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Health Statistics on Older Persons United States, 1986

Data from various sources concerning the health status and determinants of health of older persons are presented. Data on persons aged 55-64 years are included for comparison purposes.

**Analytical and Epidemiological Studies
Series 3, No. 25**

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Cooperation of the U.S. Bureau of the Census

Under the legislation establishing the National Health Interview Survey, the Public Health Service is authorized to use, insofar as possible, the services or facilities of other Federal, State, or private agencies.

In accordance with specifications established by the Division of Health Interview Statistics, the Bureau of the Census, under a contractual arrangement, participated in planning the survey and collecting the data.

Foreword

This series report was prepared in response to the fundamental need for more analyses and better compilation of data concerning older persons. Requests to the National Center for Health Statistics (NCHS) for information concerning this important segment of the population come from a wide variety of individuals and groups, such as government policymakers, demographers, health care workers, and analysts. Some data needs can be met by referral to reports in the *Vital and Health Statistics* series, other publications, or special data tabulations from a single survey or data system. Other data are available routinely from *Health, United States*, the yearly departmental publication prepared by NCHS staff. In addition, excellent compilations of NCHS and other data on older persons are prepared by staff of the House of Representatives and Senate as well as by staff of the American Association of Retired Persons and other organizations, such as the Office of the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services.

Even with these various sources of data, it became apparent that there was a need for a report in which data from

multiple NCHS data systems were integrated into a single source document, with some attempt at analysis of data and identification of possible epidemiologic associations. This report is the first move in this direction. It was made possible by the efforts of NCHS staff and the financial support of the National Institute on Aging through an interagency agreement. In the future, the Forum on Aging-Related Statistics, a cooperative group including the U.S. Bureau of the Census, the National Institute on Aging, and other government agencies interested in the issues of aging, may provide a mechanism for enhancing efforts in the collection and dissemination of data concerning older persons in the United States.



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Symbols

- Data not available
 - ... Category not applicable
 - Quantity zero
 - 0.0 Quantity more than zero but less than 0.05
 - Z Quantity more than zero but less than 500 where numbers are rounded to thousands
 - * Figure does not meet standard of reliability or precision (more than 30-percent relative standard error in numerator of percent or rate)
 - # Figure suppressed to comply with confidentiality requirements
-

Health Statistics on Older Persons

by Richard J. Havlik, M.D., National Center for Health Statistics; Barbara Marzetta Liu, Northwest Institute; Mary Grace Kovar, Dr.P.H., National Center for Health Statistics; Richard Suzman, Ph.D., National Institute on Aging; Jacob J. Feldman, Ph.D., Tamara Harris, M.D., and Joan Van Nostrand, National Center for Health Statistics

Introduction

The National Center for Health Statistics (NCHS) collects data on the health of older persons through numerous data systems. The Vital Statistics Program and the National Health and Nutrition Examination Survey (NHANES) are examples. This report contains statistics from the data systems covering four general areas—mortality, other measures of health status and determinants of health, use of health care, and health costs.

The structure of this report is patterned after the annual publication *Health, United States*, with detailed tables and accompanying text. Where data permit, the tables contain age, sex, and race categorizations including the age group 85 years and over as well as aggregated data for persons aged 65 years and over and 75 years and over. For comparison purposes, the tables also include data concerning the transition age group 55–64 years of age.

NCHS compiles the most detailed information available on U.S. death rates. In particular, the distribution and trend in major causes of mortality in older persons, such as ischemic heart disease, cancer, and stroke, can be addressed. In addition, trends in lung cancer and suicide in older persons, a matter of some recent interest, are addressed. The year 1979 is used for most trend comparisons because it began the period covered by the current revision of the *International Classification of Diseases*.¹ Because life expectancy has been increasing in the United States, comparison with data from other countries provides interesting contrasts.

An indication of the frequencies of disease and impairments in persons of different age groups can be gained by combining data from multiple years of the continuous National Health Interview Survey (NHIS). For example, a combination of these comparably collected data allows consideration of the small but very important subgroup 85 years of age and over. Even with this strategy, however, some of the less common conditions cannot be reliably estimated for black men and women. The Supplement on Aging of the 1984 NHIS provided the opportunity to gather information in greater depth about the elderly in the community, including, at one extreme, ability to accomplish the activities of daily living² and, at the other extreme, participation in various types of exercise. It cannot be overemphasized that older persons represent a very heterogeneous population, and the full spectrum from disabled people to marathon runners can be found. When

considering this variability in the community, it must be remembered that a sizable component of the older population has been institutionalized in hospitals or nursing homes, and this group of the elderly are more likely to be disabled.

NHANES, because of its direct participant examination, is a means of providing actual physical and biochemical data on health status and determinants of health status. Thus, survey data allow consideration of a complex chain of causation for chronic diseases. Information is available on the dietary patterns of older persons, including fatty food intake, and trends in nutrient ingestion. Such data can be considered along with risk factor measures, including elevated serum cholesterol, hypertension, and being overweight. Special surveys of subgroups such as Mexican Americans provide some information on older ethnic subgroups, although limited because of small sample numbers.

The hospital discharge rate is often used as an indicator of morbidity trends in older people. However, the additional effect on hospital use of Medicare policy, such as the use of diagnosis-related groups and required outpatient surgery, must be recognized. The use of CAT scans (computerized axial tomography) and other procedures in the elderly is an example of new technology being applied more frequently to problems of older persons. Also, the reasons for office visits and types of prescribed medications can add to our knowledge of the medical care older people receive.

Of particular relevance to long-term care issues are data from the 1985 National Nursing Home Survey. These data represent some of the most recent information concerning nursing home discharges and the age-race-sex distribution of nursing home residents. In addition, data are available on the functional ability of such institutionalized persons. A trend analysis can be made by comparing results with the previous surveys, completed in 1973–74 and 1977.

Finally, in the National Medical Care Utilization and Expenditure Survey, a panel of noninstitutionalized individuals, including the elderly, were interviewed at more frequent intervals to determine use of health care and costs over a year. Information from this survey can be supplemented by other national medical expenditure data, including data on type of service, in order to develop a more complete picture of the cost of health care.

The various data systems that were sources of information

for this report are described in the appendix. The appendix material was prepared originally for a National Academy of Sciences, National Research Council, work group addressing the question of data needs for an aging population. In addition, this appendix contains information on public use data tapes now available or forthcoming from NCHS. For example, the "National Health Interview Survey: Data for the Study of Secular Change and Aging" tape became available in 1986. In addition to regular releases, the data tapes for the first phase of the Longitudinal Study of Aging Initial Followup, 1984-86, and NHANES I Epidemiology Followup Study: Initial Followup, 1982-84, will become available in 1987.

The current plan is to issue future reports on the health of older persons using the same format as this report. Updated information from various NCHS continuous surveys, as well as data available from periodic surveys such as the National Mortality Followback Survey and the 1985 National Ambulatory Medical Care Survey, will also be included in future reports. The data in this and future publications should provide valuable information for use in assessing both scientific and policy issues for older persons.

Highlights

Health status—mortality

- From 1970 to 1984, life expectancy at 65 years of age increased by 1.0–1.7 years, depending on the race-sex subgroup.
- At 85 years of age, black women have the longest life expectancy of the four major race-sex subgroups.
- Over the 14-year period 1970–84, white females aged 85 years and over had the largest absolute decrease in the death rate from all causes when compared with the other sex-race-age subgroups of those 55 years and over.
- During the 5-year period 1979–84, death rates from all causes for age subgroups of women 55 years and over changed little. Such death rates for men aged 55–64 and 65–74 years decreased about 6 percent, but for men 75 years of age and over they remained stable.
- Death rates for ischemic heart disease in the age group 55–64 years declined 17.3 percent for men and 9.8 percent for women from 1979 to 1984. Among men and women aged 85 years and over, a decrease of about 7 percent occurred.
- Death rates for cerebrovascular diseases decreased 7.2–40.3 percent in the 5-year period 1979–84 for males and females in each age-specific subgroup of those aged 55 years and over.
- During the period 1979–84, lung cancer death rates for those 55 years and over increased 26.9–43.3 percent in women and 4.1–18.3 percent in men, depending on the age-specific subgroup.
- Death rates for suicide increased 6.7–9.2 percent among age-specific subgroups of men aged 55 years and over but did not increase in women of the same ages during the period 1979–84.
- In 1985, 12.0 percent of the U.S. resident population was aged 65 years and over, and 1.1 percent was 85 years and over.

International comparisons

- U.S. women at both ages 75 and 85 years had the longest life expectancy in the world among countries with available data for the early years of this decade.

Measures of health among older persons living in the community

- According to self-reports, more than one-third of persons aged 65 years and over living in the community are in excellent or very good health.
- Black males and females aged 55 years and over are generally more likely than white people to consider their health status as only fair or poor.
- Injury rates are higher among persons aged 85 years and over than among adults aged 55–84 years.
- Impairments in vision and hearing are more common for each consecutively older age subgroup.
- Arthritis is present in more than one-half of females aged 65 years and over, and the highest rate is reported for the subgroup of black females aged 65 years and over.
- Trends in the reported prevalence of ischemic heart disease, hypertension, and diabetes have been generally upward among sex-age-specific subgroups of persons 55 years of age and over from 1972 or 1973 to 1982–84.

Health status and determinants—marriage, living alone, and risk of institutionalization

- In 1984 about 70,000 persons aged 65 and over married in America—25,000 women and 45,000 men.
- About 26.4 million Americans who had had their 65th birthday were living in communities outside nursing homes or other institutions in 1984. About one-third of them, an estimated 8.4 million people, were living alone.
- The population of people aged 65 years and over living alone tends to be older, widowed, and female.
- Many of the people who live alone are not disabled, in poor health, suffering from lack of medical care, or lacking family or companionship.

Determinants of health

Cardiovascular risk factors

- In most subgroups of white and black people aged 55 years and over, the percent of women with high-risk serum cholesterol is almost twice as great as the percent of men.
- About one-half of black females and Mexican-American females aged 55–74 years are overweight.
- About 40 percent of male Mexican Americans aged 55–74 years and 20 percent of female Mexican Americans aged 55–74 years were current smokers in 1982–83.

Exercise and activities of daily living

- In 1984 the majority of older persons except those 85 years and over reported no difficulty walking one-quarter of a mile or two blocks.
- The most frequent limitation in activities of daily living was difficulty in walking, which affected 9–32 percent of men and 10–43 percent of women in age subgroups 55 years and over in 1984.

Use of health care

Ambulatory medical care

- Subgroups of those aged 55 years and over who are reported to be in fair or poor health have an annual rate of physician contacts twice as great as the rate for those reported to be in good or excellent health.
- Essential hypertension, diabetes mellitus, chronic ischemic heart disease, and osteoarthritis are the most frequent diagnoses mentioned by physicians for office visits of those 55 years and over.

- Diuretics, cardiovascular drugs, and analgesics represent the majority of drugs prescribed by office-based physicians for persons 55 years and over.

Care in short-stay hospitals

- In 1979, the rate of hip fracture for females aged 75–84 was almost three times that for males in this age group, but in 1984 the rate for females was not quite twice that for males.
- The rate of discharges for acute myocardial infarction in persons 55 years and over remained unchanged during a period of decreasing death rates for ischemic heart disease.

Nursing home care

- Data from the 1985 National Nursing Home Survey indicate that slightly less than 5 percent of the population aged 65 years and over, 10 percent of persons 75 years of age and over, and 22 percent of persons 85 years and over resided in a nursing home.
- In 1985, 83 percent of women 85 years and over residing in a nursing home were unable to dress independently, and the same percent could not walk independently.

Cost of health care

- For persons 65 years and over living in the community, 27.6 percent of health care costs were for diseases of the circulatory system, 12.9 percent for neoplasms, and 9.2 percent for injury and poisoning.

Chapter I

Health status—mortality

by Richard J. Havlik, M.D., National Center for Health Statistics, and Richard Suzman, Ph.D., National Institute on Aging

Introduction

Mortality statistics are fundamental to understanding the effects of the aging process and disease on the population of older persons. The general rise in mortality with increasing age may be caused by various biological and environmental factors. However, the patterns in death rates for all causes and for specific causes vary with race and sex. This is the basis of differing life expectancy estimates for subgroups of the population. Trend analysis of changes in death rates over time allows an assessment of possible etiological factors through the investigation of concurrent changes in potential causal agents. Finally, the establishment of long-term trends in mortality permits better projections of future death rates and population size.

Sources of data

Mortality data are based on information reported on death certificates filed in the State registration offices. This information is compiled by the National Center for Health Statistics through the vital statistics system, which is a cooperative effort between the States and the Federal Government. It is described in the appendix. The population estimates needed for computation of annual death rates are published annually by the U.S. Bureau of the Census in *Current Population Reports*, Series P-25. The death rates presented here have not been age adjusted except as indicated.

Results and comments

Mortality trends

A review of trends in age-adjusted death rates reveals that the average annual percent change in rates for persons 65 years of age and over during the period 1955–67 was stable in men and decreased 1 percent per year in women; in the period 1968–80 the death rate for this age group declined 1.7 percent annually for men and 2.3 percent for women.³ (The death rates in the later period were calculated using the appropriate intercensal population estimates prepared after the 1980 census.) The more rapid decline in the period 1968–80 is attributable principally to a decline in mortality from diseases of the cardiovascular system.³

From 1979 through 1984, death rates among males in the age groups 55–64 and 65–74 years decreased approximately 6 percent, or about 1 percent per year (table 1). However, no clear trend emerged in death rates for men in the age

groups 75–84 years and 85 years and over. No definite trends were found in death rates among any of the female age subgroups 55 years and over. Similarly, consistent variations over time in race-age-specific subgroups could not be distinguished (table 1).

The interpretation of recent trends in death rates for older persons presents certain problems. First, the period 1979–84 was relatively brief, and there may have been unexplained short-term fluctuations in death rates. (The year 1979 was selected as a baseline in the tables because of the desirability of making cause-specific comparisons within a period covered by the same revision of the International Classification of Diseases.) Second, from 1979 to 1980 there was a pronounced increase in death rates at older ages (table 1). This increase apparently was caused by an influenza epidemic in 1980.³ Third, in 1984 the U.S. Bureau of the Census changed the assumptions concerning the effects of undocumented immigration and migration on population estimates. Despite its modest effect, this change resulted in an estimated 3-percent decrease in the size of the black population aged 85 years and over.⁴ These lower population estimates could have resulted in slightly higher death rates for age-specific subgroups for 1984.

By comparing death rates over a longer period of time (1970–84), a better indication of long-term trends can be identified, especially in the older age subgroups. Reductions occurred in the death rates for most race-, sex-, and age-specific subgroups of those 55 years and over. The largest percent change (26.2 percent) was for white males aged 55–64 years. Changes for black males were smaller than changes for white males. During the period 1970–84, the reduction in the death rate for all causes was 23.3 percent for white females aged 75–84 years and about 25 percent in black females aged 55–64 and 65–74 years. The percent change in those aged 85 years and over was generally less than that for the younger age subgroups.

Because the age category 85 years and over is open ended, the “crude” rate for 1984 may be slightly higher in men simply because of the increased mean age of the subgroup 85 years and over when compared with the same subgroup in 1970. In addition, because death rates are highest in the oldest age category, a similar absolute change in death rates in two age subgroups will result in a smaller percent change in the older subgroup. For example, during this longer period, for white males aged 75–84 years, an absolute difference in death rates of 1,639.7 per 100,000 resulted in a decrease of 16.2 percent, but for those 85 years and over, an absolute

decrease of 1,839.9 resulted in a 9.0-percent decrease. White females aged 85 years and over had the largest absolute decrease in rates—2,409.9 per 100,000, or 14.4 percent, from 1970 to 1984. The rate for black females in the same age subgroup decreased 692.6 per 100,000, or 5.7 percent.

As a result of minimal changes in death rates from 1979 to 1984, life expectancies at older ages changed little (table 2). However, from 1970 to 1984 life expectancy at 65 years of age increased by 1.0–1.7 years, depending on the race-sex subgroup. In each year and at each age, life expectancy for females exceeded that for males. Although life expectancy for black persons was lower than that for white persons at birth and at age 65 years, at age 75 life expectancy was similar for both races. In an apparent change from 1979 and more similar to 1970, in 1984 black persons aged 85 were expected to live longer than their white counterparts.

Mortality patterns

During the period 1979–84, death rates for males were higher than rates for females in every age group 55 years and over (table 1). However, at ages 85 and over, death rates for men and women were more similar. Although death rates for black persons exceeded those for white persons among younger age groups, they were lower than rates for white persons in the subgroup 85 years and over. Indeed, black females had the lowest death rate of any race-sex cohort 85 years and over. This “crossover” of death rates between races at older ages may represent survival of a selected and less disease-prone group of older black people. However, some overreporting of age in the subgroup 85 years and over, especially in minority groups, has been suggested.⁵ At the extreme ages, the Census Bureau has reduced downward the number of centenarians reported in the census of population because of age overreporting and other problems.⁵ This phenomenon is not unique to the United States.

Table 3 shows leading causes of death in the population aged 55 years and over. Relative rankings vary with age, but the top three causes—diseases of heart, malignant neoplasms, and cerebrovascular diseases—are the same for each age subgroup 55 years and over. Although underlying causes are the basis of the death rates, multiple causes of death are often listed on death certificates for older persons. Multiple cause tabulations provide a more complete picture of disease in the elderly.^{6,7}

Disease-specific mortality trends

The well-known trend of decreasing mortality from diseases of heart and the subgroup of ischemic heart disease is evident at all of the age groups 55 years and over (tables 4 and 5). From 1979 to 1984, death rates from ischemic heart disease among men of all races decreased 17.3 percent in the age group 55–64 years and 7.4 percent in the group 85 years and over. Among women, death rates decreased only about 10 percent for ages 55–64; the magnitude of decrease was similar to that for men in the older age groups.

Cerebrovascular mortality decreased 7.2–40.3 percent in the 5-year period for various sex-race-age subgroups,

continuing a trend that began in the 1960's and accelerated in the 1970's⁸ (table 6).

In contrast, mortality from cancer, especially respiratory tract cancer, increased from 1979 to 1984 (tables 7 and 8). This continues a trend seen in the period 1968–80, when the average annual percent change in death rates for malignant neoplasms among older men increased. The percent change for men varied—0.8, 1.3, and 1.7 percent for those aged 65–74 years, 75–84 years, and 85 years and over, respectively. For women, the percent change varied somewhat less—0.6 for the group 65–74 and 0.2 percent for each of the older age subgroups. During this earlier period, female death rates for cancer of the genital organs and colon decreased somewhat.³ During the period 1979–84, increases in death rates for respiratory cancer in men ranged from 4.1 percent to 18.3 percent for the various older subgroups considered. The increases for women were much greater; they ranged from 26.9 to 43.3 percent in the various age subgroups. However, because of lower cancer rates in females, the absolute changes in rates were similar to the changes for males.

The authors of a report from the National Cancer Institute suggested that lung cancer incidence, as determined from local registries, is down, and they postulated a decrease in mortality in men based on 1983 data.⁹ Because of an increase in lung cancer mortality in 1984, another year of data will be necessary before any conclusions can be drawn for men. In addition, incidence for women is still going up, most likely as a result of increased smoking in this cohort of women at younger ages.

Among those 65 years and over suicide ranks 14th, behind more common causes of death, such as chronic obstructive pulmonary disease, pneumonia and influenza, and diabetes. Suicide for white men is highest among those at older ages (table 9). The death rates for suicide during the period 1979–84 increased among age-specific subgroups of men of all races by 6.7–9.2 percent, but no such upward trend was detectable among women. Although the absolute increase in the male rate is relatively small, a possible trend merits recognition. The longer term trend for race-age subgroups is less clear. Although the 1970 suicide death rates for white males aged 75–84 years and 85 years and over were similar to those in 1979, rates for white males aged 55–64 years and 65–74 years decreased (35.0 and 38.7 deaths per 100,000 in 1970, compared with 26.3 and 33.4 in 1979). The issues involved in the identification of causes and prevention of suicide in older persons have been addressed in a recent book.¹⁰

Population

The U.S. total resident population was estimated to be 238.7 million in 1985 (table 10), an increase of about 14 million from 1979 and more than 35 million from 1970. The total number of those 65 years and over in 1985 was about 28.5 million, according to U.S. Bureau of the Census estimates. The number of those 65 years and over is projected to almost double by the year 2020, reaching about 51 million, and the total population is projected to reach almost 300 million.¹¹

Of most interest to this discussion is the trend in the

age distribution of older persons. In 1985 persons aged 55–64 years represented 9.4 percent of the population; those 65 years and over, 12.0 percent; and those 85 years and over, 1.1 percent. By contrast, in 1950 the comparable figures were 8.9 percent for persons 55–64 years, 8.1 percent for ages 65 and over, and only 0.4 percent for ages 85 and over.⁸ According to projections using “middle series”¹¹ estimates of the Bureau of the Census, the proportion of those

65 years and older will be 13 percent by the year 2000. By 2020, when the Baby Boom generation reaches older ages, the proportion aged 65 years and over will be 17.3 percent, and the group 55 years and over will constitute about 30 percent of the population.¹¹ According to these estimates, persons 85 years and over will constitute 2.4 percent of the population in 2020.

