

Ten Years of Medicare: Impact on the Covered Population

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This article provides a 10 year review of Medicare program data, concentrating on the experience of the beneficiaries—now more than 22 million elderly and 2 million disabled persons—and focuses on the impact of Medicare as insurance. Data are derived primarily from the Medicare statistical system and from special studies. Review of the data on hospital utilization shows that the number of days of short stay hospital care per 1,000 enrolled was the same in 1973 as it was in 1967, the first full year of Medicare operation. Study of the use of medical benefits reveals that the proportion of enrollees using covered physicians' and related services, as well as the average number of services received, has been at a relatively constant level throughout the past decade. Conclusions are that implementation of Medicare did not result in a period of unbounded utilization of covered services.

Major concerns arise from the rapid and persistent increase each year in the price or unit costs of medical care during Medicare's first decade. Thus, although Medicare has succeeded in accomplishing its primary goal of paying the major portion of large hospital and medical bills, the out-of-pocket costs that enrollees face for their total health care needs are still likely to be a considerable burden to many beneficiaries.

JULY 1, 1976, marks the tenth anniversary of the start of Medicare. Enacted into law in 1965 as title XVIII of the Social Security Act—Health Insurance for the Aged—the new program went into effect on July 1, 1966, and began to provide basic health insurance coverage for persons aged 65 and over—the age group with the highest incidence of illness and disability, the lowest income, and the least adequate private health insurance coverage.

Medicare's two coordinated benefit packages—part A or hospital insurance (HI) (although it also covers posthospital extended care in skilled-nursing facilities and home health visits) and part B or supplementary medical insurance (SMI)—were designed to pay the major portion of large hospital and medical bills. Not covered under Medicare were several health care services

that the aged generally require such as drugs, routine eye and dental care, and preventive services. Nor was long-term care covered. The primary intent of the program was to enable elderly persons to enter the mainstream of health care, obtaining essential services without depleting their financial resources.

Hospital insurance covers 90 days of inpatient hospital care, 100 posthospital days of care in a skilled-nursing facility (SNF), and 100 posthospital home health visits in a benefit period—which begins with the first day of hospitalization and ends when the beneficiary has not been an inpatient in a hospital or SNF for 60 continuous days. An additional 60 hospital days are provided as a lifetime reserve that may be used if the individual exhausts the 90 days in a benefit period. To coordinate with these benefits, SMI covers a variety of medical and surgical services and supplies furnished by a physician or others in connection with physicians' services. The program also covers home health visits whether or not the beneficiary was hospitalized.

The beneficiaries are required to share in the costs. Under HI the patient is required to pay an inpatient hospital deductible that approximates the cost of 1 day of hospital care. Coinsurance is required for the 61st-90th day of inpatient hospital care, for the 21st-100th day of SNF care, and for all lifetime reserve days. Under SMI the beneficiary must satisfy a deductible amount each year, and after the deductible the program pays 80 percent of allowed charges and the patient 20 percent.

To finance the program, two separate trust funds were established to pay the benefits and administrative expenses. HI is financed primarily through a tax on current earnings in employment covered under the Social Security Act, SMI through premiums paid by persons enrolled in the program (or on their behalf) and by the Federal Government from general revenues.

In 1972, amendments to the Act broadened Medicare to include two additional high-risk

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groups Effective July 1, 1973, the full range of Medicare benefits was extended to disabled persons under age 65 who had been entitled to receive social security cash benefits for at least 2 years and to persons with end-stage renal disease (ESRD)—the group representing the innovative coverage of individuals with a catastrophic illness

In its relatively short history, Medicare has had a significant impact on the Nation Together with its companion program, Medicaid,¹ it has affected the total health care system Increasing costs and concerns with quality have resulted in a determination to improve economy, efficiency, and appropriateness of care These goals have given impetus to the development of professional standards review organizations, the support of innovative delivery systems such as health maintenance organizations (HMO's), and experiments in reimbursement mechanisms Medicare's experience of a large-scale health insurance program, moreover, has influenced most of the proposals for national health insurance

This article concentrates on the experience of the aged and reviews 10 years of program data, derived primarily from claims payment information In this way, it examines the impact of Medicare as insurance Medicare's impact on the health care system is not considered directly, but some aspects of the data are relevant to all these issues Whenever possible, the data presented here cover the period 1966-75 In many instances, however, the data do not cover the entire decade because they are not available or are based on a special study covering a shorter time period or because the processing of claims for later years is not yet complete The Technical Note (pages 20-21) gives a fuller description of the sources of the data and provides references

ELIGIBILITY UNDER MEDICARE

Aged Persons Covered

When Medicare began in 1966, it covered only "aged" persons, defined as those aged 65 and over

¹ Under that program—enacted in 1965 as title XIX of the Social Security Act, Medical Assistance—the States may help with their medical care costs (1) persons receiving assistance payments (currently aid to families with dependent children and general assistance), (2) persons receiving supplemental security income payments, and (3) medically needy persons of all ages

The vast majority of these persons were automatically entitled to hospital insurance as social security or railroad retirement cash beneficiaries A special transitional provision of the law added most of the remaining aged individuals—about 2 million persons Thus at startup, comparatively few aged persons (an estimated 150,000) were excluded, with aliens and Federal civil service employees and annuitants the principal exclusions²

Beginning in 1968, at least 3 calendar quarters in covered employment were required for eligibility of those attaining age 65, additional quarters were required each year thereafter By 1975, fully insured status—that is, having the required number of quarters of coverage for retired-worker benefits—was necessary for those aging into the Medicare program As a result, an estimated 1 million persons aged 65 and over, of whom about one-fourth are Federal civil service annuitants, are currently not entitled to Medicare benefits

HI enrollment—On July 1, 1966, 19.1 million persons aged 65 and over were enrolled for HI Each year thereafter, 1.4-1.6 million persons reached age 65 and became eligible, while 1.1-1.2 million had their enrollment terminated by death The net effect was a yearly increase of 200,000-400,000 By July 1, 1975, the enrolled aged population numbered 22.5 million (table 1)

In 1966 the median age of the HI population was 72.8, 37 percent were aged 75 and over Women enrollees substantially outnumbered men, making up 57.4 percent of the enrollment During the first decade, the age composition of the elderly covered population shifted upward By 1975 the median age had risen to 73.1, with 40.3 percent of the enrolled population aged 75 and over The number of women enrollees increased faster than the number of men, and in 1975 women made up 59.2 percent of the HI aged population The trend toward a higher average age among the aged enrolled for hospital insurance has implications for future utilization and costs since Medicare experience shows that the need for benefits tends to increase with age

Persons other than white accounted for 7.6

² Federal employees and annuitants have health insurance protection under the Federal Employees' Health Benefits Program and were therefore not included under Medicare They are, however, covered if they have had the necessary covered employment under the Social Security Act or if they elect to participate in HI or SMI and pay the premium

TABLE 1—Number and percentage distribution of HI enrollees aged 65 and over, by age, sex, race, and census region, July 1, 1966, and July 1, 1975

[Numbers in thousands]

Age, sex, race, and census region	Enrollees aged 65 and over				
	1966		1975		Percentage increase from 1966 to 1975
	Number	Percent	Number	Percent	
Total	19 082	100 0	22 472	100 0	17 7
Age					
65-74 . . .	11 990	62 8	13 426	59 7	12 0
75 and over.	7 092	37 2	9 046	40 3	27 6
Sex					
Men . . .	8 132	42 6	9,168	40 8	12 7
Women	10 950	57 4	13,304	59 2	21 5
Race					
White ..	17 042	89 3	19 996	89 0	17 3
All other	1 444	7 6	1 870	8 3	29 5
Unknown	596	3 1	606	2 7	1 7
Census region ¹					
Northeast	5,021	26 3	5 511	24 5	9 8
North Central.	5 548	29 1	6 097	27 1	9 9
South --	5,402	28 3	6 905	30 7	27 8
West ---	2 813	14 7	3,530	15 7	25 5

¹ Excludes enrollees who reside in locations outside the regions and those with address unknown

percent of the HI aged enrollment in 1966 and for 83 percent in 1975. The requirement of fully insured status for HI entitlement appears to account for the fact that a smaller proportion of the total aged population of races other than white are entitled to HI than the proportion of the total aged white population. A recent study³ shows that among the population aged 65 and over at the end of 1973, 80 percent of the blacks, compared with 92 percent of the whites, were receiving social security cash benefits. This difference is attributed to a greater likelihood that elderly white persons will achieve insured status. The study also shows that comparatively more blacks benefit from the segments of the social security program designed to protect younger populations—the disabled, widowed mothers, and children. These findings correspond to the data provided next, which show that relatively more persons other than white who are under age 65 are entitled to HI benefits.

Overall, the Medicare aged population increased 17.7 percent during this period while the total population of the United States went up only 9.0 percent—an indication of the increasing proportion of the aged in the general population. The rate of growth in the HI aged enrollment was highest in the South (27.8 percent), which

³ Gayle B. Thompson, "Blacks and Social Security Benefit Trends, 1960-73," *Social Security Bulletin*, April 1975

now has the greatest number of aged enrollees. Although the West has the fewest, the rate of growth of Medicare enrollees (25.5 percent) in that region was very high (table 1). Total population increases in the regions measured 3.5 percent in the Northeast, 5.2 in the North Central States, 13.1 in the South, and 16.0 in the West.

SMI enrollment—Enrollment in the supplementary medical insurance program is voluntary and requires a monthly premium paid by the individual or State. Of all the aged enrolled under HI in the United States, 97.4 percent were enrolled in SMI as of July 1, 1975. Among aged persons other than white who were enrolled under HI, however, 6.2 percent were without SMI coverage.

