282,146	320	42.9	20,963,139	3,188	74
South Carolina	4,007	9	2,619	105,451	241	40.3	8,345,024	3,186	79
Virginia	6,230	9	3,916	160,160	224	40.9	11,907,040	3,041	74
West Virginia	3,361	11	1,952	74,492	242	38.2	5,526,536	2,831	74
East South Central	32,562	15	18,734	778,528	362	41.6	56,978,399	3,041	73
Alabama	9,133	16	5,286	228,921	401	43.3	16,184,434	3,062	71
Kentucky	7,070	13	4,248	201,350	381	47.4	14,955,055	3,520	74
Mississippi	4,754	13	2,377	80,498	225	33.9	5,928,309	2,494	74
Tennessee	11,605	17	6,823	267,759	387	39.2	19,910,601	2,918	74
West South Central	50,300	16	22,883	733,683	233	32.1	54,221,602	2,370	74
Arkansas	5,113	13	2,320	59,905	155	25.8	4,438,257	1,913	74
Louisiana	9,872	19	4,092	110,852	214	27.1	8,098,312	1,979	73
Oklahoma	6,024	13	2,467	53,133	118	21.5	3,950,923	1,602	74
Texas	29,291	16	14,004	509,793	284	36.4	37,734,110	2,695	74
Mountain	34,728	21	16,526	456,255	281	27.6	33,866,837	2,049	74
Arizona	10,081	20	5,163	126,208	256	24.4	9,398,676	1,820	74
Colorado	8,259	23	3,721	99,031	280	26.6	7,371,707	1,981	74
Idaho	2,948	22	1,387	41,700	316	30.1	3,097,130	2,233	74
Montana	3,423	29	1,775	65,895	566	37.1	3,808,828	2,709	73
Nevada	1,826	13	944	34,251	243	36.3	2,554,040	2,706	75
New Mexico	2,098	12	1,021	29,412	167	28.8	2,190,145	2,145	74
Utah	4,851	30	1,993	46,953	294	23.6	3,496,714	1,754	74
Wyoming	1,242	24	522	12,805	250	24.5	949,597	1,819	74

See footnotes at end of table.

Table 5.9—Continued

Persons served, coinsurance days, and coinsurance payments for skilled nursing facility (SNF) services used by Medicare beneficiaries, by area of residence: Calendar year 1990

Area of residence	Persons[1]			Coinsurance days			Coinsurance payments		
	Number	Per 1,000 enrollees	With coinsurance liability	Number	Per 1,000 enrollees	Per person with liability	Amount	Per person with liability	Per coinsurance day
Pacific	100,475	23	49,820	1,471,684	338	29.5	111,018,922	2,228	75
Alaska	259	10	142	3,862	153	27.2	287,426	2,024	74
California	80,036	25	39,811	1,146,372	363	28.8	86,743,248	2,179	76
Hawaii	986	8	487	21,580	175	44.3	1,614,160	3,314	75
Oregon	7,383	17	3,587	110,798	259	30.9	8,251,438	2,300	74
Washington	11,811	19	5,793	189,072	308	32.6	14,122,650	2,438	75
Outlying areas[2]	1,061	1	605	15,965	22	26.4	1,181,908	1,954	74

[1]Number of beneficiaries receiving Medicare SNF covered services.
[2]Includes Puerto Rico, Virgin Islands, and outlying areas.

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.

Distribution of ancillary charges

Data in Table 5.11 present the distribution of Medicare SNF charges by type of service and CDOC for beneficiaries admitted to participating SNFs during 1990. There were an estimated 737,700 SNF admissions with covered SNF charges amounting to $4.4 billion, an average charge of $5,963 per admission. Of the total covered SNF charges, 58.5 percent ($2.57 billion) represented room and board (accommodation) charges; SNF ancillary charges accounted for the remaining 41.5 percent ($1.83 billion) of SNF charges (Figure 5.12).

Among the individual ancillary services, rehabilitation services (which include physical therapy, speech pathology or language services, and occupational therapy) accounted for 18.5 percent ($813.5 million) of all SNF covered charges in 1990 (Figure 5.12). Approximately 59 percent (435,939) of all beneficiaries admitted to SNFs (737,700) used rehabilitation services. Pharmacy services represented the second-largest SNF ancillary service, comprising 10.0 percent ($442.4 million) of all SNF covered charges; supply services accounted for another 5.9 percent ($259.5 million). Nearly 86 percent (633,432) of all SNF admissions involved pharmacy services, and 70 percent (516,282) involved supply services. Rehabilitation, pharmacy, and supply charges combined accounted for 83 percent ($1.5 billion) of all ancillary charges.

The average SNF charge per admission was $3,488 for accommodation services and $2,649 for ancillary services. During an "average" admission, charges incurred for ancillary services ranged from an average of $302 for radiology services to $1,866 for rehabilitation services and $1,397 for inhalation services.

Among the CDOC cohorts, the ratio of ancillary charges to total charges decreased with each successive CDOC interval. The share of ancillary charges ranged from a high of 50 percent for beneficiaries with stays of1-8 days to a low of 33 percent for those with stays of 80 days or more. The average SNF charge per admission by type of service varied substantially with length of stay. The average accommodation charge per admission, as expected, increased substantially by length of stay, ranging from $681 (1-8 days) to $10,967 (81-100 days). The average ancillary charge per admission ranged from $760 for the lowest CDOC interval to $5,877 for the highest CDOC interval. Among the individual ancillary charges, the greatest variation in the average charge per admission was found for rehabilitation services, which ranged from $401 to $4,610, and for supply charges, which increased from $148 to $1,414. In contrast, the least amount of variability was noted for radiology services, which increased from $187 to $404, and for laboratory services, which increased from $218 to $826.

An examination of the percent distribution of total SNF charges, by type of service, shows that the ancillary charges for pharmacy, laboratory, radiology, and inhalation therapy services account for a somewhat higher proportion of total SNF charges in shorter stays (less than 20 days). In the lowest CDOC category, these services combined accounted for 29 percent of total charges. Similarly, in the highest CDOC category, these services accounted for less than 10 percent. In contrast, the ancillary charges for rehabilitation therapy and supply services accounted for a somewhat higher proportion of total SNF charges in longer stays (20 days or more).