Table 1. Death rates for all causes among persons 55 years of age and over, by sex, race, and age: United States, 1970 and 1979–84

[Data are based on the National Vital Statistics System]

Sex, race, and age	1970	1979	1980	1981	1982	1983	1984
MALE							
All races ¹							
Number of deaths per 100,000 resident population							
55–64 years	2,282.7	1,815.4	1,815.1	1,774.7	1,736.1	1,725.6	1,705.2
65 years and over	7,195.2	6,210.9	6,387.9	6,207.5	6,120.6	6,151.9	6,084.9
65–74 years	4,873.8	4,048.9	4,105.2	3,994.6	3,929.2	3,885.4	3,813.0
75 years and over	11,432.6	10,308.8	10,735.6	10,367.8	10,190.9	10,364.4	10,291.5
75–84 years	10,010.2	8,565.4	8,816.7	8,519.6	8,391.4	8,539.1	8,445.9
85 years and over	17,821.5	17,604.4	18,801.1	18,138.2	17,782.0	17,977.4	18,119.1
White							
55–64 years	2,202.6	1,734.5	1,728.5	1,692.0	1,654.6	1,642.9	1,625.5
65 years and over	7,236.9	6,221.8	6,377.3	6,205.4	6,118.3	6,146.3	6,078.0
65–74 years	4,810.1	3,991.5	4,035.7	3,926.9	3,859.8	3,816.1	3,745.3
75 years and over	11,606.5	10,429.0	10,809.3	10,474.5	10,307.8	10,465.3	10,380.2
75–84 years	10,098.8	8,624.0	8,829.8	8,565.2	8,444.7	8,556.9	8,459.1
85 years and over	20,392.6	17,924.0	19,097.3	18,454.0	18,123.1	18,443.3	18,552.7
Black							
55–64 years	3,256.9	2,794.6	2,873.0	2,804.1	2,758.1	2,713.1	2,658.3
65 years and over	7,151.7	6,403.6	6,919.2	6,701.8	6,658.8	6,725.0	6,671.3
65–74 years	5,803.2	4,916.8	5,131.1	5,046.3	5,040.1	4,949.3	4,874.5
75 years and over	10,047.9	9,295.2	10,526.7	9,900.0	9,708.6	10,127.4	10,150.6
75–84 years	9,454.9	8,165.5	9,231.6	8,635.1	8,477.2	9,100.0	9,023.1
85 years and over	14,415.4	14,465.4	16,098.8	15,396.4	15,117.9	14,155.6	14,642.9
FEMALE							
All races ¹							
55–64 years	1,098.9	917.7	934.3	925.2	913.9	923.8	918.4
65 years and over	4,950.8	4,280.1	4,484.2	4,370.1	4,329.4	4,413.3	4,438.2
65–74 years	2,579.7	2,072.3	2,144.7	2,100.6	2,084.7	2,092.3	2,096.4
75 years and over	8,518.4	7,330.3	7,699.8	7,423.1	7,297.5	7,457.3	7,465.9
75–84 years	6,677.6	5,270.7	5,440.1	5,201.0	5,120.7	5,200.0	5,188.2
85 years and over	15,518.0	13,788.2	14,746.9	14,202.5	13,895.2	14,010.6	14,053.9
White							
55–64 years	1,014.9	862.8	876.2	869.4	859.8	867.8	864.9
65 years and over	4,952.8	4,287.4	4,482.7	4,378.5	4,343.7	4,423.9	4,448.7
65–74 years	2,470.7	1,997.9	2,066.6	2,032.8	2,022.9	2,024.7	2,032.5
75 years and over	8,610.9	7,393.3	7,740.2	7,479.3	7,359.7	7,510.8	7,511.1
75–84 years	6,698.7	5,258.6	5,401.7	5,176.3	5,100.7	5,162.2	5,140.0
85 years and over	16,729.5	14,027.9	14,979.6	14,438.2	14,123.9	14,278.3	14,319.6
Black							
55–64 years	1,986.2	1,502.7	1,561.0	1,527.9	1,498.3	1,526.3	1,489.7
65 years and over	5,150.9	4,381.1	4,769.8	4,578.1	4,500.4	4,655.8	4,706.3
65–74 years	3,860.9	2,914.6	3,057.4	2,929.7	2,863.0	2,930.6	2,907.4
75 years and over	7,642.8	6,802.2	7,615.0	7,207.7	7,037.5	7,353.3	7,476.0
75–84 years	6,691.5	5,594.4	6,212.1	5,822.3	5,708.5	6,064.6	6,184.1
85 years and over	12,131.7	10,982.7	12,367.2	11,933.0	11,660.0	11,329.5	11,439.1

¹Includes races other than white and black.

SOURCES: National Center for Health Statistics: *Vital Statistics of the United States*, Vol. II, Mortality, Part A. Public Health Service, Washington, U.S. Government Printing Office. Published annually; selected rates computed by the Office of Planning and Extramural Programs from data compiled by the Division of Vital Statistics, National Center for Health Statistics.

Table 2. Life expectancy at specified ages, by race and sex: United States, 1970, 1979, and 1984

[Data are based on the National Vital Statistics System]

Age and year	All races ¹			White			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
At birth									
Remaining life expectancy in years									
1970.....	70.8	67.1	74.7	71.7	68.0	75.6	64.1	60.0	68.3
1979.....	73.9	70.0	77.8	74.6	70.8	78.4	68.5	64.0	72.9
1984.....	74.7	71.2	78.2	75.3	71.8	78.7	69.7	65.6	73.7
At 65 years									
1970.....	15.2	13.1	17.0	15.2	13.1	17.1	14.2	12.5	15.7
1979.....	16.7	14.3	18.7	16.8	14.4	18.8	15.5	13.5	17.3
1984.....	16.8	14.6	18.6	16.9	14.6	18.7	15.5	13.5	17.2
At 75 years									
1970.....	9.6	8.3	10.5	9.5	8.3	10.4	9.9	8.8	10.9
1979.....	10.7	9.1	11.9	10.7	9.0	11.9	10.4	9.0	11.6
1984.....	10.7	9.0	11.8	10.7	9.0	11.8	10.4	8.9	11.3
At 85 years									
1970.....	5.8	5.3	6.1	5.6	5.2	5.9	6.6	5.9	7.0
1979.....	6.3	5.4	6.8	6.2	5.3	6.8	6.1	5.0	6.9
1984.....	6.1	5.2	6.5	6.0	5.1	6.5	6.8	5.8	7.3

¹Includes races other than white and black.

SOURCE: National Center for Health Statistics: *Vital Statistics of the United States*, Vol. II, Mortality, Part A. Public Health Service. Washington, U.S. Government Printing Office. Published annually.

Table 3. Death rates for the 10 leading causes of death for persons 55 years of age and over in rank order, by age: United States, 1984

[Data are based on the National Vital Statistics System]

R a n k	Age, cause of death, and International Classification of Diseases code ¹	Number of deaths per 100,000 resident population	R a n k	Age, cause of death, and International Classification of Diseases code ¹	Number of deaths per 100,000 resident population
55-64 years			75-84 years		
...	All causes	1,287.8	...	All causes	6,399.3
1	Diseases of heart 390-398, 402, 404-429	450.3	1	Diseases of heart 390-398, 402, 404-429	2,748.6
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues 140-208	448.4	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues 140-208	1,272.3
3	Cerebrovascular diseases 430-438	55.8	3	Cerebrovascular diseases 430-438	626.2
4	Chronic obstructive pulmonary diseases and allied conditions 490-496	46.0	4	Chronic obstructive pulmonary diseases and allied conditions 490-496	270.3
5	Accidents and adverse effects E800-E949	36.0	5	Pneumonia and influenza 480-487	216.0
6	Chronic liver disease and cirrhosis 571	35.0	6	Diabetes mellitus 250	126.1
7	Diabetes mellitus 250	24.6	7	Accidents and adverse effects E800-E949	107.2
8	Suicide E950-E959	17.3	8	Atherosclerosis 440	88.4
9	Pneumonia and influenza 480-487	16.8	9	Nephritis, nephrotic syndrome, and nephrosis . . . 580-589	76.1
10	Nephritis, nephrotic syndrome, and nephrosis . . . 580-589	9.2	10	Septicemia 038	51.7
65-74 years			85 years and over		
...	All causes	2,848.1	...	All causes	15,223.6
1	Diseases of heart 390-398, 402, 404-429	1,102.7	1	Diseases of heart 390-398, 402, 404-429	7,251.0
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues 140-208	835.1	2	Cerebrovascular diseases 430-438	1,883.8
3	Cerebrovascular diseases 430-438	177.0	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues 140-208	1,604.0
4	Chronic obstructive pulmonary diseases and allied conditions 490-496	141.4	4	Pneumonia and influenza 480-487	883.2
5	Diabetes mellitus 250	59.4	5	Atherosclerosis 440	488.4
6	Pneumonia and influenza 480-487	53.7	6	Chronic obstructive pulmonary diseases and allied conditions 490-496	331.0
7	Accidents and adverse effects E800-E949	50.3	7	Accidents and adverse effects E800-E949	256.9
8	Chronic liver disease and cirrhosis 571	39.3	8	Diabetes mellitus 250	216.8
9	Nephritis, nephrotic syndrome, and nephrosis . . . 580-589	26.8	9	Nephritis, nephrotic syndrome, and nephrosis . . . 580-589	201.0
10	Septicemia 038	19.8	10	Septicemia 038	142.1

¹Coded according to the 9th Revision, International Classification of Diseases. (See reference 1.)

SOURCE: National Center for Health Statistics: *Monthly Vital Statistics Report*. Vol. 35, No. 6 Supp. 2. DHHS Pub. No. (PHS) 86-1120. Public Health Service. Hyattsville, Md., Sept. 26, 1986.

Table 4. Death rates for diseases of heart among persons 55 years of age and over, by sex, race, and age: United States, 1979-84

[Data are based on the National Vital Statistics System]

Sex, race, and age	1979	1980	1981	1982	1983	1984
MALE						
All races ¹						
Number of deaths per 100,000 resident population						
55-64 years	760.2	746.8	725.6	705.6	690.6	670.7
65 years and over.	2,714.8	2,778.3	2,683.3	2,638.8	2,622.8	2,546.9
65-74 years	1,714.8	1,728.0	1,668.9	1,639.2	1,607.6	1,537.2
75 years and over.	4,611.6	4,778.2	4,590.5	4,495.5	4,509.6	4,416.6
75-84 years	3,744.4	3,834.3	3,689.2	3,612.4	3,618.0	3,535.2
85 years and over.	8,240.8	8,752.7	8,379.6	8,221.3	8,288.0	8,154.8
White						
55-64 years	746.1	730.6	708.7	689.9	674.1	655.5
65 years and over.	2,755.0	2,812.4	2,719.8	2,671.7	2,653.1	2,576.1
65-74 years	1,718.0	1,729.7	1,669.9	1,636.2	1,603.6	1,533.0
75 years and over.	4,711.3	4,861.6	4,686.9	4,592.4	4,598.4	4,499.9
75-84 years	3,808.9	3,883.2	3,751.5	3,674.7	3,664.3	3,579.3
85 years and over.	8,458.5	8,958.0	8,596.0	8,442.2	8,503.4	8,416.4
Black						
55-64 years	969.3	987.2	981.5	950.4	928.0	895.9
65 years and over.	2,453.6	2,623.6	2,518.1	2,517.5	2,542.1	2,474.0
65-74 years	1,805.7	1,847.2	1,812.7	1,822.5	1,804.5	1,734.7
75 years and over.	3,713.8	4,190.0	3,881.0	3,826.8	3,955.5	3,905.4
75-84 years	3,193.7	3,578.8	3,302.5	3,245.9	3,457.5	3,375.7
85 years and over.	6,094.2	6,819.5	6,394.5	6,378.6	5,907.9	6,015.9
FEMALE						
All races ¹						
55-64 years	269.2	272.1	267.4	260.9	262.2	255.4
65 years and over.	1,944.5	2,027.4	1,958.4	1,945.4	1,966.7	1,945.2
65-74 years	805.8	828.6	798.0	786.2	770.0	764.3
75 years and over.	3,517.8	3,674.8	3,519.4	3,478.1	3,526.9	3,472.0
75-84 years	2,439.8	2,497.0	2,357.0	2,325.8	2,341.7	2,283.2
85 years and over.	6,897.8	7,350.5	7,065.9	6,970.8	6,967.8	6,885.9
White						
55-64 years	246.1	248.1	243.7	237.9	237.5	231.6
65 years and over.	1,960.4	2,040.0	1,974.1	1,964.4	1,980.5	1,957.0
65-74 years	775.0	796.7	769.4	759.6	745.6	735.3
75 years and over.	3,568.4	3,716.4	3,566.5	3,530.1	3,569.3	3,505.6
75-84 years	2,447.1	2,493.6	2,359.0	2,331.7	2,332.4	2,273.1
85 years and over.	7,053.7	7,501.6	7,215.1	7,118.6	7,133.7	7,044.7
Black						
55-64 years	513.5	530.1	517.2	501.9	517.7	499.6
65 years and over.	1,870.0	2,036.2	1,709.8	1,909.1	1,997.0	1,975.5
65-74 years	1,158.9	1,210.3	1,152.3	1,124.3	1,159.8	1,127.1
75 years and over.	3,044.0	3,411.2	2,599.2	3,125.2	3,305.9	3,281.7
75-84 years	2,461.4	2,707.2	2,509.4	2,445.0	2,660.1	2,618.9
85 years and over.	5,060.6	5,796.5	5,583.9	5,491.3	5,298.4	5,315.0

¹Includes races other than white and black.

NOTE: Diseases of the heart comprise codes 390-398, 402, and 404-429 of the 9th Revision, *International Classification of Diseases*. (See reference 1.)

SOURCES: National Center for Health Statistics: *Vital Statistics of the United States*, Vol. II, Mortality, Part A. Public Health Service. Washington, U.S. Government Printing Office. Published annually; selected rates computed by the Office of Planning and Extramural Programs from data compiled by the Division of Vital Statistics, National Center for Health Statistics.

Table 5. Death rates for ischemic heart disease among persons 55 years of age and over, by sex, race, and age: United States, 1979-84

[Data are based on the National Vital Statistics System]

Sex, race, and age	1979	1980	1981	1982	1983	1984
MALE						
All races ¹						
Number of deaths per 100,000 resident population						
55-64 years	599.3	581.1	559.8	541.1	517.4	495.9
65 years and over.....	2,115.4	2,140.2	2,047.4	2,002.0	1,950.7	1,869.9
65-74 years	1,360.5	1,355.5	1,299.8	1,267.9	1,218.2	1,145.3
75 years and over.....	3,547.3	3,634.5	3,453.0	3,365.6	3,312.1	3,211.6
75-84 years	2,916.2	2,953.7	2,813.4	2,744.0	2,699.5	2,618.0
85 years and over.....	6,188.6	6,501.6	6,141.8	5,987.7	5,867.2	5,729.4
White						
55-64 years	604.0	585.5	562.3	544.5	521.2	499.9
65 years and over.....	2,181.2	2,200.9	2,108.6	2,060.4	2,008.2	1,925.7
65-74 years	1,391.2	1,384.6	1,325.9	1,293.4	1,243.3	1,169.0
75 years and over.....	3,671.5	3,746.0	3,575.2	3,483.2	3,426.0	3,321.5
75-84 years	3,010.9	3,035.2	2,904.7	2,834.7	2,780.3	2,695.5
85 years and over.....	6,414.6	6,721.9	6,377.1	6,203.7	6,125.3	5,984.3
Black						
55-64 years	597.8	588.3	591.7	565.9	531.1	510.5
65 years and over.....	1,545.1	1,651.7	1,561.3	1,539.5	1,517.1	1,442.6
65-74 years	1,134.2	1,157.1	1,137.7	1,102.6	1,067.7	1,004.4
75 years and over.....	2,344.1	2,649.5	2,379.6	2,362.6	2,378.4	2,291.1
75-84 years	2,018.9	2,268.6	2,046.0	1,990.7	2,068.4	1,991.6
85 years and over.....	3,832.7	4,287.9	3,829.1	3,996.4	3,593.7	3,484.1
FEMALE						
All races ¹						
55-64 years	188.9	189.0	184.6	179.2	176.9	170.4
65 years and over.....	1,432.0	1,477.9	1,413.2	1,392.0	1,383.1	1,347.4
65-74 years	594.7	605.3	579.7	568.3	551.9	536.6
75 years and over.....	2,588.9	2,677.0	2,535.9	2,481.4	2,473.1	2,395.6
75-84 years	1,815.1	1,842.7	1,719.6	1,680.6	1,665.3	1,604.4
85 years and over.....	5,014.9	5,280.6	5,026.0	4,908.3	4,818.2	4,684.0
White						
55-64 years	178.9	177.9	174.2	168.9	166.8	160.7
65 years and over.....	1,463.8	1,508.9	1,443.7	1,425.4	1,413.3	1,378.1
65-74 years	586.9	597.3	571.3	562.2	543.6	530.2
75 years and over.....	2,653.4	2,738.0	2,597.0	2,547.1	2,532.3	2,452.8
75-84 years	1,844.5	1,866.6	1,745.7	1,710.5	1,684.4	1,623.0
85 years and over.....	5,167.4	5,435.5	5,169.2	5,052.0	4,975.6	4,835.2
Black						
55-64 years	302.0	316.0	301.6	294.0	290.4	277.5
65 years and over.....	1,158.5	1,244.8	1,197.0	1,149.7	1,180.0	1,146.4
65-74 years	705.2	729.6	711.3	677.3	681.9	652.6
75 years and over.....	1,906.9	2,102.6	1,971.7	1,881.6	1,958.8	1,906.8
75-84 years	1,545.3	1,674.7	1,536.6	1,466.3	1,584.9	1,531.6
85 years and over.....	3,158.7	3,552.2	3,455.4	3,326.1	3,112.4	3,057.9

¹Includes races other than white and black.

NOTE: Ischemic heart disease comprises codes 410-414 of the 9th Revision, *International Classification of Diseases*. (See reference 1.)

SOURCES: National Center for Health Statistics: *Vital Statistics of the United States*, Vol. II, Mortality, Part A. Public Health Service, Washington, U.S. Government Printing Office. Published annually; selected rates computed by the Office of Planning and Extramural Programs from data compiled by the Division of Vital Statistics, National Center for Health Statistics.

Table 6. Death rates for cerebrovascular diseases among persons 55 years of age and over, by sex, race, and age: United States, 1979-84

[Data are based on the National Vital Statistics System]

Sex, race, and age	1979	1980	1981	1982	1983	1984
MALE						
All races ¹						
Number of deaths per 100,000 resident population						
55-64 years	79.4	74.7	71.6	67.3	65.9	63.6
65 years and over.....	564.2	556.9	516.0	484.7	464.7	447.7
65-74 years	267.6	259.2	242.1	228.2	212.7	205.4
75 years and over.....	1,126.7	1,123.7	1,022.8	961.1	933.0	892.8
75-84 years	873.0	868.3	785.1	736.7	720.3	679.7
85 years and over.....	2,188.3	2,199.2	2,022.3	1,908.0	1,820.2	1,797.0
White						
55-64 years	68.0	64.2	61.6	57.3	56.5	54.3
65 years and over.....	554.7	544.9	502.5	474.3	456.2	438.0
65-74 years	249.5	240.4	225.3	211.5	197.1	190.4
75 years and over.....	1,130.5	1,121.2	1,022.0	961.6	936.4	894.8
75-84 years	867.0	854.8	775.6	727.3	714.8	671.1
85 years and over.....	2,224.5	2,236.9	2,051.4	1,944.7	1,862.9	1,846.4
Black						
55-64 years	204.0	189.8	182.3	174.3	163.8	159.0
65 years and over.....	691.7	720.3	663.7	634.0	588.7	568.9
65-74 years	470.9	472.8	437.0	428.1	388.0	379.8
75 years and over.....	1,121.0	1,219.6	1,101.7	1,021.9	973.2	935.0
75-84 years	963.9	1,067.6	943.9	881.7	844.1	819.5
85 years and over.....	1,840.4	1,873.2	1,787.3	1,637.5	1,479.4	1,395.2
FEMALE						
All races ¹						
55-64 years	58.2	56.9	55.3	51.6	50.3	48.8
65 years and over.....	584.8	583.9	547.8	519.9	503.3	495.1
65-74 years	195.8	189.0	178.8	167.0	158.6	154.9
75 years and over.....	1,122.3	1,126.6	1,044.2	986.6	955.5	934.9
75-84 years	747.0	741.6	674.8	639.0	612.7	594.7
85 years and over.....	2,298.9	2,328.2	2,171.4	2,039.9	1,950.6	1,918.9
White						
55-64 years	50.6	48.7	47.7	44.0	42.6	42.0
65 years and over.....	581.8	580.5	544.7	518.0	500.6	492.3
65-74 years	179.2	172.8	163.6	154.2	144.6	140.9
75 years and over.....	1,127.9	1,130.1	1,048.5	990.8	958.7	937.7
75-84 years	739.3	730.3	665.4	628.9	602.0	580.9
85 years and over.....	2,335.7	2,367.8	2,206.0	2,074.5	1,986.5	1,962.5
Black						
55-64 years	133.9	138.7	129.8	127.5	126.0	112.6
65 years and over.....	645.1	654.6	619.0	577.5	572.9	565.6
65-74 years	373.8	362.2	345.1	305.3	308.4	304.6
75 years and over.....	1,093.1	1,141.4	1,055.9	999.2	986.5	967.5
75-84 years	865.3	918.6	828.3	800.8	786.7	803.4
85 years and over.....	1,881.7	1,896.3	1,832.1	1,689.6	1,603.1	1,470.7

¹ Includes races other than white and black.

NOTE: Cerebrovascular diseases comprise codes 430-438 of the 9th Revision, International Classification of Diseases. (See reference 1.)

SOURCES: National Center for Health Statistics: *Vital Statistics of the United States*, Vol. II, Mortality, Part A. Public Health Service, Washington, U.S. Government Printing Office. Published annually; selected rates computed by the Office of Planning and Extramural Programs from data compiled by the Division of Vital Statistics, National Center for Health Statistics.

Table 7. Death rates for malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues, among persons 55 years of age and over, by sex, race, and age: United States, 1979-84

[Data are based on the National Vital Statistics System]

Sex, race, and age	1979	1980	1981	1982	1983	1984
MALE						
All races ¹						
Number of deaths per 100,000 resident population						
55-64 years	514.2	520.8	518.1	522.4	524.2	530.7
65 years and over	1,346.0	1,371.4	1,359.7	1,380.8	1,383.6	1,387.2
65-74 years	1,080.2	1,093.2	1,086.4	1,093.2	1,088.5	1,088.0
75 years and over	1,850.3	1,901.4	1,873.6	1,914.9	1,932.1	1,941.2
75-84 years	1,750.4	1,790.5	1,760.0	1,797.6	1,823.3	1,826.6
85 years and over	2,268.3	2,369.5	2,350.9	2,409.7	2,385.8	2,427.2
White						
55-64 years	491.8	497.4	494.4	497.3	499.5	504.5
65 years and over	1,335.0	1,355.5	1,341.0	1,332.0	1,364.9	1,367.5
65-74 years	1,061.2	1,070.7	1,060.3	1,067.8	1,063.7	1,064.1
75 years and over	1,851.7	1,894.7	1,867.1	1,822.1	1,923.2	1,927.1
75-84 years	1,747.3	1,779.7	1,749.5	1,790.0	1,805.3	1,806.9
85 years and over	2,285.1	2,375.6	2,358.7	2,413.4	2,416.3	2,438.6
Black						
55-64 years	790.8	812.5	814.8	838.2	821.6	841.7
65 years and over	1,542.4	1,642.9	1,673.0	1,708.6	1,712.5	1,727.8
65-74 years	1,360.3	1,417.2	1,462.1	1,477.3	1,457.4	1,444.9
75 years and over	1,896.6	2,098.2	2,080.3	2,144.4	2,201.3	2,275.5
75-84 years	1,833.2	2,029.6	2,010.5	2,048.4	2,196.8	2,226.3
85 years and over	2,186.5	2,393.9	2,383.6	2,566.1	2,219.0	2,471.4
FEMALE						
All races ¹						
55-64 years	354.7	361.7	361.7	367.2	371.3	375.6
65 years and over	742.7	767.8	769.6	781.7	791.0	808.3
65-74 years	585.6	607.1	606.6	619.2	628.7	638.1
75 years and over	959.7	988.6	988.9	996.5	1,003.8	1,028.3
75-84 years	885.8	903.1	905.2	910.7	918.1	944.2
85 years and over	1,191.6	1,255.7	1,244.2	1,256.5	1,252.8	1,271.5
White						
55-64 years	348.9	355.5	356.3	361.5	366.8	370.0
65 years and over	746.0	770.6	773.3	785.4	794.1	812.1
65-74 years	583.1	605.2	605.7	618.4	627.4	638.6
75 years and over	993.6	993.6	994.7	1,002.5	1,008.7	1,032.0
75-84 years	889.7	905.4	907.8	913.0	919.5	944.2
85 years and over	1,207.5	1,266.8	1,257.2	1,270.6	1,265.7	1,284.3
Black						
55-64 years	431.8	450.4	446.4	455.4	452.9	462.2
65 years and over	735.5	780.8	775.4	796.8	818.0	828.6
65-74 years	638.9	662.4	656.2	674.9	694.2	685.8
75 years and over	895.0	977.9	965.6	985.6	1,011.6	1,048.4
75-84 years	863.1	923.9	916.2	944.3	972.4	1,013.7
85 years and over	1,005.8	1,159.9	1,133.9	1,129.6	1,132.6	1,154.9

¹Includes races other than white and black.

