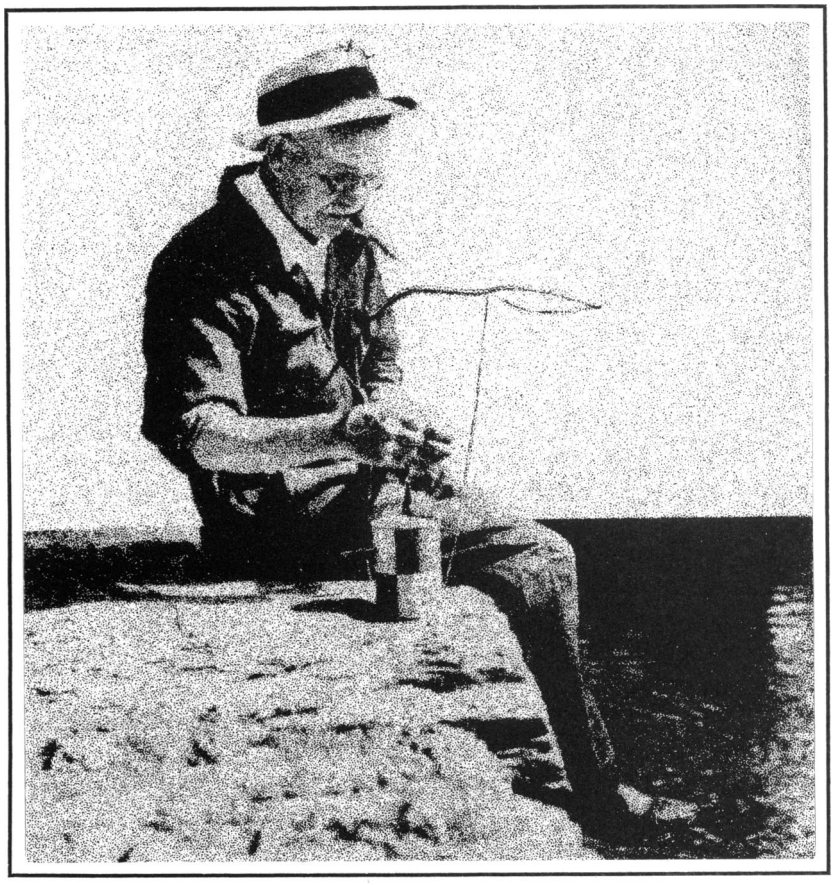
Health of the Elderly and Use of Health Services



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WE AMERICANS ARE LIVING LONGER today than ever before in our history. Mortality rates among the elderly have been declining during the past several years. Even without further reductions in mortality, persons currently reaching their 65th birthday will, on the average, live for almost 16 more years. What quality of life can people expect as they grow older?

It would be a mistake to think of the elderly as a homogeneous population. As a group, they are more likely than younger persons to suffer from multiple, chronic, often permanent conditions that may be disabling, but the majority are living active lives—many of them in their own households. The range in health status is just as great in this age group as in any other, even though the proportion of persons who have health problems increases with age and a minor health problem that might be quickly alleviated at younger ages tends to linger.

Aging is a process that continues over the entire lifespan at differing rates among different persons. The rate of aging varies among populations and among individuals in the same population. It varies even within an individual because different body systems do not age at the same rate.

There are, therefore, no biological reasons for defining "elderly" in terms of a specified calendar age. The reasons for using age 65 to mark the beginning of old age are mostly social and legislative. Private

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retirement plans, Social Security, and other programs that affect a person's way of life are for the most part defined by age 65. This definition may change in the future in response to social pressures. At present, however, it is the one generally accepted for use in programs relating to aging, and it will be used to define the population discussed in this paper.

Interest in how older people fare has grown in recent years, partly because of their rapid increase both in absolute numbers and in their proportion of the total population. As a result, our awareness of their health status and needs has intensified. Interest in their utilization of health services has also mounted because of the escalating costs of medical care and the growing proportion of these costs that are paid out of public funds.

Aged Population

When we look at U.S. population figures, we see that planning for the health needs of a large number of older people is a relatively recent concern, but one that will remain with us in the foreseeable future. In 1900, there were only 3.1 million people 65 and over in the United States. By 1940, the number had tripled to 9.0 million, and in the next 25 years it doubled. In 1965, just before Medicare was instituted, there were 18.5 million people 65 and over in the United States. By 1975, there were 22.4 million. By the year 2000, there will be about 30.6 million, and by 2030, as the last of the post-World War II baby boom population attains age 65, there may be 51.6 million.

Within the group 65 and over, the proportion of people who are 65–69 is getting smaller, while the proportion 75 and over is getting larger—a trend that is expected to continue at least until the end of the century. In 1900, the proportion of the elderly who were 75 and over was 29 percent; by 1970 it was 38 percent. By the year 2000 we expect that about 44 percent of the population 65 and over will be 75 and over. This increase in the so-called old-old among the elderly is tremendously important in evaluating health status and needs for health care, because the prevalence of chronic disease and impairment increases sharply with age. The inflection point appears to be around age 75. Thus the old-old group needs more medical care and sometimes needs home services if its members are to continue to lead active, worthwhile lives.