The SMI premium is paid by the States, under the "buy in" provision in the law, for aged persons receiving medical assistance. As of December 1, 1975, buy-in agreements for 46 States, the District of Columbia, Guam, and the Virgin Islands covered 2.8 million persons, representing 13 percent of all aged SMI enrollees. A higher-than-average proportion of the buy-ins are for persons in older age groups, in 1972, 53 percent were aged 75 or older. Of all SMI enrollees who are not white, about one-third are covered under buy-in contracts.

Voluntary HI and SMI enrollees not entitled to HI—The 1972 social security amendments allow the aged who are not eligible for HI benefits to enroll in the program by voluntarily paying a monthly premium. The premium is high since it is based on the full cost of hospital care for a high-risk group. It was \$33 per month the first 12 months (July 1973–June 1974) and had risen to \$45 per month by 1976. Only 15,000 people were enrolled under this provision in 1974.

Aged persons who do not qualify for HI benefits have always had the option of enrolling in SMI. As of July 1, 1975, aged persons not enrolled in HI but enrolled in SMI numbered 318,000. Of these, 28,000 were Federal civil service annuitants.

Disabled Enrollees

Medicare coverage for certain persons under age 65 who are receiving social security or rail-

road retirement cash benefits because of disability or end-stage renal disease (otherwise referred to as "chronic renal disease") began on July 1, 1973. Except persons entitled solely because of ESRD, entitlement begins only after the disabled person has received cash benefits for 24 consecutive months. Persons with ESRD are entitled to Medicare protection 3 months after renal dialysis begins, whether or not they are receiving cash benefits, if they are insured or are dependents of insured persons.

As the program began, 1.7 million disabled persons were enrolled under HI (table 2). By July 1, 1975, the number had risen to 2.2 million, an increase of 25 percent in 24 months. This rapid growth parallels that observed in recent years in the cash benefit program for the disabled under the Social Security Act.⁴

The four categories of disabled persons who may qualify for Medicare protection are shown in table 2. Disabled workers are, by far, the largest group, accounting for almost 80 percent of the total. Adults disabled since childhood (and entitled to child's benefits as dependents of retired- or disabled-worker beneficiaries or deceased insured workers) account for about 15 percent of the total. Disabled widows and widowers of beneficiaries and persons entitled solely because of ESRD, despite their higher rates of growth in the 24-month period, are relatively small proportions of the total.

The four categories vary greatly in demographic characteristics. In 1975, about 64 percent of the disabled workers were men—a reflection of their higher participation in the labor force. The widow-widower category is composed almost entirely of women. The median age in the disabled group as a whole was 55.5 in 1975, persons with ESRD formed a relatively young group, with 43.8 the median age. With persons having ESRD excluded, 15.1 percent were not white; among those entitled because of ESRD, 24.8 percent were not white. Both these proportions are considerably

⁴The rise in disability beneficiary rolls has been attributed partly to the rise in unemployment in recent years. See Mordechai E. Lando, "The Effect of Unemployment on Application for Disability Insurance," 1974 *Proceedings of the Business and Economic Statistics Section—American Statistical Association*, 1975. See also John C. Hambor, *Unemployment and Disability: An Econometric Analysis with Time Series Data* (Staff Paper No. 20), Office of Research and Statistics, Social Security Administration, 1975.

TABLE 2—Number and percentage distribution of HI enrollees under age 65, by type of entitlement, July 1, 1973, and July 1, 1975

[Numbers in thousands]

Type of entitlement	Enrollees under age 65				
	1973		1975		Percentage increase from 1973 to 1975
	Number	Per cent	Number	Per cent	
Total	1,731	100.0	2,168	100.0	25.3
Disabled persons					
Workers	1,372	79.3	1,732	79.9	26.2
Since childhood	284	16.4	334	15.4	17.7
Widows and widowers	68	3.9	89	4.1	31.6
With end-stage renal disease only ¹	6	.4	13	.6	99.4

¹ Excluded from the counts of those entitled solely because of renal disease were 3,235 persons with ESRD who were "dually entitled" to Medicare on July 1, 1973, and 9,130 persons "dually entitled" on July 1, 1975—that is, they were also entitled as disabled persons and are counted in the above categories.

higher than the proportions of persons other than white in the aged Medicare population (8.3 percent) and in the general U.S. population under age 65 (13.5 percent).

Although persons entitled to Medicare solely because of ESRD are a very small proportion of the disabled group, their number is growing rapidly. During the first 24 months the number of enrollees entitled to HI benefits solely for that reason rose from 6,371 to 12,702.⁵ Not all persons with ESRD are eligible. During the first year of the program more than 1,000 persons with ESRD had claims rejected by Medicare because they failed to meet insured-status requirements.

Of the disabled persons enrolled under HI during 1973–75, approximately 90 percent were enrolled under SMI Buy-in agreements, as of July 1, 1974, covered 280,435 disabled persons—representing 16.1 percent of those enrolled in SMI. As of July 1, 1975, the highest refusal rate (10 percent) was among the disabled workers, known to include many veterans who presumably refuse SMI coverage because of the availability of free medical care under the Veterans Administration program. Six percent of the disabled widows declined SMI coverage and 8 percent of those disabled in childhood. Among those entitled to Medicare benefits because of ESRD, about 5 percent declined to enroll under SMI.

⁵ Enrollment counts of persons with ESRD are for persons entitled to Medicare solely because they suffer from ESRD. The enrolled aged and other disabled groups include some persons with ESRD whose entitlement does not depend upon their having the illness.

UTILIZATION OF MEDICARE BENEFITS

The percentage of aged Medicare beneficiaries meeting the HI and/or SMI deductible and receiving reimbursements for covered services has been rising each year (table 3). In comparison with the 34.5 percent who received Medicare payments in 1967, at least 50 percent of the aged received reimbursements in 1975, according to preliminary estimates. Reimbursements per person served and per enrollee have increased steadily, the average reimbursement per enrollee in 1971 (\$331) was 53 percent higher than that in 1967. These figures come from Social Security Administration reimbursement records and exclude persons who used covered services but either did not incur sufficient charges to meet the deductible or failed to submit claims.

Nearly every enrolled aged person who uses inpatient hospital services meets the HI deductible and receives some HI reimbursement. The hospital deductible is equal approximately to the average cost of 1 day of care, and most stays are longer than 1 day. On the other hand, under SMI persons using covered services do not always meet the deductible (\$50 from 1967-72 and \$60 thereafter). Medicare records show that the percentage of enrollees who met the SMI deductible was 37.5 in 1968, 40.5 in 1969, 42.2 in 1970, and 43.3 in 1971. As the following data tabulated from interviews with the aged in the Current Medicare Survey (CMS) indicate, a much higher proportion of the enrollees reported actually using covered SMI services in each of those years.

Year	SMI covered services		
	Percent of enrollees using services	Average number of covered SMI services per person served	Average charge per service
1968	79.0	16.0	\$10.21
1969	78.6	17.4	10.57
1970	79.1	16.8	11.71
1971	78.0	15.4	12.27
1972	79.2	14.7	13.55
1973	81.9	15.5	13.57
1974	80.9	16.0	15.50

According to the above figures, the percentage of enrollees using covered services and the average number of services per person served showed no consistent increase. Average charges, however, increased sharply. Thus it appears that the higher

TABLE 3—Utilization of HI and/or SMI services by persons aged 65 and over, and amount reimbursed, calendar years 1967-71¹

Item	1967	1968	1969	1970	1971
Number of persons (in thousands)					
Total ever enrolled for HI and/or SMI during year	20,716	21,055	21,315	21,731	22,179
With no services reimbursed	13,561	13,171	12,734	12,698	12,754
Percent of enrollees	65.5	62.6	59.7	58.4	57.5
With services reimbursed	7,155	7,881	8,581	9,033	9,255
Percent of enrollees	34.5	37.4	40.3	41.6	42.5
Amount reimbursed					
Total (in millions)	\$4,239	\$5,283	\$5,976	\$6,470	\$7,349
Average					
Per person served	592	670	696	716	780
Per enrollee	217	267	297	298	331

¹ Year of service

proportion of persons meeting the SMI deductible in each succeeding year results primarily from rising charges rather than from increased utilization.

The proportion of beneficiaries who receive Medicare benefits varies considerably with the type of service. As would be expected, the proportion using reimbursed physicians' services was higher than that for any other type of service (table 4). In 1967, that rate was 358.5 per 1,000, it increased each year, reaching 440.6 in 1971. The rate for persons who received reimbursement for inpatient hospital services (approximately half the rate for those with physicians' services) also rose over the years—from 184.7 per 1,000 in 1967 to 211.5 in 1971. This increase—unlike the growth in the rates for physicians' and other medical services—reflects an actual rise in the number per 1,000 who used inpatient hospital care.

The greatest increase in rate of use occurred in hospital outpatient services. This increased use by elderly persons parallels the trend observed in the total delivery system of increased use of hospital outpatient services for primary care.⁶

During the program's first decade, the number of persons who received SNF and home health services was lower and showed more erratic changes than the other types of services—with the rates first rising, then falling. These services were incorporated into Medicare as appropriate.

⁶ American Hospital Association data for their hospitals show that outpatient visits increased from 125.8 million visits in 1965 to 250.5 million visits in 1974. See *Hospital Statistics*, 1975 edition, American Hospital Association.