NOTE: Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues, comprise codes 140-208 of the 9th Revision, *International Classification of Diseases*. (See reference 1.)

SOURCES: National Center for Health Statistics: *Vital Statistics of the United States*, Vol. II, Mortality, Part A. Public Health Service, Washington, U.S. Government Printing Office. Published annually; selected rates computed by the Office of Planning and Extramural Programs from data compiled by the Division of Vital Statistics, National Center for Health Statistics.

Table 8. Death rates for malignant neoplasms of the respiratory and intrathoracic organs among persons 55 years of age and over, by sex, race, and age: United States, 1979-84

[Data are based on the National Vital Statistics System]

Sex, race, and age	1979	1980	1981	1982	1983	1984
MALE						
All races ¹						
	Number of deaths per 100,000 resident population					
55-64 years	221.5	223.8	222.9	227.3	224.6	231.2
65 years and over	429.3	444.5	444.8	457.4	459.2	463.7
65-74 years	409.7	422.0	420.1	429.7	425.9	426.6
75 years and over	466.3	487.4	491.3	508.9	521.0	532.6
75-84 years	488.3	511.5	509.9	527.0	544.8	553.7
85 years and over	374.4	386.3	413.5	432.6	421.9	442.8
White						
55-64 years	212.4	215.0	212.8	216.8	215.2	220.0
65 years and over	430.8	443.9	443.7	456.3	458.3	461.5
65-74 years	408.0	418.4	415.1	424.1	420.7	421.3
75 years and over	473.7	492.1	497.4	515.8	528.0	535.7
75-84 years	495.9	516.1	515.8	534.1	550.1	556.5
85 years and over	381.2	391.5	420.6	439.1	435.9	446.8
Black						
55-64 years	338.1	340.3	356.0	367.6	346.2	373.0
65 years and over	443.8	489.4	498.5	520.8	516.7	534.9
65-74 years	466.0	499.4	518.7	540.6	530.3	529.3
75 years and over	400.7	469.0	459.5	483.4	490.6	545.9
75-84 years	421.8	499.6	486.2	505.7	536.8	576.5
85 years and over	303.8	337.7	343.6	385.7	309.5	423.8
FEMALE						
All races ¹						
55-64 years	70.0	74.5	78.4	83.8	87.6	89.7
65 years and over	91.3	102.5	106.0	114.0	122.9	129.0
65-74 years	94.3	106.1	111.4	120.2	129.6	135.1
75 years and over	87.3	97.6	98.8	105.7	114.5	121.1
75-84 years	89.8	98.0	101.3	108.9	120.7	128.0
85 years and over	79.6	96.3	91.4	96.2	96.7	101.0
White						
55-64 years	70.2	74.2	78.3	83.9	87.8	89.9
65 years and over	92.9	104.1	108.1	116.2	125.0	132.0
65-74 years	96.5	108.1	114.1	123.6	132.3	139.2
75 years and over	88.1	98.7	100.1	106.7	115.7	122.8
75-84 years	90.5	99.3	102.7	110.2	122.2	129.2
85 years and over	80.6	96.8	92.0	96.1	96.7	102.5
Black						
55-64 years	72.4	83.8	89.1	92.8	97.2	98.4
65 years and over	74.8	88.6	87.5	97.3	108.7	106.0
65-74 years	73.6	91.7	89.6	98.0	110.2	106.1
75 years and over	76.7	83.3	84.2	96.3	105.7	105.9
75-84 years	79.2	81.1	83.5	98.5	108.5	112.3
85 years and over	68.3	90.5	86.6	88.7	96.9	86.5

¹Includes races other than white and black.

NOTE: Malignant neoplasms of the respiratory and intrathoracic organs comprise codes 160-165 of the 9th Revision, *International Classification of Diseases*. (See reference 1.)

SOURCES: National Center for Health Statistics: *Vital Statistics of the United States*, Vol. II, Mortality, Part A. Public Health Service, Washington, U.S. Government Printing Office. Published annually; selected rates computed by the Office of Planning and Extramural Programs from data compiled by the Division of Vital Statistics, National Center for Health Statistics.

Table 9. Death rates for suicide among persons 55 years of age and over, by sex, race, and age: United States, 1979-84

[Data are based on the National Vital Statistics System]

Sex, race, and age	1979	1980	1981	1982	1983	1984
MALE						
All races ¹						
Number of deaths per 100,000 resident population						
55-64 years	24.9	24.5	25.0	26.2	25.8	27.2
65 years and over.	36.2	35.0	33.5	36.4	37.8	38.9
65-74 years	31.4	30.4	28.4	31.1	31.2	33.5
75 years and over.	44.7	43.9	43.1	46.1	49.9	49.1
75-84 years	44.7	42.3	41.4	45.1	49.1	48.5
85 years and over.	47.6	50.6	50.2	50.2	53.0	51.7
White						
55-64 years	26.3	25.8	26.3	27.9	27.4	28.8
65 years and over.	38.6	37.5	35.7	38.9	40.2	41.6
65-74 years	33.4	32.5	30.3	33.1	33.2	35.6
75 years and over.	48.5	46.9	45.7	49.5	53.3	52.7
75-84 years	48.0	45.5	43.8	48.5	52.5	52.0
85 years and over.	50.2	52.8	53.6	53.9	56.8	55.8
Black						
55-64 years	12.8	11.7	12.5	11.9	11.6	13.4
65 years and over.	12.8	11.4	12.2	12.4	14.2	14.0
65-74 years	13.5	11.1	9.7	12.1	13.6	13.8
75 years and over.	11.4	12.1	17.0	12.9	15.2	14.3
75-84 years	10.5	10.5	18.0	12.2	15.8	15.1
85 years and over.	15.4	18.9	12.7	16.1	12.7	11.1
FEMALE						
All races ¹						
55-64 years	9.3	8.4	8.8	8.8	8.4	8.5
65 years and over.	6.9	6.1	6.0	6.2	6.7	6.7
65-74 years	7.4	6.5	6.8	6.9	7.3	7.3
75 years and over.	6.1	5.4	4.8	5.3	6.0	5.9
75-84 years	6.5	5.5	5.2	5.8	6.4	6.3
85 years and over.	4.7	5.5	3.8	3.9	5.1	4.9
White						
55-64 years	9.9	9.1	9.4	9.5	9.1	9.1
65 years and over.	7.2	6.5	6.3	6.6	7.2	7.2
65-74 years	7.8	7.0	7.3	7.4	7.9	7.8
75 years and over.	6.3	5.7	5.1	5.6	6.3	6.3
75-84 years	6.7	5.7	5.5	6.1	6.6	6.8
85 years and over.	5.0	5.8	3.7	3.9	5.3	5.1
Black						
55-64 years	3.8	2.3	2.9	2.2	1.7	3.1
65 years and over.	2.4	1.4	2.3	1.8	1.4	1.8
65-74 years	2.6	1.7	3.0	2.1	1.3	2.5
75 years and over.	2.2	1.1	1.2	1.2	1.5	0.6
75-84 years	2.5	1.4	1.0	1.3	1.3	0.5
85 years and over.	1.0	-	1.8	0.9	2.3	0.8

¹Includes races other than white and black.

NOTE: Suicide comprises codes E950-E959 of the 9th Revision, *International Classification of Diseases*. (See reference 1.)

SOURCES: National Center for Health Statistics: *Vital Statistics of the United States*, Vol. II, Mortality, Part A. Public Health Service. Washington, U.S. Government Printing Office. Published annually; selected rates computed by the Office of Planning and Extramural Programs from data compiled by the Division of Vital Statistics, National Center for Health Statistics.

Table 10. Number and percent distributions of resident population by age, according to race and sex: United States, 1979-85

Race, sex, and age	1979		1980		1981		1982		1983		1984		1985	
	Number in thousands	Percent distribution	Number in thousands	Percent distribution	Number in thousands	Percent distribution	Number in thousands	Percent distribution	Number in thousands	Percent distribution	Number in thousands	Percent distribution	Number in thousands	Percent distribution
Total¹														
All ages	224,567	100.0	226,546	100.0	229,348	100.0	231,786	100.0	234,023	100.0	236,495	100.0	238,740	100.0
55-64 years	21,448	9.6	21,703	9.6	21,936	9.6	22,113	9.5	22,234	9.5	22,314	9.4	22,334	9.4
65 years and over	25,134	11.2	25,549	11.3	26,261	11.5	26,828	11.6	27,473	11.7	27,966	11.8	28,530	12.0
65-74 years	15,338	6.8	15,581	6.9	15,900	6.9	16,145	7.0	16,504	7.1	16,733	7.1	16,995	7.1
75 years and over	9,796	4.4	9,969	4.4	10,361	4.5	10,683	4.6	10,969	4.7	11,233	4.7	11,535	4.8
75-84 years	7,599	3.4	7,729	3.4	8,004	3.5	8,246	3.6	8,402	3.6	8,609	3.6	8,824	3.7
85 years and over	2,197	1.0	2,240	1.0	2,357	1.0	2,437	1.1	2,567	1.1	2,624	1.1	2,711	1.1
White male														
All ages	94,482	100.0	94,976	100.0	95,896	100.0	96,582	100.0	97,327	100.0	98,253	100.0	99,006	100.0
55-64 years	9,061	9.6	9,151	9.6	9,226	9.6	9,284	9.6	9,328	9.6	9,355	9.5	9,356	9.4
65 years and over	9,176	9.7	9,317	9.8	9,555	10.0	9,744	10.1	9,993	10.3	10,177	10.3	10,390	10.5
65-74 years	5,997	6.3	6,096	6.4	6,230	6.5	6,331	6.6	6,491	6.7	6,599	6.7	6,720	6.8
75 years and over	3,179	3.4	3,221	3.4	3,325	3.5	3,413	3.5	3,502	3.6	3,578	3.6	3,670	3.7
75-84 years	2,562	2.7	2,600	2.7	2,683	2.8	2,756	2.9	2,826	2.9	2,897	2.9	2,975	3.0
85 years and over	617	0.7	621	0.7	642	0.7	657	0.7	676	0.7	681	0.7	695	0.7
Black male														
All ages	12,448	100.0	12,585	100.0	12,837	100.0	13,079	100.0	13,279	100.0	13,480	100.0	13,683	100.0
55-64 years	845	6.8	854	6.8	863	6.7	871	6.7	911	6.9	927	6.9	939	6.9
65 years and over	854	6.9	848	6.7	862	6.7	871	6.7	904	6.8	922	6.8	940	6.9
65-74 years	564	4.5	567	4.5	568	4.4	569	4.4	594	4.5	608	4.5	619	4.5
75 years and over	290	2.3	281	2.2	294	2.3	302	2.3	310	2.3	314	2.3	321	2.3
75-84 years	238	1.9	228	1.8	239	1.9	246	1.9	247	1.9	251	1.9	256	1.9
85 years and over	52	0.4	53	0.4	55	0.4	56	0.4	63	0.5	63	0.5	65	0.5
White female														
All ages	99,253	100.0	99,835	100.0	100,768	100.0	101,495	100.0	102,266	100.0	103,047	100.0	103,762	100.0
55-64 years	10,216	10.3	10,325	10.3	10,419	10.3	10,473	10.3	10,472	10.2	10,471	10.2	10,438	10.1
65 years and over	13,621	13.7	13,848	13.9	14,240	14.1	14,540	14.3	14,840	14.5	15,081	14.6	15,353	14.8
65-74 years	7,841	7.9	7,951	8.0	8,107	8.0	8,217	8.1	8,350	8.2	8,430	8.2	8,529	8.2
75 years and over	5,780	5.8	5,897	5.9	6,133	6.1	6,323	6.2	6,490	6.3	6,651	6.5	6,824	6.6
75-84 years	4,373	4.4	4,457	4.5	4,608	4.6	4,740	4.7	4,818	4.7	4,933	4.8	5,045	4.9
85 years and over	1,407	1.4	1,440	1.4	1,525	1.5	1,583	1.6	1,672	1.6	1,718	1.7	1,779	1.7
Black female														
All ages	13,862	100.0	14,046	100.0	14,316	100.0	14,573	100.0	14,793	100.0	14,991	100.0	15,204	100.0
55-64 years	1,044	7.5	1,059	7.5	1,085	7.6	1,104	7.6	1,120	7.6	1,131	7.5	1,144	7.5
65 years and over	1,230	8.9	1,242	8.8	1,282	9.0	1,313	9.0	1,351	9.1	1,374	9.2	1,403	9.2
65-74 years	766	5.5	776	5.5	788	5.5	798	5.5	824	5.6	833	5.6	845	5.6
75 years and over	464	3.3	466	3.3	494	3.5	515	3.5	527	3.6	541	3.6	559	3.7
75-84 years	360	2.6	360	2.6	382	2.7	400	2.7	398	2.7	408	2.7	419	2.8
85 years and over	104	0.8	106	0.8	112	0.8	115	0.8	129	0.9	133	0.9	140	0.9

¹Includes races other than white and black.

NOTE: 1980 population enumerated as of April 1; all other years estimated as of July 1.

SOURCE: U.S. Bureau of the Census: *Current Population Reports*. Series P-25, Nos. 917, 929, 949, 965 and 985. Washington. U.S. Government Printing Office; U.S. Bureau of the Census: unpublished data.

Chapter II

International comparisons

By Louie Albert Woolbright, Ph.D., National Center for Health Statistics

Introduction

The significance of the elderly and the problems presented by an aging population are being recognized by many countries and international organizations. There are two reasons that countries now have a much higher proportion of their populations in the older ages than ever before in history. The major reason is a marked decline in fertility, significantly reducing the numbers of persons in the younger age groups. The second reason is the notable increase in life expectancy since the beginning of this century. Life expectancy has increased more for women than for men, increasing the sex differentials in life expectancy for the aged. Because women have a higher life expectancy and often marry men older than themselves, they spend more years in the widowed state than men do.

Many countries are establishing research centers for the study of aging and are funding research in gerontology. Individual countries and international organizations are addressing the need for more data on older persons. For example, a fact book on the health of the elderly has been prepared for Manitoba, Canada.¹² It contains national information on older Canadians as well as information for other provinces. The potential impact of the aged on health care costs in Canada has been recognized, and it has been emphasized that better biological data on morbidity are needed to make more accurate projections.

The aging of the Japanese population is of great concern to Japanese scholars and public officials.¹³ Because of the rapid decline in fertility in Japan, the Japanese population has aged in one-half the time that it took for the populations of the other more developed countries to age. This very rapid rise in the proportion of the population in the older age groups and the special social position of older persons in Japanese society is creating significant social problems. The increase in the number of Japanese aged living alone is also of concern.¹³

Another country that is especially concerned about the older population is Israel. Because of the timing of its immigration and the age of its immigrants, the Israeli population has aged rapidly. As a result, a health survey of the elderly was recently conducted,¹⁴ and a symposium on aging will be held by the Israeli Ministry of Health and the U.S. Public Health Service.

The European Regional Office of the World Health Organization (WHO) has prepared a general summary of anticipated health problems and drawn attention to older persons.¹⁵ WHO projects that by the year 2000 about one-fifth of the

population of most European countries will be over 60 years of age.

An important source of information about the aged in more than 30 countries, including the United States, is the International Data Base on Aging, compiled for the National Institute on Aging by the Center for International Research, U.S. Bureau of the Census. A computerized data base containing detailed demographic and socioeconomic information has been developed. When possible, data have been grouped in 5-year age cohorts to provide more useful information. This data base has considerable potential for a number of research areas in the field of international aging.

Source of data

Data on life expectancy in this chapter were derived from the United Nations *Demographic Yearbook, 1984*.¹⁶ Data on the percent of the population aged 65 years and over are from the United Nations *World Population Prospects, Estimates and Projections as Assessed in 1982*.¹⁷

Results and comments

Statistics on life expectancy at selected ages similar to those shown for the United States in table 2 are available for most countries in the United Nations *Demographic Yearbook*. These figures vary in their reliability because of differences in age reporting and coverage of vital events. Nevertheless, they make it possible to make reasonable comparisons cross-nationally.

For men, life expectancy at birth in the countries listed in table 11 ranges from 74.2 years in Japan to 69.2 years in Northern Ireland. The United States, at 71.0 years, falls near the middle of the list. However, American men fare better in terms of life expectancy at higher ages. At age 75 years the life expectancy of U.S. men is 9 additional years. At age 85, U.S. life expectancy for men is 5.1 years—the same as in Hong Kong and Canada and second only to Puerto Rico (5.6 years).

Table 12 shows life expectancy for females in selected countries. At birth, life expectancy ranges from 79.8 years in Japan to 75.0 years in Ireland, and the United States (78.3 years) again falls near the middle of the list. At age 65, however, the United States and Canada have the highest life expectancy (18.8 years) among the countries listed. Further,

at ages 75 and 85, American women can expect to live longer than the women in any of the other countries listed.

Table 13 shows the percent of the population aged 65 years and over for selected countries and includes projections for the future. The United Nations uses three sets of assumptions and produces three sets of estimates. These are called the low, medium, and high variants. The figures for the medium variant are used here because the fertility and mortality assumptions of this variant are deemed the most representative of future trends. For most countries, the percent 65 years and over rises steadily from 1950 to 1990. Then there is a slight plateau. After 2000, the populations age rapidly because of the Baby Boom cycle of the middle decades of this century. By 2025, about one-fifth of the population of many countries will be 65 years of age and over. In fact, every fourth person in Switzerland will be at least 65 years of age. For Japan, the elderly percent will quadruple from

1950 to 2025. As shown in this table, all of these countries except Ireland will have a much higher proportion in the older age groups in 2025 than today.

A final point is that gains in life expectancy have not been great enough to offset declines in fertility. As a result many countries have experienced population declines. Denmark, the German Democratic Republic, the Federal Republic of Germany, Luxembourg, and the United Kingdom all lost population during the years 1980–84. If not for immigration, the U.S. population also would soon begin to decline because fertility is below the replacement level.

In conclusion, the growing number of older persons and their increasing proportion in the population are presenting challenges for many countries. This situation is becoming recognized as one that requires a major commitment of talent and resources in order to turn problems of aging into opportunities during the last two decades of the 20th century.

Table 11. Life expectancy for males at specified ages: Selected countries, latest available year

Country	Year	Expected remaining years of life at—				
		Birth	55 years	65 years	75 years	85 years
Japan	1983	74.2	23.0	15.2	8.7	4.6
Iceland	1981–82	73.9	22.9	15.4	9.8	4.8
Sweden	1983	73.6	22.3	14.7	8.6	4.5
Netherlands	1982–83	72.8	21.4	14.0	8.4	4.7
Switzerland	1981–82	72.7	22.0	14.6	8.8	5.0
Hong Kong	1982	72.7	21.9	14.8	9.1	5.1
Norway	1982–83	72.7	21.9	14.5	8.7	4.8
Israel	1983	72.5	21.9	14.4	8.7	5.0
Australia	1983	72.1	21.5	14.2	8.5	4.7
Canada	1980–82	71.9	21.7	14.6	9.0	5.1
Denmark	1982–83	71.5	21.0	13.9	8.4	4.7
England and Wales	1981–83	71.3	20.3	13.2	7.9	4.7
United States	1983	71.0	21.4	14.5	9.0	5.1
New Zealand	1983	70.8	20.7	13.6	8.1	4.5
Puerto Rico	1981–83	70.5	22.3	15.3	9.6	5.6
Federal Republic of Germany	1981–83	70.5	20.4	13.2	7.7	3.4
France	1981	70.4	21.0	14.0	8.2	4.4
Finland	1983	70.2	19.7	12.9	7.6	---
Austria	1983	69.5	20.2	13.1	7.6	4.2
Ireland	1978–80	69.5	19.3	12.4	7.1	3.9
German Democratic Republic	1983	69.5	19.6	12.5	7.1	3.7
Scotland	1981–83	69.3	19.0	12.4	7.4	4.3
Northern Ireland	1983	69.2	19.2	12.4	7.2	3.9

SOURCE: United Nations: *Demographic Yearbook, 1984*. Pub. No. ST/ESA/STAT/SER/R/14. New York: United Nations, 1984.

Table 12. Life expectancy for females at specified ages: Selected countries, latest available year

Country	Year	Expected remaining years of life at—				
		Birth	55 years	65 years	75 years	85 years
Japan	1983	79.8	27.1	18.4	10.8	5.3
Sweden	1983	79.6	27.1	18.5	11.0	5.6
Switzerland	1981-82	79.6	27.2	18.7	11.2	6.3
Norway	1982-83	79.5	27.0	18.5	11.0	5.7
Netherlands	1982-83	79.5	27.1	18.6	11.2	5.8
Iceland	1981-82	79.5	26.8	18.5	11.2	6.1
Canada	1980-82	78.9	27.0	18.8	11.7	6.3
Australia	1983	78.7	26.6	18.3	11.1	5.8
France	1981	78.5	26.7	18.2	10.6	5.4
United States	1983	78.3	26.7	18.8	11.9	6.6
Hong Kong	1982	78.3	26.3	18.1	11.1	5.8
Finland	1983	78.0	25.4	16.9	9.6	---
Denmark	1982-83	77.5	25.7	17.8	10.8	5.6
Puerto Rico	1981-83	77.4	26.1	18.0	11.1	6.3
England and Wales	1981-83	77.4	25.3	17.3	10.5	5.8
Federal Republic of Germany	1981-83	77.1	25.2	16.9	9.8	5.0
Austria	1983	76.8	24.9	16.6	9.5	4.8
Israel	1983	75.9	24.0	15.8	9.2	4.8
Northern Ireland	1983	75.7	23.9	16.1	9.5	5.0
Scotland	1981-83	75.5	23.7	16.1	9.8	5.3
German Democratic Republic	1983	75.4	23.5	15.4	8.6	4.3
Ireland	1978-80	75.0	23.3	15.4	8.8	4.7

SOURCE: United Nations: *Demographic Yearbook, 1984*. Pub. No. ST/ESA/STAT/SER.F/14. New York. United Nations, 1984.

Table 13. Percent of the population aged 65 years and over: Selected countries, 1950-2025

Country	1950	1960	1970	1980	1990 ¹	2000 ¹	2025 ¹
Japan	4.9	5.7	7.1	9.0	11.2	14.9	20.6
Iceland	7.7	8.0	8.9	9.6	10.2	11.4	17.7
Sweden	10.3	12.0	13.7	16.2	17.7	17.2	22.3
Netherlands	7.7	9.0	10.2	11.5	12.8	14.1	22.7
Switzerland	9.6	10.1	11.4	14.8	17.3	20.6	27.1
Hong Kong	2.5	2.8	4.0	6.5	8.0	9.6	17.3
Norway	9.7	11.1	12.9	14.6	16.2	15.3	20.3
Israel	3.9	4.9	6.7	8.4	8.4	8.4	12.1
Australia	8.1	8.5	8.3	9.3	10.5	11.0	14.9
Canada	7.7	7.5	7.9	8.9	10.6	11.8	18.1
Denmark	9.1	10.6	12.3	14.2	15.4	15.4	22.3
United Kingdom	10.7	11.7	12.9	14.8	15.1	14.9	18.3
United States	8.1	9.2	9.8	11.3	11.9	11.7	17.2
New Zealand	9.0	8.6	8.5	9.3	10.2	10.5	15.9
Puerto Rico	3.8	5.2	6.5	7.9	8.0	8.3	12.5
Federal Republic of Germany	9.4	10.8	13.2	15.0	14.8	16.5	22.1
France	11.4	11.6	12.9	13.7	13.2	14.8	19.4
Finland	6.7	7.2	9.2	12.0	13.0	14.1	22.3
Austria	10.4	12.0	14.1	15.5	14.8	15.2	19.8
Ireland	10.7	11.2	11.2	11.1	10.4	9.4	11.3
German Democratic Republic	10.6	13.7	15.5	16.3	13.5	14.6	19.6

¹Medium variant assumptions.