Since the expectation of life is lower at every age for males than for females because death rates at every age are higher for males, the sex ratio (number of males per 100 females) is very low in the elderly population. For every 100 females, 105 males are born. Among persons 65 and over, however, there are only 70 males per 100 females; the ratio decreases from 77 males per 100 females at ages 65-74 to only 50 males per 100 females at age 85 and over. The sex ratio among the elderly has also changed radically over the last few decades. In 1960, the sex ratio at age 65 and over was 83 males per 100 females. By now, however, those persons who were part of the great immigration waves before World War I, in which the proportion of males relative to females was large, have mostly died. Also, the increase in expectation of life over the past decades has been greater for females than for males. The difference in expectation of life at birth between the sexes was only 2.0 years in 1900, but 7.7 years in 1974.

These changes in the demographic composition of the U.S. population have led to changes in the needs for health care. Not only are there more older people than there used to be, but also they form a larger proportion of the population (10 percent in 1975). Thus, there are relatively fewer people in the working age groups to care for and support the aged. And fewer couples remain intact into old age so that they are able to care for one another in that period.

The needs for care being greater in the elderly population than for any other age segment of the adult population, the end of a marriage through the death of one spouse (usually the husband) often makes changes in living arrangements necessary for the survivor. The most common solution is living with other relatives, but many people in this age group rely on long-term institutional care at some point. According to the 1970 U.S. Census, only 1 percent of the total U.S. population are residents of institutions; among persons 65 and over, however, 5 percent are residents of institutions, and by ages 85 and over, 19 percent are residing in institutions at any given time. Obviously, the risk of being institutionalized at some point after age 65 is high.

Even among the elderly, however, the vast majority (95 percent) are not residing in institutions. A few live in group quarters, boarding houses, or other communal arrangements. A larger number live with relatives.

Most elderly persons, nevertheless, remain in their own homes. In the past decade, in fact, the proportion of the elderly maintaining their own households has increased and the proportion classified as living with "other relative" (that is, residing in families of which they are neither the heads nor the wives of the heads) has decreased. Of the 21.3 million elderly who

were not in institutions in 1975, some 5.8 million lived alone and 15.1 million lived with relatives. The most common marital status among elderly men was to be married with the wife present (76 percent). Among women, however, the most common marital status was widowhood (51 percent); only 38 percent of the elderly women were married with the husband present.

Elderly women were far more likely than elderly men to be living alone; 37 percent of the women 65 and over and 43 percent of those 75 and over were living alone in 1975, in contrast to 14 percent of the men 65 and over and 19 percent of the men 75 and over.

Men 65 and over had a median income in 1974 of about $4,500, or nearly double the $2,400 median income of women of the same age. Families headed by a man 65 or over had a median income of $7,200, which was somewhat less than the median income of $7,700 for families headed by women 65 and over. Unrelated persons 65 and over had very low incomes: the median was $3,400 for men and $2,900 for women. Thus, maintaining one's own household rather than moving in with relatives was financially difficult for unrelated persons even with Social Security benefits, the major source of cash for about 7 of 10 elderly beneficiaries living alone. And maintenance of a household is especially difficult for elderly women, since they are more likely than elderly men to live alone and have little income.

Table 1. Percentages of noninstitutionalized U.S. population 65 years and over in poor health, unable to carry on major activity, and deaths per 1,000 population, 1975

Age group 65 years and over	*Both sexes*	*Men*	*Women*
	Percent reporting poor health [1]		
All ages, 65 and over	8.6	9.4	8.0
65–74	8.1	9.3	7.2
75 and over	9.5	9.8	9.4
	Percent unable to carry on major activity [1]		
All ages, 65 and over	17.2	29.2	8.8
65–74	14.0	25.5	5.2
75 and over	22.9	36.8	14.5
	Deaths per 1,000 total population [2]		
All ages, 65 and over	54.3	67.0	45.5
65–74	32.2	44.6	22.7
75–84	74.5	96.5	61.0
85 and over	153.1	177.0	141.4

[1] Unpublished data on the noninstitutionalized population from Health Interview Survey, National Center for Health Statistics.
[2] From Provisional Statistics, Annual Summary for the United States, 1975. Monthly Vital Statistics Report. DHEW Publication No. (HRA) 76-1120. U.S. Government Printing Office, Washington, D.C., 1976.

Health Status

Two-thirds of the noninstitutionalized elderly report that compared with other people their age, their health is good or excellent; 9 percent report that their health is poor (table 1). The proportion reporting poor health is twice as large for elderly members of minority groups as for the white elderly. Reports of poor health by the elderly are more frequent in the South, in nometropolitan areas, and among persons of low income than for the average elderly U.S. population.

Although the sexes virtually do not differ in the proportion reporting poor health, the proportions of each sex reporting inability to carry out their major activity because of health differ greatly. The proportion of men 65–74 reporting that they cannot carry on their major activity because of health is 5 times that of women; at ages 75 and over, it is 2½ times that of women. The men may actually be in poorer health—certainly death and hospital utilization rates are higher for men than for women—or their reports of poorer health may be a reaction to forced retirement because of age. The man forced into retirement because of age is unable to carry on what he views as his major activity. He cannot do what he has done all his life. Unprepared for the change in status, this man may view himself as old and useless. This situation is unhealthy regardless of the state of the man's physicial health.