TABLE 4—Utilization of HI and SMI reimbursed services by persons aged 65 and over, by type of service, calendar years 1967-71¹

Year	Persons served per 1 000 enrollees					
	HI			SMI		
	In-patient hospital services	Skilled-nursing facility services	Home health services	Physicians' and other medical services	Out patient hospital services ²	Home health services
1967	184.7	18.2	6.5	358.5	58.4	6.6
1968	197.1	20.3	8.3	385.6	72.6	7.2
1969	204.8	19.7	9.5	416.5	84.9	7.5
1970	209.4	14.2	8.3	433.0	91.9	5.3
1971	211.5	11.5	8.0	440.6	108.7	4.1

¹ Year of service
² Excludes diagnostic outpatient hospital services that were covered under HI before April 1968

alternatives to more costly short-stay inpatient hospital care. The criterion for SNF coverage under Medicare was the medical necessity for the patient to receive posthospital skilled-nursing, convalescent, and rehabilitative services for restoration to maximum functional capacity. This provision proved difficult to apply in the earlier years, and the decline in rates for persons served under Medicare after 1968 is attributed to a more stringent application of the "medical necessity" criterion.⁷

Use by Persons Continuously Enrolled, 1966-74

Each year until about 1975, well over half the aged enrollees did not receive any reimbursed services. To determine whether or not a substantial proportion of these persons were individuals who failed to receive benefits year after year, the use of SMI benefits by persons continuously enrolled in Medicare from July 1, 1966, to December 31, 1974, was analyzed.

Data were generated from the records of the 17.7 million aged persons enrolled in SMI on the day that Medicare operations began. Their median age was then about 73. Nearly 9.5 million

of these persons were still enrolled as of December 31, 1974. In their 8½ years of continuous enrollment, they had nine opportunities to meet the SMI deductible. The deductible status of these survivors was tabulated to determine how many times they used sufficient services to meet the deductible (table 5). Almost 84 percent met the deductible at least once, and nearly one-fourth met the deductible six times or more. On the other hand, 16.3 percent of these aged persons never met the SMI deductible, and an additional 14.2 percent met it only once out of nine possible times.

Use of Benefits in Last Year of Life

The use of Medicare benefits is especially notable in the last year of life. Data for persons who died each year in the period 1967-69 show that the majority of decedents received Medicare benefits and that reimbursements made on their behalf were relatively much greater than for persons alive at the end of the year. Overall, of the 21 million ever enrolled in HI and/or SMI during 1967, about 5 percent died that year, 22 percent of all reimbursements were made on their behalf.

Table 6 shows the number of persons who received reimbursed physicians' and hospital services and the average amount reimbursed for persons who were alive at the end of the year and for those persons who died during the year. For both groups, the number per 1,000 who received inpatient hospital benefits was about four times as high for decedents as for survivors, for physicians' services, it was nearly twice as high. The figures indicate that, of those who died,

TABLE 5—Number of times deductible met by persons aged 65 and over enrolled for SMI continuously, July 1, 1966-December 31, 1974

Number of times SMI deductible met	Number continuously enrolled (in thousands)	Percentage distribution	Cumulative percentage
Total	9,493	100.0	-
0	1,545	16.3	16.3
1	1,350	14.2	30.5
2	1,300	13.7	44.2
3	1,124	11.8	56.0
4	986	10.4	66.4
5	840	8.8	75.2
6	721	7.6	82.8
7	642	6.8	89.6
8	600	6.3	95.9
9	385	4.1	100.0

⁷ The level-of-care requirements for SNF services under Medicare were amended in section 247 of the Social Security Amendments of 1972. The amendments broadened the criterion that a patient must need continuing skilled nursing services by including posthospital patients who require skilled nursing or other rehabilitative services on a daily basis. Under the broadened criteria, it is expected that certain persons will be covered by Medicare for SNF services who would formerly have had such services covered by Medicaid or private payments.

TABLE 6—Utilization of HI and SMI services by persons aged 65 and over who were alive at the end of the year and who died during the year, and amount reimbursed per person served, calendar years 1967 and 1969¹

Population	Inpatient hospital services		Physicians' and other medical services	
	Persons served per 1,000 population	Average amount reimbursed per person served	Persons served per 1,000 population	Average amount reimbursed per person served
	1967			
Alive at end of 1967	149 0	\$683	295 0	\$181
Who died in 1967	620 8	978	625 8	283
	1969			
Alive at end of 1969	168 7	\$891	376 4	\$190
Who died in 1969	604 3	1 236	673 1	301

¹ Year of service

approximately 400 out of 1,000 did not receive inpatient hospital care in the year of their death, and 325-375 did not use sufficient physicians' services to meet the deductible and receive benefits. Note that the decedents, unlike the survivors, could have had something less than a full year in which to meet the deductible, depending on how early in the year they died.

Patterns and Trends

Use of short-stay hospital services—The initial impact of Medicare was greater utilization of short-stay hospitals by the aged. The number of discharges per 1,000 enrolled, the average length of stay, and the average number of days of care per 1,000 were higher the year that Medicare began than they were in the preceding year. Estimates of the increase in the hospital dis-

charge rate from the year before the program started to the program's first year ranged from 46 percent to 74 percent.^a Similarly, the estimated increase in mean length of stay was 41-78 percent, the number of days of care per 1,000 rose an estimated 89-160 percent.

Program data for inpatient short-stay hospital care for discharges during the period 1967-73 show that average length of stay has declined significantly. In contrast, the rate of hospitalization has been rising, offsetting the effect of the decrease in average length of stay.

Short-stay hospital utilization by the aged in 1967-73 is summarized in table 7. The discharge rate rose from 259 per 1,000 enrollees in 1967 to 284 per 1,000 in 1968 but leveled off during 1969-71. Then it began to climb again, reaching 302 per 1,000 enrollees in 1973. In contrast, 2 full days were cut from the average hospital stay during this period, with the mean length of stay falling from 13.8 days to 11.8 days.

The annual rate of days of care fluctuated up and down according to whether the rise in the admission rate or the decline in length of stay exerted the predominant force, with the figure for 1973 (3,556 days per 1,000 enrollees) very nearly equal to that for 1967 (3,575 days per 1,000).

Total hospital charges for Medicare beneficiaries rose precipitously during this period, increasing from \$3.4 billion to \$8.0 billion. The average charge per day was \$49 in 1967 and \$104 in 1973. The charge for a hospital stay averaged \$675 in 1967 and \$1,228 in 1973. These amounts are for total charges not the Medicare reimbursed amounts, which are based on hospital costs. Pre-

^a For sources of these estimates, see Julian Pettengill, "Trends in Hospital Use by the Aged," *Social Security Bulletin*, July 1972.

TABLE 7—Short-stay hospital discharges, days of care, length of stay, and charges for persons aged 65 and over, calendar years 1967-73¹

Year	Number of discharges		Days of care		Mean length of stay (in days)	Hospital charges		
	Total (in thousands)	Per 1,000 enrollees	Total (in thousands)	Per 1,000 enrollees		Total (in millions)	Per discharge	Per day
1967	5 055	259	69 684	3 575	13 8	\$3 412	\$675	\$49
1968	5 619	284	77 295	3 910	13 8	4 289	781	57
1969	5 909	295	79 846	3 990	13 5	5 269	892	66
1970	5,970	293	77 506	3 807	13 0	5,007	989	76
1971	5,975	288	74 514	3 592	12 5	6 520	1 091	87
1972	6 357	301	76 778	3 636	12 1	7 390	1,163	96
1973	6 518	302	76 713	3,556	11 8	8,003	1 228	104

¹ Year of discharge

liminary data for 1974 and 1975 indicate a continuing trend of increasing discharge rates, declining length of stay, and increasing hospital charges per day and per stay

Considerable geographic differences have been observed in the use of short-stay hospital inpatient services. Regional patterns that persist are clearly identifiable for the rate of hospital admissions, the length of the hospital stay, days of care utilized, and charges.

Table 8 shows hospital utilization and charges in the four U.S. census regions. The discharge rate is strikingly different from region to region. The South had more discharges per 1,000 enrollees each year than any other area, and the Northeast had the fewest. The hospitalization rate was 24 percent greater in the South in 1973 than in the Northeast.

In contrast, the Northeast ranks highest in length of stay, followed by the North Central region, the South, and the West. Length of stay for the aged under Medicare in the Northeast has averaged 5 days longer than in the West.

TABLE 8—Hospital discharges, length of stay, days of care, and mean charges for persons aged 65 and over, by census region, calendar years 1967 and 1973¹

Year	All areas	North-east	North Central	South	West
Number of discharges per 1 000 enrollees					
1967	259	217	277	263	268
1973	302	264	321	328	303
Rank, 1967 and 1973	--	4	2	1	3
Mean length of stay (in days)					
1967	13.8	16.1	14.6	12.3	11.8
1973	11.8	14.3	12.2	10.8	9.5
Rank, 1967 and 1973	--	1	2	3	4
Days of care per 1 000 enrollees					
1967	3 575	3 501	4 052	3 474	3 151
1973	3 556	3 779	3 911	3 543	2 867
Rank, 1967 and 1973	--	2	1	3	4
Mean charge per day					
1967	\$49	\$55	\$45	\$43	\$60
1973	104	119	96	90	129
Rank, 1967 and 1973	--	2	3	4	1
Mean charge per enrollee					
1967	\$175	\$193	\$182	\$149	\$189
1973	370	450	375	319	370
Rank	--	1	3	4	2
1967	--	1	2	4	3
1973	--	1	2	4	3

¹ Year of discharge

Regional differences in length of stay are not explained by variations in patient characteristics such as diagnosis, age, whether surgery was performed, or whether there were multiple diagnoses.

These regional rankings in the discharge rate and in length of stay were the same in 1973 as in 1967 and have been consistent in the years between. Just as the discharge rate for all areas increased over time, so it did in each region. Similarly, length of stay decreased in each region.