SOURCE: United Nations: *World Population Prospects, Estimates and Projections as Assessed in 1982*. Pub. No. ST/ESA/SER.A/86. New York. United Nations, 1985.

Chapter III

Measures of health among older persons living in the community

By Patricia F. Adams and J. Gary Collins, National Center for Health Statistics

Introduction

Measures of health can be as simple and subjective as a qualitative self-assessment of health status or degree of activity limitation, or they can include reports of an acute illness in the recent past or the presence of a chronic condition, either self- or physician-diagnosed. As a general rule, older persons can be expected to have a higher frequency of adverse measures of health. However, there are often differences between sexes and among races and age groups. The presence of impairments or other chronic conditions tends to increase an older person's risk of being hospitalized, needing long-term care, and/or dying. Still, many older people cope quite adequately with adverse health. A major source of information on reported chronic and acute conditions, self-assessed health status, and limitation of activity among noninstitutionalized older persons is the National Health Interview Survey (NHIS).

It should be emphasized that only persons residing in the community at the time of survey are included in NHIS. Thus, the sickest segment of the older population—the group in hospitals or nursing homes—is not represented in the survey. Because the presence of chronic conditions places an older person at increased risk of institutionalization, one should bear in mind that the figures presented are an underestimate of the prevalence of these conditions in the total older population. In 1985 an estimated 22 percent of the population aged 85 years and over resided in long-term care facilities (Chapter IX). Therefore, comparisons of the noninstitutionalized aged 85 years and over with the younger age groups must be interpreted with great caution. Finally, relatively small numbers in the age group 85 years and over could mean that observed differences are not statistically significant.

Source of data

The National Health Interview Survey is a continuing nationwide survey based on household interviews of the civilian noninstitutionalized population of the United States. (See the appendix for a more detailed description.) By combining data from several years of the survey, sufficient sample size is available to consider health conditions in race, sex, and age subgroups. Also, because of the recurrent nature of the survey, trend analysis is possible. In this chapter age-specific prevalence rates are shown for ischemic heart disease and hypertension for 1972, 1979–81, and 1982–84 and diabetes rates are shown for the years 1973, 1979–81, and 1982–84. These data were not age adjusted.

The categories included in the acute conditions and orthopedic impairments displayed in tables in this chapter have been listed elsewhere.¹⁸ Specific 9th Revision, International Classification of Diseases codes for the chronic conditions shown in these tables have also been published.¹⁹ The Eighth Revision code for diabetes is the same as the code for the 9th.²⁰ Finally, specific Eighth Revision, International Classification of Diseases codes for chronic circulatory conditions in 1972 have been published.²¹

Results and comments

Health assessment

The simplest and most subjective estimate of health status is the response to a question on health assessment. The population of those aged 65 years and over tends to be divided into thirds of excellent or very good, good, and fair or poor health by responses concerning health assessment (table 14). However, if race-specific responses are investigated, it can be seen that only about one-quarter of older black persons are reported to have excellent or very good health, and the health of about 50 percent is assessed as relatively fair or poor. Although the proportion of persons with relatively poor health does not increase with age, rates of major activity limitation are higher in the group aged 85 years and over for all races and both sexes combined.

Acute conditions

The incidence rate of acute conditions (table 15), based on the respondent's report of incidents occurring during the 2 weeks prior to the week of interview, was about the same among the older age groups, except that injuries were more common in those 85 years and over. The group aged 55–64 years had more reported respiratory infections than the older age groups. Increasing rates of injury with age were particularly evident among white females. For persons 65 years and over, the most common types of injury were contusions, sprains and strains, and open wounds and lacerations.²² The rates shown in table 15 include multiple injuries to the same person, which may be more frequent in older persons, so the percent of older persons with an injury may not be as great. Unfortunately, even when 3 years of data were combined, inadequate information was available to assess racial differences in older subgroups and to make reliable estimates for white males aged 85 years and over.

Impairments

The rates of reported visual impairments were higher with increasing age (table 16). The category of visual impairments is a combination of blindness in one or both eyes and other problems seeing. White men had higher rates of visual impairments than white women in each age subgroup. The prevalence rate of cataracts was five times higher for persons 65 years and over than for those aged 55–64 years. Although high rates of visual impairments were reported for white men at each age, white females 65 years and over had a prevalence of cataracts that was about 75 percent higher than that for white males in that age group.

The rate of hearing impairments among white persons aged 65 years and over was higher for men than for women. The rate of hearing impairments was higher for each consecutively older age group. By ages 85 years and over, deafness and other trouble hearing was reportedly present in about 50 percent of both white men and white women. Black men aged 65 years and over had a similar rate of reported hearing impairments as black women that age.

Among white persons, there was an increase in deformity or orthopedic impairments at age 85 years and over (table 16). Black males aged 55–64 years had more orthopedic impairments than those 65 years and over. This relationship was reversed for black females.

Chronic conditions

The reported rates of ischemic heart disease and hypertension in 1982–84 were similar for each age subgroup over 64 years (table 17). There are various possible explanations, none of which has been proven. First, because persons with these chronic diseases are at higher risk of death and institutionalization than is the general population, it is possible that their numbers are depleted from the population in the community at older ages. Certainly, mortality is higher at each older age group (table 1). Second, there may be a reporting bias because those at older ages failed to report a disease that had been present for many years. Third, there may be an age beyond which people do not tend to develop these diseases; in other words, incidence may level off with increasing age.

A comparison of rates of chronic cardiovascular conditions revealed differences among race and sex subgroups. For example, reported rates of ischemic heart disease were higher for white males than for white females at each age; however, reported rates of hypertension were higher for white females than for white males at each age. The reported rate of hypertension was much higher for black females than for white females. Finally, rates of reported cerebrovascular disease increased with age in both men and women. Rates were higher for white males aged 65–74 years than for white females that age and higher for black males aged 65 years and over than for their female age counterparts.

The rate of emphysema in each age-specific subgroup of white men aged 55 years and over was higher than in white women of the same age subgroup; however, the rate of chronic bronchitis was similar. The observation on emphysema may reflect the fact that more males than females in age cohorts 55 years and over have a history of smoking.

The rate of reported diabetes was higher for white females than for white males aged 65–74 years but higher for white males than for white females aged 75 years and over. In the age group 65 years and over, diabetes rates were approximately 50 percent higher for black males than for white males and about 150 percent higher for black females than for white females.

For each age subgroup, rates of reported arthritis were higher in females than in males. Arthritis is present in more than one-half of females aged 65 years and over. The rates did not increase markedly with age beyond 65 years. Black males and females aged 65 years and over had higher rates than their white peers; arthritis was reportedly present in about 64 percent of black women aged 65 years and over.

Trends

An indirect indicator of the effect of declining ischemic heart disease mortality that has occurred since the mid-1960's could be an increase in the prevalence of ischemic heart disease. That would occur if the case-fatality rate were dropping in the absence of a change in incidence. For each of the age-specific subgroups shown in table 18, the rate of reported ischemic heart disease increased from 1972 to 1979–81 and 1982–84. (Data on persons 85 years and older are not shown.) The increase from the earliest to the latest period ranged from 29 to 60 percent, depending on the age group. It is possible that more diagnostic studies have been done in recent years, resulting in an increase in the number of cases being diagnosed. This phenomenon could also be attributed to changes in reporting. The period of study crosses two coding periods of the International Classification of Diseases but an attempt was made to achieve comparability by the addition of appropriate diagnostic codes.

A dramatic increase in the rate of reported hypertension occurred from 1972 to 1979–81. This increase may have been the result of changes in the International Classification of Diseases. It may also be attributable to the National High Blood Pressure Education Program, through which increased awareness of hypertension in this country led to increased casefinding and treatment. The rate of reported diabetes was also higher for most sex-age-specific subgroups in the two later periods than in 1973, but the rate of increase was relatively low when compared with the increase in reported cardiovascular diseases.

Table 14. Average annual percent distributions of persons 55 years of age and over by respondent-assessed health status and degree of activity limitation due to chronic conditions, according to race, sex, and age: United States, 1983-84

[Data are based on household interviews of the civilian noninstitutionalized population]

Race, sex, and age	Respondent-assessed ¹ health status			Degree of activity limitation			
	Excellent or very good	Good	Fair or poor	No activity limitation	Limited but not in major activity	Limited in amount or kind of major activity	Unable to carry on major activity
Total²	Percent distributions						
55-64 years	44.8	30.4	24.2	70.4	6.6	11.7	11.3
65 years and over	35.9	31.0	32.6	60.4	14.6	14.4	10.6
65-74 years	36.2	31.7	31.7	62.7	13.5	12.9	10.9
75 years and over	35.2	30.0	34.1	56.7	16.3	16.8	10.2
75-84 years	35.2	30.5	33.6	60.5	17.2	14.4	7.9
85 years and over	35.5	27.8	36.2	40.4	12.4	27.3	19.9
White male							
55-64 years	49.0	28.8	21.8	71.8	4.7	9.2	14.3
65 years and over	36.7	30.6	32.3	61.3	15.6	10.3	12.8
65-74 years	37.3	30.5	31.8	62.1	13.2	9.7	15.0
75 years and over	35.4	30.8	33.1	59.6	20.2	11.5	8.6
75-84 years	35.2	31.4	32.7	62.8	20.5	9.7	7.0
85 years and over	36.8	28.3	34.8	44.2	18.5	20.7	16.7
Black male							
55-64 years	30.8	27.3	41.4	61.6	3.5	8.4	26.5
65 years and over	26.6	25.1	47.7	53.5	14.9	13.1	18.5
65-74 years	26.2	26.0	47.4	53.9	12.6	11.3	22.4
75 years and over	27.3	23.2	48.1	53.2	19.2	16.5	11.1
75-84 years	27.7	23.1	48.1	55.0	19.6	15.0	10.0
85 years and over	*24.3	*24.3	*48.6	*40.5	*16.2	*27.0	*18.9
White female							
55-64 years	44.7	32.4	22.4	71.5	8.2	13.4	7.0
65 years and over	36.8	32.5	30.1	61.2	14.0	16.4	8.3
65-74 years	37.2	33.9	28.4	64.8	13.6	14.7	6.9
75 years and over	36.4	30.4	32.6	56.1	14.6	18.9	10.4
75-84 years	36.5	31.1	31.9	60.4	15.9	16.1	7.6
85 years and over	36.3	27.8	35.2	39.4	9.7	29.9	21.0
Black female							
55-64 years	24.3	27.0	47.6	55.5	10.5	19.0	14.9
65 years and over	24.1	21.2	53.0	47.4	14.5	24.1	13.9
65-74 years	23.8	20.6	54.5	49.7	16.3	22.0	12.0
75 years and over	24.6	22.2	50.6	43.9	11.6	27.6	16.9
75-84 years	25.4	21.6	50.8	47.2	11.8	26.1	14.8
85 years and over	*21.8	25.5	50.0	31.8	*10.0	32.7	24.5

¹Excludes unknown respondent-assessed health status.

²Includes races other than white and black.

NOTE: Asterisk indicates that the numerator of the estimate has a relative standard error more than 30 percent.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.

Table 15. Average annual rate of acute conditions for persons 55 years of age and over, by type of acute condition, race, sex, and age: United States, 1982-84

[Data are based on household interviews of the civilian noninstitutionalized population]

Race, sex, and age	Type of impairment			
	Respiratory	Digestive	Injuries	Other
Total¹	Number per 100 persons			
55-64 years	51.2	3.7	19.2	30.4
65 years and over	38.7	6.2	21.0	31.4
65-74 years	42.4	5.8	18.1	32.9
75 years and over	32.6	6.8	25.8	28.9
75-84 years	32.6	6.3	22.3	28.5
85 years and over	32.7	*8.9	40.5	30.6
White male				
55-64 years	43.7	*2.2	16.2	23.3
65 years and over	37.6	4.7	15.8	23.2
65-74 years	40.6	5.2	14.3	23.9
75 years and over	31.8	*3.9	18.6	21.7
75-84 years	32.7	*3.2	16.1	20.0
85 years and over	*27.4	*7.3	*31.1	*30.2
Black male				
55-64 years	33.5	*7.4	*13.1	*29.4
65 years and over	*16.8	*10.1	*6.9	44.2
White female				
55-64 years	60.4	4.5	22.6	36.3
65 years and over	40.5	7.5	26.4	36.1
65-74 years	45.5	6.8	22.3	38.2
75 years and over	33.3	8.4	32.1	33.0
75-84 years	31.7	7.8	27.8	33.3
85 years and over	39.5	*10.8	48.8	31.8
Black female				
55-64 years	39.1	*5.3	*17.7	37.1
65 years and over	41.1	*1.6	*16.4	33.2

¹Includes races other than white and black.

NOTE: Asterisk indicates that the numerator of the estimate has a relative standard error more than 30 percent.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.

Table 16. Average annual rate of selected reported impairments for persons 55 years of age and over, by type of impairment, race, sex, and age: United States, 1982-84
 [Data are based on household interviews of the civilian noninstitutionalized population]

Race, sex, and age	Type of impairment			Deformity or orthopedic impairment
	Visual impairment	Cataract	Hearing impairment	
Total¹	Number per 1,000 persons			
55-64 years	55.5	30.8	181.4	150.3
65 years and over	98.0	149.3	308.7	167.6
65-74 years	73.2	94.4	260.7	165.2
75 years and over	138.5	238.6	386.8	171.3
75-84 years	119.7	217.8	361.3	162.1
85 years and over	218.6	327.4	495.7	211.1
White male				
55-64 years	72.0	27.3	255.3	150.7
65 years and over	105.6	105.0	368.1	143.5
65-74 years	83.8	64.2	329.4	145.9
75 years and over	147.7	183.9	442.8	138.8
75-84 years	127.8	163.8	429.7	132.9
85 years and over	246.8	283.4	508.2	168.2
Black male				
55-64 years	*79.6	*21.1	*74.9	186.2
65 years and over	147.9	*79.8	261.7	171.4
White female				
55-64 years	35.5	33.0	129.2	145.3
65 years and over	88.6	185.6	275.6	179.7
65-74 years	61.7	121.0	219.8	175.4
75 years and over	127.2	278.6	355.7	185.9
75-84 years	108.7	258.6	320.4	176.1
85 years and over	198.3	355.4	492.7	224.0
Black female				
55-64 years	97.8	*34.4	152.2	168.5
65 years and over	112.9	136.1	261.4	208.0

¹Includes races other than white and black.

NOTE: Asterisk indicates that the numerator of the estimate has a relative standard error more than 30 percent.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.

Table 17. Average annual rate of selected reported chronic conditions for persons 55 years of age and over, by type of chronic condition, race, sex, and age: United States, 1982-84

[Data are based on household interviews of the civilian noninstitutionalized population]

Race, sex, and age	Type of chronic condition						
	Ischemic heart disease	Hypertension	Cerebrovascular disease	Emphysema	Chronic bronchitis	Diabetes	Arthritis
Total¹	Number per 1,000 persons						
55-64 years	93.4	306.9	22.7	31.5	50.6	72.0	350.7
65 years and over	135.5	394.9	58.0	40.5	57.8	90.5	485.6
65-74 years	137.1	393.6	41.8	43.2	62.9	93.6	475.7
75 years and over	133.0	397.1	84.5	36.2	49.5	85.5	501.9
75-84 years	135.4	398.1	80.9	40.8	51.1	86.5	497.7
85 years and over	122.2	392.8	99.7	*16.6	*42.9	80.9	519.8
White male							
55-64 years	141.7	286.2	25.4	50.8	41.5	63.5	280.1
65 years and over	178.4	316.7	62.9	75.0	52.6	79.7	392.2
65-74 years	192.2	334.9	52.9	73.8	52.3	73.8	390.7
75 years and over	151.7	281.3	82.1	77.2	53.3	91.0	395.0
75-84 years	148.0	289.0	79.5	84.7	57.4	92.0	386.2
85 years and over	168.2	245.0	*95.1	*40.2	*32.9	*85.9	438.8
Black male							
55-64 years	*59.7	365.3	*48.0	*23.4	*45.7	153.4	283.4
65 years and over	*61.0	370.9	108.0	*41.1	*16.4	120.9	468.3
White female							
55-64 years	59.7	301.0	17.4	16.3	55.8	63.0	412.8
65 years and over	118.6	428.8	50.4	20.3	66.5	85.2	540.4
65-74 years	109.6	414.2	29.8	24.2	75.0	90.4	527.2
75 years and over	131.5	449.9	80.0	*14.6	54.3	77.7	559.2
75-84 years	137.5	446.2	74.9	*17.5	54.6	79.6	560.0
85 years and over	108.2	464.4	99.6	*3.4	*53.2	*70.4	556.2
Black female							
55-64 years	*38.0	503.6	*29.9	*27.2	78.8	146.6	471.0
65 years and over	76.6	642.7	75.8	*11.6	*36.3	211.1	639.6

¹Includes races other than white and black.

NOTE: Asterisk indicates that the numerator of the estimate has a relative standard error more than 30 percent.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.

Table 18. Rate of selected reported chronic conditions for persons 55 years of age and over, by type of chronic condition, sex, and age: United States, selected years 1972-84

[Data are based on household interviews of the civilian noninstitutionalized population]

Sex and age	Type of chronic condition								
	Ischemic heart disease			Hypertension			Diabetes		
	1972	1979-81	1982-84	1972	1979-81	1982-84	1973	1979-81	1982-84
Both sexes	Number per 1,000 persons								
55-64 years	47.4	58.8	75.7	185.6	286.4	306.5	54.1	66.1	71.6
65 years and over	84.0	103.7	116.2	252.1	376.6	393.8	78.5	85.9	89.7
65-74 years	80.0	105.0	115.7	251.4	365.6	392.5	77.4	87.7	92.8
75 years and over	90.8	101.3	117.1	253.4	395.8	396.1	80.4	82.8	84.7
Male									
55-64 years	65.1	77.6	107.5	148.2	275.2	291.2	51.3	65.3	72.1
65 years and over	95.7	125.0	142.8	177.8	297.3	318.6	60.3	82.8	83.0
65-74 years	97.3	133.9	149.9	182.3	305.6	335.7	63.3	84.8	79.9
75 years and over	92.5	106.6	128.9	169.2	280.4	285.6	54.6	78.6	88.7
Female									
55-64 years	31.7	42.1	47.9	218.8	296.4	320.0	56.6	66.9	71.3
65 years and over	75.7	88.8	97.9	305.3	431.9	445.8	91.3	88.1	94.3
65-74 years	66.8	82.8	89.4	304.4	411.7	436.0	88.2	90.0	102.7
75 years and over	89.7	98.2	110.4	306.5	463.7	460.0	96.2	85.3	82.3

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.

Chapter IV

Health status and determinants—marriage, living alone, and risk of institutionalization

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Introduction

The living arrangements of older persons may have important effects on the happiness, independence, and risk of institutionalization of this group. Marriages and marriage rates are direct indicators of trends in formal and legal living arrangements.²³ Also of interest is the segment of the older population living alone for any reason. These people are of concern because it is important to understand their particular problems, such as lack of social support, use of medical care, and access to community services. Preliminary data on this subgroup of the population have been published.²⁴

Research findings suggest that living alone increases the probability of need for long-term care and institutionalization.²⁵ Various approaches have been used for planning long-term care needs in the community.²⁶ One approach is to recognize that, compared with the noninstitutionalized, individuals in a nursing home tend to be older and more infirm with chronic disease. They are likely to have lived alone before admission and are often unable to do one of the activities of daily living.^{2,27} It follows that in planning for long-term care needs, whether in a nursing facility or at home, researchers should take into account the percent and number of persons with such problems in the community.²⁶

Sources of data

The marriage analysis is based on published and unpublished data collected annually from the 42 States and the District of Columbia that comprise the marriage-registration area. In 1970 and 1980, samples were also drawn from an additional five States that record age on their marriage records. (See the appendix.) The national estimates shown for 1970 through 1984 were calculated by multiplying the total of marriages reported by the registrars in all States by the proportion of marriages of the elderly in the registration area.

Information about people aged 65 and over living outside institutions is from the Supplement on Aging of the 1984 National Health Interview Survey. (See the appendix.)