In the cohort whose members are now 65 and over, this phenomenon occurs mostly among men, since relatively few women of this age have been in the labor force. In the future, however, as the women who are currently employed are also retired from their major activity because of age, large proportions of both men and women may be reporting that they are unable to carry out their major activity "because of health." Whether physical health accounts for the response, or age alone, the response indicates a health problem in the broadest sense.

For most people, health certainly deteriorates with advancing years. Chronic conditions such as heart disease and arthritis become far more prevalent, as do various orthopedic, visual, and hearing impairments. Heart disease, cancer, and cerebrovascular disease—the three leading causes of death among the

Table 2. Causes of death for U.S. population 65 years and over, 1974

Causes of death and ICDA category		Rate per 100,000 persons		
		Both sexes	Men	Women
All causes		5,679.5	6,957.9	4,787.8
Diseases of heart	390–398, 402, 404, 410–429	2,537.9	3,080.6	2,159.4
Malignant neoplasms	140–209	957.2	1,292.8	723.2
Cerebrovascular diseases	430–438	799.5	810.7	791.8
Influenza and pneumonia	470–474, 480–486	184.8	233.7	150.7
Arteriosclerosis	440	141.1	137.3	143.8
Diabetes mellitus	250	122.0	110.4	130.1
Accidents	E800–E949	115.0	144.2	94.6
Motor vehicle accidents	E810–E823	25.7	39.3	16.2
All other accidents	E800–E807, E825–E949	89.3	104.9	78.5
Bronchitis, emphysema, and asthma	490–493	87.1	165.1	32.7
Cirrhosis of liver	571	38.8	61.9	22.7
Hypertension	400, 401, 403	24.2	...	...
Suicide	E950–E959	...	36.7	...
Hernia and intestinal obstruction	550–553, 560	...	...	21.8
All other causes		671.8	884.6	517.1

SOURCE: Unpublished data from Division of Vital Statistics, National Center for Health Statistics.

elderly (table 2)—result in the use of large quantities of hospital and physician services. They may also result in impaired functioning. Certain other conditions that less frequently cause death and that do not result in exceptionally large medical care expenditures, nevertheless are also relatively common causes of impaired functioning. Among these are arthritis and other orthopedic conditions, high blood pressure, diabetes, chronic brain syndrome, and impairments of the sense organs. This bleak list of chronic conditions is, of course, far from complete. Innumerable other conditions commonly afflict the elderly, and many of them suffer from two or more chronic conditions simultaneously. The conditions just mentioned, however, are certainly among the most common causes of debility.

In spite of the implications of the high prevalence of disease among the elderly, the vast majority of them function rather well. About 82 percent of the noninstitutionalized elderly report that they have no limitation of mobility and do not need the help of another person or of a special aid in moving about. Of those who are limited in mobility, about 33 percent have trouble getting around alone and 38 percent require help. Only 29 percent of those who are limited in mobility (or 5 percent of the total noninstitutionalized population 65 and over) report that they are confined to their homes.

Between age 65 and age 75, most people are able to get around rather readily much of the time and to enjoy a relatively independent existence. Most view themselves as being in comparatively good health and are satisfied with their lives. As we move to the older ages, however, the situation worsens. Although many people in their eighties are still functioning independently, they are not a clear majority of their age group. At any given point, one-fifth of the population 85 and over reside in nursing homes or other long-term care institutions. Also, many of those remaining in the community require assistance in shopping, preparing meals, bathing, and other activities of daily living.

The picture is mixed. The variation in health status among persons in the same age group is marked, but on the average, persons in their sixties and early seventies are in far better health than those in the older age groups.

Utilization of Health Services

Although the rates of utilization of health services can be measured fairly accurately, the effect of medical care on the health of the elderly is difficult to evaluate. Here, as for the younger age groups, medical care serves a wide diversity of functions, from prolonging life to allaying fears and reassuring people about their health. We must keep in mind that the purpose of medical care of the elderly is not merely to prolong life. Much of it is in order to enable the person to continue functioning—perhaps within reduced limits, but perhaps not. Certainly a major purpose of medical care at this age, as at any other, is to improve the quality of life.

An example of this function is cataract surgery. Between 1965 (just before the initiation of Medicare), and the present, the annual rate of cataract surgery among the elderly has nearly doubled. This operation frequently results in a significant improvement in vision and therefore in the person's self-esteem and capacity for self-care. Although there is no reason to believe that cataract surgery prolongs life, it certainly makes life more worth living.

When we look at the three major sources of medical care and the diagnoses associated with them, the elderly population can be divided into three components: a large group that use outpatient care as they go about their daily activities; a group using short-term hospital care before returning to daily living, as a prelude to long-term care, or upon the approach of death; and a small group relying on long-term inpatient care.

Ambulatory care. Noninstitutionalized elderly people have a physician contact (other than visits as hospital inpatients) an average of 6.5 times a year, in contrast to an average of 5.5 times for persons 45–64. About 79 percent have seen a physician within the preceding year (table 3). Since 1964, the average number of physician contacts has increased for the poor elderly, and the percentages of both the poor and the nonpoor elderly seeing a physician within a year have increased.