In the North Central region the relatively high rate of discharges and long length of stay resulted in the highest rate of days of care per 1,000 enrollees during the period 1967-73. The rate in the North Central region in 1973 was 36 percent greater than in the West, the region with the lowest rate for days of care.

Charges per day were highest in the West, however. Mean charges per enrollee, which reflect the combined effect of the discharge rate, length of stay, and charges per day, are also shown in table 8. For 1973, the mean charge of \$450 per enrollee in the Northeast was the highest—41 percent greater than the mean in the South.

Regional differences also occur in the rate of discharges with surgery, as the following figures for 1967 and 1972 show. The surgery rate each

Census region	Number of discharges with surgery per 1,000 enrollees	
	1967	1972
All areas	82.6	93.1
Northeast	78.6	91.4
North Central	87.5	97.2
South	78.8	91.1
West	92.0	99.9

year was highest in the West and North Central regions. Surgical rates rose in all regions between 1967 and 1972, but the increases were greatest in the Northeast and in the South, the regions with the lowest rate in both years.

Use of skilled-nursing facility services—Notices of admissions to skilled-nursing facilities are reported to the Social Security Administration. Table 9 summarizes admission of the aged to such facilities for fiscal years 1968-74. The number and rate of reported admissions reached a peak in 1969 and then declined. As a percent of hospital admissions, the number of SNF ad-

missions varied from 86 percent in 1969—the highest point—to 60 percent in 1973. The use of SNF services was highest in the West, at approximately double the rate in the other three regions.

Not only did the number of SNF admissions reported decline but the number of SNF discharges with no covered days—that is, with stays not meeting the criteria for coverage—increased. The percentage of discharges from SNF's with no covered days was 12.2 percent in 1969 and increased each successive year, reaching 35.8 percent in 1972. In 1973, the proportion was 29.9 percent.

The length of the preceding hospital stay was analyzed for patients who received posthospital SNF care in 1969 and who had at least 1 covered SNF day under Medicare. The preceding hospital stay for the SNF patients was considerably longer, on the average, than the hospital stay for all discharges. The data indicate that the denial of SNF benefits was considerable during Medicare's first decade and that approval of post-hospital SNF care has gone primarily to cases with long hospital stays.

MEDICARE REIMBURSEMENTS AND ENROLLEE LIABILITY

Program Payments

The effect of previously discussed trends in the use of Medicare services as well as increased costs are clearly reflected in Medicare reimbursements. Hospital insurance reimbursement for the aged was more than \$9 billion in 1975—190 percent greater than it was in 1967 (table 10). During the same period, enrollment increased only 18 percent. Skilled-nursing facility reimbursements as a proportion of total HI reimbursements were highest in 1968 (8.8 percent) and declined steadily until 1972. In 1975, only 2.4 percent of total reimbursement was for such services. The proportion of reimbursements for home health care was consistently small—about 1 percent of total reimbursements each year. With the decline in SNF benefits, 96 percent of all HI reimbursements from 1971 to 1975 were for inpatient hospital care.

The "benefit period" concept, which limits the

TABLE 9—Skilled-nursing facility admissions for persons aged 65 and over, by census region, fiscal years 1968-74¹

Year	All areas	North-east	North Central	South	West
Number of admissions (in thousands)					
1968	442.5	106.3	105.0	106.0	125.0
1969	521.9	125.1	120.3	127.8	148.4
1970	477.0	114.7	112.4	110.1	139.0
1971	422.1	104.0	96.2	93.8	127.4
1972	400.3	105.2	88.1	81.9	124.6
1973	408.0	110.4	88.6	79.7	128.2
1974	425.6	117.4	92.7	81.6	133.1
Number of admissions per 1,000 enrollees					
1968	22.7	20.8	18.6	19.0	43.0
1969	26.3	24.1	21.0	22.2	49.6
1970	23.8	22.1	19.6	18.8	45.7
1971	20.7	19.8	16.6	15.5	40.8
1972	19.3	19.9	15.0	13.2	38.9
1973	19.1	20.7	15.0	12.4	39.0
1974	19.5	21.7	15.5	12.4	39.4
SNF admissions as percent of hospital admissions					
1968	7.7	8.2	6.0	5.8	14.2
1969	8.6	9.5	6.6	6.5	15.7
1970	7.8	8.6	6.2	5.5	14.6
1971	6.8	7.7	5.2	4.6	13.4
1972	6.2	7.4	4.6	3.8	12.4
1973	6.0	7.5	4.5	3.5	12.2
1974	6.1	7.6	4.6	3.5	12.2

¹ Year of admission

number of continuous days of hospital care that are covered, is reflected in the division of reimbursements for inpatient hospital care. Most of the reimbursements were for short-stay hospital services. Reimbursements for hospitals other than short-stay have remained below 2 percent since 1969.

Hospital insurance reimbursements for the disabled totaled nearly \$1 billion in 1975. The distribution of benefits show some small variations from that for the aged. The proportion of reimbursements for SNF care was about 1 percent, reimbursements for inpatient care in hospitals other than short-stay made up about 4 percent of the total, probably reflecting more use of long-term restorative services for the disabled.

Total SMI reimbursement for the aged reached \$3.6 billion in 1975, 230 percent greater than in 1967 (table 11). SMI enrollment increased only 23 percent during the same period. Before 1970, 90 percent or more of total SMI reimbursement was for physicians' care. The proportion has been declining in recent years, falling to 83.5 percent by 1975. In contrast, reimbursement for hospital outpatient services increased from 2.0 percent in 1967 to 8.7 percent in 1975.

SMI reimbursements for disabled beneficiaries,

TABLE 10—Amount reimbursed¹ for HI services for aged and disabled persons, and percentage distribution, by type of service, calendar years 1967–75

Year ²	Total amount reimbursed (in millions)	Percentage distribution				
		All services	Hospitals		Skilled-nursing facilities	Home health agencies
			Short stay	All other		
Aged beneficiaries						
1967 ³	\$3 959	100 0	90 9	2 2	6 1	0 6
1968	3 947	100 0	88 1	2 0	8 8	1 0
1969	4 485	100 0	89 7	1 7	7 5	1 1
1970	4,844	100 0	92 8	1 5	4 7	1 0
1971	5 368	100 0	94 4	1 5	3 3	8
1972	5,907	100 0	95 0	1 6	2 6	8
1973	6,485	100 0	94 8	1 4	2 8	9
1974	7 585	100 0	94 7	1 4	2 8	1 1
1975	9,175	100 0	94 9	1 3	2 4	1 4
Disabled beneficiaries ⁴						
1973 ⁵	\$171	100 0	95 3	3 4	0 9	0 4
1974	681	100 0	93 8	4 4	1 0	8
1975	952	100 0	93 8	4 3	9	1 0

¹ Represents payments for covered services (based on an interim rate) that are adjusted at the end of each provider's operating year on the basis of audited cost reports. Excludes deductibles, coinsurance amounts, and charges for noncovered services.

² Year in which intermediary approved bills for payment.

³ Includes \$824,267,000 approved, July–December 1966.

⁴ Includes reimbursement for enrollees with ESRD.

⁵ July–December 1973.

including those entitled because of ESRD, totaled \$0.5 billion in 1975. Reimbursement for hospital outpatient services was notably greater for the disabled than for the aged. Medicare tabulations show that more than half the reimbursement for hospital outpatient services was on behalf of

patients entitled to Medicare because of ESRD. Similarly, reimbursement in the "all other" category reflects a substantial proportion for ESRD services furnished by limited-care facilities that provide dialysis services.

Beneficiary Liability

Cost sharing under III—When Medicare began in 1966, the deductible was set at \$40. Coinsurance for the 61st to the 90th day was \$10 per day. During the next decade the average cost of a day of care in a hospital increased markedly. The deductible—which by law approximates 1 day of care in a hospital—also increased sharply, reflecting the general hospital price escalations during this period. By January 1, 1976, the deductible reached \$104. Coinsurance for the 61st–90th day increased proportionately to \$26 and for the 60 lifetime reserve days to \$52 (table 12).

The effects of the cost-sharing provisions for short-stay hospital care are shown in table 13. Total patient liability was highest in 1967 (97 percent of hospital charges). In succeeding years it was lower, averaging 8 percent of total hospital charges after 1967.

The table also suggests the relative impact of the hospital deductible and coinsurance amount. The inpatient deductible accounted for about half

TABLE 11—Amount reimbursed¹ for SMI services for aged and disabled persons, and percentage distribution, by type of service, calendar years 1967–75

Year ²	Total amount reimbursed (in millions)	Percentage distribution					
		All services	Physicians' services	Hospital outpatient services	Independent laboratories	Home health agencies	All other ³
Aged beneficiaries							
1967 ⁴	\$1,142	100 0	92 9	2 0	0 5	1 4	2 0
1968	1 342	100 0	90 9	3 3	5	1 6	3 3
1969	1 783	100 0	90 5	3 8	5	1 7	3 5
1970	1,751	100 0	89 8	4 8	5	1 3	3 5
1971	1 956	100 0	89 4	5 4	6	8	3 8
1972	2 227	100 0	88 7	6 1	7	7	3 7
1973	1,909	100 0	86 3	7 6	8	9	4 3
1974	2,933	100 0	86 1	7 4	8	1 2	4 3
1975	3,605	100 0	83 5	8 7	1 0	1 6	4 9
Disabled beneficiaries ⁵							
1973 ⁶	\$9	100 0	72 2	21 8	0 2	1 5	4 0
1974	257	100 0	58 9	34 4	4	1 1	5 0
1975	505	100 0	51 3	29 1	5	1 0	17 9

¹ Represents payments to or on behalf of beneficiary—generally 80 percent of allowed charges, once the beneficiary has satisfied the deductible in the current year.