The patterns presented here indicate that pharmacy, radiology, laboratory, and inhalation therapy services are more concentrated in the earlier phase of a patient's SNF stay, whereas rehabilitation and supply services are more likely to be provided throughout the duration of the stay. These figures indicate that, overall, SNFs provide more ancillary services during the early stages of a patient's episode of illness than during the latter stages.

Table 5.10

Covered persons, covered admissions, covered days of care, covered charges, coinsurance payments, and program payments for skilled nursing facility (SNF) services used by Medicare hospital insurance beneficiaries, by type of entitlement and covered days of care: Calendar year 1990

Type of entitlement and covered days of care	Covered persons[1]	Covered admissions[2]	Covered days of care		Covered charges			Coinsurance payments		Program payments		
			Number	Per admission	Amount	Per admission	Per day	Amount	Per admission	Amount	Per admission[3]	Per day
All beneficiaries												
Total	590,904	737,700	21,241,699	28.8	$4,262,641,110	$5,778	$201	$893,547,926	$1,211	$1,827,189,963	$2,509	$86
1-8 days	141,601	175,450	863,911	4.9	227,425,863	1,296	263	6,293,205	36	118,711,204	687	137
9-20 days	183,347	225,608	3,184,131	14.1	775,900,478	3,439	244	29,458,802	131	430,407,699	1,933	135
21-40 days	127,949	162,944	4,677,797	28.7	1,044,292,000	6,409	223	147,538,636	905	492,805,072	3,066	105
41-60 days	50,669	67,556	3,332,709	49.3	663,477,024	9,821	199	168,210,322	2,490	257,590,518	3,867	77
61-80 days	28,517	39,252	2,731,554	69.6	497,648,492	12,678	182	157,802,547	4,020	174,084,640	4,499	64
81 days or more	58,821	66,890	6,451,597	96.5	1,053,897,253	15,756	163	384,244,414	5,744	353,590,830	5,302	55
Aged beneficiaries												
Total	570,055	710,678	20,397,521	28.7	4,067,347,615	5,723	199	854,898,054	1,203	1,751,519,011	2,497	86
1-8 days	136,426	168,725	831,716	4.9	216,949,238	1,286	261	5,981,108	35	113,873,661	685	137
9-20 days	177,493	218,013	3,076,797	14.1	744,380,097	3,414	242	28,122,237	129	415,033,932	1,929	135
21-40 days	123,935	157,551	4,522,912	28.7	1,002,298,518	6,362	222	142,238,530	903	475,115,268	3,057	105
41-60 days	48,954	65,132	3,213,395	49.3	635,708,939	9,760	198	161,997,015	2,487	247,309,283	3,850	77
61-80 days	27,387	37,684	2,622,299	69.6	474,827,147	12,600	181	151,434,543	4,019	166,293,215	4,477	63
81 days or more	55,860	63,573	6,130,402	96.4	993,183,676	15,623	162	365,124,621	5,743	333,893,652	5,268	54
Disabled beneficiaries												
Total	20,849	27,022	844,178	31.2	195,293,495	7,227	231	38,649,872	1,430	75,670,952	2,837	90
1-8 days	5,175	6,725	32,195	4.8	10,476,625	1,558	325	312,097	46	4,837,543	729	150
9-20 days	5,854	7,595	107,334	14.1	31,520,381	4,150	294	1,336,565	176	15,373,767	2,052	143
21-40 days	4,014	5,393	154,885	28.7	41,993,482	7,787	271	5,300,106	983	17,689,804	3,330	114
41-60 days	1,715	2,424	119,314	49.2	27,768,085	11,455	233	6,213,307	2,563	10,281,235	4,316	86
61-80 days	1,130	1,568	109,255	69.7	22,821,345	14,554	209	6,368,004	4,061	7,791,425	5,036	71
81 days or more	2,961	3,317	321,195	96.8	60,713,577	18,304	189	19,119,793	5,764	19,697,178	5,958	61

[1]Number of beneficiaries receiving Medicare SNF covered services.
[2]Includes SNF admissions with at least one day of covered care under Medicare.
[3]Average program payment per admission does not reflect admissions for beneficiaries with no program payments in the reporting year.

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.

Table 5.11

Type of ancillary service and amount of total charges for Medicare skilled nursing facility (SNF) admissions, by covered days of care: Calendar year 1990

Covered days of care	All services	Accommodations	Type of ancillary service							
			Total	Pharmacy	Laboratory	Radiology	Supply	Inhalation therapy	Rehabilitation[1]	Other[2]
Number of admissions[3]										
Total	737,700	737,655	688,915	633,432	205,587	98,197	516,282	84,440	435,939	64,385
1-8 days	175,450	175,431	156,971	138,548	48,427	18,370	110,127	24,580	77,827	13,177
9-20 days	225,608	225,595	214,272	195,464	75,240	35,583	160,457	28,761	145,841	21,535
21 to 40 days	162,944	162,934	155,522	144,937	46,645	25,614	118,598	17,214	110,885	15,164
41 to 60 days	67,556	67,554	63,739	60,391	15,438	8,584	49,056	6,027	43,695	5,710
61 to 80 days	39,252	39,252	36,721	34,980	7,873	4,167	28,781	3,191	23,200	3,335
81 days or more	66,890	66,889	61,690	59,112	11,964	5,879	49,263	4,667	34,491	5,464
Amount of total charges										
Total	$4,399,080,619	$2,572,782,574	$1,825,093,487	$442,356,972	$90,477,680	$29,701,745	$259,522,598	$117,999,237	$813,502,676	$71,532,579
1 to 8 days	238,858,160	119,409,413	119,352,365	43,596,511	10,578,469	3,428,062	16,249,724	11,682,571	31,204,804	2,612,224
9 to 20 days	798,297,667	421,187,495	376,972,929	104,518,854	26,666,702	9,051,349	44,985,929	31,000,599	152,575,993	8,173,503
21 to 40 days	1,071,689,836	585,727,809	485,761,459	117,477,490	25,943,280	9,120,945	58,772,109	31,381,958	230,458,330	12,607,347
41 to 60 days	681,494,314	396,713,805	284,617,067	61,451,518	11,204,048	3,891,506	38,083,267	15,247,389	144,722,227	10,017,112
61 to 80 days	512,177,502	316,142,661	195,860,027	39,921,651	6,202,206	1,836,324	31,792,862	10,191,398	95,522,960	10,392,626
81 days or more	1,096,563,140	733,601,391	362,529,640	75,390,948	9,882,975	2,373,559	69,638,707	18,495,322	159,018,362	27,729,767
Percent of total charges										
Total	100.0	58.5	41.5	10.1	2.1	0.7	5.9	2.7	18.5	1.6
1 to 8 days	100.0	50.0	50.0	18.3	4.4	1.4	6.8	4.9	13.1	1.1
9 to 20 days	100.0	52.8	47.2	13.1	3.3	1.1	5.6	3.9	19.1	1.0
21 to 40 days	100.0	54.7	45.3	11.0	2.4	0.9	5.5	2.9	21.5	1.2
41 to 60 days	100.0	58.2	41.8	9.0	1.6	0.6	5.6	2.2	21.2	1.5
61 to 80 days	100.0	61.7	38.2	7.8	1.2	0.4	6.2	2.0	18.7	2.0
81 days or more	100.0	66.9	33.1	6.9	0.9	0.2	6.4	1.7	14.5	2.5
Average total charge per admission										
Total	$5,963	$3,488	$2,649	$698	$440	$302	$503	$1,397	$1,866	$1,111
1 to 8 days	1,361	681	760	315	218	187	148	475	401	198
9 to 20 days	3,538	1,867	1,759	535	354	254	280	1,078	1,046	380
21 to 40 days	6,577	3,595	3,123	811	556	356	496	1,823	2,078	831
41 to 60 days	10,088	5,873	4,465	1,018	726	453	776	2,530	3,312	1,754
61 to 80 days	13,048	8,054	5,334	1,141	788	441	1,105	3,194	4,117	3,116
81 days or more	16,394	10,967	5,877	1,275	826	404	1,414	3,963	4,610	5,075