The aged are the least likely of all adults to use hospital outpatient clinics; less than 10 percent of their visits occur at such places. Outpatient clinics, however, still provide 17 percent of the physician care for the aged who are not white. There are significant geographic differentials in the use of physician services. Residents of nonmetropolitan areas, for example, have fewer physician visits and are less likely to have seen a physician within the year than residents of metropolitan areas.

Table 3. Physician visits per 1,000 noninstitutionalized persons 65 years and over, percentage of persons with visit within year, and percentage of visits to office-based physicians, 1975

Age group 65 years and over	*Both sexes*	*Men*	*Women*
	Physician visits per 1,000 persons		
All ages, 65 and over	6,607.6	6,368.6	6,775.4
65–74	6,595.9	6,314.6	6,811.4
75 and over	6,628.1	6,477.4	6,718.7
	Percent of persons with visit within year		
All ages, 65 and over	78.8	75.9	80.8
65–74	77.2	74.1	79.5
75 and over	81.5	79.4	82.8
	Percent of visits to office-based physicians		
All ages, 65 and over	76.2	74.9	77.1
65–74	76.0	74.6	77.0
75 and over	76.6	75.4	77.3

NOTE: Inpatient visits are excluded.
SOURCE: Unpublished data from Health Interview Survey, National Center for Health Statistics.

Table 4. Percentage distribution of visits to office-based physicians by persons 65 years and over, by principal diagnosis, May 1973–April 1974

Principal diagnosis and ICDA category		*Percentage distribution*
All diagnoses		100.0
I. Infective and parasitic diseases	000–136	1.7
II. Neoplasms	140–239	4.0
III. Endocrine, nutritional, and metabolic diseases	240–279	4.9
Diabetes mellitus	250	3.9
V. Mental disorders	290–315	2.2
Neuroses	300	1.3
VI. Diseases of nervous system and sense organs	320–389	10.4
Diseases and conditions of the eye	360–379	5.5
Refractive errors	370	1.1
VII. Diseases of circulatory system	390–458	26.5
Essential benign hypertension	401	8.8
Chronic ischemic heart disease	412	8.5
VIII. Diseases of respiratory system	460–519	8.7
Acute respiratory infections (except influenza)	460–466	2.8
IX. Diseases of digestive system	520–577	5.1
X. Diseases of genitourinary system	580–629	4.7
XII. Diseases of skin and subcutaneous tissue	680–709	3.5
XIII. Diseases of musculoskeletal system	710–738	9.4
Arthritis and rheumatism	710–718	6.7
XVI. Symptoms and ill-defined conditions	780–796	3.3
XVII. Accidents, poisoning, and violence	800–999	4.5
Fracture	800–829	1.3
Dislocation, sprain	830–848	1.1
Special conditions and examination without illness	Y00–Y13	8.5
Medical and special examinations	Y00	1.2
Medical and surgical after care	Y10	5.9
Other diagnoses		1.5

NOTE: Diagnostic groupings and code number inclusions are based on the Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.
SOURCE: The National Ambulatory Medical Care Survey: 1973 Summary. Vital and Health Statistics Series 13, No. 21. DHEW Publication No. (HRA) 76-1772. U.S. Government Printing Office, Washington, D.C., 1975.

About three-quarters of all visits to physicians made by the elderly are to physicians in office-based practices (table 4). When the physicians themselves report on the visits of the elderly, it becomes apparent that for the most part, these visits are for ongoing care for chronic conditions. More than 90 percent of these patients had been seen by the physician before—almost 80 percent for the current problem. Three-quarters were given a definite return appointment. Few were referred to another physician or admitted to a hospital as a result of the visit. Thus, the bulk of ambulatory care for the elderly is essentially for followup and continuing care.

Forty-four percent of the visits were to physicians in general family practice, another 22 percent were to internists, and 26 percent were to surgeons. More than a quarter (27 percent) of the visits, regardless of the physician's specialty, were for diseases of the circulatory system. About 9 percent were for musculoskeletal conditions. The rest were for various diagnoses, including diabetes, eye conditions, neoplasms, digestive disorders, genitourinary conditions, and accidents.

Although the elderly make fewer dental visits than younger adults, they still make, on the average, more than one visit per person per year. Almost one-

Table 6. Estimated amount, percent distribution, and per capita personal health care expenditures for persons 65 years and over, fiscal year 1975

Type of expenditure	Total	Source of funds		
		Private	Public	
			Total	Medicare	Other
		Amount (in millions)			
Total	$30,383	$10,466	$19,917	$12,749	$7,169
Hospital care	13,467	1,379	12,088	9,719	2,369
Physicians' services	4,862	1,987	2,875	2,628	247
Dentists' services	540	502	38	0	38
Other professional services	441	220	221	167	54
Drugs and drug sundries	2,629	2,285	344	0	344
Eyeglasses and appliances	506	498	8	0	8
Nursing-home care	7,650	3,571	4,079	234	3,845
Other health services	288	24	264	0	264
		Percent distribution			
Total	100.0	34.4	65.6	42.0	23.5
Hospital care	100.0	10.2	89.8	72.2	17.6
Physicians' services	100.0	40.9	59.1	54.1	5.1
Dentists' services	100.0	92.9	7.1	.0	7.1
Other professional services	100.0	49.8	50.2	38.0	12.2
Drugs and drug sundries	100.0	86.9	13.1	.0	13.1
Eyeglasses and appliances	100.0	98.4	1.6	.0	1.6
Nursing-home care	100.0	46.7	53.3	3.1	50.3
Other health services	100.0	8.2	91.8	.0	91.8
		Per capita			
Total	$1,360.16	$468.53	$891.63		
Hospital care	602.89	61.75	541.14		
Physicians' services	217.66	88.96	128.69		
Dentists' services	24.17	22.45	1.72		
Other professional services	19.74	9.83	9.91		
Drug and drug sundries	117.68	102.30	15.38		
Eyeglasses and appliances	22.65	22.29	.36		
Nursing-home care	342.47	159.88	182.58		
Other health services	12.89	1.05	11.84		