² Year recorded in Social Security Administration administrative records.

³ Includes reimbursement for ancillary SMI services provided by hospitals,

SNF's home health agencies services furnished by limited-care facilities for ESRD patients and supplier services.

⁴ Includes \$62,576,000 recorded, July–December 1966.

⁵ Includes reimbursement for enrollees with ESRD.

⁶ July–December 1973.

TABLE 12—Medicare cost-sharing HI deductible and co-insurance amounts, 1966-76

Effective date	Inpatient hospital deductible	Coinsurance amount per day for—		
		Hospitals, 61st to 90th day ¹	Hospitals, 60 lifetime reserve days ²	SNF s, 21st to 100th day ³
July 1966 - January 1967	\$40	\$10	\$20	\$5 00
1968	40	10	20	5 00
1969	40	10	20	5 00
1970	44	11	22	5 50
1971	52	13	26	6 50
1972	60	15	30	7 50
1973	68	17	34	8 50
1974	72	18	36	9 00
1975	84	21	42	10 50
1976	92	23	46	11 50
1976	104	26	52	13 00

¹ One-fourth of the deductible
² One half of the deductible
³ One-eighth of the deductible

the charges for which the patients were liable—about 4 percent of the hospital charges. These figures reflect the fact that every hospitalized beneficiary is responsible for the deductible once in a benefit period. Coinsurance payments accounted for a smaller fraction of the charges for which beneficiaries were liable (only about 1 percent of total hospital charges)—an indication that only a small proportion need to pay the coinsurance amount. Short-stay hospital data tabulated for 1971 show that, of the 4.2 million aged persons with hospital stays that year, only 6 percent used one or more coinsurance days.

The probability that the aged will exhaust benefits in a benefit period (that is, require more than 90 days in a benefit period) has been ana-

lyzed in a study made by the General Accounting Office. Their preliminary report (from a sample of Medicare records for more than 20,000 enrollees) indicates that about 10 percent of the aged who were hospitalized in 1971 exhausted their HI benefits.

Cost-sharing under SMI—In contrast to the HI program, financing under SMI is through premiums paid by those enrolled and by contributions paid from Federal general revenues.

When Medicare began, the monthly SMI premium was set at \$3.00. During Medicare's first decade the premium increased steadily, reflecting the rise in medical care prices. By July 1976 it reached \$7.20 per month—140 percent higher than the 1966 premium. The tabulation below indicates the amounts paid as premiums and the effective dates.

Effective date	Premium
July 1966	\$3 00
April 1968	4 00
July 1970	5 30
July 1971	5 60
July 1972	5 80
August 1973	6 10
September 1973	6 30
July 1974	6 70
July 1975	6 70
July 1976	7 20

The annual deductible was \$50 each year for the period 1967-72. Beginning in 1973 to the

TABLE 13—Total hospital charges, Medicare reimbursements, and patient liability for short-stay hospital inpatient care for persons aged 65 and over, calendar years 1967-71

Year ¹	Total hospital charges	Medicare reimbursement (interim) ²	Patient liability				
			Total	Inpatient deductible	Coinsurance amount ³	Blood deductible	Noncovered charges ⁴
			Percentage distribution ⁵				
1967	\$3 411 891	\$2 671 183	\$332 638	\$163 515	\$21,796	\$9 919	\$137,408
1968	4 288 848	3 493 341	360 902	180,415	46 879	12 153	121,455
1969	5 268 627	4,123,600	415 760	206,299	54 563	13,468	141 429
1970	5 906 584	4,496 080	470 459	245,976	49 111	14 016	161 326
1971	6,518 824	4 950 553	481,631	283 651	46,662	14 008	137,280
1967	100 0	78 3	9 7	4 8	0 6	0 3	4 0
1968	100 0	79 6	8 2	4 1	1 1	3	2 8
1969	100 0	78 3	7 9	3 9	1 0	3	2 7
1970	100 0	76 1	8 0	4 2	8	2	2 7
1971	100 0	75 9	7 4	4 4	7	2	2 1

¹ Year of discharge
² Represents payments for covered services (based on an interim rate) that are adjusted at the end of each provider's operating year on the basis of audited cost reports. Excludes deductibles, coinsurance amounts, and charges for noncovered services.

³ For 61st to 90th day in a benefit period and "lifetime" reserve days.
⁴ Includes charges for noncovered days, private-room accommodations, private-duty nursing, convenience items, etc.
⁵ Excludes additional payments made under Medicare on the basis of audited cost reports and charges not reimbursed that are above costs.

present the deductible was set at \$60. As noted earlier in the report, CMS data show that each year approximately twice as many enrollees reported using covered SMI service as the number who received SMI reimbursements.

With a few minor exceptions, after the deductible the beneficiary is responsible for part of every allowed charge—that is, Medicare reimburses 80 percent and the beneficiary pays 20 percent. In actuality, the beneficiary is often responsible for more than 20 percent of physicians' charges because of the "reasonable charge" determination. The law requires that physicians' and related service charges be subjected to a "reasonable or allowed charge" determination by the carriers. In determining the allowed charge, carriers take into account the customary charge of the physician for the specific service provided and the prevailing charge in the locality for similar services provided by physicians with the same specialty status.⁹

Payment under SMI may be made directly to a physician (or supplier) or to the beneficiary. Under the first method, payments are "assigned" to the physician if he and the beneficiary accept this arrangement. When a physician accepts assignment he agrees that his total charges will not be more than the allowed charges determined by the carrier. In such cases, the patient is liable only for the 20-percent coinsurance portion of allowed charges. In unassigned claims, the patient is liable for a coinsurance payment plus the difference between the physicians' charges and the allowed charges. It is apparent that assignment is advantageous to the beneficiary. His liability is limited to 20 percent of allowed charges after the deductible is met and he is spared the administrative requirement of submitting claims, which to some beneficiaries may be a difficult task.

The proportion of claims¹⁰ for which the physician (or supplier) accepts assignment has been

falling steadily since 1970. The net assignment rate¹¹ was 61.5 percent in 1969 and fell to 51.8 percent by 1975. Net assignment rates for all enrollees (aged and disabled) for 1968-75 are shown below.

Year	Total claims received [†] (in millions)	Net assignment rate
1968	32.1	59.0
1969	37.5	61.5
1970	42.1	60.8
1971	46.6	58.5
1972	51.0	54.9
1973	57.0	52.7
1974	68.3	51.9
1975	80.0	51.8

[†] Received on form SSA-1490

It has been speculated that increases over the years in the percentage of claims reduced and the percentage of charges reduced are significant factors in explaining the decrease in the assignment rate. Data from carrier reports on the amount of reduction on assigned and unassigned claims are available beginning with 1971 and are presented in table 14.

TABLE 14—Reasonable charge determination for SMI claims assigned and unassigned for aged and disabled persons, calendar years 1971-75

Year	Number of claims approved (in thousands)	Covered charges (in millions)	Percent reduced		Average amount reduced per approved claim
			Claims	Charges	
Assigned claims ¹					
1971	25,919	\$1,570.9	44.5	11.1	\$6.71
1972	26,798	1,629.7	47.5	10.9	6.66
1973	28,378	1,751.4	55.6	11.9	7.33
1974	33,295	2,194.1	64.5	14.3	9.42
1975	39,218	2,716.0	70.8	17.8	12.35
Unassigned claims ¹					
1971	17,955	\$1,348.0	57.6	12.5	\$9.37
1972	21,286	1,607.8	59.5	12.0	9.07
1973	24,691	1,886.0	66.4	12.6	9.66
1974	30,492	2,400.5	72.7	14.7	11.55
1975	36,182	2,973.2	77.4	17.7	14.51

¹ Received on form SSA-1490

The percentage of claims and the percentage of charges reduced have been increasing for both assigned and unassigned claims. A higher per-

⁹ Payments under SMI were subject to the President's economic stabilization program from August 1971 to April 1974. More recently, the 1972 amendments provide for the application of an economic index to Medicare reimbursement. For fiscal years beginning July 1, 1973, and thereafter, the prevailing charge levels recognized may not be increased in the aggregate over the previous fiscal year's prevailing charge levels, except as justified by economic indexes reflecting changes in the costs of the practice of physicians and in their earnings levels.

¹⁰ The claim is a request for payment that may cover several services.

¹¹ The net assignment rate is the number of assigned claims expressed as a percentage of claims received, omitting claims from hospital based physicians and group-practice prepayment plans, which are considered assigned by definition.

centage of unassigned claims were reduced each year than of assigned claims. The percentage of charges that were reduced each year is, however, similar for both types of claims.

The amount reduced per approved claim, also shown in table 14, is related to the size of the claim. The average unassigned claim in 1975 had \$82 in covered charges, the corresponding figure was \$69 for assigned claims. Consequently, although the percentage of the charges reduced for assigned and unassigned claims was virtually equal that year (17.8 percent and 17.7 percent, respectively), the actual dollar amounts reduced per claim were \$12.35 and \$14.51, respectively.

It is interesting to gauge the impact of Medicare SMI payments by comparing them with average enrollee outlays for covered SMI services (table 15). The figures shown are only rough estimates for the purposes of this comparison since Medicare reimbursements shown in table 15 are based on the year in which the claim was approved rather than the year in which the charges were incurred. (Data on reimbursements for the year in which the charges were incurred are not sufficiently complete for analytic purposes until 24 months after the close of the year.) Nonetheless, enrollee outlays in premiums, deductibles, coinsurance amounts, and the amounts for which enrollees are potentially liable because of reductions in charges are considerable in comparison with reimbursements. The data show that total enrollee outlay is approximately 130 percent of SMI reimbursements.