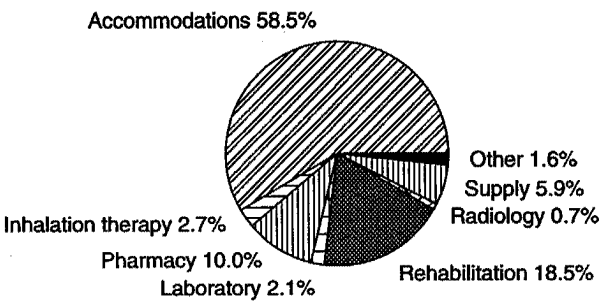
[1]Includes physical therapy, speech therapy, and occupational therapy.
[2]Includes services such as blood and blood components, etc.
[3]Includes SNF admissions with at least one day of covered care under Medicare.

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.

Figure 5.12

Percent distribution of Medicare skilled nursing facility total charges, by type of service: Calendar year 1990



NOTE: Total charges are equal to $4.4 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.

Principal diagnosis

Table 5.13 presents Medicare SNF data highlighting the 70 most frequently reported principal diagnoses (within major diagnostic classifications) for beneficiaries admitted to SNFs during 1990. The principal diagnoses are derived from the billing narrative provided by the attending physician and are coded on the basis of the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) coding manual. The principal diagnosis is the condition determined after study to be chiefly responsible for admission of the patient. Although as many as five ICD-9-CM codes are reported on the billing form (HCFA-1450), only the principal diagnosis code was used.

The 70 leading principal diagnostic codes shown in Table 5.13 accounted for 75.5 percent (557,054) of all Medicare SNF admissions during 1990. The leading diagnoses also accounted for 77.8 percent (16.5 million) of all SNF CDOC and 76.1 percent ($1.39 billion) of all SNF payments. The average CDOC per discharge for the leading diagnoses was 29.7 days, slightly more than that for all conditions (28.8 days). The average payment for the leading diagnoses was $2,531 per admission, slightly greater than that reported for all diagnoses ($2,509).

Among the leading principal diagnoses, the average CDOC per admission ranged from a low of 18.3 days for osteoarthritis (code 715) to a high of 43.7 days for multiple sclerosis (code 340). The average SNF covered charge per admission ranged from $4,078 for myocardial infarction (code 410) to $9,113 for pressure ulcers of skin (code 707). CDOC is probably the best statistic to use (rather than payments) in comparing differences in the use of Medicare SNF services among the diagnoses because of the influence and effect of igh coinsurance payments for stays exceeding 20 CDOC.

In 1990, two principal diagnoses accounted for nearly one-fifth of all Medicare SNF admissions: fracture of neck of femur (code 820), which accounted for 10.0 percent (73,835) of all SNF admissions and 10.6 percent ($194.1 million) of SNF payments, and acute cerebrovascular accident (CVA) (code 436), which comprised 8.9 percent (65,870) of all SNF admissions and 9.7 percent ($177.9 million) of SNF payments. These two conditions have been the most frequently reported principal diagnoses for beneficiaries admitted to Medicare SNFs since the beginning of the Medicare SNF benefit in 1967. Beneficiaries with the principal diagnoses of fracture of neck of femur had an average stay (29.7 days) and an average payment per admission ($2,659) in 1990 that were higher than for the average SNF admission.

Beneficiaries with acute CVA (code 436) had an average stay that was a week longer than that for all SNF admissions (35.8 days versus 28.8 days); their average payment per admission, however, was only slightly higher than the average ($2,736 versus $2,509), reflecting a lower average payment per day ($76 versus $86).

As shown in Table 5.14, there was a substantial change in the distribution of leading diagnoses from 1987 to 1990. The greatest change was noted for the principal diagnosis of diabetes (code 250), which rose from 1.8 percent of all SNF admissions in 1987 to 4.4 percent in 1990. There was also a large increase in SNF admissions recorded for congestive heart disease (code 428), which rose from 2.7 to 3.6 percent. In contrast, Figure 5.15 shows that there were large declines noted in the proportion of admissions recorded for fracture of neck of femur (code 820), which dropped from 13.4 to 10.0 percent, and acute cerebrovascular disease (code 436), which dropped from 11.0 to 8.9 percent.

The changes described reflect the effects of both the MCCA and the clarification of the 1988 coverage guidelines; that is, they represent a better understanding by providers of the factors that determine the SNF level of care.

Provider utilization

Table 5.16 presents the number of SNFs and swing-bed hospitals (that is, hospitals with swing beds) certified to provide Medicare-covered skilled nursing and rehabilitation services during 1990. Selected utilization and program data are presented for these facilities, classified by type of facility and bed size. The focus of this section is to highlight and compare the differences in the use and cost of SNF services by type of facility providing these services; that is, by whether the facility is a hospital-based SNF, a non-hospital-based SNF, or a swing-bed hospital.