Results and comments

Marriage

In 1984 about 70,000 older persons married in America—about 25,000 women and 45,000 men 65 years of age and over (figures 1 and 2). Most of the older brides were among the younger old: About 13,000 were 65–69 years, 7,000 were 70–74 years, and only 4,000 brides were 75 years of age and over. The number of older brides was 28 percent greater

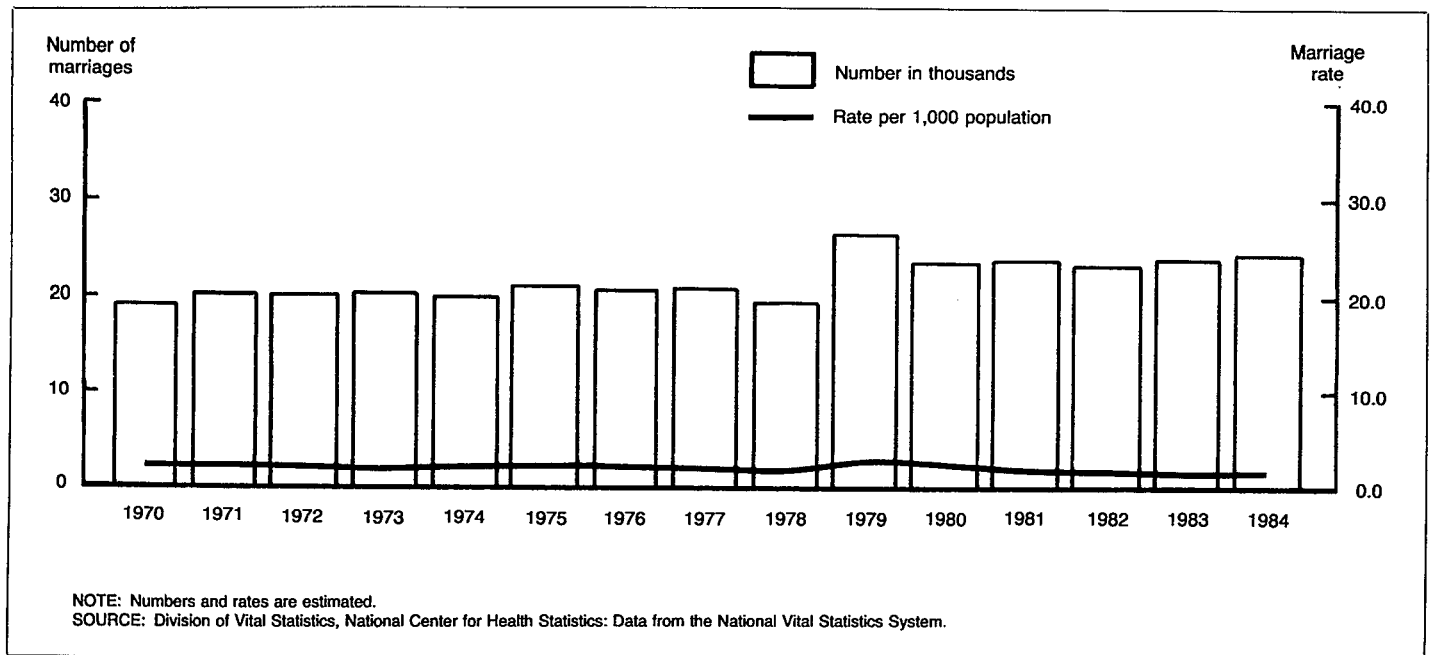


Figure 1. Marriages and marriage rates of women 65 years of age and over: United States, 1970–84

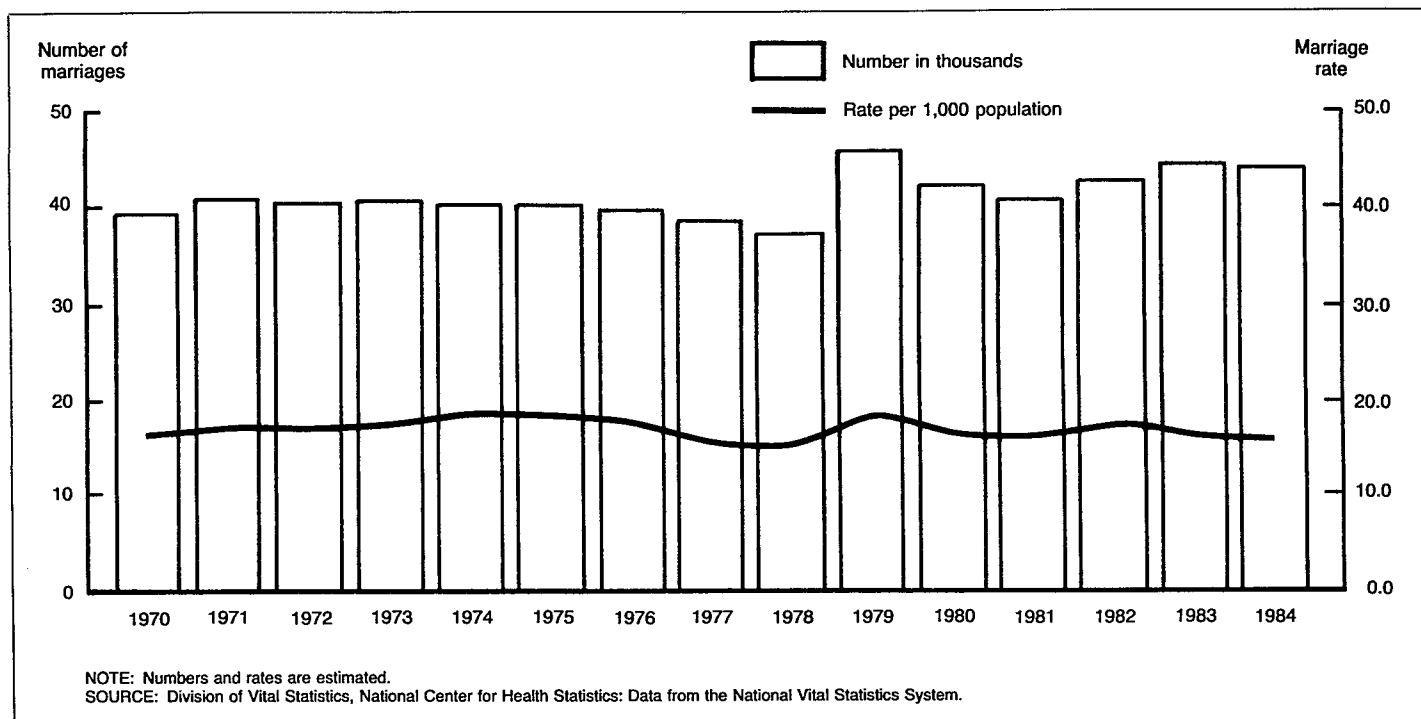


Figure 2. Marriages and marriage rates of men 65 years of age and over: United States, 1970-84

in 1984 than it had been in 1970. From 1970 to 1984, the greatest increase was for brides 75 and over, whose numbers increased 80 percent. In 1984 more than 1,000 American women in their eighties got married.

The number of older American grooms increased about 13 percent from 1970 to 1984. As with elderly brides, the greatest absolute increases were for those 65-69 years. However, the greatest proportionate increases were for men 80 years of age and over: About 4,000 men in their eighties married in 1984. The increased number and proportion of brides and grooms among those 80 years and over would be expected, of course, in an aging population. Rates of marriage for men and women 65-74 years were lower in 1984 than in 1970, but marriage rates for men and women 75 years and over increased slightly.

That economic and social policy decisions affect American marital patterns, at the very least the timing of marital events, is shown clearly in the trend in rates during the late 1970's (figures 1 and 2). From 1978 to 1979, the rate for men increased almost 25 percent and the rate for women increased 39 percent. This followed the passage of the Social Security Amendments of 1977, which established that, starting in 1979, widows who remarried after age 60 would remain eligible for widows' benefits. As a result, instead of the typical 12,000 brides 65-69 years who had been marrying annually, the number dipped to 11,000 in 1978 and rebounded to 15,000 in 1979. The older age groups of women showed similar increases in 1979. The impact of the Social Security Amendments show more clearly on marriages of men. From an annual level of 40,000 for the period 1970 through 1976, marriages of men 65 years and over dipped to 38,000 in 1977 and 1978, then increased to 47,000 in 1979. Obviously economic policies did influence marital decisions for a sizable group of older Americans.

Living alone

About 26.4 million Americans who had had their 65th birthday lived in communities outside nursing homes or other institutions in 1984. About one-third of them, an estimated 8.4 million people, lived alone.

People aged 65 years and over who live alone are, on the average, older than those who live with others. Their average age was 75.2 years, compared with 73.4 years for those living with others. One-half were age 75 years and over; 10.2 percent were aged 85 years or over (table 19). In contrast, only one-third of those who lived with others were aged 75 years and over, and 6 percent were aged 85 years and over.

Most people who lived alone were widowed. They were also more likely than people living with others to be divorced or separated or never married. For example, 77 percent of the people living alone, but only 15 percent of those living with others, were widowed; 14 percent, compared with 3 percent, were divorced or separated; and 9 percent, compared with 3 percent, had never married.

Eighty percent of the older people living alone were women, compared with 50 percent of those living with others (table 19). Of people aged 65 years and over and living alone, about 11 percent were men aged 65-74 and 39 percent were women that age; 9 percent were men aged 75 and over and 40 percent were women that age.

Thus, the population of people aged 65 years and over and living alone tends to be older, widowed, and female. Many of these characteristics result from the higher death rates and shorter life expectancies of men. Fewer males survive to age 65 years, and even at age 65 years, a man's expectation of life is less than that of a woman the same age. In 1984 the difference at age 65 years was 4.0 years (table 2). In

addition, women tend to marry men older than themselves, which increases their likelihood of being widowed.

Despite these characteristics, many of the people who were living alone were not disabled, in poor health, suffering from lack of medical care, or lacking family or companionship.

Although the potential for social isolation certainly exists, the evidence from the Supplement on Aging is that the majority of older people who were living alone lived close to family with whom they had frequent contact. Many of them had been living in exactly the same place for many years: 62 percent had not moved in the previous 10 years, and 32 percent had lived in the same place for 25 years or more.²⁴ Only 24 percent had moved into their current house, apartment, or mobile home within the previous 5 years. About 11 percent lived in retirement communities. The long residence in the same place and the relatively high proportion in retirement communities may account for their having social contacts.

Another reason that these people living alone were not as isolated as they might have been is that 95 percent of them had telephones, and most apparently used them. The telephone was a major means of contact with children and other relatives and with friends and neighbors. Given the importance of the telephone for maintaining social contacts, it appears that elderly men living alone were at greater risk of isolation than elderly women were. Although 97 percent of the women had telephones, only 84 percent of the men did.²⁴

The distributions of number of doctor contacts and hospitalizations in the past year are similar for those living alone and those living with others.

Finally, those living alone are more likely to use community services (figure 3), and they tend to use more of them than those living with others.²⁸

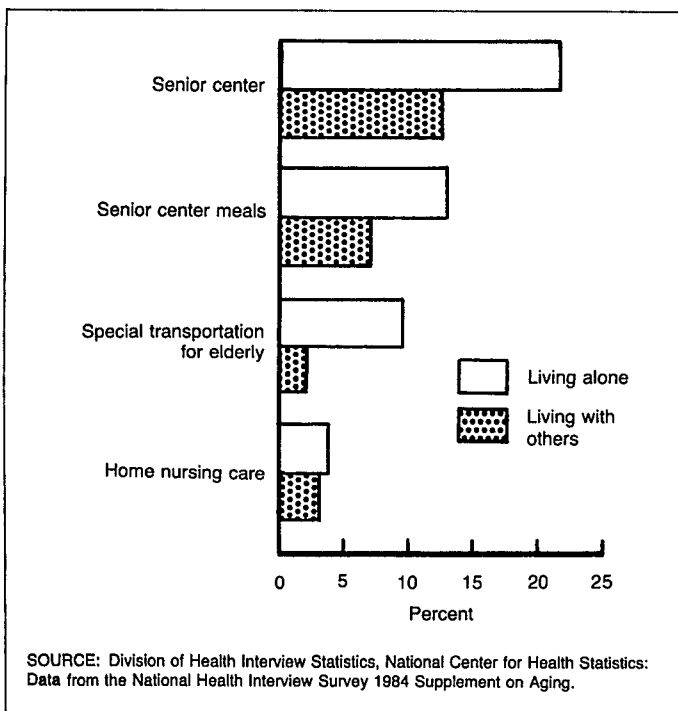


Figure 3. Percent of the noninstitutionalized population 65 years of age and over using community services, by type of service and whether living alone or with others: United States, 1984

Risk of institutionalization

With an increasing number and proportion of older persons in the population, there is concern about providing appropriate long-term care services, including those in the home, community, or an institution. A subgroup of individuals with certain characteristics may be at higher risk for various forms of long-term care.

A planning matrix for which information about such individuals in the population is used has been developed in Kentucky to assist communities in making estimates of risk of institutionalization. It is included in a larger summary of various approaches prepared by the Wisconsin Institute for Health Planning.²⁶ In the Kentucky strategy, the variables of a mental, visual, or hearing impairment; living alone; and inability to do one of the activities of daily living are evaluated simultaneously. Individuals with these characteristics, especially those with multiple conditions, are assumed to be at a higher probability of needing long-term care. A more medically oriented model involves the presence of cardiovascular disease or arthritis in the context of mental or sensory impairment and living alone.

A comparable matrix comprised of national estimates of potential numbers and percents of persons needing long-term care by level of difficulty with activities of daily living (ADL's) or instrumental ADL's,²⁷ different living arrangements, and the presence or absence of impairments has been prepared (tables 20-23). Individuals at the greatest risk of needing long-term care are those in the cell indicating difficulty with one or more ADL's, living alone, having an impairment, and being 75 years and over (tables 20 and 21). For example, 124,077 men, or about 6.4 percent of the 1,935,000 males 75 years and over, would be at high risk. A matrix showing the relationships with cardiovascular disease and arthritis or rheumatism has also been developed (tables 24-27). It should be emphasized that, for mental impairments, only interview responses dealing with trouble remembering and frequent confusion were available. There were no proxy responses. However, proxy responses were collected on other impairments and diseases. Although this situation could have led to a potential undercount of those with impairments, only 296 of the total 16,148 selected persons in the sample population were classified as unknown.

The application of such distributional data to planning for long-term care requires expert judgment and adequate empirical data. In the Kentucky approach, a technical advisory committee estimated what percent of those in each cell of the matrix would need formal services. In addition, there was an attempt to determine which types of services were most appropriate. In North Carolina the strategy was to apply risk scores to individuals and target for services only those at highest risk.²⁹ It was concluded that, in a typical community of 100,000 people, only about 200 older persons would be at highest risk. National estimates of outcome are forthcoming from the Longitudinal Study of Aging. Further information concerning the data system can be found in the appendix.

Table 19. Number in sample, population in thousands, and percent distributions of persons 65 years of age and over by selected characteristics, according to whether living alone or with others: United States, 1984

[Data are based on household interviews of the civilian noninstitutionalized population]

Characteristic	Total	Lives alone	Lives with others
Number in sample			
Total	11,497	3,655	7,842
Population in thousands			
Total	26,433	8,397	18,036
Percent distribution			
Total	100.0	100.0	100.0
Age			
65-74 years	61.8	50.7	66.9
75-84 years	31.1	39.2	27.3
85 years and over	7.1	10.2	5.7
Sex			
Male	40.9	20.0	50.5
Female	59.1	80.0	49.5
Race			
White	90.9	91.2	90.8
Black	7.9	7.9	7.9
All other	1.2	0.9	1.3
Marital status			
Married	54.0	0.3	78.9
Divorced or separated	6.3	13.8	2.9
Widowed	35.0	77.2	15.4
Never married	4.7	8.7	2.8
Telephone			
Has a telephone	96.9	94.5	98.0
Does not have a telephone	3.1	5.5	2.0
Doctor contacts in past year			
None	17.9	17.5	18.1
1-2 visits	29.1	28.8	29.2
3-6 visits	32.1	32.3	32.0
7-12 visits	13.1	13.6	12.8
13-24 visits	4.7	5.1	4.6
25 visits or more	3.1	2.7	3.3
Hospitalizations in past year			
None	80.4	80.7	80.3
1	13.7	13.9	13.7
2 or more	5.8	5.4	6.0

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey 1984 Supplement on Aging.

TABLE 20. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND NUMBER OF PERSONS AGES 55-75 YEARS AND OVER WHO HAD MENTAL OR SENSORY IMPAIRMENTS, BY ACTIVITIES OF DAILY LIVING FUNCTIONAL ABILITY, IMPAIRMENT, SEX, AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

1 IMPAIRMENT, SEX, AND AGE	2 NUMBER IN SAMPLE	3 POPULATION IN THOUSANDS	ACTIVITIES OF DAILY LIVING FUNCTIONAL ABILITY					
			NO DIFFICULTY LIVES ALONE	NO DIFFICULTY LIVES WITH OTHER	DIFFICULTY LIVES ALONE	DIFFICULTY LIVES WITH OTHER	ABILITY UNKNOWN LIVES ALONE	ABILITY UNKNOWN LIVES WITH OTHER
NO IMPAIRMENT			NUMBER					
MALE								
TOTAL	4,129	13,367	1,409,956	10,578,442	189,656	1,189,343	-	-
55-74 YEARS	3,406	11,662	1,104,258	9,491,383	139,076	926,822	-	-
75 YEARS AND OVER ...	723	1,706	305,698	1,087,059	50,580	262,521	-	-
FEMALE								
TOTAL	6,150	18,621	4,445,873	11,525,340	990,107	1,650,724	7,127	2,188
55-74 YEARS	4,661	15,256	3,076,766	10,479,535	526,030	1,164,583	7,127	2,188
75 YEARS AND OVER ...	1,489	3,365	1,369,107	1,045,805	464,077	486,141	-	-
HAD IMPAIRMENTS								
MALE								
TOTAL	2,536	7,272	711,747	4,826,846	289,789	1,434,217	-	9,156
55-74 YEARS	1,729	5,337	440,342	3,775,783	165,712	950,803	-	4,493
75 YEARS AND OVER ...	807	1,935	271,405	1,051,063	124,077	483,414	-	4,663
FEMALE								
TOTAL	3,037	8,313	2,068,961	3,524,859	1,073,077	1,632,321	6,437	7,157
55-74 YEARS	1,743	5,380	1,203,659	2,771,236	447,430	951,838	4,213	2,033
75 YEARS AND OVER ...	1,294	2,932	865,302	753,623	625,647	680,483	2,224	5,124

¹ TROUBLE REMEMBERING OR CONFUSED FREQUENTLY, OR BLIND OR OTHER TROUBLE SEEING, OR DEAF OR OTHER TROUBLE HEARING.

² THERE WERE 296 PERSONS WITH UNKNOWN IMPAIRMENT DATA.

³ FIGURES MAY NOT ADD TO TOTAL BECAUSE OF UNKNOWNNS AND ROUNDING.

TABLE 21. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-75 YEARS AND OVER WHO HAD MENTAL OR SENSORY IMPAIRMENTS, BY ACTIVITIES OF DAILY LIVING FUNCTIONAL ABILITY, ACCORDING TO IMPAIRMENT, SEX, AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

1 IMPAIRMENT, SEX, AND AGE	2 NUMBER IN SAMPLE	3 POPULATION IN THOUSANDS	3 ALL ABILITIES	ACTIVITIES OF DAILY LIVING FUNCTIONAL ABILITY					
				NO DIFFICULTY LIVES ALONE	NO DIFFICULTY LIVES WITH OTHER	DIFFICULTY LIVES ALONE	DIFFICULTY LIVES WITH OTHER	ABILITY UNKNOWN LIVES ALONE	ABILITY UNKNOWN LIVES WITH OTHER
NO IMPAIRMENT				PERCENT DISTRIBUTION					
MALE									
TOTAL	4,129	13,367	100	10.5	79.1	1.4	8.9	-	-
55-74 YEARS	3,406	11,662	100	9.5	81.4	1.2	7.9	-	-
75 YEARS AND OVER ...	723	1,706	100	17.9	63.7	3.0	15.4	-	-
FEMALE									
TOTAL	6,150	18,621	100	23.9	61.9	5.3	8.9	0.0	0.0
55-74 YEARS	4,661	15,256	100	20.2	68.7	3.4	7.6	0.0	0.0
75 YEARS AND OVER ...	1,489	3,365	100	40.7	31.1	13.8	14.4	-	-
HAD IMPAIRMENTS									
MALE									
TOTAL	2,536	7,272	100	9.8	66.4	4.0	19.7	-	0.1
55-74 YEARS	1,729	5,337	100	8.3	70.7	3.1	17.8	-	0.1
75 YEARS AND OVER ...	807	1,935	100	14.0	54.3	6.4	25.0	-	0.2
FEMALE									
TOTAL	3,037	8,313	100	24.9	42.4	12.9	19.6	0.1	0.1
55-74 YEARS	1,743	5,380	100	22.4	51.5	8.3	17.7	0.1	0.0
75 YEARS AND OVER ...	1,294	2,932	100	29.5	25.7	21.3	23.2	0.1	0.2

¹ TROUBLE REMEMBERING OR CONFUSED FREQUENTLY, OR BLIND OR OTHER TROUBLE SEEING, OR DEAF OR OTHER TROUBLE HEARING.

² THERE WERE 296 PERSONS WITH UNKNOWN IMPAIRMENT DATA.

³ FIGURES MAY NOT ADD TO TOTAL BECAUSE OF UNKNOWNNS AND ROUNDING.

TABLE 22. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND NUMBER OF PERSONS AGES 55-75 YEARS AND OVER WHO HAD MENTAL OR SENSORY IMPAIRMENTS, BY INSTRUMENTAL ACTIVITIES OF DAILY LIVING FUNCTIONAL ABILITY, IMPAIRMENT, SEX, AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

1 IMPAIRMENT, SEX, AND AGE	2 NUMBER IN SAMPLE	3 POPULATION IN THOUSANDS	INSTRUMENTAL ACTIVITIES OF DAILY LIVING FUNCTIONAL ABILITY					
			NO DIFFICULTY LIVES ALONE	NO DIFFICULTY LIVES WITH OTHER	DIFFICULTY LIVES ALONE	DIFFICULTY LIVES WITH OTHER	ABILITY UNKNOWN LIVES ALONE	ABILITY UNKNOWN LIVES WITH OTHER
NO IMPAIRMENT			NUMBER					
MALE								
TOTAL	4,129	13,367	1,437,130	10,764,416	162,482	1,003,369	-	-
55-74 YEARS	3,406	11,662	1,131,530	9,645,672	111,804	772,533	-	-
75 YEARS AND OVER ...	723	1,706	305,600	1,118,744	50,678	230,836	-	-
FEMALE								
TOTAL	6,150	18,621	4,170,361	10,809,811	1,268,544	2,361,708	4,202	6,733
55-74 YEARS	4,661	15,256	2,884,375	9,863,143	721,346	1,776,430	4,202	6,733
75 YEARS AND OVER ...	1,489	3,365	1,285,986	946,668	547,198	585,278	-	-
HAD IMPAIRMENTS								
MALE								
TOTAL	2,536	7,272	706,703	4,821,174	294,833	1,435,590	-	13,455
55-74 YEARS	1,729	5,337	446,597	3,803,869	159,457	920,678	-	6,532
75 YEARS AND OVER ...	807	1,935	260,106	1,017,305	135,376	514,912	-	6,923
FEMALE								
TOTAL	3,037	8,313	1,712,017	2,975,348	1,425,615	2,176,879	10,843	12,110
55-74 YEARS	1,743	5,380	1,015,212	2,411,427	633,689	1,308,828	6,401	4,852
75 YEARS AND OVER ...	1,294	2,932	696,805	563,921	791,926	868,051	4,442	7,258

1 TROUBLE REMEMBERING OR CONFUSED FREQUENTLY, OR BLIND OR OTHER TROUBLE SEEING, OR DEAF OR OTHER TROUBLE HEARING.

2 THERE WERE 296 PERSONS WITH UNKNOWN IMPAIRMENT DATA.

3 FIGURES MAY NOT ADD TO TOTAL BECAUSE OF UNKNOWNNS AND ROUNDING.

TABLE 23. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-75 YEARS AND OVER WHO HAD MENTAL OR SENSORY IMPAIRMENTS, BY INSTRUMENTAL ACTIVITIES OF DAILY LIVING FUNCTIONAL ABILITY, ACCORDING TO IMPAIRMENT, SEX, AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

1 IMPAIRMENT, SEX, AND AGE	2 NUMBER IN SAMPLE	3 POPULATION IN THOUSANDS	ALL ABILITIES	INSTRUMENTAL ACTIVITIES OF DAILY LIVING FUNCTIONAL ABILITY					
				NO DIFFICULTY LIVES ALONE	NO DIFFICULTY LIVES WITH OTHER	DIFFICULTY LIVES ALONE	DIFFICULTY LIVES WITH OTHER	ABILITY UNKNOWN LIVES ALONE	ABILITY UNKNOWN LIVES WITH OTHER
NO IMPAIRMENT				PERCENT DISTRIBUTION					
MALE									
TOTAL	4,129	13,367	100	10.8	80.5	1.2	7.5	-	-
55-74 YEARS	3,406	11,662	100	9.7	82.7	1.0	6.6	-	-
75 YEARS AND OVER ...	723	1,706	100	17.9	65.6	3.0	13.5	-	-
FEMALE									
TOTAL	6,150	18,621	100	22.4	58.1	6.8	12.7	0.0	0.0
55-74 YEARS	4,661	15,256	100	18.9	64.6	4.7	11.6	0.0	0.0
75 YEARS AND OVER ...	1,489	3,365	100	38.2	28.1	16.3	17.4	-	-
HAD IMPAIRMENTS									
MALE									
TOTAL	2,536	7,272	100	9.7	66.3	4.1	19.7	-	0.2
55-74 YEARS	1,729	5,337	100	8.4	71.3	3.0	17.3	-	0.1
75 YEARS AND OVER ...	807	1,935	100	13.4	52.6	7.0	26.6	-	0.4
FEMALE									
TOTAL	3,037	8,313	100	20.6	35.8	17.1	26.2	0.1	0.1
55-74 YEARS	1,743	5,380	100	18.9	44.8	11.8	24.3	0.1	0.1
75 YEARS AND OVER ...	1,294	2,932	100	23.8	19.2	27.0	29.6	0.2	0.2