NOTE: Preliminary estimates.
SOURCE: Social Security Administration, Office of Research and Statistics: Age Differences in Health Care Spending, Fiscal Year 1975. Research and Statistics Note No. 11. DHEW Publication No. (SSA) 76-11701. U.S. Government Printing Office, Washington, D.C., 1976.

third (30 percent) have visited the dentist at least once in the preceding year (table 5). Unlike physician visits, which now display little relationship to income, dental visits are strongly correlated with the ability to pay. Only 20 percent of the elderly with annual family incomes under $5,000 visit a dentist within a year, in contrast to 50 percent of those with incomes of $15,000 or more.

This lack of dental care is especially serious since half of the elderly have no natural teeth. About 6 percent of these edentulous elderly have no false teeth, 4 percent have an incomplete set, and 13 percent have a set but do not use it all the time. Even among those with false teeth who use them all the time, 27 percent report that their dentures need refitting or replacement. Dental services could improve the ability of the elderly to socialize as well as improve their nutritional levels by making it possible for them to eat a wider variety of foods.

The cost of physician services for the elderly is high, but almost all persons age 65 and over (98 percent) were enrolled for supplementary medical insurance as of January 1, 1975. As a result, a major part of the cost (approximately 59 percent in fiscal year 1975) is paid for from public funds (table 6), so the burden on the individual is reduced.

More than half (57 percent) of the patients visiting physicians were treated with drugs (prescription or nonprescription). In contrast to the case with physician services, public funding does not pay any significant part of the cost of drugs (only 13 percent). Nor does public funding pay for dental services (only 7 percent), or eyeglasses and other appliances (only 2 percent). These supplementary items account for only about 12 percent of the total cost of health care for the elderly, but since they must be paid for personally, they have a great effect on the individual. And it is these relatively small items—new glasses and new dentures—that might do a lot to improve the quality of life of the elderly.

Care in short-stay hospitals. More than 4,100 days were spent in non-Federal short-stay hospitals in 1974 by every 1,000 persons 65 years and over (table 7). On the average, people 75 and over were more likely to be hospitalized and to remain in the hospital longer than those 65–74. Almost a third of these days (1,302 per 1,000 persons) were accounted for by diseases of

Table 5. Dental visits per 1,000 noninstitutionalized persons 65 years and over, percentage with dental visit within year, and percentage with no natural teeth, 1975

Age group 65 years and over	Both sexes	Men	Women
	Dental visits per 1,000 persons [1]		
All ages, 65 and over	1,153.6	1,365.3	1,004.9
65–74	1,330.5	1,537.1	1,172.3
75 and over	845.5	1,019.6	741.0
	Percent of persons with dental visit within year [1]		
All ages, 65 and over	30.3	30.0	30.6
65–74	34.7	32.8	36.2
75 and over	22.7	24.4	21.7
	Percent of persons with no natural teeth [2]		
All ages, 65 and over	50.7	49.0	52.0
65–74	45.2	45.0	45.4
75 and over	59.8	56.3	62.2

[1] Unpublished data from Health Interview Survey, National Center for Health Statistics.
[2] From Edentulous Persons. Vital and Health Statistics Series 10, No. 89. DHEW Publication No. (HRA) 74–1516. U.S. Government Printing Office, Washington, D.C., 1974.

Table 7. Discharges and days of care per 1,000 noninstitutionalized persons and average stay of persons 65 years and over discharged from non-Federal short-stay hospitals, 1974

Age group 65 years and over	Both sexes	Men	Women
	Hospital discharges per 1,000 persons		
All ages, 65 and over	346.2	371.5	328.1
65–74	291.0	320.2	268.1
75 and over	442.8	474.1	423.5
	Hospital days per 1,000 persons		
All ages, 65 and over	4,107.0	4,273.8	3,984.0
65–74	3,274.3	3,555.9	3,052.5
75 and over	5,562.7	5,712.1	5,466.6
	Average length of stay in days		
All ages, 65 and over	11.9	11.5	12.1
65–74	11.3	11.1	11.4
75 and over	12.6	12.0	12.9

SOURCE: Utilization of Short-Stay Hospitals: Annual Summary for the United States, 1974. Vital and Health Statistics Series 13, No. 26. DHEW Publication No. (HRA) 76–1777. U.S. Government Printing Office, Washington, D.C., 1976.

the circulatory system (table 8), a category that includes heart conditions, hypertension, and cerebrovascular diseases—all among the leading causes of death shown in table 2. Malignant neoplasms, the second leading cause of death, accounted for an additional 11 percent of the hospital days of the elderly (472 per 1,000 persons). In contrast, 27 percent of the visits to physicians were for circulatory conditions, and only 4 percent were for malignant neoplasms. Older people also had 468 days of hospitalization per 1,000 because of digestive disorders and 436 days per 1,000 because of accidents (mainly fractures).