Table 5.13

Number of covered admissions, covered days of care, covered charges, and program payments for Medicare beneficiaries admitted to skilled nursing facilities, by selected principal diagnoses within major diagnostic classification (MDC): Calendar year 1990

Principal ICD-9-CM diagnosis[1] within MDC	Principal ICD-9-CM code category	Covered admissions		Covered days of care			Covered charges			Program payments		
		Number	Percent distribution	Number in thousands	Per 1,000 enrollees	Per admission	Amount in thousands	Per admission	Per day	Amount in thousands	Per admission[2]	Per day
Total, all diagnoses[3]	—	737,700	100.0	21,242	630	28.8	$4,262,641	$5,778	$201	$1,827,190	$2,509	$86
The leading diagnoses[4]	—	557,054	75.5	16,519	490	29.7	3,627,281	5,865	198	1,391,336	2,531	84
Infectious and parasitic diseases (MDC 1)	001-139	8,725	1.2	244	7	27.9	56,057	6,425	230	22,265	2,592	91
Septicemia	038	6,026	0.8	170	5	28.3	38,426	6,377	225	15,166	2,558	89
Other	—	2,699	0.4	73	2	27.2	17,632	6,533	241	7,100	2,668	97
Neoplasms (MDC 2)	140-239	47,067	6.4	1,107	33	23.5	240,607	5,112	217	108,616	2,333	98
Malignant neoplasm of stomach	151	1,036	0.1	22	1	21.3	5,205	5,024	236	2,290	2,243	104
Malignant neoplasm of colon	153	2,921	0.4	66	2	22.7	14,018	4,799	212	6,667	2,305	101
Malignant neoplasm of rectum, rectosigmoid junction, and anus	154	3,261	0.4	80	2	24.5	15,480	4,747	194	7,223	2,240	91
Malignant neoplasm of pancreas	157	1,605	0.2	33	1	20.7	8,124	5,062	244	3,577	2,252	108
Malignant neoplasm of trachea, bronchus, and lung	162	7,077	1.0	142	4	20.1	34,285	4,845	241	15,449	2,208	109
Malignant neoplasm of female breast	174	2,980	0.4	83	2	27.7	14,832	4,977	179	6,838	2,316	83
Malignant neoplasm of prostate	185	3,312	0.4	80	2	24.1	15,745	4,754	198	7,403	2,252	93
Secondary malignant neoplasm of respiratory and digestive systems and other specified sites	197-198	4,507	0.6	93	3	20.7	27,807	6,170	298	12,412	2,779	133
Other	—	20,368	2.8	508	15	24.9	105,111	5,161	207	46,758	2,323	92
Endocrine, nutritional, and metabolic diseases and immunity disorders (MDC 3)	240-279	49,158	6.7	1,908	57	38.8	296,480	6,031	155	122,807	2,545	64
Diabetes mellitus	250	32,274	4.4	1,379	41	42.7	198,405	6,148	144	81,458	2,578	59
Nutritional deficiencies	260-263	3,628	0.5	125	4	34.3	27,630	7,616	222	10,727	2,997	86
Disorders of fluid, electrolyte, and acid-base balance	276	10,617	1.4	324	10	30.5	56,248	5,298	174	24,601	2,347	76
Other	—	2,639	0.4	80	2	30.3	14,196	5,379	178	6,021	2,315	75
Diseases of the blood and blood forming organs (MDC 4)	280-289	3,704	0.5	99	3	26.8	17,275	4,664	174	7,622	2,085	77
Other and unspecified anemias	285	1,800	0.2	51	2	28.4	8,449	4,694	165	3,703	2,087	72
Other	—	1,904	0.3	48	1	25.2	8,826	4,635	184	3,919	2,082	82
Mental disorders (MDC 5)	290-319	18,344	2.5	647	19	35.3	93,917	5,120	145	39,576	2,191	61
Senile and presenile organic psychotic conditions	290	7,218	1.0	259	8	35.8	37,023	5,129	143	15,526	2,185	60
Specific nonpsychotic mental disorders due to organic brain damage	310	4,776	0.6	179	5	37.4	25,529	5,345	143	10,456	2,224	59
Other	—	6,350	0.9	210	6	33.0	31,364	4,939	150	13,594	2,173	65
Diseases of the nervous system and sense organs (MDC 6)	320-389	23,405	3.2	846	25	36.1	160,154	6,843	189	62,316	2,707	74
Other cerebral degenerations	331	4,598	0.6	170	5	37.0	25,320	5,507	149	10,495	2,323	62
Parkinson's disease	332	4,534	0.6	157	5	34.6	26,883	5,929	172	10,968	2,457	70
Multiple sclerosis	340	1,185	0.2	52	2	43.7	9,332	7,875	180	3,545	3,030	69
Hemiplegia	342	5,128	0.7	202	6	39.5	45,400	8,853	224	16,485	3,277	81
Other	—	7,960	1.1	265	8	33.3	53,218	6,686	201	20,822	2,656	79

See footnotes at end of table.

Table 5.13—Continued

Number of covered admissions, covered days of care, covered charges, and program payments for Medicare beneficiaries admitted to skilled nursing facilities, by selected principal diagnoses within major diagnostic classification (MDC): Calendar year 1990