1 TROUBLE REMEMBERING OR CONFUSED FREQUENTLY, OR BLIND OR OTHER TROUBLE SEEING, OR DEAF OR OTHER TROUBLE HEARING.

2 THERE WERE 296 PERSONS WITH UNKNOWN IMPAIRMENT DATA.

3 FIGURES MAY NOT ADD TO TOTAL BECAUSE OF UNKNOWNNS AND ROUNDING.

TABLE 24. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND NUMBER OF PERSONS AGES 55-75 YEARS AND OVER WHO HAD MENTAL OR SENSORY IMPAIRMENTS, BY CARDIOVASCULAR FUNCTIONAL ABILITY, IMPAIRMENT, SEX, AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

1 IMPAIRMENT, SEX, AND AGE	2 NUMBER IN SAMPLE	3 POPULATION IN THOUSANDS	4 CARDIOVASCULAR FUNCTIONAL ABILITY					
			NO DIFFICULTY LIVES ALONE	NO DIFFICULTY LIVES WITH OTHER	DIFFICULTY LIVES ALONE	DIFFICULTY LIVES WITH OTHER	ABILITY UNKNOWN LIVES ALONE	ABILITY UNKNOWN LIVES WITH OTHER
NO IMPAIRMENT			NUMBER					
MALE								
TOTAL	4,129	13,367	1,405,314	10,419,475	169,123	1,280,958	25,175	67,352
55-74 YEARS	3,406	11,662	1,091,905	9,222,540	135,250	1,140,533	16,179	55,132
75 YEARS AND OVER ...	723	1,706	313,409	1,196,935	33,873	140,425	8,996	12,220
FEMALE								
TOTAL	6,150	18,621	4,981,675	12,361,115	403,839	737,043	57,593	80,094
55-74 YEARS	4,661	15,256	3,305,728	11,006,809	272,452	569,525	31,743	69,972
75 YEARS AND OVER ...	1,489	3,365	1,675,947	1,354,306	131,387	167,518	25,850	10,122
HAD IMPAIRMENTS								
MALE								
TOTAL	2,536	7,272	800,164	4,981,092	171,559	1,190,100	29,813	99,027
55-74 YEARS	1,729	5,337	488,933	3,764,063	98,910	899,917	18,211	67,099
75 YEARS AND OVER ...	807	1,935	311,231	1,217,029	72,649	290,183	11,602	31,928
FEMALE								
TOTAL	3,037	8,313	2,694,810	4,439,735	380,451	613,828	73,214	110,774
55-74 YEARS	1,743	5,380	1,413,539	3,277,269	203,421	373,650	38,342	74,188
75 YEARS AND OVER ...	1,294	2,932	1,281,271	1,162,466	177,030	240,178	34,872	36,586

¹ TROUBLE REMEMBERING OR CONFUSED FREQUENTLY, OR BLIND OR OTHER TROUBLE SEEING, OR DEAF OR OTHER TROUBLE HEARING.

² THERE WERE 296 PERSONS WITH UNKNOWN IMPAIRMENT DATA.

³ FIGURES MAY NOT ADD TO TOTAL BECAUSE OF UNKNOWNNS AND ROUNDING.

⁴ EVER HAD RHEUMATIC HEART DISEASE, CORONARY HEART DISEASE, A MYOCARDIAL INFARCTION OR ANY OTHER HEART ATTACK.

TABLE 25. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-75 YEARS AND OVER WHO HAD MENTAL OR SENSORY IMPAIRMENTS, BY CARDIOVASCULAR FUNCTIONAL ABILITY, ACCORDING TO IMPAIRMENT, SEX, AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

1 IMPAIRMENT, SEX, AND AGE	2 NUMBER IN SAMPLE	3 POPULATION IN THOUSANDS	4 ALL ABILITIES	CARDIOVASCULAR FUNCTIONAL ABILITY					
				NO DIFFICULTY LIVES ALONE	NO DIFFICULTY LIVES WITH OTHER	DIFFICULTY LIVES ALONE	DIFFICULTY LIVES WITH OTHER	ABILITY UNKNOWN LIVES ALONE	ABILITY UNKNOWN LIVES WITH OTHER
NO IMPAIRMENT				PERCENT DISTRIBUTION					
MALE									
TOTAL	4,129	13,367	100	10.5	77.9	1.3	9.6	0.2	0.5
55-74 YEARS	3,406	11,662	100	9.4	79.1	1.2	9.8	0.1	0.5
75 YEARS AND OVER ...	723	1,706	100	18.4	70.2	2.0	8.2	0.5	0.7
FEMALE									
TOTAL	6,150	18,621	100	26.8	66.4	2.2	4.0	0.3	0.4
55-74 YEARS	4,661	15,256	100	21.7	72.1	1.8	3.7	0.2	0.5
75 YEARS AND OVER ...	1,489	3,365	100	49.8	40.2	3.9	5.0	0.8	0.3
HAD IMPAIRMENTS									
MALE									
TOTAL	2,536	7,272	100	11.0	68.5	2.4	16.4	0.4	1.4
55-74 YEARS	1,729	5,337	100	9.2	70.5	1.9	16.9	0.3	1.3
75 YEARS AND OVER ...	807	1,935	100	16.1	62.9	3.8	15.0	0.6	1.7
FEMALE									
TOTAL	3,037	8,313	100	32.4	53.4	4.6	7.4	0.9	1.3
55-74 YEARS	1,743	5,380	100	26.3	60.9	3.8	6.9	0.7	1.4
75 YEARS AND OVER ...	1,294	2,932	100	43.7	39.6	6.0	8.2	1.2	1.2

¹ TROUBLE REMEMBERING OR CONFUSED FREQUENTLY, OR BLIND OR OTHER TROUBLE SEEING, OR DEAF OR OTHER TROUBLE HEARING.

² THERE WERE 296 PERSONS WITH UNKNOWN IMPAIRMENT DATA.

³ FIGURES MAY NOT ADD TO TOTAL BECAUSE OF UNKNOWNNS AND ROUNDING.

⁴ EVER HAD RHEUMATIC HEART DISEASE, CORONARY HEART DISEASE, A MYOCARDIAL INFARCTION OR ANY OTHER HEART ATTACK.

TABLE 26. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND NUMBER OF PERSONS AGES 55-75 YEARS AND OVER WHO HAD MENTAL OR SENSORY IMPAIRMENTS, BY ARTHRITIC OR RHEUMATIC FUNCTIONAL ABILITY, IMPAIRMENT, SEX, AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

1 IMPAIRMENT, SEX, AND AGE	2 NUMBER IN SAMPLE	3 POPULATION IN THOUSANDS	ARTHRITIC OR RHEUMATIC FUNCTIONAL ABILITY					
			NO DIFFICULTY LIVES ALONE	NO DIFFICULTY LIVES WITH OTHER	DIFFICULTY LIVES ALONE	DIFFICULTY LIVES WITH OTHER	ABILITY UNKNOWN LIVES ALONE	ABILITY UNKNOWN LIVES WITH OTHER
NO IMPAIRMENT			NUMBER					
MALE								
TOTAL	4,129	13,367	1,026,412	7,843,659	563,506	3,796,531	9,694	127,595
55-74 YEARS	3,406	11,662	801,701	6,977,340	431,939	3,320,034	9,694	120,831
75 YEARS AND OVER ...	723	1,706	224,711	866,319	131,567	476,497	-	6,764
FEMALE								
TOTAL	6,150	18,621	2,554,579	6,920,527	2,824,029	6,080,172	64,499	177,553
55-74 YEARS	4,661	15,256	1,761,496	6,262,474	1,795,564	5,239,960	52,863	143,872
75 YEARS AND OVER ...	1,489	3,365	793,083	658,053	1,028,465	840,212	11,636	33,681
HAD IMPAIRMENTS								
MALE								
TOTAL	2,536	7,272	461,084	3,210,445	503,752	2,967,162	36,700	92,612
55-74 YEARS	1,729	5,337	267,351	2,457,221	320,888	2,210,995	17,815	62,863
75 YEARS AND OVER ...	807	1,935	193,733	753,224	182,864	756,167	18,885	29,749
FEMALE								
TOTAL	3,037	8,313	978,039	1,779,120	2,127,929	3,319,311	42,507	65,906
55-74 YEARS	1,743	5,380	508,905	1,326,061	1,124,868	2,356,393	21,529	42,653
75 YEARS AND OVER ...	1,294	2,932	469,134	453,059	1,003,061	962,918	20,978	23,253

¹ TROUBLE REMEMBERING OR CONFUSED FREQUENTLY, OR BLIND OR OTHER TROUBLE SEEING, OR DEAF OR OTHER TROUBLE HEARING.

² THERE WERE 296 PERSONS WITH UNKNOWN IMPAIRMENT DATA.

³ FIGURES MAY NOT ADD TO TOTAL BECAUSE OF UNKNOWNNS AND ROUNDING.

TABLE 27. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-75 YEARS AND OVER WHO HAD MENTAL OR SENSORY IMPAIRMENTS, BY ARTHRITIC OR RHEUMATIC FUNCTIONAL ABILITY, ACCORDING TO IMPAIRMENT, SEX, AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

1 IMPAIRMENT, SEX, AND AGE	2 NUMBER IN SAMPLE	3 POPULATION IN THOUSANDS	ALL ABILITIES	ARTHRITIC OR RHEUMATIC FUNCTIONAL ABILITY					
				NO DIFFICULTY LIVES ALONE	NO DIFFICULTY LIVES WITH OTHER	DIFFICULTY LIVES ALONE	DIFFICULTY LIVES WITH OTHER	ABILITY UNKNOWN LIVES ALONE	ABILITY UNKNOWN LIVES WITH OTHER
NO IMPAIRMENT				PERCENT DISTRIBUTION					
MALE									
TOTAL	4,129	13,367	100	7.7	58.7	4.2	28.4	0.1	1.0
55-74 YEARS	3,406	11,662	100	6.9	59.8	3.7	28.5	0.1	1.0
75 YEARS AND OVER ...	723	1,706	100	13.2	50.8	7.7	27.9	-	0.4
FEMALE									
TOTAL	6,150	18,621	100	13.7	37.2	15.2	32.7	0.3	1.0
55-74 YEARS	4,661	15,256	100	11.5	41.0	11.8	34.3	0.3	0.9
75 YEARS AND OVER ...	1,489	3,365	100	23.6	19.6	30.6	25.0	0.3	1.0
HAD IMPAIRMENTS									
MALE									
TOTAL	2,536	7,272	100	6.3	44.1	6.9	40.8	0.5	1.3
55-74 YEARS	1,729	5,337	100	5.0	46.0	6.0	41.4	0.3	1.2
75 YEARS AND OVER ...	807	1,935	100	10.0	38.9	9.5	39.1	1.0	1.5
FEMALE									
TOTAL	3,037	8,313	100	11.8	21.4	25.6	39.9	0.5	0.8
55-74 YEARS	1,743	5,380	100	9.5	24.6	20.9	43.8	0.4	0.8
75 YEARS AND OVER ...	1,294	2,932	100	16.0	15.5	34.2	32.8	0.7	0.8

¹ TROUBLE REMEMBERING OR CONFUSED FREQUENTLY, OR BLIND OR OTHER TROUBLE SEEING, OR DEAF OR OTHER TROUBLE HEARING.

² THERE WERE 296 PERSONS WITH UNKNOWN IMPAIRMENT DATA.

³ FIGURES MAY NOT ADD TO TOTAL BECAUSE OF UNKNOWNNS AND ROUNDING.

Chapter V

Determinants of health— cardiovascular risk factors

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Introduction

Cardiovascular disease is a major cause of mortality and morbidity in older persons (tables 3 and 17). This is true even though there has been a decline in ischemic heart disease mortality and cerebrovascular disease mortality over the past 5 years in each sex-race-age subgroup of those aged 55 years and over (tables 5 and 6). Of the traditional cardiovascular risk factors, high blood pressure maintains its accuracy for predicting cardiovascular disease in those 65 years and over, but elevated serum cholesterol and cigarette smoking may have somewhat reduced capabilities to predict outcome in older persons.³⁰ Results on the strength of cardiovascular risk factors in older persons vary among studies.

Although the ability to predict disease may be less at older than at younger ages, the potential effect of any risk factor modification on disease reduction would be magnified because of the high rate of cardiovascular disease at older ages. (It is assumed that risk factor changes in older persons would be efficacious to some extent.) In addition, the high frequency of risk factors in older people makes a modification program relevant.

Although the adverse effects of risk factors for a chronic disease must be considered in terms of a lifetime of exposure, the current level of risk factors may be an indicator of previous levels of risk factors, especially in those without overt disease. Modification of such identified risk factors through hygienic measures or drug therapy may still be appropriate in older persons. A series of goals for health promotion and disease prevention has been formulated for achievement by 1990.³¹ Some of these goals are targeted directly to the elderly and involve cardiovascular risk factors. In addition, commitment by government to improvement in the health of minorities, including the older black and Hispanic populations, has increased.

Sources of data

The first and second National Health and Nutrition Examination Surveys (NHANES) were conducted in the periods 1971–74 and 1976–80. (See the appendix.) Estimates of national cardiovascular risk factor levels for older persons were obtained from survey data. In addition, a 24-hour recall of dietary intake was obtained on participants in both surveys. A special Health and Nutrition Examination Survey using similar measurement techniques was conducted among Hispanic persons in selected areas of the United States during

the period 1982–84. (See the appendix.) Data from the Mexican-American component, collected in 1982–83, are used here. Although most Mexican Americans are considered white, they represent a small proportion of the total white population and data on them do not unduly affect estimates. Smoking data come from the National Health Interview Survey.

Results and comments

Hypertension

The proportion of females with definite hypertension, defined as elevated systolic and/or diastolic blood pressure or treatment with antihypertensive medication, was higher in those aged 65–74 years than in those 55–64 years and higher in black than white women in both time periods (table 28). During the period 1976–80, 76.5 percent of black females aged 65–74 had definite hypertension. The percents of those with definite hypertension were similar for the two examination periods in white men and women of both age subgroups and in black people aged 55–64 years (table 28). This apparent lack of change may be a combined effect of a decrease in mean systolic blood pressure and an increase in the proportion of hypertensives being treated.³² From one NHANES survey to the next, the proportion being treated with medication increased from 16 to 20 percent for white adults of both sexes aged 55–64 years, from 21 to 30 percent for white adults aged 65–74 years, from 26 to 32 percent for black adults aged 55–64 years, and from 25 to 44 percent for black adults aged 65–74 years.³² The percent with undiagnosed hypertension decreased over this period.

For Mexican-American females, the percent with definite hypertension is intermediate between the levels of white females and black females in both age subgroups (tables 28 and 29). The prevalence of definite hypertension in Mexican-American males aged 55–64 years (48.3 percent) is intermediate between the levels of white males and black males, but Mexican-American males aged 65–74 years have the highest prevalence (59.6 percent) among males this age in the three subgroups.

Results of the Hypertension Detection and Followup Program (HDFP) indicate that lowering of diastolic blood pressure, even in those aged 60–69 years, can result in decreased total mortality as well as reduced cardiovascular mortality.³³ However, the effect on outcome of treating isolated systolic high blood pressure is unknown. Results from the followup of people screened for participation in HDFP indicate

that those aged 60–69 years who had elevated systolic hypertension—systolic blood pressure equal to or greater than 160 millimeters of mercury (mm Hg) and diastolic blood pressure less than 90 mm Hg—were at higher risk of cardiovascular mortality than were those with systolic blood pressure less than 160 mm Hg.³⁴ In the second NHANES, the levels of systolic hypertension varied from 4.5 to 11.3 percent for adults aged 55–74 years, depending on race and sex.³² The National Institute on Aging and the National Heart, Lung, and Blood Institute are sponsoring a randomized clinical trial of treatment of elevated blood pressure in the elderly.³⁵

Overweight

Excess weight is associated with elevated blood pressure and elevated glucose, thus affecting the prevalence of hypertension and non-insulin-dependent diabetes mellitus. Using a measure of overweight defined as being above the 85th percentile of the age group 20–29 years (used as an ideal), overweight is defined as a body mass index greater than or equal to about 27 kilograms/meter.² Overweight estimated in this manner approximates excess body fatness, or obesity. From the early to the late 1970's, the percents of those 55–64 and 65–74 years who were overweight changed little (table 28). About one-quarter of men aged 55–64 and 65–74 were overweight. A larger proportion of females than males these ages were overweight, and black females were especially likely to be overweight.

The proportions of overweight Mexican-American females were higher than those of overweight males in the two age subgroups (table 29). The percent overweight was similar for Mexican-American females and black females (about one-half). Although the percent of overweight Mexican Americans may be higher in those 55–64 years than in those 65–74 years, small sample sizes preclude reliable estimates.

Overweight may contribute to the relatively high frequency of definite hypertension in Mexican Americans. Because blood pressure is correlated with weight, the higher percent of overweight among Mexican-American males than among white or black males could affect the blood pressure distribution. Similarly, Mexican-American females were, on the average, heavier than white females (tables 28 and 29), and this might be related to the higher prevalence of definite hypertension for Mexican-American women.

High-risk cholesterol

A National Institutes of Health consensus conference has recommended guidelines for management and treatment of those with high-risk cholesterol levels. These levels are based on cutoff points of the cholesterol distribution and the age of the respondent.³⁶

The percent of persons with high-risk serum cholesterol was almost two times as high for older black and white women than for older black and white men in 1976–80 (table 28). The finding of a greater percent of high-risk older women than men is partly attributable to the fact that cholesterol is higher in women than men at older ages, whereas levels

are higher for men than women at younger ages.³⁷ The percent of the population at high risk was similar for the first and second NHANES in most subgroups.

The percent of Mexican Americans with high-risk cholesterol levels was much lower than the percent for the total U.S. population in three of four comparison groups (tables 28 and 29). Only in Mexican-American women aged 65–74 years was the percent similar to that for the total U.S. population. Reliability of estimates is compromised by small numbers. Serum cholesterol values were obtained for 191 men aged 55–64 years, 79 men aged 65–74 years, 219 women aged 55–64 years, and 114 women aged 65–74 years.

Dietary trends

Trends in the dietary intake of fat components are of particular interest because of the effect of fat components on the blood cholesterol level. Although NHANES data show that little or no change in total fat and saturated fat intakes occurred during the 1970's, dietary cholesterol decreased significantly in four of the eight subgroups and linoleic acid increased in all eight of the groups (table 30). These changes in intake may be caused by many factors. First, the availability and use of a variety of vegetable oils rather than animal fats in home cooking and foods eaten in restaurants and fast-food services may have affected the pattern of fat intake during the 1970's. Second, and of more public health significance, is the possibility that educational messages concerning the relationship of fat intake, serum cholesterol, and cardiovascular mortality may have prompted large numbers of individuals to make conscious choices about the types of fat ingested. Third, the observed changes may be attributable to methodological differences in dietary data collection or in the nutrient data bases used to process the data. It is not yet known whether any of these factors, any other factors, or a combination of factors resulted in the observed changes over time.

Smoking

Of men aged 65 years and over, 19.6 percent were smokers in 1985 (table 31). This percent, although not age adjusted, is similar to the percent for 1979. Little evidence exists that the percent of smokers in these older age subgroups has decreased over time. However, the level for those 55–64 years was 31.9 percent in 1985, lower than the 1979 level of 36.0 percent. The percent of female smokers was about the same in both years. Among both men and women, the percent of former smokers increased for the subsequent survey year.

The percent of male Mexican-American smokers aged 55–64 years and 65–74 years is higher than the percent for the general U.S. population in 1985 (tables 29 and 31). About 40 percent of male Mexican Americans aged 55–74 years and 20 percent of female Mexican Americans this age were current smokers in 1982–83. With mortality rates for lung cancer increasing in the country (table 8), this is an area for potential disease prevention activities within the Hispanic community.

Table 28. Percent of persons 55–74 years of age with selected cardiovascular risk factors, by race, sex, and age: United States, 1971–74 and 1976–80

[Data are from the first and second National Health and Nutrition Examination Surveys]

Race, sex, and age	Definite hypertension ¹		High-risk serum cholesterol ²		Overweight ³	
	1971–74	1976–80	1971–74	1976–80	1971–74	1976–80
White male						
Percent						
55–64 years.....	38.1	38.0	14.2	18.6	24.9	28.6
65–74 years.....	41.3	43.6	15.3	13.7	23.1	25.8
Black male						
55–64 years.....	54.0	53.9	19.0	16.7	25.6	26.0
65–74 years.....	58.6	45.2	20.4	12.1	21.6	26.4
White female						
55–64 years.....	39.2	38.8	28.7	30.6	36.6	34.8
65–74 years.....	53.1	53.4	32.6	29.9	37.0	36.5
Black female						
55–64 years.....	63.6	61.7	29.2	29.7	58.7	59.4
65–74 years.....	68.5	76.5	25.4	25.0	49.2	60.8

¹Using a single blood pressure measurement done in the seated position, definite hypertension is defined as systolic blood pressure equal to or greater than 160 millimeters of mercury (mm Hg), diastolic blood pressure equal to or greater than 95 mm Hg, and/or taking antihypertensive medication.

²High-risk serum cholesterol levels are defined by age-specific cutoff points. For persons 40 years of age and over, high-risk levels are those greater than 268 milligrams per deciliter.

³Overweight is defined for men as a body mass index greater than or equal to 27.8 kilograms/meter² and for women as an index greater than or equal to 27.3 kilograms/meter².

Table 29. Percent of Mexican-American persons 55–74 years of age with selected cardiovascular risk factors, by sex and age: United States, 1982–83

[Data are from the Hispanic Health and Nutrition Examination Survey]

Sex and age	Definite hypertension ¹	High-risk serum cholesterol ²	Overweight ³	Current smoker ⁴
Both sexes				
Percent				
55–64 years.....	46.5	10.6	48.1	31.8
65–74 years.....	63.5	18.9	40.8	27.2
Male				
55–64 years.....	48.3	9.2	37.5	44.1
65–74 years.....	59.6	8.6	30.3	41.0
Female				
55–64 years.....	44.9	11.8	57.3	20.9
65–74 years.....	66.8	27.7	49.7	17.7

¹Using the average of two blood pressure measurements done in the seated position, definite hypertension is defined as systolic blood pressure equal to or greater than 160 milligrams of mercury (mm Hg), diastolic blood pressure equal to or greater than 95 mm Hg, and/or taking antihypertensive medication.

²High-risk serum cholesterol levels are defined by age-specific cutoff points. For persons 40 years of age and over, high-risk levels are those greater than 268 milligrams per deciliter.

³Overweight is defined for men as a body mass index greater than or equal to 27.8 kilograms/meter² and for women as an index greater than or equal to 27.3 kilograms/meter².