MEDICARE'S ROLE IN PERSONAL HEALTH CARE SPENDING FOR THE AGED

Total Per Capita Expenditures

The decade 1965-75 was a period marked by high inflation, with medical care prices rising faster than the average for all goods and services. The Social Security Administration's series of reports on national health expenditures show that personal health care spending per capita after Medicare and Medicaid went into effect increased at a rate considerably greater than in the years before. During the period 1960-65 the per capita personal health care bill increased about 7 percent annually. Increases in the decade after Medi-

TABLE 15—Medicare reimbursement¹ for SMI services for aged and disabled persons, and estimated payments by enrollees, calendar years 1971-74

Year ²	Medicare SMI reimbursement		Estimated average payments by enrollees for SMI covered services				
	Total (in thousands)	Per enrollee	Total	Annual premium	Deductible ³	Coin-surance amount	Amount above charge screens ⁴
1971	\$1,995,127	\$100	\$136	\$65.40	\$37.50	\$25	\$8.44
1972	2,182,299	107	142	68.40	37.50	27	9.58
1973	2,391,777	106	154	71.90	45.00	27	10.57
1974	3,137,743	135	172	78.00	45.00	34	15.20

¹ Represents payments to or on behalf of beneficiary—generally 80 percent of allowed charges, once the beneficiary has satisfied the deductible in the current year.

² Year carrier approved bill for payment.

³ Based on Current Medicare Survey data showing that about 50 percent of enrollees met the deductible and, for the other 50 percent, the amount spent was about one half of the deductible.

⁴ Unassigned claims only.

care and Medicaid began were appreciably higher than 7 percent and were dramatically high for the aged—20.2 percent in fiscal year 1967 and 20.9 percent in fiscal year 1968 (table 16). Annual rates of increase for the aged leveled off after the first 2 years of Medicare, and, as the figures for later years indicate, increases for the aged were more in line with those for the population under age 65. For the aged, personal health care spending in fiscal year 1975 was estimated at \$1,360 per person—about three times the figure of \$445 for fiscal year 1966, the year just preceding Medicare's beginnings.

Expenditures by Type of Service

Much of the rise in the personal health care bill in the past decade can be attributed to the costs of institutional services, which consume the

TABLE 16—Estimated per capita personal health care expenditures for persons under age 65 and aged 65 and over, fiscal years 1966-75

Year	Per capita expenditure			Annual percentage increase		
	All ages	Under age 65	Aged 65 and over	All ages	Under age 65	Aged 65 and over
1966	\$182	\$155	\$445	-	-	-
1967	265	172	535	12.6	11.0	20.2
1968	229	185	647	11.7	7.6	20.9
1969	257	206	735	12.2	11.4	13.6
1970	290	233	828	12.8	13.1	12.7
1971	321	255	926	10.7	9.4	11.7
1972	353	278	1,034	10.0	9.0	11.8
1973 ¹	387	309	1,081	9.6	11.2	4.5
1974 ¹	420	333	1,181	8.5	7.8	9.3
1975 ^{1,2}	476	375	1,360	13.3	12.6	15.2

¹ Data estimated by a different procedure from that of earlier years. (Data for 1967-72 will be revised by the new method.)

² Preliminary estimates.

TABLE 17—Estimated per capita personal health care expenditures for persons aged 65 and over, by type of expenditure, fiscal years 1966, 1967, and 1975

Type of expenditure	1966		1967		1975 ¹	
	Amount	Per cent	Amount	Per cent	Amount	Per cent
Total	\$445	100.0	\$535	100.0	\$1,360	100.0
Hospital care	178	39.9	224	42.0	603	44.3
Physicians' services	60	20.1	109	20.4	218	16.0
Dentists' services	13	2.9	14	2.6	24	1.8
Other professional services	12	2.6	13	2.4	20	1.5
Drugs and drug sundries	62	14.0	66	12.4	118	8.7
Eyeglasses and appliances	15	3.5	17	3.3	23	1.7
Nursing home care	68	15.4	85	15.9	342	25.2
Other health services	7	1.6	6	1.1	13	0.9

¹ Preliminary estimates

major share of health care spending for the aged. In fiscal year 1966, hospital services made up 39.9 percent of the total health care bill and nursing-home care represented 15.4 percent of the total (table 17).

In the period after Medicare and Medicaid began, hospital and nursing-home care consumed an increasing proportion of health care expenditures, reaching an estimated 44.3 percent and 25.2 percent, respectively, in fiscal year 1975. For hospital care in 1975, expenditures were nearly three and a half times the amount spent in 1966, for nursing-home care they were five times higher. Expenditures for no other type of service for the aged rose at such high rates, as indicated by the figures that follow for the ratio of the amount spent in fiscal year 1975 to the figure for fiscal year 1966.

Type of expenditure	Ratio of 1975 to 1966
Total	3.1
Hospital care	3.4
Physicians' services	2.4
Dentists' services	1.8
Other professional services	1.7
Drugs and drug sundries	1.9
Eyeglasses and appliances	1.5
Nursing-home care	5.0
Other health services	1.9

Sources of Funds—Public and Private

As intended, the 1965 Federal health legislation had the effect of shifting a large portion of the aged's health care bill from the private to the public sector. Table 18 shows the division between private and public funds, by type of

service, for fiscal years 1966, 1967, and 1975. In the 12-month period just preceding the start of Medicare and Medicaid, 70 percent of personal health care spending for the aged came from private sources and 30 percent came from the public sector. In the following 12 months, private spending for the aged declined to 43.6 percent and public spending rose to 56.4 percent. In 1975, public spending for the aged was estimated at 65.6 percent of the total. The figures in table 18 indicate that increased public spending between 1967 and 1975 was greatest for physicians' and other professional services.

Public Sources of Financing for the Aged

Medicare—Of the total public spending for the aged for personal health care in 1967-75, Medicare accounted for approximately 2 out of 3 dollars. In the first year of the program, Medicare funded an estimated 31.6 percent of the total expenditure. After the first year the estimated share was higher, ranging from 38.4 percent to 43.9 percent. Table 19 gives the estimated percentage of the total bill that came from Medicare, by type of service, 1967-75.

As expected, the proportions funded by Medicare were highest for hospital and physicians' services. The figures also show that Medicare's impact on total SNF expenditure for the aged decreased sharply after 1968, reaching a low of 3.0 percent in 1974. Since the figures in table 19 represent outlays from Medicare trust funds, it should be recalled that the SMI trust fund is financed partly by enrollee premiums.

Medicaid and other public programs—Medicaid and other public programs—primarily, State and local hospital programs and those of the Veterans Administration—account for 1 out of 3 public dollars expended for the aged. Chart 1 illustrates the relative importance in 1975 of Medicare in comparison with Medicaid and other public programs for hospitals, physicians, and SNF services.

For hospital services in 1975, Medicare funded 72 percent of the bill and Medicaid and other public programs were responsible for 18 percent. For physicians' services, Medicare's share was 54 percent and the share for Medicaid and other

TABLE 18—Percentage distribution of estimated personal health care expenditures for persons aged 65 and over, by source of funds and type of expenditure, fiscal years 1966, 1967, and 1975

Type of expenditure	Source of funds								
	1966			1967			1975 ¹		
	Total	Private	Public	Total	Private	Public	Total	Private	Public
Total.....	100 0	70 2	29 8	100 0	43 6	56 4	100 0	34 4	65 6
Hospital care....	100 0	51 3	48 7	100 0	8 7	91 3	100 0	10 2	89 8
Physicians' services.....	100 0	94 0	6 0	100 0	63 2	36 8	100 0	40 9	59 1
Dentists' services.....	100 0	95 0	5 0	100 0	95 0	5 0	100 0	92 9	7 1
Other professional services.....	100 0	98 7	3 3	100 0	81 9	18 1	100 0	49 8	50 2
Drugs and drug sundries.....	100 0	92 3	7 7	100 0	91 0	9 0	100 0	88 9	13 1
Eyeglasses and appliances.....	100 0	98 6	1 4	100 0	99 4	6	100 0	98 4	1 6
Nursing home care.....	100 0	58 3	41 7	100 0	49 2	50 8	100 0	46 7	53 3
Other health services.....	100 0	11 9	88 1	100 0	15 0	85 0	100 0	8 1	91 9

¹ Preliminary estimates

public programs was 5 percent. For SNF services, however, the share from Medicaid and other public programs was far greater than that from Medicare (50 percent and 3 percent, respectively).

Chart 1 also suggests the reason for the often observed paradox that the aged pay more now for their health care than they did before Medicare and Medicaid went into effect. The dramatic

increase in total health care spending between 1966 and 1975 has resulted in greater expenditure by the private sector in terms of dollars, despite its declining share of total expenditures. The chart makes it clear, for example, that the 41 percent paid privately for physicians' services in 1975 amounted to a higher bill than the 94 percent paid privately in 1966.