Principal ICD-9-CM diagnosis[1] within MDC	Principal ICD-9-CM code category	Covered admissions		Covered days of care			Covered charges			Program payments		
		Number	Percent distribution	Number in thousands	Per 1,000 enrollees	Per admission	Amount in thousands	Per admission	Per day	Amount in thousands	Per admission[2]	Per day
Diseases of the circulatory system (MDC 7)	390-459	167,828	22.8	5,221	155	31.1	$1,029,014	$6,131	$197	$410,594	$2,480	$79
Essential hypertension	401	3,698	0.5	116	3	31.5	18,581	5,025	160	7,846	2,157	67
Acute myocardial infarction	410	5,060	0.7	110	3	21.8	20,636	4,078	187	9,683	1,933	88
Ischemic heart disease	414	7,126	1.0	215	6	30.2	35,198	4,939	164	14,553	2,067	68
Cardiac dysrhythmia	427	4,954	0.7	125	4	25.2	23,157	4,674	186	10,168	2,079	82
Heart failure	428	26,693	3.6	627	19	23.5	112,008	4,196	179	51,130	1,939	82
Intracerebral hemorrhage	431	2,781	0.4	97	3	34.8	21,802	7,840	225	8,235	3,012	85
Occlusion of cerebral arteries	434	8,596	1.2	249	7	29.0	67,281	7,827	270	27,472	3,230	110
Transient cerebral ischemia	435	2,963	0.4	80	2	27.0	14,149	4,775	177	6,248	2,139	78
Acute, but ill-defined, cerebrovascular disease	436	65,870	8.9	2,355	70	35.8	480,000	7,287	204	177,903	2,736	76
Other and ill-defined cerebrovascular disease	437	2,842	0.4	96	3	33.9	17,265	6,075	179	6,584	2,359	68
Late effects of cerebrovascular disease	438	9,977	1.4	382	11	38.3	72,075	7,224	189	27,531	2,807	72
Other peripheral vascular disease	443	2,644	0.4	83	2	31.3	15,709	5,942	190	6,654	2,562	80
Other venous embolism and thrombosis	453	1,945	0.3	54	2	27.9	9,875	5,077	182	4,277	2,239	79
Other	—	22,679	3.1	632	19	27.9	121,278	5,348	192	52,311	2,340	83
Diseases of the respiratory system (MDC 8)	460-519	61,039	8.3	1,498	44	24.5	315,855	5,175	211	127,778	2,119	85
Other bacterial pneumonia	482	2,504	0.3	49	1	19.4	16,924	6,759	349	5,828	2,354	120
Pneumonia, organism unspecified	486	25,570	3.5	628	19	24.6	122,776	4,802	195	52,072	2,062	83
Asthma	493	991	0.1	19	1	19.0	4,594	4,636	244	1,947	1,993	103
Chronic airway obstruction, not elsewhere classified	496	12,651	1.7	307	9	24.3	63,687	5,034	207	25,416	2,035	83
Pneumonitis due to solids and liquids	507	4,525	0.6	147	4	32.4	29,616	6,545	202	11,552	2,588	79
Other diseases of lung	518	2,861	0.4	67	2	23.6	22,459	7,850	333	7,496	2,645	111
Other	—	11,937	1.6	281	8	23.6	55,799	4,674	198	23,466	1,988	83
Diseases of the digestive system (MDC 9)	520-579	28,001	3.8	722	21	25.8	135,701	4,846	188	59,794	2,165	83
Intestinal obstruction without mention of hernia	560	4,255	0.6	112	3	26.3	21,545	5,063	193	9,631	2,294	86
Diverticula of intestine	562	1,910	0.3	47	1	24.4	8,704	4,557	187	4,046	2,147	87
Gastrointestinal hemorrhage	578	5,745	0.8	156	5	27.2	26,577	4,626	170	11,599	2,045	74
Other	—	16,091	2.2	407	12	25.3	78,875	4,902	194	34,518	2,175	85
Diseases of the genitourinary system (MDC 10)	580-629	27,152	3.7	770	23	28.4	131,805	4,854	171	58,473	2,184	76
Chronic renal failure	585	2,906	0.4	79	2	27.3	14,166	4,875	178	6,379	2,233	80
Renal failure, unspecified	586	2,811	0.4	73	2	26.0	12,285	4,370	168	5,596	2,017	76
Other disorders of urethre and urinary tract	599	15,654	2.1	464	14	29.7	78,300	5,002	169	34,491	2,234	74
Other	—	5,781	0.8	153	5	26.5	27,054	4,680	177	12,007	2,107	78
Diseases of the skin and subcutaneous tissue (MDC 12)	680-709	26,252	3.6	972	29	37.0	216,305	8,240	222	81,214	3,140	84
Other cellulitis and abscess	682	5,971	0.8	166	5	27.8	34,990	5,860	211	15,836	2,682	95
Chronic ulcer of skin	707	19,142	2.6	775	23	40.5	174,437	9,113	225	62,532	3,320	81
Other	—	1,139	0.2	32	1	27.7	6,878	6,039	218	2,847	2,535	90

See footnotes at end of table.

Table 5.13—Continued

Number of covered admissions, covered days of care, covered charges, and program payments for Medicare beneficiaries admitted to skilled nursing facilities, by selected principal diagnoses within major diagnostic classification (MDC): Calendar year 1990

Principal ICD-9-CM diagnosis[1] within MDC	Principal ICD-9-CM code category	Covered admissions		Covered days of care			Covered charges			Program payments		
		Number	Percent distribution	Number in thousands	Per 1,000 enrollees	Per admission	Amount in thousands	Per admission	Per day	Amount in thousands	Per admission[2]	Per day
Diseases of the musculoskeletal system and connective tissue (MDC 13)	710-739	31,568	4.3	703	21	22.3	$165,480	$5,242	$235	$479,110	$2,534	$113
Osteoarthrotis and allied disorders	715	11,057	1.5	202	6	18.3	48,210	4,360	239	24,527	2,242	121
Spinal stenosis	724	2,571	0.3	51	2	20.0	11,398	4,433	222	5,747	2,256	112
Osteomyelitis, periostitis, and other infections involving bone	730	1,994	0.3	60	2	30.3	18,164	9,110	301	7,068	3,588	117
Other	—	15,946	2.2	389	12	24.4	87,708	5,500	226	41,768	2,649	107
Congenital anomalies (MDC 14)	740-759	1,079	0.1	32	1	29.4	5,568	5,160	175	2,380	2,239	75
Symptoms, signs, and ill-defined conditions (MDC 16)	780-799	27,059	3.7	850	25	31.4	157,573	5,823	185	66,800	2,503	79
General symptoms	780	8,570	1.2	236	7	27.6	43,177	5,038	183	19,523	2,306	83
Symptoms concerning nutrition, metabolism and development	783	3,042	0.4	117	3	38.3	19,623	6,451	168	8,277	2,751	71
Symptom involving cardiovascular system	785	2,593	0.4	82	2	31.8	16,199	6,247	197	6,644	2,619	81
Symptoms involving urinary system	788	1,019	0.1	28	1	27.8	4,604	4,518	163	2,220	2,203	78
Other	—	11,835	1.6	386	11	32.6	73,970	6,250	192	30,135	2,583	78
Injury and poisoning (MDC 17)	800-999	130,827	17.7	3,826	113	29.2	749,576	5,730	196	341,423	2,641	89
Fracture of vertebral column without mention of spinal cord injury	805	5,504	0.7	122	4	22.2	24,987	4,540	204	12,641	2,315	103
Fracture of pelvis	808	6,858	0.9	169	5	24.7	33,765	4,923	200	16,980	2,502	100
Fracture of humerus	812	3,718	0.5	112	3	30.2	21,785	5,859	194	9,717	2,654	86
Fracture of neck of femur	820	73,835	10.0	2,194	65	29.7	421,582	5,710	192	194,066	2,659	88
Fracture of shaft of femur	821	8,659	1.2	285	8	33.0	54,591	6,305	191	24,050	2,809	84
Fracture of tibia and fibula	823	2,609	0.4	86	3	32.9	16,456	6,307	192	7,458	2,884	87
Traumatic amputation of leg(s)	897	3,453	0.5	127	4	36.8	21,445	6,211	169	8,785	2,589	69
Other	—	26,191	3.6	730	22	27.9	154,965	5,917	212	67,724	2,619	93
Supplementary classification of factors influencing health status and contact with health services	V01-V82	85,717	11.6	1,773	53	20.7	487,302	5,685	275	234,741	2,766	132
Artificial opening status	V44	4,192	0.6	179	5	42.8	26,387	6,295	147	9,784	2,387	55
Other postsurgical states	V45	1,732	0.2	38	1	22.0	7,834	4,523	206	3,807	2,220	100
Other orthopedic aftercare	V54	5,567	0.8	130	4	23.4	32,804	5,893	252	15,357	2,786	118
Attention to artificial openings	V55	3,489	0.5	135	4	38.6	23,285	6,674	173	8,943	2,599	66
Breathing exercises	V57	32,889	4.5	559	17	17.0	184,585	5,612	330	96,378	2,957	172
Convalescence	V66	11,955	1.6	246	7	20.6	58,169	4,866	236	29,209	2,463	119
Other	—	25,893	3.5	485	14	18.7	154,239	5,752	307	71,262	2,657	142