⁴A current smoker is a person who has smoked at least 100 cigarettes and who now smokes. Occasional smokers are included.

Table 30. Intake of fat components and cholesterol for persons 55-74 years, by race, sex, and age: United States, 1971-74 and 1976-80

[Data are from the first and second National Health and Nutrition Examination Surveys]

Race, sex, and age	Total fat		Saturated fat		Linoleic acid		Cholesterol	
	1971-74	1976-80	1971-74	1976-80	1971-74	1976-80	1971-74	1976-80
White male			Mean intake in grams				Mean intake in milligrams	
55-64 years	88	87	33	32	9	12	456	429
65-74 years	74	76	27	27	7	10	405	383
White female								
55-64 years	56	57	20	20	6	8	308	262
65-74 years	52	51	18	17	5	8	271	240
Black male								
55-64 years	77	77	25	28	8	9	507	401
65-74 years	65	68	23	24	7	9	466	420
Black female								
55-64 years	49	54	17	19	6	8	268	302
65-74 years	51	45	18	15	5	7	323	235

NOTE: Mean intake is based on one 24-hour recall of dietary intake.

Table 31. Percent of persons 55 years of age and over, by smoking status, sex, and age: United States, 1979 and 1985

[Data are based on household interviews of the civilian noninstitutionalized population]

Sex and age	Current smoker ¹		Former smoker	
	1979	1985	1979	1985
Male				
55-64 years	36.0	31.9	40.4	47.2
65 years and over	20.7	19.6	46.6	52.5
65-74 years	24.5	21.9	47.1	53.2
75 years and over	12.9	15.0	45.8	51.1
75-84 years	14.0	15.7	47.5	52.2
85 years and over	8.0	10.9	38.6	44.9
Female				
55-64 years	28.4	27.4	18.8	22.2
65 years and over	13.0	13.5	13.9	21.2
65-74 years	16.8	17.9	17.7	23.5
75 years and over	7.0	7.0	7.9	17.9
75-84 years	8.0	8.0	8.5	19.1
85 years and over	3.0	1.9	5.5	11.3

¹A current smoker is a person who has smoked at least 100 cigarettes and who now smokes. Occasional smokers are included.

Chapter VI

Determinants of health— exercise and activities of daily living

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Introduction

Older persons have a full range of functional abilities, from regular exercise or walking a mile every day to difficulty getting in and out of a chair or getting outside. For those who are able, regular exercise can have a positive effect on well-being and vitality as well as the maintenance of weight and cardiovascular fitness. For those with chronic illness or other impairments, inability to perform the multiple activities of daily living^{2,27} or the instrumental activities of daily living²⁷ may be an indicator of high risk for in-home assistance or long-term care in an institution.

Results of recent studies suggest that, in the absence of chronic diseases that impose limitations on activities, older persons do not have to experience a marked reduction in physical fitness with aging.³⁸ In many cases declines in physical fitness are caused by simple deconditioning, probably the main contributor to the inability to perform modest physical exercise at older ages. A key aspect of the recent emphasis on disease prevention and health promotion involves encouraging increased physical activity in those who can accomplish it.

Sources of data

National estimates of the range of activity in older persons have been obtained from the Supplement on Aging (SOA) of the 1984 National Health Interview Survey. A full description is in the appendix. It should be noted that some questions on "health opinions" and participation in more rigorous forms of physical activity were not asked unless the person responded for himself or herself. It is not possible to estimate the physical activity level of persons not asked these questions because there were several reasons for not obtaining information by self-response. Proxy responses were provided on more than 25 percent of those 85 years and over, so this age subgroup is particularly vulnerable to uncertainty regarding functional status. This situation could result in conservative estimates of functional disability in this subgroup. No attempt was made to investigate the capacity to do various activities that were not performed. For example, if a person never tries to prepare meals, no attempt was made to find out whether he could do so if he had to.

Information on basic and instrumental activities of daily living is also available from SOA. Briefly, activities of daily living (ADL's) refer to the ability to independently accomplish self-care activities such as personal hygiene and mobility.

In SOA, subjects were asked about difficulty in performing ADL's that was attributable to a health or physical problem. When any difficulty was reported, subjects were asked about the level of difficulty performing ADL's without the help of others or the use of special equipment. Instrumental activities of daily living (IADL's) refer to activities inside and outside the home, such as meal preparation, shopping, managing money, using the telephone, and doing housework. The successful performance of IADL's depends on abilities that extend beyond physical function to aspects of cognitive and social functioning.

Results and comments

Except for women 85 years and over, about one-quarter of men and women in age subgroups of those 55 years and over indicated that they exercised regularly (table 32). In fact, about 16 percent of men and 10 percent of women 65 years and over responded that they walked 1 mile or more at a time without resting every day (table 33). However, the range of those who never walked a mile at a time varied from 36 percent of men aged 55–64 years to 49 percent of men 85 years and over and from 45 percent of women aged 55–64 to 62 percent of women aged 75–84 years.

Except for those 85 years and over, the majority of older persons had no difficulty walking one-quarter of a mile or two or three blocks (table 34). Slightly greater percents had no difficulty walking up 10 steps, or the equivalent of a flight of steps. The ability to lift, especially for women, was reduced. About 46 percent of women aged 65 years and over had difficulty lifting 25 pounds (defined to respondents as the equivalent of two full bags of groceries), as did 70 percent of women 85 years and over. However, most people who could not lift 25 pounds were able to lift 10 pounds, or the equivalent of a gallon of milk, without difficulty (table 35). The question concerning difficulty lifting 10 pounds was asked only of those with difficulty lifting 25 pounds.

Among persons who responded for themselves, self-perception of their own physical activity level compared with that of others represented an optimistic perspective, with 35–43 percent of those in sex-age subgroups of persons 55 years and over feeling that they were more active than others their age (table 36). However, when comparing their present activity level with that of 1 year earlier (table 37), the proportions of persons who felt that their activity level had declined were greater than the proportions who felt that the level had in-

creased. The majority felt that their activity level was unchanged.

The most frequent limitation in the group of activities of daily living was difficulty walking. The age-specific values for proportions of persons experiencing difficulty walking ranged from 9 to 32 percent for men and from 10 to 43 percent for women (table 38). In contrast, both sexes were less likely to experience difficulty with getting outside or in and out of a bed or chair than with walking (tables 38 and 39). Almost all noninstitutionalized individuals ate unassisted with no difficulty (table 40). Fourteen percent of men aged 85 years and over and 18 percent of women of the same age had difficulty dressing (table 40). Females at all ages had more difficulty than males using the toilet and controlling urination (table 41). Difficulty in using the toilet could contribute to an incontinence problem for some individuals. In addition, incontinence was more common in those with multiple medical conditions.³⁹ However, certain pelvic muscle

exercises and scheduled voiding programs have been successful in reducing the frequency of incontinence.⁴⁰ Figure 4 shows the percent of those aged 65 and over who had difficulty with activities of daily living.

For the instrumental activities of daily living, age-specific subgroups of men 55 years and over had more difficulty than women with talking on the telephone (table 42). Otherwise women were more likely than men to have had difficulty with this group of activities (tables 42–44). It should be noted that this differential could be partly caused by the somewhat older age distribution of women than of men. The estimates for the proportion of men with difficulty may be conservative because about 15 percent of men 65 years and over did not do heavy housework (including 0.7 percent who did not provide information), and 8 percent did not do light housework (table 44). Figure 5 shows the percent of those aged 65 and over who had difficulty with instrumental activities of daily living.

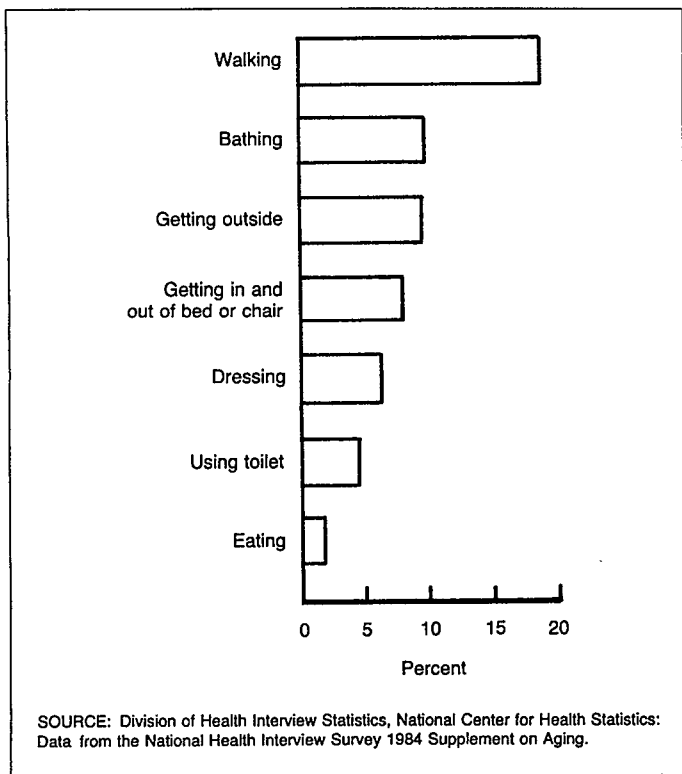


Figure 4. Percent of the noninstitutionalized population 65 years of age and over who have difficulty with activities of daily living, by type of activity: United States, 1984

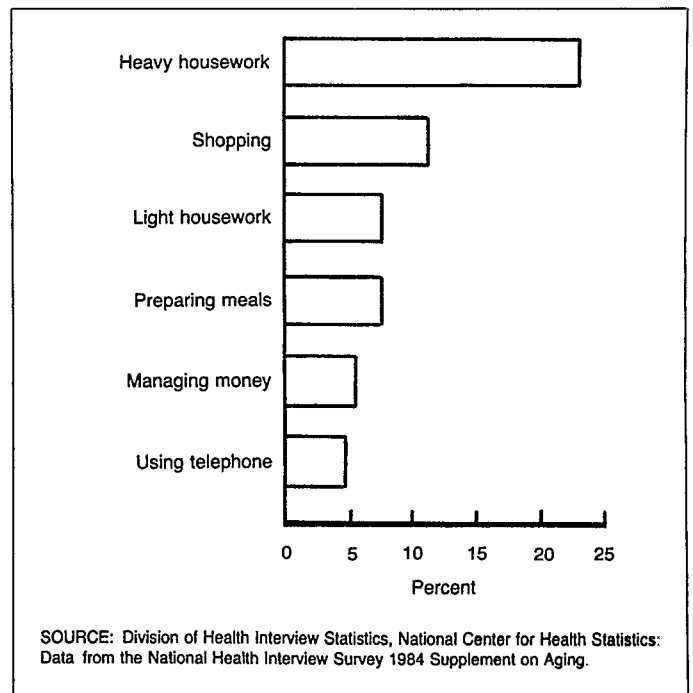


Figure 5. Percent of the noninstitutionalized population 65 years of age and over who have difficulty with instrumental activities of daily living, by type of activity: United States, 1984

TABLE 32. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER BY WHETHER THEY HAD REGULAR EXERCISE, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULATION IN THOUSANDS	REGULAR EXERCISE				
			ALL EXERCISE	ANSWERED YES	ANSWERED NO	NOT ANSWERED	UNKNOWN
MALE			PERCENT DISTRIBUTION				
55-64 YEARS	2,150	10,284	100	25.8	60.4	12.2	1.6
65 YEARS AND OVER ...	4,643	10,787	100	28.5	59.4	10.8	1.3
65-74 YEARS	3,083	7,075	100	30.1	60.1	8.8	1.1
75 YEARS AND OVER ...	1,560	3,712	100	25.6	58.3	14.4	1.7
75-84 YEARS	1,311	3,128	100	26.0	60.3	11.8	1.8
85 YEARS AND OVER ...	249	585	100	23.1	47.2	28.5	1.1
FEMALE							
55-64 YEARS	2,501	11,768	100	27.2	67.9	3.8	1.1
65 YEARS AND OVER ...	6,854	15,645	100	25.4	65.9	7.4	1.3
65-74 YEARS	4,010	9,213	100	27.7	66.6	4.6	1.0
75 YEARS AND OVER ...	2,844	6,433	100	22.0	64.9	11.5	1.6
75-84 YEARS	2,267	5,121	100	23.7	67.1	7.7	1.5
85 YEARS AND OVER ...	577	1,312	100	15.4	56.5	26.4	1.7

TABLE 33. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER BY FREQUENCY OF WALKING ONE MILE PER WEEK, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULATION IN THOUSANDS	FREQUENCY OF WALKING PER WEEK					NOT ANSWERED OR UNKNOWN
			ALL FREQUENCIES	7 DAYS	2-6 DAYS	1 DAY OR LESS	NEVER	
MALE			PERCENT DISTRIBUTION					
55-64 YEARS	2,150	10,284	100	19.0	14.1	17.1	35.7	14.2
65 YEARS AND OVER ...	4,643	10,787	100	15.9	13.8	14.6	43.5	12.2
65-74 YEARS	3,083	7,075	100	17.4	15.2	16.1	41.2	10.1
75 YEARS AND OVER ...	1,560	3,712	100	13.2	11.0	11.7	48.0	16.1
75-84 YEARS	1,311	3,128	100	14.2	12.2	12.3	47.7	13.6
85 YEARS AND OVER ...	249	585	100	8.0	4.8	8.3	49.2	29.7
FEMALE			PERCENT DISTRIBUTION					
55-64 YEARS	2,501	11,768	100	13.7	15.9	20.4	44.7	5.4
65 YEARS AND OVER ...	6,854	15,645	100	9.5	11.9	13.3	56.2	9.2
65-74 YEARS	4,010	9,213	100	11.1	14.8	15.3	52.7	6.1
75 YEARS AND OVER ...	2,844	6,433	100	7.2	7.9	10.3	61.0	13.6
75-84 YEARS	2,267	5,121	100	8.1	9.1	11.7	61.6	9.5
85 YEARS AND OVER ...	577	1,312	100	3.8	3.2	4.5	58.8	29.6

TABLE 34. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER BY WHETHER THEY HAD DIFFICULTY IN WALKING UP 10 STEPS OR ONE QUARTER OF A MILE, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULATION IN THOUSANDS	DIFFICULTY WALKING UP 10 STEPS				DIFFICULTY WALKING 1/4 MILES			
			ALL DIFFICULTIES	HAD DIFFICULTY	NO DIFFICULTY	UNKNOWN	ALL DIFFICULTIES	HAD DIFFICULTY	NO DIFFICULTY	UNKNOWN
MALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,150	10,284	100	11.6	87.0	1.5	100	15.5	83.0	1.5
65 YEARS AND OVER ...	4,643	10,787	100	19.1	79.5	1.3	100	25.4	73.6	1.0
65-74 YEARS	3,083	7,075	100	16.2	82.7	1.0	100	21.9	77.2	0.9
75 YEARS AND OVER ...	1,560	3,712	100	24.6	73.5	1.9	100	32.1	66.6	1.3
75-84 YEARS	1,311	3,128	100	22.4	75.9	1.7	100	29.1	69.9	1.0
85 YEARS AND OVER ...	249	585	100	36.5	60.4	3.1	100	48.3	48.7	3.1
FEMALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,501	11,768	100	16.3	82.9	0.8	100	16.3	82.9	0.8
65 YEARS AND OVER ...	6,854	15,645	100	28.5	69.3	2.2	100	32.5	66.2	1.3
65-74 YEARS	4,010	9,213	100	22.6	76.0	1.5	100	24.5	74.4	1.0
75 YEARS AND OVER ...	2,844	6,433	100	37.0	59.8	3.3	100	43.9	54.4	1.8
75-84 YEARS	2,267	5,121	100	33.3	64.0	2.7	100	39.4	59.2	1.5
85 YEARS AND OVER ...	577	1,312	100	51.2	43.2	5.6	100	61.5	35.6	2.9

TABLE 35. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER BY WHETHER THEY HAD DIFFICULTY IN LIFTING 10 OR 25 POUNDS, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULA- TION IN THOUSANDS	DIFFICULTY LIFTING 25 LBS				DIFFICULTY LIFTING 10 LBS			
			ALL DIFFICUL- TIES	HAD DIFFICUL- TY	NO DIFFICUL- TY	UNKNOWN	ALL DIFFICUL- TIES	HAD DIFFICUL- TY	NO DIFFICUL- TY	UNKNOWN
MALE	PERCENT DISTRIBUTION						PERCENT DISTRIBUTION			
55-64 YEARS	2,150	10,284	100	14.4	84.5	1.1	100	5.2	92.6	2.2
65 YEARS AND OVER ...	4,643	10,787	100	22.9	75.8	1.2	100	8.2	89.8	2.0
65-74 YEARS	3,083	7,075	100	19.8	79.4	0.9	100	6.6	91.6	1.8
75 YEARS AND OVER ...	1,560	3,712	100	29.0	69.1	1.9	100	11.4	86.2	2.3
75-84 YEARS	1,311	3,128	100	26.3	72.0	1.7	100	9.9	87.9	2.2
85 YEARS AND OVER ...	249	585	100	43.7	53.7	2.7	100	19.9	77.0	3.0
FEMALE										
55-64 YEARS	2,501	11,768	100	28.6	70.1	1.3	100	8.8	88.6	2.6
65 YEARS AND OVER ...	6,854	15,645	100	45.8	51.1	3.1	100	18.6	77.6	3.8
65-74 YEARS	4,010	9,213	100	37.8	59.9	2.3	100	12.6	84.5	2.9
75 YEARS AND OVER ...	2,844	6,433	100	57.1	38.6	4.3	100	27.2	67.7	5.1
75-84 YEARS	2,267	5,121	100	53.8	42.9	3.3	100	23.7	71.8	4.5
85 YEARS AND OVER ...	577	1,312	100	70.1	22.0	7.9	100	40.8	51.6	7.6

TABLE 36. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER BY COMPARISON OF THEIR ACTIVITY LEVELS WITH OTHERS, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULATION IN THOUSANDS	ALL COMPARISONS	ACTIVITY LEVEL COMPARED TO OTHERS				
				MORE	LESS	SAME	NOT ANSWERED	UNKNOWN
MALE			PERCENT DISTRIBUTION					
55-64 YEARS	2,150	10,284	100	35.0	10.2	40.6	12.2	2.1
65 YEARS AND OVER ...	4,643	10,787	100	41.3	9.5	36.8	10.8	1.7
65-74 YEARS	3,083	7,075	100	40.9	9.8	39.0	8.8	1.4
75 YEARS AND OVER ...	1,560	3,712	100	41.9	8.8	32.5	14.4	2.3
75-84 YEARS	1,311	3,128	100	41.7	9.1	35.1	11.8	2.3
85 YEARS AND OVER ...	249	585	100	42.8	7.5	19.0	28.5	2.3
FEMALE			PERCENT DISTRIBUTION					
55-64 YEARS	2,501	11,768	100	35.0	12.4	47.5	3.8	1.2
65 YEARS AND OVER ...	6,854	15,645	100	39.5	10.8	40.1	7.4	2.1
65-74 YEARS	4,010	9,213	100	38.7	11.1	44.0	4.6	1.6
75 YEARS AND OVER ...	2,844	6,433	100	40.7	10.4	34.5	11.5	2.8
75-84 YEARS	2,267	5,121	100	41.2	11.1	37.3	7.7	2.8
85 YEARS AND OVER ...	577	1,312	100	38.9	8.0	23.8	26.4	2.8

TABLE 37. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER BY COMPARISON OF THEIR ACTIVITY LEVELS TO 1 YEAR AGO, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULATION IN THOUSANDS	ACTIVITY LEVEL COMPARED TO 1 YEAR AGO					NOT ANSWERED	UNKNOWN
			ALL COMPARISONS	MORE ACTIVITY	LESS ACTIVITY	ABOUT THE SAME			
MALE			PERCENT DISTRIBUTION						
55-64 YEARS	2,150	10,284	100	8.1	11.1	67.1	12.2	1.4	
65 YEARS AND OVER ...	4,643	10,787	100	5.9	15.6	66.8	10.8	1.0	
65-74 YEARS	3,083	7,075	100	6.7	14.2	69.6	8.8	0.8	
75 YEARS AND OVER ...	1,560	3,712	100	4.5	18.2	61.5	14.4	1.3	
75-84 YEARS	1,311	3,128	100	4.4	18.9	63.5	11.8	1.4	
85 YEARS AND OVER ...	249	585	100	4.5	14.9	50.9	28.5	1.1	
FEMALE									
55-64 YEARS	2,501	11,768	100	9.5	13.6	72.3	3.8	0.8	
65 YEARS AND OVER ...	6,854	15,645	100	7.2	17.3	66.8	7.4	1.2	
65-74 YEARS	4,010	9,213	100	7.7	14.9	71.7	4.6	1.0	
75 YEARS AND OVER ...	2,844	6,433	100	6.4	20.8	59.8	11.5	1.5	
75-84 YEARS	2,267	5,121	100	6.9	21.1	63.0	7.7	1.3	
85 YEARS AND OVER ...	577	1,312	100	4.2	19.8	47.6	26.4	2.0	

TABLE 38. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER WITH DIFFICULTY IN ACTIVITIES OF DAILY LIVING BY WHETHER THEY HAD DIFFICULTY IN WALKING AND GETTING OUTSIDE, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULA- TION IN THOUSANDS	DIFFICULTY WALKING				DIFFICULTY GETTING OUTSIDE			
			ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN	ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN
MALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,150	10,284	100	8.8	90.2	1.0	100	3.1	95.7	1.2
65 YEARS AND OVER ...	4,643	10,787	100	15.5	83.9	0.6	100	6.3	92.9	0.8
65-74 YEARS	3,083	7,075	100	12.9	86.6	0.5	100	4.5	94.9	0.6
75 YEARS AND OVER ...	1,560	3,712	100	20.5	78.8	0.7	100	9.8	89.0	1.2
75-84 YEARS	1,311	3,128	100	18.3	80.9	0.8	100	7.5	91.3	1.2
85 YEARS AND OVER ...	249	585	100	32.2	67.4	0.4	100	21.8	77.0	1.2
FEMALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,501	11,768	100	9.6	89.9	0.5	100	3.6	95.8	0.6
65 YEARS AND OVER ...	6,854	15,645	100	20.9	78.3	0.8	100	11.8	87.0	1.1
65-74 YEARS	4,010	9,213	100	15.1	84.2	0.6	100	6.5	92.6	0.8
75 YEARS AND OVER ...	2,844	6,433	100	29.2	69.7	1.0	100	19.4	79.0	1.6
75-84 YEARS	2,267	5,121	100	25.7	73.5	0.8	100	15.3	83.4	1.3
85 YEARS AND OVER ...	577	1,312	100	43.3	54.8	2.0	100	35.4	61.9	2.7