Utilization of short-stay hospitals by the elderly has increased. In 1965 each person 65 and over averaged 3.4 days of hospitalization; in 1974, 4.1 days. The increase is due to a greater number of hospital admissions. The average stay actually decreased, from 13.0 days in 1965 to 11.9 days in 1974.

Some of the hospital care was for corrective procedures such as cataract surgery and the repair of fractures, procedures that may enable the elderly person to return to daily life; some was for illnesses that might strike any of us and from which we recover. Another part of this hospital care was for procedures to prolong life, which may be very expensive. Malignant neoplasms, for example, may require surgery, radioactive therapy, and other methods of treatment. Some care was for terminal illnesses.

We need to remember this mixture of functions because although less than a fifth of the noninstitutional population in the age group 65 and over is hospitalized in any given year, 44 percent of the money spent for health care for the elderly is for inpatient care in short-stay hospitals. Total expenditures for the use of such hospitals by the elderly has more than tripled in the past 8 years. The size of the aged population has been increasing in recent years, and so has the rate of utilization of services. Each of these increases accounts for part of the rise in the cost of hospital care, but the inflation in prices accounts for more. The acquisition of new equipment and the provision of more extensive patient care are responsible for about a third of the price increase. If these new, more complex services, are deemed desirable, they must be paid for. We are excessively aware of the payment for the hospital care of the elderly because 90 percent of it comes from public funds, in contrast to only 41 percent of of the care for younger adults. The elderly are not necessarily using expensive services any more than people in other age groups suffering from the same diseases. However, most of the cost of services for the elderly is paid for out of public funds, and so costs are reported and widely publicized, unlike private payments, which cover a large part of the cost of health services for younger people.

Medicare benefits paid under hospital insurance in fiscal year 1975 for persons 65 and over amounted to $12.7 billion, of which $9.7 billion was for hospital care. Virtually all the population 65 and over is enrolled for hospital care under Medicare. Part of this hospital insurance money is spent for high-priced services such as renal dialysis, care before and after surgical procedures, and cancer treatments that did not even exist a few years ago. Part goes for routine surgical and corrective procedures, such as the cataract surgery already mentioned, which enable the person to lead a relatively active life. And part is for ulcers, appendicitis, and broken bones, which may afflict anyone.

Long-term institutional care. The third traditional mode of care is long-term institutionalization. About 5 percent of the elderly resided in institutions in 1970. This proportion is considerably higher than in 1960, when only 3.4 percent of the elderly were residents of institutions.

The type of institution used by the elderly has changed over recent years. According to the 1950 census, 37 percent of the elderly in institutions were residents of mental hospitals. By the 1970 census, 8 percent of the institutionalized older population were residents of mental hospitals, while 60 percent were in homes for the aged and dependent. We know that 29 percent of the men and 48 percent of the women 65 and over who were discharged from mental hospitals in 1969 were discharged to nursing homes or homes for the aged. Unfortunately, data on the previous residence of persons admitted to nursing homes are not available, but of those persons who were in nursing homes in 1973, 8 percent had been in a mental hospital before being admitted. The actual proportion may have been higher, since one-third of these residents had been transferred from short-stay hospitals and their places of residence before admission to the short-stay hospitals had not been recorded.

It is likely that at least part of the change in the type of institutions in which the elderly are placed is due to the introduction of Medicare and Medicaid. Elderly long-term residents were shifted from the State and county mental hospitals into other facilities. The introduction of a new source of funding probably dictated a shift of some patients from locally funded facilities to those where costs would be paid by a Federal source.

Table 8. Discharges and days of care per 10,000 and average stay for noninstitutionalized persons 65 years and over discharged from non-Federal short-stay hospitals, by first-linked diagnosis and ICDA category, 1974