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

[2]The average program payment per admission does not reflect admissions for beneficiaries program payments during the reporting year.

[3]Includes invalid codes not shown separately.

[4]Specific leading diagnostic categories were selected for presentation because of frequency of occurrences or because of special interest.

NOTES: Numbers may not add to totals because of rounding. MDCs 11 and 15 were not shown separately (but are included in the totals) because these diagnostic conditions are, 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.

Table 5.14

Number and distribution of covered admissions for Medicare beneficiaries admitted to skilled nursing facilities (SNF), by the nine leading principal diagnoses: Calendar years 1987 and 1990

Principal ICD-9-CM diagnosis[2]	Code number	1987 covered admissions[1]				1990 covered admissions[1]				Percent change 1987-90		
		Number	Percent	Average covered days of care per admission	Average program payment per admission[3]	Number	Percent	Average covered days of care per admission	Average program payment per admission[3]	Covered admissions	Average covered days of care	Average program payment
Total, all diagnoses	—	327,012	100.0	21.5	$1,664	737,700	100.0	28.8	$2,509	126	34	51
Malignant neoplasm of trachea, bronchus, and lung	162	3,659	1.1	15.6	1,380	7,007	0.9	20.1	2,208	92	29	60
Diabetes	250	5,773	1.8	21.7	1,425	32,274	4.4	42.7	2,578	459	97	81
Congestive heart disease	428	8,779	2.7	15.9	1,181	26,693	3.6	23.5	1,939	204	48	64
Acute cerebrovascular disease	436	36,063	11.0	25.7	1,719	65,870	8.9	35.8	2,736	83	39	59
Pneumonia	486	9,918	3.0	17.4	1,263	25,570	3.5	24.6	2,062	158	41	63
Chronic obstructive pulmonary disease	496	4,082	1.2	16.4	1,254	12,651	1.7	24.3	2,035	210	48	62
Urinary tract infection	599	6,841	2.1	19.6	1,341	15,654	2.1	29.7	2,234	129	52	67
Pressure ulcer of skin	707	10,986	3.4	33.9	2,182	19,142	2.6	40.5	3,320	74	19	52
Fracture, neck of femur	820	43,875	13.4	22.6	1,770	73,835	10.0	29.7	2,659	68	31	50
All other diagnoses	—	180,855	60.3	20.5	1,669	459,004	62.2	31.8	2,491	154	55	49

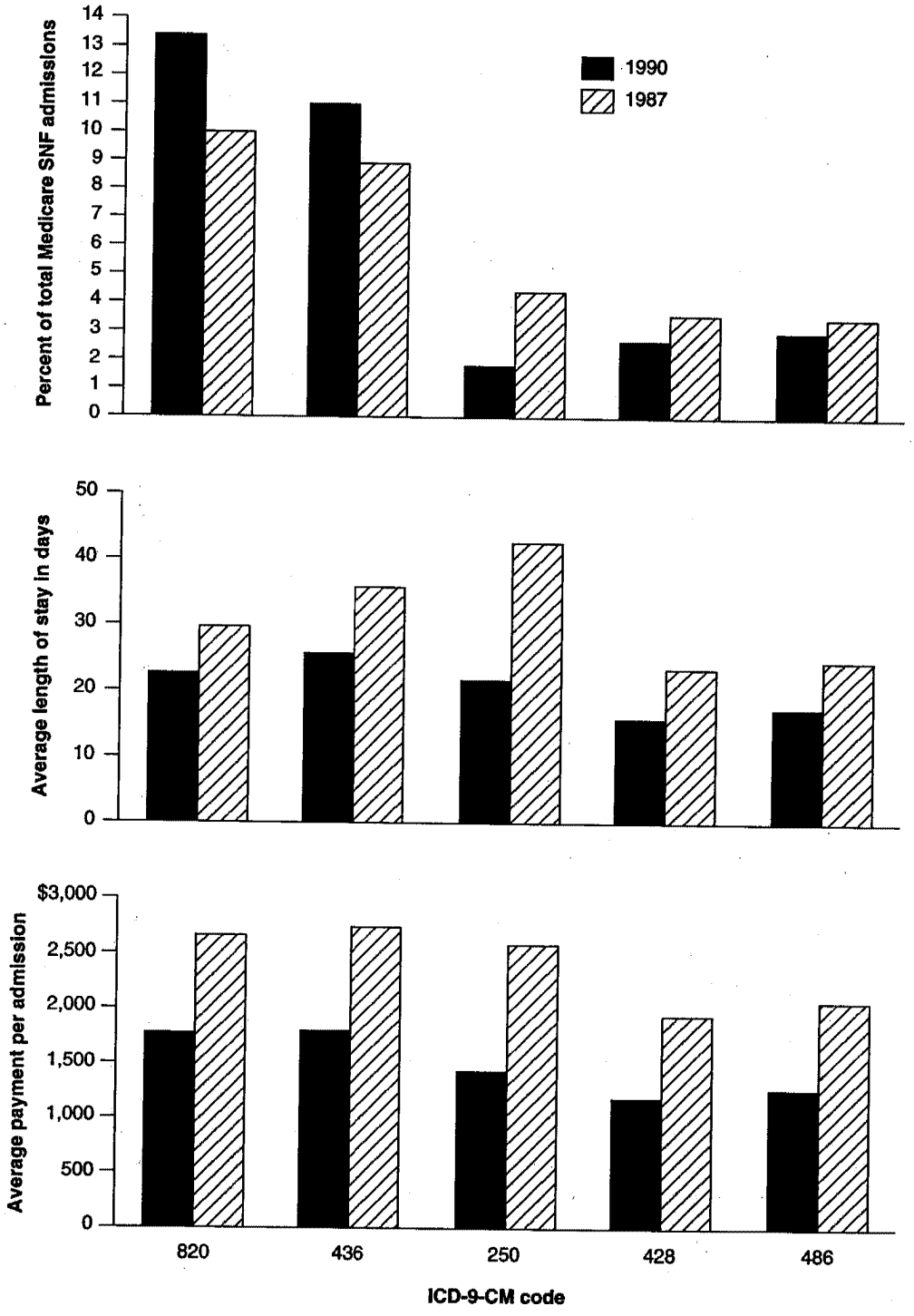
[1]Includes SNF admissions with at least one day of covered care under Medicare.
[2]ICD-9-CM is *International Classification of Diseases, 9th Revision, Clinical Modification*. Although as many as 5 ICD-9-CM codes are reported on HCFA Form-1450, only the principal diagnosis code has been used.
[3]Average program payment per admission does not reflect admissions for beneficiaries with no program payments in the reporting year.