CHART 1—Per capita personal health care expenditures for the aged, by type of expenditure and source of funds, fiscal years 1966 and 1975

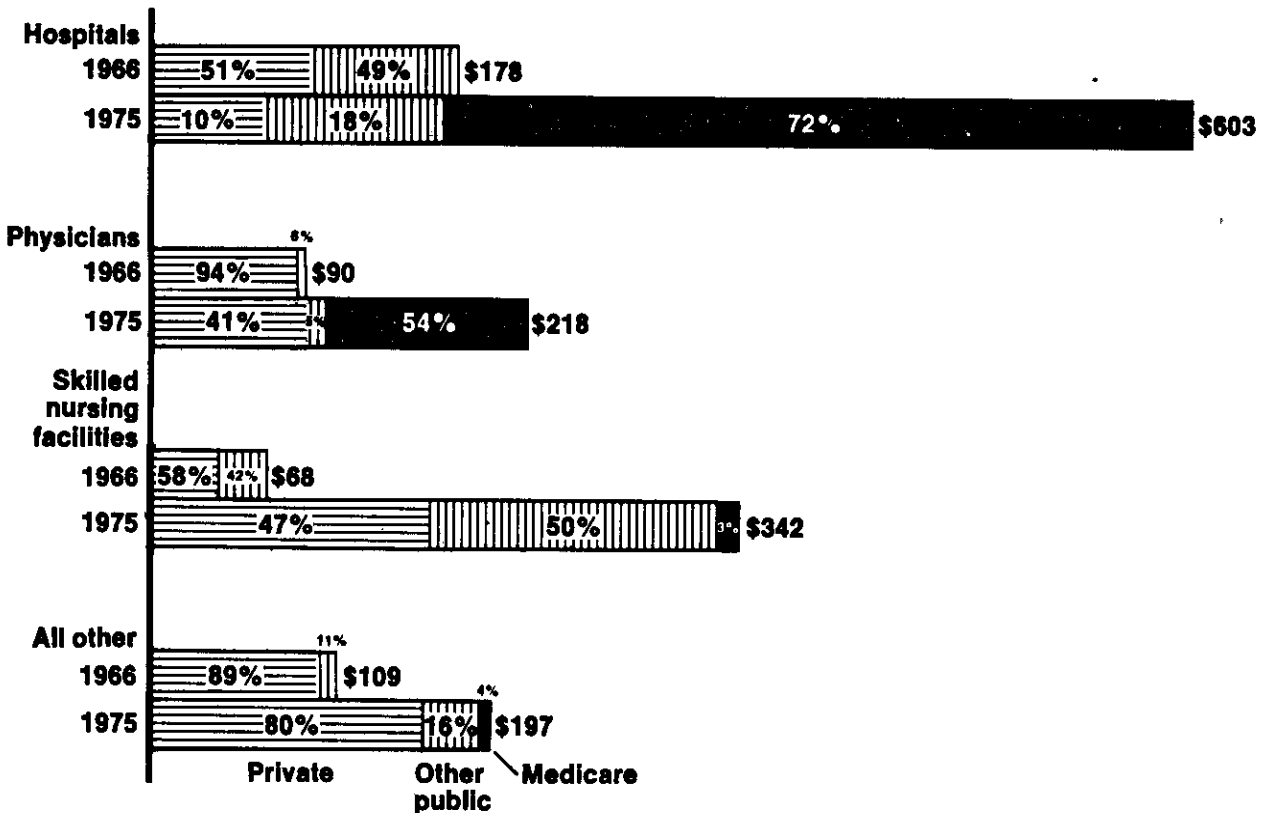


TABLE 19—Estimated percentage of personal health care expenditures funded by Medicare¹ for persons aged 65 and over, by type of expenditure, fiscal years 1967-75

Year	All services	Hospital care	Physicians' services	Other professional services	Nursing home care
1967	31.6	57.5	31.4	8.8	6.1
1968	41.5	62.9	56.4	21.8	15.8
1969	43.9	66.5	60.0	30.2	14.1
1970	41.1	63.9	57.2	30.9	9.2
1971	39.3	63.6	54.6	24.0	5.0
1972	38.6	63.3	52.7	21.4	3.4
1973 ²	39.1	67.8	50.9	21.2	3.1
1974 ³	38.4	66.9	48.1	24.2	3.0
1975 ³	42.0	72.2	54.1	38.0	3.1

¹ Paid from trust funds that include premium payments for SMI
² See table 16, footnote 1
³ Preliminary estimates

Private Health Insurance

Private health insurance fills in some of the gaps in health care protection for the aged. The Social Security Administration studies of private health insurance expenditures show that private insurance coverage for the aged in the first full fiscal year of Medicare dropped sharply, but the number and percentage buying health insurance has risen steadily since that period. The data are also significant in that a relatively small proportion of the aged have private health insurance for services not covered by Medicare such as prescribed drugs. More than half, however, have private coverage for hospital care and for physicians' services—that is, for the types of services covered by Medicare. These private policies act primarily as supplements to Medicare and generally cover some portion of the deductibles and coinsurance required under Medicare. Not unexpectedly, data from the Current Medicare Survey show that the incidence of private insurance to pick up the cost-sharing expense rises with income. The following tabulation gives the percentage of the aged population with private health insurance, as of December 31, 1974.

Type of coverage	Percent of aged population
Hospital care	57.9
Physicians' services	
Surgical services	54.0
Inhospital visits	40.3
X-ray and laboratory examinations	31.7
Office and home visits	35.5
Dental care	1.9
Prescription drugs	16.9
Private-duty nursing	16.8
Visiting nursing services	21.0
Nursing home care	15.8

Under Medicare, cost-sharing provisions were included to limit the program's liability and make consumers cost-conscious—that is, to act as a restraint to unnecessary utilization. Yet Medicaid pays the deductible and coinsurance payments for 13 percent of the aged—those in the lowest income group—and private health insurance, which rises with income, pays them (or some portion of them) for another 50 percent. Thus, the data indicate that, at most, about 30 percent of the aged pay the full cost-sharing amounts out of pocket. And those in between the poorest and the best-off are most likely to have to meet the full cost-sharing burden out of pocket.

In spite of the relatively high percentage of the elderly with private health insurance, payments made by these insurers during this decade met only a small portion of the total expenditure for the aged. Table 20 shows the portions paid

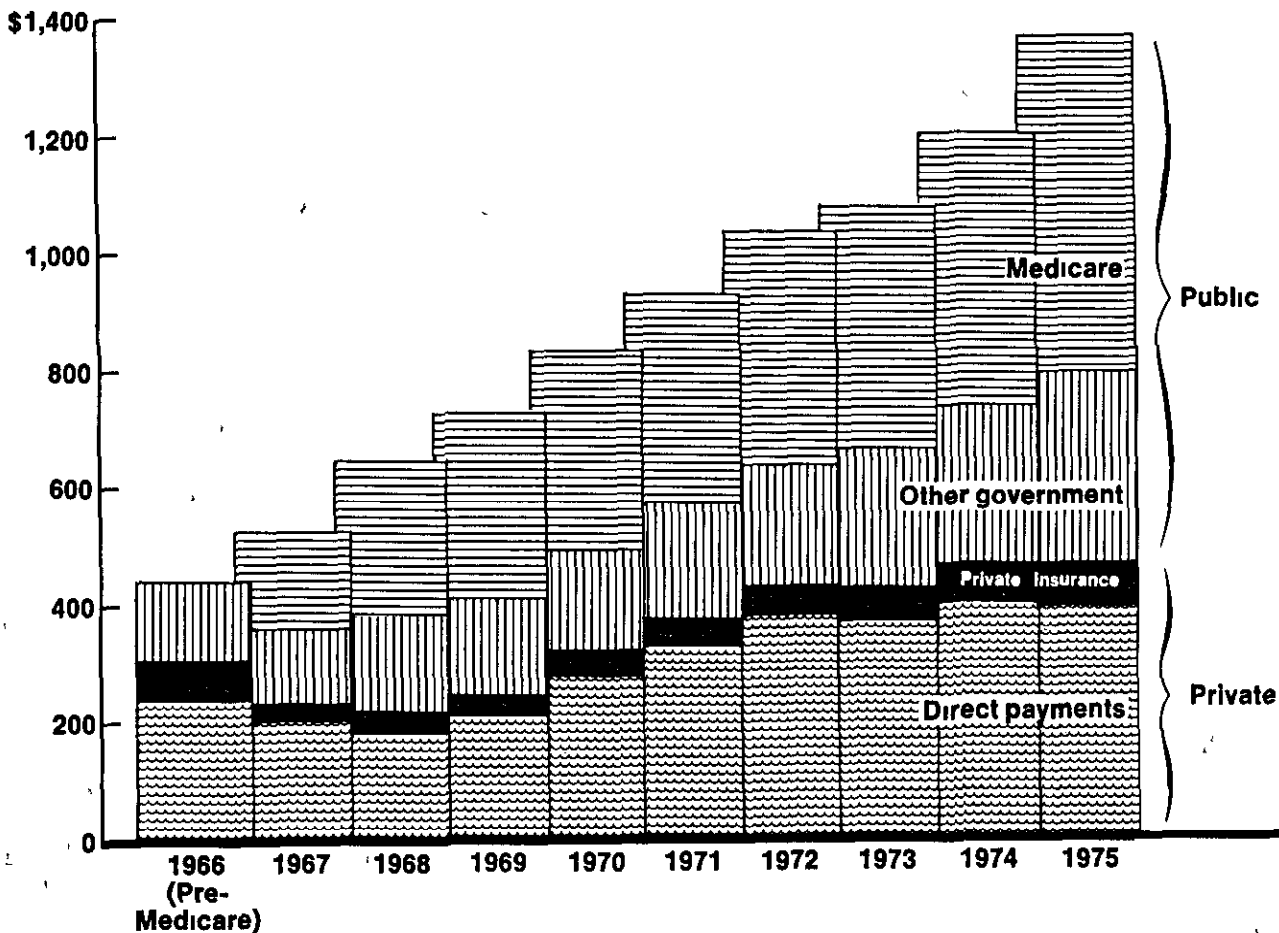
TABLE 20—Estimated per capita personal health care expenditures met by direct payments and third-party payments for persons aged 65 and over, fiscal years 1966-75