First-listed diagnosis and ICDA category	*Discharges per 10,000 persons*	*Days per 10,000 persons*	*Average length of stay in days*
All conditions	3,462.3	41,201.4	11.9
I. Infective and parasitic diseases 000–136	46.4	519.7	11.2
II. Neoplasms 140–239	366.5	5,094.4	13.9
Malignant neoplasms 140–209	323.5	4,723.1	14.6
Benign neoplasms and neoplasms of unspecified nature 210–239	43.0	352.6	8.2
III. Endocrine, nutritional, and metabolic diseases 240–279	123.4	1,579.5	12.8
Diabetes mellitus 250	94.4	1,217.8	12.9
IV. Diseases of the blood and blood-forming organs 280–289	39.8	477.6	12.0
V. Mental disorders 290–315	73.8	1,033.2	14.0
VI. Diseases of the nervous system and sense organs 320–389	190.6	1,448.6	7.6
Diseases of central nervous system 320–349	28.8	426.2	14.8
Cataract 374	101.3	617.9	6.1
Diseases of ear and mastoid process 380–389	14.7	77.9	5.3
VII. Diseases of the circulatory system 390–458	1,049.7	13,016.3	12.4
Hypertensive disease 400–404	44.2	406.6	9.2
Acute myocardial infarction 410	91.9	1,277.4	13.9
Chronic ischemic heart disease 412	333.3	3,966.3	11.9
Cerebrovascular disease 430–438	214.9	2,965.6	13.8
VIII. Diseases of the respiratory system 460–519	295.8	3,165.1	10.7
Acute bronchitis and bronchiolitis 466	25.4	218.4	8.6
Acute upper respiratory infections, except influenza 460–465	13.2	113.5	8.6
Pneumonia, all forms 480–486	101.4	1,237.1	12.2
Hypertrophy of tonsils and adenoids 500	...	...	...
IX. Diseases of the digestive system 520–577	454.4	4,680.3	10.3
Ulcer of stomach, ulcer of duodenum, peptic ulcer of unspecified site, and gastrojejunal ulcer 531–534	52.9	624.2	11.8
Appendicitis 540–543	5.1	58.7	11.5
Inguinal hernia 550, 552	49.3	419.1	8.5
Cholelithiasis 574	49.5	648.5	13.1
X. Diseases of the genitourinary system 580–629	261.6	2,668.3	10.2
Diseases of the urinary system 580–599	122.4	1,297.4	10.6
Hyperplasia of prostate 600	78.9	907.4	11.5
Disorders of menstruation 626	7.2	33.1	4.6
XII. Diseases of the skin and subcutaneous tissue 680–709	42.2	523.3	12.4
XIII. Diseases of the musculoskeletal system and connective tissue 710–738	163.4	2,107.9	12.9
Osteoarthritis and allied conditions 713	52.0	764.4	14.7
Other arthritis and rheumatism 710–712, 714–718	36.3	432.0	11.9
Displacement of intervertebral disc 725	14.4	218.9	15.2
XIV. Congenital anomalies 740–759	8.9	75.7	8.5
XVI. Symptoms and ill-defined conditions 780–792, 794–796	32.4	230.0	7.1
XVII. Accidents, poisonings, and violence (nature of injury) 800–999	303.0	4,363.2	14.4
Fractures, all sites 800–829	170.4	3,033.1	17.8
Intracranial injuries (excluding those with skull fracture) 850–854	11.6	153.1	13.2
Lacerations and open wounds 870–907	14.1	115.6	8.2
Special conditions and examinations without sickness, or tests with negative findings 793, Y00–Y13	10.5	102.9	9.8

NOTE: Diagnostic groupings and code numbers are based on Eighth Revision International Classification of Diseases, Adapted for Use in the United States, 1965.

SOURCE: Utilization of Short-Stay Hospitals: Annual Summary for the United States, 1974. Vital and Health Statistics Series 13, No. 26. DHEW Publication No. (HRA) 76-1777. U.S. Government Printing Office, Washington, D.C., 1976.

At the end of 1973, most of the institutionalized elderly, about 962,000 persons, were in nursing homes (table 9). There were approximately 16,000 days of care per year in nursing homes for every 1,000 persons 65 and over, four times the number of days spent in short-stay hospitals. The residents of nursing homes were the very old: 83 percent were 75 and over, and 43 percent 85 and over. Almost three-quarters were women. Elderly women are far more likely than elderly men to be living alone. Therefore when they become seriously ill, they are less likely to have someone living with them who knows them well and can care for them. They thus become residents of nursing homes of necessity.

In general, the elderly residents of nursing homes really cannot care for themselves and would be difficult to care for in many households. Almost two-thirds are senile, a third are bedfast or chairfast, and a third are incontinent. They suffer from multiple chronic conditions (table 10). Hardening of the arteries, senility, stroke, and mental disorders are the most common primary diagnoses. These are sick people who need good health care.

Almost half of these elderly nursing home residents cannot see well enough to read an ordinary newspaper regardless of whether they wear glasses. One-third cannot hear a conversation on an ordinary telephone. One-fourth have impaired speech. Many, of course, suffer from multiple conditions. They need care from many kinds of health professionals. Forty-two percent of the nursing home residents 65 and over are receiving intensive nursing care; more than half are receiving more than routine nursing care. All are receiving some kind of nursing care. Yet very few receive any other kind of treatment—only 15 percent receive recreational therapy, 10 percent physical therapy, and 6 percent occupational therapy.

Although many of these residents probably do not need daily care from a physician, they certainly need some form of continuing evaluation and supervision. Yet, when the 1973–74 nursing home survey was conducted by the National Center for Health Statistics, one-fourth of the residents had not been seen by a physician for at least 3 months. Of those who had been nursing home residents for a year or more, 13 percent had not been seen by a physician for at least 6 months and almost 9 percent had not been seen for at least 1 year.

The cost of care in nursing homes is rising, even though it is still far below the cost of hospitalization. In 1964, the average monthly charge per resident was $212. The average monthly charge in 1973–74, including all charges for special services, drugs, and medical supplies, was $479. Public funding paid 53 percent of the cost in fiscal year 1975. The primary source of payment for nursing home care was most frequently Medicaid (50 percent), followed by personal income. Unlike short-stay hospital care, nursing home care was seldom paid for by Medicare.