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.

Figure 5.15

Trends in the top five Medicare skilled nursing facility (SNF) principal diagnoses, based on number of admissions: Calendar years 1987 and 1990



NOTES: ICD-9-CM is *International Classification of Diseases, 9th Revision, Clinical Modification.* ICD-9-CM codes for principal diagnoses are: fracture, neck of femur, 820; acute cerebrovascular accident, 436; diabetes, 250; congestive heart disease, 428; pneumonia, 486.

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 5.16

Number of Medicare skilled nursing facilities (SNFs) and swing-bed hospitals providing skilled nursing care services, number of covered admissions, covered days of care, and program payments, by type of facility and bed size: Calendar year 1990

Type of facility and bed size[2]	Number of facilities	Covered admissions[1]		Covered days of care			Program payments			
		Number	Percent	Number in thousands	Percent	Per admission	Amount in thousands	Percent	Per admission[3]	Per day
All SNFs										
Total	9,302	686,536	100.0	20,559	100.0	30.0	$1,759,155	100.0	$2,598	$86
1 to 49 beds	5,460	323,753	47.2	8,853	43.1	27.3	902,213	51.3	2,831	102
50 to 99 beds	2,170	170,570	24.8	5,455	26.5	32.0	409,900	23.3	2,429	75
100 to 149 beds	963	113,478	16.5	3,634	17.7	32.0	261,206	14.8	2,329	72
150 to 199 beds	360	47,924	7.0	1,562	7.6	32.6	111,993	6.4	2,365	72
200 beds or more	349	30,811	4.5	1,053	5.1	34.2	73,843	4.2	2,437	70
Hospital-based SNFs:										
Total	1,127	155,070	100.0	3,213	100.0	20.7	555,817	100.0	3,621	173
1 to 49 beds	815	139,614	90.0	2,796	87.0	20.0	496,344	89.3	3,595	178
50 to 99 beds	207	9,685	6.2	256	8.0	26.4	40,561	7.3	4,193	158
100 to 149 beds	62	4,576	3.0	124	3.9	27.2	15,021	2.7	3,293	121
150 to 199 beds	13	226	0.1	6	0.2	24.5	729	0.1	3,298	132
200 beds or more	30	969	0.6	31	1.0	31.5	3,163	0.6	3,274	104
Non-hospital-based SNFs:										
Total	8,175	531,466	100.0	17,346	100.0	32.6	1,203,338	100.0	2,298	69
1 to 49 beds	4,645	184,139	34.6	6,057	34.9	32.9	405,869	33.7	2,247	67
50 to 99 beds	1,963	160,885	30.3	5,199	30.0	32.3	369,339	30.7	2,322	71
100 to 149 beds	901	108,902	20.5	3,510	20.2	32.2	246,185	20.5	2,288	70
150 to 199 beds	347	47,698	9.0	1,557	9.0	32.6	111,264	9.2	2,360	71
200 beds or more	319	29,842	5.6	1,023	5.9	34.3	70,680	5.9	2,409	69
Swing-bed hospitals[4]										
Total	1,323	51,164	100.0	683	100.0	13.3	68,035	100.0	1,336	100
1 to 49 beds	886	33,670	65.8	446	65.2	13.2	46,404	68.2	1,383	104
50 to 99 beds	437	17,494	34.2	238	34.8	13.6	21,631	31.8	1,243	91

[1]Includes SNF admissions with at least one day of covered care under Medicare.
[2]Represents number of Medicare-certified beds.
[3]Average program payment per admission does not reflect admissions for beneficiaries with no program payments in the reporting year.
[4]Swing-bed hospitals are not SNFs and are not included in the count of total SNFs. Hospitals that have SNFs may also have swing beds.

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.

As of December 1990, there were 9,302 SNFs certified to provide Medicare-covered SNF services. Approximately 59 percent (5,460) had fewer than 50 Medicare-certified beds and another 23 percent (2,170) had 50-99 beds. Together, these two bed-size classifications accounted for about 82 percent of all Medicare participating SNFs. The average number of CDOC per admission increased with the number of certified SNF beds, rising from 27.3 CDOC for SNFs with fewer than 50 beds to 34.2 CDOC for SNFs with 200 certified beds or more. In contrast, the average payment per admission decreased with the number of certified beds, from $2,831 (for SNFs with fewer than 50 beds) to $2,437 (for SNFs with 200 beds or more).