Year	Total	Direct payments	Third party payments			
			Total	Private health insurance	Government	Philanthropy and industry
Per capita amount						
1966	\$445.25	\$236.72	\$208.52	\$70.71	\$132.89	\$4.02
1967	535.03	198.01	337.03	31.38	301.59	4.05
1968	646.65	177.90	468.75	34.42	430.45	3.87
1969	735.19	206.02	529.17	39.42	485.75	4.00
1970	828.81	270.20	558.11	45.54	508.50	4.06
1971	925.98	316.78	609.20	49.67	555.15	4.38
1972	1,033.51	367.40	666.11	53.33	608.30	4.49
1973 ¹	1,081.35	357.16	724.19	58.81	660.69	4.70
1974 ¹	1,181.46	391.90	789.56	66.35	718.21	5.01
1975 ^{1,2}	1,360.16	389.88	970.28	73.44	891.63	5.22
Percentage distribution						
1966	100.0	53.2	46.8	15.9	29.8	1.1
1967	100.0	37.0	63.0	5.9	56.4	0.8
1968	100.0	27.5	72.5	5.3	66.6	0.6
1969	100.0	28.0	72.0	5.4	66.1	0.5
1970	100.0	32.6	67.4	5.5	61.4	0.5
1971	100.0	34.2	65.8	5.4	60.0	0.5
1972	100.0	35.6	64.5	5.2	58.9	0.4
1973 ¹	100.0	33.0	67.0	5.4	61.1	0.4
1974 ¹	100.0	33.2	66.8	5.6	60.8	0.4
1975 ^{1,2}	100.0	28.7	71.3	5.4	65.6	0.4

¹ See table 16, footnote 1
² Preliminary estimates

by third-party payors including government and private insurers and the portions paid directly. Private insurance payments were in the range of 5-6 percent of the total bill in the period from 1967 to 1975.

CHART 2—Per capita personal health care expenditures for the aged, by source of funds, fiscal years 1966-75



Direct Payments

Payments for services that came directly out of the aged person's pocket (such as drugs, routine dental and eye care, other preventive services, nursing-home care, and coinsurance payments, deductibles, and unassigned physicians' charges in excess of the carriers' "reasonable charge" determinations) came to 29 percent of the total bill or \$390 per person in fiscal year 1975, in contrast to 53 percent or \$237 per person in fiscal year 1966 (see chart 2)

In inflationary times one gauge of the effect on the aged of such increases in direct payments for health care is the comparison with the retired-worker cash benefit in the social security program. The average monthly benefit check for retired workers was \$83.92 in December 1965 and \$188.20 in December 1974. Direct payments for health care in fiscal year 1966 averaged 24 percent of

the average retired worker's social security check, direct payments in fiscal year 1975 averaged 17 percent of that benefit.

The beneficiaries pay premiums for health insurance, in addition to direct payments. Premiums for private health insurance—an estimated 6-8 percent of the average social security benefit in fiscal year 1966—together with direct payments would have come to an estimated 30-32 percent of the average social security cash benefit. Premiums for SMI and private health insurance, estimated to have been 5-7 percent of the average social security benefit in 1975, would, if added to direct payments, come to an estimated 22-24 percent of the average social security benefit—a smaller percentage than that estimated for 1966 but still a not inconsiderable portion.

The social security program was intended, however, to replace only a portion of preretirement earnings. Beneficiaries generally derive additional

income from savings and other assets, earnings, and other retirement plans. Yet, according to the 1968 Social Security Survey of the Aged,¹² for 51 percent of beneficiary couples and 65 percent of single beneficiaries, social security benefits constituted more than half of their total income. For these persons in particular, the coverage by Medicare of the major portion of large medical care bills allows them to conserve their limited assets, which they would otherwise be forced to expend for essential health care. Nevertheless, direct payments and premiums for SMI and perhaps private health insurance very likely place a considerable strain on their income.

Technical Note

With the implementation of Medicare, a statistical system was designed to obtain systematic and continuous information about the enrolled population, the providers of services, the use of health care services, and the cost incurred. The primary objective in the design of the statistical system was to provide data to measure and evaluate the program. Additionally, it was perceived that Medicare would create an opportunity for obtaining national statistics of an unprecedented breadth and scope relating to the health care of individuals. Consequently, the design of the statistical system included further objectives of generating data for research in the field of health care services, for identifying unmet needs and program gaps, and for measuring the impact of a large-scale health insurance program.

The benefit payment system is the basis for obtaining information for the statistical system. The enrollment process provides information about the characteristics of the Medicare population. The applications by which hospitals, skilled-nursing facilities, home health agencies, and independent laboratories indicate their desire to participate in Medicare are the basis for data on the characteristics of the providers. Claims provide user data, including the patient's condition,

the kinds of services used, and amounts of charges and reimbursements. To expand the scope of information and to determine utilization trends, a monthly interview survey of beneficiaries, the Current Medicare Survey (CMS) provides current estimates of covered and noncovered health care services.

The statistical system provides data for published reports on a continuing basis, including annual series of tabulations and special analytic reports. The Division of Health Insurance Studies of the Office of Research and Statistics also conducts research related to the total health care system. Among the continuing studies are those on national health expenditures and private health insurance coverage.

Information in this review is drawn primarily from Office of Research and Statistics publications as well as from several as yet unpublished tabulations generated from the Medicare statistical system. In addition, reports from the Bureau of Health Insurance, summarizing SMI carrier "reasonable charge" determinations, were used in the discussion on assignment and reduction rates.

The following reports and articles from the Division of Health Insurance Studies are cited as references and provide a more detailed and complete account of certain areas covered in this review. If the article is part of a continuing series on the subject, the latest one is cited here.

ENROLLMENT AND ELIGIBILITY

Helen C Chase, *Use of Medical Services by Disability Beneficiaries, July-December 1971* (Current Medicare Survey Report—CMS-29), Office of Research and Statistics, December 30, 1974.

Office of Research and Statistics, *Medicare Health Insurance for the Aged, 1966, Section 2 Enrollment, 1969* and annual updates for 1967-73.

Martin Ruther, "Medicare, Number of Persons Insured, July 1, 1973," *Social Security Bulletin*, June 1975.

USE OF SERVICES

George S Chulls, *Utilization of Short Stay Hospitals under Medicare, 1968-71* (Health Insurance Statistics—HI-70), Office of Research and Statistics, June 24, 1975.

Charles R Fisher, *Health Insurance for the Aged Hospital and Skilled Nursing Facility Admissions, Fiscal Year 1973* (Health Insurance Statistics—HI-64), Office of Research and Statistics, December 23, 1974.

¹² See Lenore E Bixby et al, *Demographic and Economic Characteristics of the Aged 1968 Social Security Survey* (ORS Research Report No 45), Office of Research and Statistics, Social Security Administration, 1975.

Robert M Gibson and Mildred Corbin, *Inpatient Hospital Utilization, 1969* (Current Medicare Survey Report—CMS-25), April 2, 1973

Marian Gornick, "Medicare Patients Regional Differences in Length of Hospital Stays, 1969-71," *Social Security Bulletin*, July 1975

Marian Gornick, *Persons Meeting the SMI Deductible, 1966-71* (Health Insurance Statistics—HI-57), Office of Research and Statistics, April 15, 1974

Lillian Guralnick, *Short-Stay Hospital Discharge Diagnoses for Medicare Patients, 1967* (Health Insurance Statistics—HI-66), Office of Research and Statistics, March 14, 1975

Office of Research and Statistics, *Medicare Health Insurance for the Aged, 1967, Section 1 Summary, 1971*, annual updates for 1968 and 1969, and the preliminary updates for 1970 and 1971

Office of Research and Statistics, *Medicare Health Insurance for the Aged, 1967, Section 4.1 Short stay Hospital Utilization, 1975* and preliminary updates for 1968-71

Office of Research and Statistics, *Medicare Health Insurance for the Aged, 1971 Length of Stay by Diagnosis and Surgical Procedures, 1972*

Juhan Pettengill, "Trends in Hospital Use by the Aged," *Social Security Bulletin*, July 1972

Paula A Piro and Theodore Lutins, *Utilization and Reimbursement under Medicare for Persons Who Died in 1967 and 1968* (Health Insurance Statistics—HI-51), Office of Research and Statistics, October 17, 1973

REIMBURSEMENTS AND COST SHARING

Evelyn Peel and Jack Scharff, *Impact of Cost-Sharing in Use of Ambulatory Services under Medicare* (Current Medicare Survey Report—CMS-27), Office of Research and Statistics, October 10, 1973

Penelope L Pine, *Supplementary Medical Insurance 1967-71 Trends* (Current Medicare Survey Report—CMS-26), Office of Research and Statistics, August 15, 1973

Charles B Waldhauser, *Assignment Rates for SMI Claims, Calendar Year 1973* (Health Insurance Statistics—HI-63), Office of Research and Statistics, December 5, 1974

MEDICARE AND TOTAL HEALTH CARE SPENDING FOR AGED

Barbara S Cooper, Nancy L Worthington, and Mary F McGee, *Compendium of National Health Expenditures Data*, Office of Research and Statistics, January 1976

Marjorie Smith Mueller and Robert M Gibson, "Age Differences in Health Care Spending, Fiscal Year 1975," *Social Security Bulletin*, June 1976

Marjorie Smith Mueller and Robert M Gibson, "National Health Expenditures, Fiscal Year 1975," *Social Security Bulletin*, February 1976

Marjorie Smith Mueller and Paula A Piro, "Private Health Insurance in 1974 A Review of Coverage, Enrollment, and Financial Experience," *Social Security Bulletin*, March 1976

Dorothy P Rice and Barbara S Cooper, "Medical Care Outlays for Aged and Nonaged Persons, 1966-68," *Social Security Bulletin*, September 1969