Table 9. Persons residing in nursing homes and number of day of residence per 1,000 persons 65 years and over, 1973–74

Age group 65 years and over	Both sexes	Men	Women
	Number of nursing home residents		
All ages, 65 and over	961,500	265,800	695,800
65–74	163,100	65,200	98,000
75–84	384,800	102,300	282,500
85 and over	413,600	98,300	315,300
	Nursing home residents per 1,000 persons		
All ages, 65 and over	44.1	29.6	54.1
65–74	12.0	11.1	12.8
75–84	58.9	40.8	70.0
85 and over	236.6	169.8	269.7
	Nursing home days per 1,000 persons		
All ages, 65 and over	16,080.8	10,820.5	19,751.7
65–74	4,397.0	4,045.9	4,671.5
75–84	21,485.7	14,906.0	25,567.2
85 and over	86,363.8	61,968.0	98,447.0

SOURCE: Calculations based on unpublished data from National Nursing Home Survey, National Center for Health Statistics, and on population residing in the United States July 1, 1974.

Alternatives. Home health programs are beginning to offer an alternative to long-term institutionalization. At present, however, there are no good estimates of the number of elderly served by these programs, nor of the number who could benefit if more programs were in operation. Certainly many of the residents of nursing homes need to be where care is available 24 hours a day. Others, however, could live outside the institution if they did not have to live alone and if professional help were provided regularly. Unknown numbers of the elderly who are now living alone could live more comfortably if they had home health care, and the lives of those living with relatives—as well as the lives of the relatives—could be eased were such care readily available.

Retirement, widowhood, and increasing inability to care for oneself without help are all stress-producing situations; yet admission rates to either

Table 10. Rate of reported chronic conditions and impairments and of primary diagnosis per 1,000 nursing home residents 65 years and over, 1973–74

Reported chronic conditions and impairments and primary diagnosis at last examination [1]	Rate per 1,000 residents		
	65–74 years	75–84 years	85 years and over
Condition or impairment			
Senility	482.2	623.2	694.3
Mental illness	293.0	171.9	112.8
Mental retardation	94.5	27.6	17.5
Arthritis or rheumatism	232.4	363.2	431.1
Paralysis or palsy due to stroke	166.1	129.1	80.1
Paralysis or palsy not related to stroke, arthritis, or rheumatism	75.5	52.5	36.8
Glaucoma or cataracts	62.8	95.6	143.9
Diabetes	168.1	148.8	109.4
Any chronic trouble with back or spine	86.6	100.8	107.9
Amputation of extremities or limbs, or permanent stiffness or any deformity of foot, leg, fingers, arm or back	160.8	133.0	123.2
Heart trouble	271.9	354.7	403.9
None of the above	62.2	53.8	47.0
Primary diagnosis at last examination			
Senility, old age, other symptoms and ill-defined conditions	85.2	140.9	198.4
Heart attack	41.1	55.3	68.9
Stroke	138.0	120.6	87.5
Hardening of the arteries	151.7	237.2	315.8
Diseases of the circulatory system other than hardening of the arteries, stroke, and heart attack	31.4	39.9	43.4
Accidents, poisonings and violence	35.8	45.8	55.3
Mental disorders	185.1	72.0	32.7
Diseases of the musculoskeletal system and connective tissue	58.5	70.7	80.0
Endocrine, nutritional and metabolic diseases	59.5	46.9	39.8
Diseases of the respiratory system	33.2	22.9	14.7
Neoplasms	29.4	23.6	22.3
Diseases of the nervous system and sense organs	78.4	49.3	38.0
Diseases of the digestive system	18.6	17.9	21.6
Infective and parasitic diseases	(2)	(2)	(2)
Diseases of the genitourinary system	(2)	16.7	16.2
Diseases of the skin and subcutaneous tissue	(2)	6.1	(2)
Diseases of the blood and blood-forming organs	(2)	7.6	9.5
Other diagnoses	15.9	15.0	13.5
Unknown diagnoses	(2)	9.3	10.5

[1] More than 1 condition of impairment may have been reported for a resident (average number was 2.2), but only 1 primary diagnosis was reported for each.

[2] Figure does not meet standards of reliability or precision.

SOURCE: Unpublished data from National Nursing Home Survey, National Center for Health Statistics.

inpatient or outpatient psychiatric facilities are lower in the age group 65 and over than in any other group of adults. Whether the elderly do not seek help or are unable to get it is not known. What is known is that admission rates for the elderly to psychiatric facilities are low and that half of the episodes reported for the elderly are still in State or county mental hospitals, in contrast to the episodes for young adults, which are more likely to be in outpatient facilities. Easily available outpatient facilities that did not carry a stigma in the eyes of people who grew up in an age when psychiatric help was less acceptable might also make the lives of the elderly and the people with whom they live more comfortable.

An increased prevalence of chronic conditions and longer duration of acute conditions frequently accompany aging. Stress due to changing life conditions such as retirement, inability to live independently, or death of family members and friends may also occur more frequently as people age. Thus, the needs for many kinds of care are great in old age. Health care should be provided with dignity and made accessible so that elderly people can live to their capacity. Old age should not be a burden on the individual or on society.