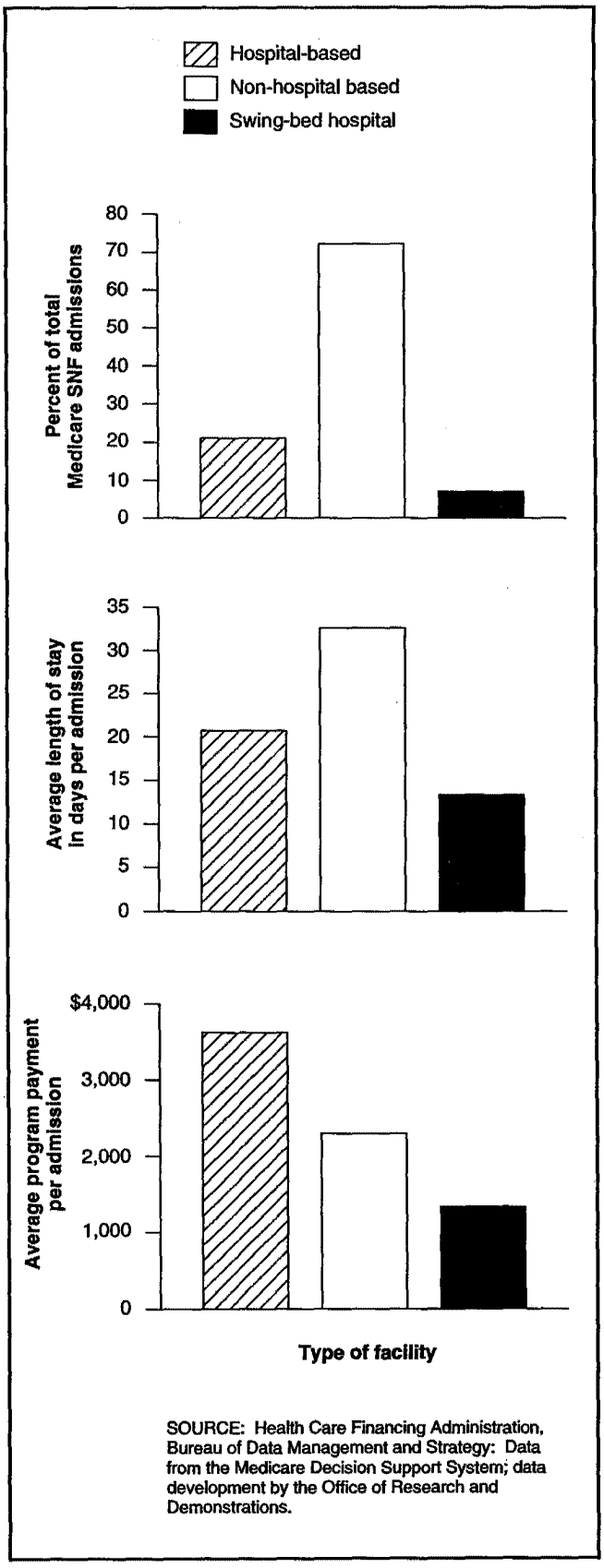
There were substantial differences in the use and cost of Medicare SNF services by type of facility. In 1990, approximately 12 percent (1,127) of all Medicare participating SNFs were hospital-based SNFs; only 9 percent (105) of these facilities had more than 99 beds. Hospital-based SNFs had 155,070 covered SNF admissions (23 percent of all SNF admissions) accounting for 3.2 million CDOC, an average of 20.7 CDOC per admission. These providers received payments of $555.8 million, an average of $3,621 per admission and $173 per day (Figure 5.17).

There were 8,175 Medicare-certified non-hospital-based (i.e., freestanding) SNFs; these providers were somewhat larger than hospital-based facilities, with about 19 percent (1,567) having 100 SNF-certified beds or more. Freestanding SNFs had 531,466 covered admissions during the year (77 percent of all SNF admissions), accounting for 17.3 million CDOC and $1.2 billion in payments. The average CDOC per admission in a freestanding SNF was 32.6 days or 11.9 days greater than that for hospital-based SNFs. On the other hand, the average payment per admission in a freestanding SNF was $2,298, or 37 percent less than the average payment in a hospital-based SNF ($3,621). These figures indicate that, in general, the hospital-based SNFs are smaller and have shorter stays but provide a greater intensity of services on a daily basis.

As of December 1990, there were 1,323 swing-bed hospitals certified to provide Medicare-covered SNF services. Thus, counting hospital-based SNFs, about two-fifths of certified short-stay hospitals provide

Figure 5.17

Medicare skilled nursing facility (SNF) admissions, by type of facility: Calendar year 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.

Medicare-covered SNF services in addition to normal hospital services.

Swing-bed hospitals are located in rural areas and cannot have more than 99 hospital beds. During 1990, swing-bed hospitals had 51,164 covered admissions (7 percent of all SNF admissions) and furnished 683,000 CDOC, an average CDOC per admission of 13.3 days. For swing-bed hospitals, the average stay was 16.7 days less than that for Medicare beneficiaries admitted to all Medicare SNFs. SNF patients in Medicare-certified swing-bed hospitals accounted for payments amounting to $68.0 million, an average payment of $1,336 per admission and $100 per day; the comparable average payment for beneficiaries in other SNFs was $2,598 per admission and $86 per day.

Swing beds often serve as holding beds until patients are sufficiently rehabilitated to return home or until nursing home beds become available in the community. At other times, however, swing beds are used to fill gaps in the long-term care delivery system in rural communities. An evaluation of the swing-bed program found that, during the period when eligibility was limited to hospitals with fewer than 50 beds, patients using swing beds had substantially shorter stays and greater rehabilitation potential than patients in freestanding facilities. The patients using swing beds were more often found "to need intense medical and skilled care for such problems as recovery from surgery, hip fractures within past 6 weeks, shortness of breath, and the need for intravenous catheters" (Shaughnessy, Schlenker, and Silverman, 1989). Freestanding facilities were found more likely "to treat patients with problems more typically seen in institutional long-term care settings; such as, incontinence, impaired cognitive functioning, and dependence in carrying out activities of daily living (e.g., feeding self and dressing)." (Shaughnessy, Schlenker, and Silverman, 1988). The data for 1990 suggest that this may still be true, with hospital-based SNFs occupying an intermediate position.

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