TABLE 39. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER WITH DIFFICULTY IN ACTIVITIES OF DAILY LIVING BY WHETHER THEY HAD DIFFICULTY GETTING IN OR OUT OF BED OR CHAIR AND BATHING OR SHOWERING, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULA- TION IN THOUSANDS	DIFFICULTY GETTING IN OR OUT BED OR CHAIR				DIFFICULTY BATHING OR SHOWERING			
			ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN	ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN
MALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,150	10,284	100	4.4	94.5	1.1	100	4.1	94.9	1.0
65 YEARS AND OVER ...	4,643	10,787	100	5.6	93.9	0.6	100	7.6	91.8	0.6
65-74 YEARS	3,083	7,075	100	4.8	94.7	0.5	100	5.6	93.9	0.5
75 YEARS AND OVER ...	1,560	3,712	100	7.0	92.3	0.7	100	11.4	87.8	0.8
75-84 YEARS	1,311	3,128	100	5.9	93.3	0.7	100	9.2	89.9	0.9
85 YEARS AND OVER ...	249	585	100	12.7	86.9	0.4	100	23.1	76.5	0.4
FEMALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,501	11,768	100	5.5	94.0	0.5	100	4.6	94.9	0.6
65 YEARS AND OVER ...	6,854	15,645	100	9.7	89.6	0.7	100	11.2	88.0	0.7
65-74 YEARS	4,010	9,213	100	7.0	92.4	0.6	100	6.9	92.5	0.6
75 YEARS AND OVER ...	2,844	6,433	100	13.5	85.6	0.9	100	17.4	81.6	1.0
75-84 YEARS	2,267	5,121	100	11.2	88.0	0.8	100	14.2	85.1	0.8
85 YEARS AND OVER ...	577	1,312	100	22.2	76.2	1.6	100	30.1	68.2	1.7

TABLE 40. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER WITH DIFFICULTY IN ACTIVITIES OF DAILY LIVING BY WHETHER THEY HAD DIFFICULTY EATING OR DRESSING, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULA- TION IN THOUSANDS	DIFFICULTY EATING				DIFFICULTY DRESSING			
			ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN	ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN
MALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,150	10,284	100	0.8	98.0	1.2	100	3.6	95.3	1.1
65 YEARS AND OVER ...	4,643	10,787	100	2.0	97.4	0.6	100	5.8	93.7	0.6
65-74 YEARS	3,083	7,075	100	1.5	98.0	0.5	100	4.4	95.1	0.5
75 YEARS AND OVER ...	1,560	3,712	100	2.8	96.4	0.8	100	8.3	91.0	0.7
75-84 YEARS	1,311	3,128	100	2.5	96.6	0.9	100	7.3	92.0	0.7
85 YEARS AND OVER ...	249	585	100	4.3	95.3	0.4	100	14.1	85.5	0.4
FEMALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,501	11,768	100	0.6	98.9	0.5	100	3.0	96.5	0.5
65 YEARS AND OVER ...	6,854	15,645	100	1.7	97.6	0.7	100	6.5	92.7	0.8
65-74 YEARS	4,010	9,213	100	0.9	98.5	0.6	100	4.2	95.2	0.6
75 YEARS AND OVER ...	2,844	6,433	100	2.8	96.3	0.9	100	9.8	89.2	1.0
75-84 YEARS	2,267	5,121	100	2.4	96.9	0.7	100	7.7	91.5	0.8
85 YEARS AND OVER ...	577	1,312	100	4.4	94.0	1.6	100	17.7	80.2	2.1

TABLE 41. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER WITH DIFFICULTY IN ACTIVITIES OF DAILY LIVING BY WHETHER THEY HAD DIFFICULTY USING TOILET OR CONTROLLING URINATION, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULA- TION IN THOUSANDS	DIFFICULTY USING TOILET				DIFFICULTY CONTROLLING URINATION			
			ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN	ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN
MALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,150	10,284	100	1.2	97.6	1.2	100	2.0	96.8	1.2
65 YEARS AND OVER ...	4,643	10,787	100	3.1	96.1	0.7	100	6.5	92.7	0.8
65-74 YEARS	3,083	7,075	100	2.4	97.0	0.7	100	5.0	94.3	0.8
75 YEARS AND OVER ...	1,560	3,712	100	4.6	94.5	0.9	100	9.5	89.6	0.9
75-84 YEARS	1,311	3,128	100	3.6	95.5	0.9	100	8.8	90.2	1.0
85 YEARS AND OVER ...	249	585	100	10.0	89.2	0.8	100	13.0	86.6	0.4
FEMALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,501	11,768	100	1.5	97.9	0.6	100	5.2	94.1	0.7
65 YEARS AND OVER ...	6,854	15,645	100	5.1	94.0	0.9	100	9.3	90.0	0.7
65-74 YEARS	4,010	9,213	100	2.7	96.4	0.8	100	6.8	92.6	0.6
75 YEARS AND OVER ...	2,844	6,433	100	8.4	90.5	1.0	100	12.9	86.2	0.9
75-84 YEARS	2,267	5,121	100	6.5	92.6	0.8	100	11.2	88.0	0.7
85 YEARS AND OVER ...	577	1,312	100	15.9	82.4	1.8	100	19.6	78.8	1.6

TABLE 42. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER WITH DIFFICULTY IN ACTIVITIES OF DAILY LIVING BY WHETHER THEY HAD DIFFICULTY PREPARING OWN MEALS OR USING TELEPHONE, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULA- TION IN THOUSANDS	DIFFICULTY PREPARING OWN MEALS				DIFFICULTY USING THE TELEPHONE			
			ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN	ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN
MALE	PERCENT DISTRIBUTION						PERCENT DISTRIBUTION			
55-64 YEARS	2,150	10,284	100	1.3	90.5	8.2	100	1.3	97.4	1.3
65 YEARS AND OVER ...	4,643	10,787	100	4.7	83.7	11.6	100	5.6	92.7	1.7
65-74 YEARS	3,083	7,075	100	3.0	86.6	10.4	100	3.5	95.1	1.4
75 YEARS AND OVER ...	1,560	3,712	100	8.0	78.3	13.8	100	9.5	88.0	2.5
75-84 YEARS	1,311	3,128	100	6.0	81.2	12.8	100	7.9	89.9	2.3
85 YEARS AND OVER ...	249	585	100	18.4	62.8	18.7	100	18.4	77.9	3.7
FEMALE	PERCENT DISTRIBUTION						PERCENT DISTRIBUTION			
55-64 YEARS	2,501	11,768	100	3.0	96.3	0.7	100	1.0	98.4	0.6
65 YEARS AND OVER ...	6,854	15,645	100	8.7	89.3	1.9	100	4.2	94.6	1.3
65-74 YEARS	4,010	9,213	100	4.8	94.1	1.1	100	2.0	97.1	1.0
75 YEARS AND OVER ...	2,844	6,433	100	14.4	82.5	3.2	100	7.3	91.0	1.7
75-84 YEARS	2,267	5,121	100	10.5	87.2	2.3	100	4.8	93.8	1.3
85 YEARS AND OVER ...	577	1,312	100	29.5	64.0	6.5	100	17.1	79.7	3.2

TABLE 43. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER WITH DIFFICULTY IN ACTIVITIES OF DAILY LIVING BY WHETHER THEY HAD DIFFICULTY IN SHOPPING OR MANAGING MONEY, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULA- TION IN THOUSANDS	DIFFICULTY SHOPPING				DIFFICULTY MANAGING MONEY			
			ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN	ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN
MALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,150	10,284	100	3.0	94.9	2.1	100	1.0	96.6	2.3
65 YEARS AND OVER ...	4,643	10,787	100	7.3	89.6	3.1	100	4.4	93.0	2.6
65-74 YEARS	3,083	7,075	100	4.6	93.0	2.4	100	2.8	95.1	2.1
75 YEARS AND OVER ...	1,560	3,712	100	12.3	83.1	4.6	100	7.5	88.8	3.6
75-84 YEARS	1,311	3,128	100	9.6	86.7	3.7	100	5.4	91.6	3.0
85 YEARS AND OVER ...	249	585	100	26.8	63.8	9.4	100	19.0	74.0	7.0
FEMALE										
55-64 YEARS	2,501	11,768	100	4.3	94.8	0.9	100	1.0	97.6	1.4
65 YEARS AND OVER ...	6,854	15,645	100	14.1	83.6	2.4	100	5.5	91.9	2.6
65-74 YEARS	4,010	9,213	100	7.8	91.1	1.2	100	1.8	96.5	1.7
75 YEARS AND OVER ...	2,844	6,433	100	23.1	72.8	4.1	100	10.7	85.4	3.9
75-84 YEARS	2,267	5,121	100	18.4	78.6	3.0	100	6.8	90.2	3.0
85 YEARS AND OVER ...	577	1,312	100	41.6	50.0	8.4	100	26.2	66.5	7.3

TABLE 44. NUMBER IN SAMPLE, POPULATION IN THOUSANDS, AND PERCENT DISTRIBUTION OF PERSONS AGES 55-85 YEARS AND OVER WITH DIFFICULTY IN ACTIVITIES OF DAILY LIVING BY WHETHER THEY HAD DIFFICULTY IN DOING LIGHT OR HEAVY HOUSEWORK, ACCORDING TO SEX AND AGE: UNITED STATES, 1984

(DATA BASED ON THE NATIONAL HEALTH INTERVIEW SURVEY 1984 SUPPLEMENT ON AGING)

SEX AND AGE	NUMBER IN SAMPLE	POPULA- TION IN THOUSANDS	DIFFICULTY DOING HEAVY HOUSEWORK				DIFFICULTY DOING LIGHT HOUSEWORK			
			ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN	ALL DIFFICUL- TIES	YES	NO	DOES NOT DO OR UNKNOWN
MALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,150	10,284	100	8.1	79.8	12.1	100	2.1	90.6	7.3
65 YEARS AND OVER ...	4,643	10,787	100	13.7	71.2	15.1	100	4.9	87.1	8.0
65-74 YEARS	3,083	7,075	100	11.2	75.5	13.4	100	3.5	89.6	6.9
75 YEARS AND OVER ...	1,560	3,712	100	18.7	62.9	18.4	100	7.6	82.2	10.2
75-84 YEARS	1,311	3,128	100	15.9	66.9	17.2	100	6.2	84.8	9.0
85 YEARS AND OVER ...	249	585	100	33.3	42.0	24.7	100	15.2	68.5	16.3
FEMALE			PERCENT DISTRIBUTION				PERCENT DISTRIBUTION			
55-64 YEARS	2,501	11,768	100	17.7	79.9	2.4	100	3.1	95.5	1.5
65 YEARS AND OVER ...	6,854	15,645	100	30.8	61.9	7.3	100	8.7	89.0	2.4
65-74 YEARS	4,010	9,213	100	24.3	70.5	5.2	100	5.0	93.7	1.3
75 YEARS AND OVER ...	2,844	6,433	100	40.0	49.7	10.3	100	14.0	82.2	3.8
75-84 YEARS	2,267	5,121	100	36.4	54.3	9.3	100	10.5	86.1	3.4
85 YEARS AND OVER ...	577	1,312	100	54.2	31.9	13.9	100	27.4	67.1	5.5

Chapter VII

Use of health care—ambulatory medical care

by Hugo Koch and Richard J. Havlik, M.D., National Center for Health Statistics

Introduction

Most older persons are not hospitalized in any year, so the majority of medical care occurs in ambulatory settings. These locations are usually the offices of general and family physicians and internists. However, the variety in available sites, such as walk-in clinics, surgicenters, and hospital outpatient facilities, is increasing. This variability may result from a number of factors, including distance, availability of transportation, personal choice, new location options, insurance coverage, and other unknown factors. Although some of the factors affecting selection of location also might affect the amount of use of ambulatory care, symptoms and disease would be expected to be the most important contributing factors. It is not surprising that those individuals in the community whose health is perceived to be fair or poor have the most physician contacts per year.⁴¹ In addition, subgroups of persons in the population defined as low, intermediate, or high users of ambulatory care have been identified.⁴²

In addition to interviewing persons in the community concerning physician contacts at any site, including outpatient clinics and emergency rooms, physicians are interviewed because they can provide the most reliable information on the medical diagnoses made and drugs prescribed during visits to their offices.⁴³ The type of patient on whom information is obtained in physician interviews may differ somewhat from the general population in socioeconomic status or other factors. Information from the patient in the community and the provider in the office must be blended to give the most complete picture of ambulatory medical care for older persons.

Sources of data

Person-level data on hospital, ambulatory care, and prescription drug use in 1980 are available from the National Medical Care Utilization and Expenditure Survey (NMCUES). The National Health Interview Survey (NHIS) is the source of person-level data on physician contacts during the period 1982–83. The National Ambulatory Medical Care Survey (NAMCS) was an annual survey of physician providers conducted in 1980 and 1981, and data on diagnoses and prescribed drug therapy are available for the combined years. This survey was repeated in 1985. See the appendix for details of the surveys.

Results and comments

Location of care

According to NMCUES data (table 45), 86.4 percent of men and 87.6 percent of women aged 55–64 years had no days of hospitalization in 1980. Even at 75 years and over, about 75 percent of men and women had no hospitalizations. In contrast, depending on age, only 10 to 20 percent of persons had no health care visits. According to NHIS data,⁴¹ 60.4 percent of physician contacts for those 65 years and over occurred in a physician's office; 12.1 percent in hospital emergency rooms, clinics, or other hospital facilities; 6.8 percent at home; 12.5 percent by phone; 0.3 percent at a company clinic; and 8.0 percent at other locations.

Frequency of care

According to NHIS data for the period 1982–83, the average annual number of physician contacts per person ranged from 6.2 to 9.2 visits per year, depending on the age, race, and sex subgroup (table 46). However, for all races combined, the number of visits for those whose health was considered to be fair or poor ranged from 10.2 to 12.9 visits per year, depending on the age and sex subgroup, compared with a range of 4.1 to 6.1 visits for those whose health was considered good or excellent. Data from NMCUES show that 3.8–6.7 percent of men 55 years and over, depending on age subgroup, and 7.7–12.5 percent of women at similar ages were high-level users of ambulatory care (table 45). High use was defined as 20 or more health care visits to a physician or nonphysician. Of persons in this age range, 7.1–19.7 percent were high-level users of prescription drugs. High-level users were those with 25 or more prescribed medicine acquisitions.

NAMCS provider data

Because older persons tend to have multiple problems, an office visit is likely to include consideration of more than one complaint. For example, about 52 percent of visits for patients 75 years and over involved multiple diagnoses.⁴³ The 25 most frequent diagnoses for males and females aged 75 years and over have been published.⁴³

When the first-, second-, and third-listed diagnoses reported by physicians for office visits are cumulated, essential hypertension is the most frequently mentioned diagnosis in

all groups of people 55 years and over except men 85 years and over, for whom chronic ischemic heart disease is ranked first (table 47). In fact, a quartet of diseases consisting of essential hypertension, diabetes mellitus, chronic ischemic heart disease, and osteoarthritis is mentioned most frequently as the diagnosis for physician visits of older persons. In the group 85 years of age and over, cataract becomes the fourth most frequent diagnosis, replacing diabetes mellitus. The frequency of cataract mentions is higher in each older subgroup—29 per 1,000 visits in the subgroup 65–74 years, 50 per 1,000 in the subgroup 75–84 years, and 68 per 1,000 in the subgroup 85 years and over. Other frequently mentioned conditions for the various ages often overlap with the most common diagnoses, resulting in the concentration of diagnoses into a relatively few categories. For example, other listed cardiovascular diagnoses include cardiac dysrhythmias, hyper-

tensive heart disease, heart failure, angina pectoris, and the general condition of atherosclerosis. In addition to osteoarthritis, mention is made of arthropathies, other and unspecified, a diagnosis less frequently reported but present in each of the age groups. Besides cataract, eye problems include disorders of refraction and accommodation and glaucoma.

Almost 70 percent of physician visits by those 75 years and over resulted in at least one prescribed medication, and 44 percent of patients received multiple drugs.⁴³ The most frequently prescribed or provided drugs for persons 55 years and over are included in the classes of diuretics, cardiovascular drugs, and analgesics (table 48). In the subgroup 85 years and over, hydrochlorothiazide and digoxin are the generic drugs mentioned most often by physicians. Interestingly, vitamin B₁₂ is still commonly prescribed for older persons.

Table 45. Percent distributions of persons 55 years of age and over by level of hospital, ambulatory care, and prescription drug use, according to sex and age: United States, 1980

[Data are based on a household survey of the civilian noninstitutionalized population]

Type of use, sex, and age	Total	Level of use ¹			
		None	Low	Intermediate	High
LEVEL OF HOSPITAL USE¹					
Male		Percent distribution			
55-64 years	100.0	86.4	1.3	8.4	3.9
65-74 years	100.0	77.3	1.6	15.2	5.9
75 years and over	100.0	75.1	3.1	10.7	11.1
Female					
55-64 years	100.0	87.6	1.4	8.6	2.3
65-74 years	100.0	82.7	1.6	10.8	4.9
75 years and over	100.0	74.9	1.8	15.0	8.3
LEVEL OF AMBULATORY CARE USE²					
Male					
55-64 years	100.0	19.7	13.6	62.9	3.8
65-74 years	100.0	19.7	10.0	61.8	8.5
75 years and over	100.0	16.6	9.7	67.0	6.7
Female					
55-64 years	100.0	14.4	12.8	65.2	7.7
65-74 years	100.0	14.3	9.4	66.9	9.4
75 years and over	100.0	10.2	7.2	70.1	12.5
LEVEL OF PRESCRIPTION DRUG USE³					
Male					
55-64 years	100.0	32.9	10.7	49.3	7.1
65-74 years	100.0	29.1	8.2	52.0	10.7
75 years and over	100.0	19.5	4.4	59.2	18.9
Female					
55-64 years	100.0	23.2	7.1	59.4	12.3
65-74 years	100.0	19.7	5.2	60.0	15.1
75 years and over	100.0	13.4	4.8	62.1	19.7

¹Low users had 1 or 2 hospital days during the year; high users had 17 or more hospital days.

²Low users had 1 nondental visit to a physician or nonphysician; high users had 20 or more visits.

³Low users had 1 prescription medicine acquisition; high users had 25 or more acquisitions.

SOURCE: S. E. Berki, J. N. Lepkowski, L. Wyszewianski, et al.: High-volume and low-volume users of health services, United States, 1980. *National Medical Care Utilization and Expenditure Survey*. Series C, No. 2. DHHS Pub. No. 86-20402. National Center for Health Statistics, Public Health Service. Washington. U.S. Government Printing Office, Nov. 1985.

Table 46. Average annual number of physician contacts per person, by race, sex, respondent-assessed health status, and age: United States, 1982-83

[Data are based on household interviews of the civilian noninstitutionalized population]

Respondent-assessed health status and age	All races ¹		White		Black	
	Male	Female	Male	Female	Male	Female
All health statuses ²						
Number per person per year						
55-64 years	6.2	6.9	6.2	6.7	7.5	8.2
65 years and over	7.2	8.0	7.2	8.0	7.6	7.9
65-74 years	6.6	7.8	6.7	7.8	6.7	8.8
75 years and over	8.2	8.3	8.2	8.4	9.2	7.7
Good or excellent health						
55-64 years	4.1	4.7	4.1	4.8	4.1	4.8
65 years and over	5.1	5.8	5.1	5.9	4.5	4.4
65-74 years	4.8	5.5	4.8	5.6	4.4	4.5
75 years and over	5.6	6.1	5.7	6.3	*4.7	4.3
Fair or poor health						
55-64 years	12.6	12.9	12.7	12.9	12.0	12.7
65 years and over	11.1	12.4	11.3	12.7	10.0	10.7
65-74 years	10.2	12.7	10.5	13.0	8.7	10.7
75 years and over	12.7	12.2	12.8	12.3	12.3	10.6

¹Includes races other than white and black.

²Includes unknown respondent-assessed health status.

NOTE: Asterisk indicates relative standard error more than 30 percent.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Unpublished data from the National Health Interview Survey.

Table 47. Number of mentions of most frequent all-listed diagnoses for ambulatory patients 55 years and over and rank by sex and age: United States, 1980 and 1981

R a n k	Age, most frequent all-listed ¹ diagnoses, and ICD-9-CM code ²	Number of mentions per 1,000 visits	Comparable rank		R a n k	Age, most frequent all-listed ¹ diagnoses, and ICD-9-CM code ²	Number of mentions per 1,000 visits	Comparable rank		
			Female	Male				Female	Male	
55-64 years					75-84 years					
1	Essential hypertension	401	167	1	1	Essential hypertension	401	175	1	1
2	Diabetes mellitus	250	66	2	3	Chronic ischemic heart disease	414	91	2	2
3	Chronic ischemic heart disease	414	42	8	2	Diabetes mellitus	250	70	4	3
4	Osteoarthritis and allied disorders	715	35	3	4	Osteoarthritis and allied disorders	715	57	3	9
5	Neurotic disorders	300	31	4	7	Cataract	366	50	5	7
6	Obesity	278	27	5	11	Heart failure	428	39	7	4
7	Arthropathies, other and unspecified	716	25	6	9	Arthropathies, other and unspecified	716	36	6	14
8	Disorders of refraction and accommodation	367	22	9	8	Cardiac dysrhythmias	427	34	8	8
9	Acute upper respiratory infections	465	19	10	14	Glaucoma	365	28	10	13
10	Cardiac dysrhythmias	427	17	14	6	Angina pectoris	413	26	11	11
65-74 years					85 years and over					
1	Essential hypertension	401	192	1	1	Essential hypertension	401	171	1	2
2	Diabetes mellitus	250	78	2	3	Chronic ischemic heart disease	414	117	2	1
3	Chronic ischemic heart disease	414	62	4	2	Osteoarthritis and allied disorders	715	74	3	8
4	Osteoarthritis and related disorders	715	45	3	5	Cataract	366	68	4	3
5	Arthropathies, other and unspecified	716	31	5	12	Heart failure	428	65	5	4
6	Cataract	366	29	6	9	Diabetes mellitus	250	49	9	5
7	Hypertensive heart disease	402	24	8	8	Cardiac dysrhythmias	427	47	10	6
8	Heart failure	428	24	9	6	Atherosclerosis	440	37	8	9
9	Chronic airway obstruction, not elsewhere classified	496	22	24	4	Arthropathies, other and unspecified	716	37	7	13
10	Neurotic disorders	300	20	7	26	Hypertensive heart disease	402	37	6	25

¹"All-listed" means listed as 1st, 2nd, or 3rd diagnosis.

²Coded according to the 9th Revision, International Classification of Diseases, Clinical Modification. (See reference 45.)

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Ambulatory Medical Care Survey.

Table 48. Number of mentions of selected drugs frequently ordered or provided for ambulatory patients 55 years of age and over, by age: United States, 1980 and 1981

<i>Generic name of drug</i>	<i>Therapeutic effect</i>	<i>55-64 years</i>	<i>65-74 years</i>	<i>75-84 years</i>	<i>85 years and over</i>
Number of mentions ¹ per 1,000 visits					
Hydrochlorothiazide	Diuretic	100	122	123	138
Propranolol	Cardiac drug	43	52	43	34
Aspirin	Analgesic, antipyretic, and anti-inflammatory	39	39	44	38
Digoxin	Cardiac drug	33	65	104	135
Triamterene	Diuretic	31	39	44	54
Methyldopa	Antihypertensive agent	29	42	38	*29
Furosemide	Diuretic	28	53	63	95
Potassium replacement solutions	Replacement solution	24	32	31	55
Chlorthalidone	Diuretic	22	23	24	*18
Acetaminophen	Analgesic and antipyretic	19	19	24	*19
Nitroglycerine	Vasodilating agent	19	25	31	35
Isosorbide	Vasodilating agent	18	27	30	*23
Ibuprophen	Analgesic and anti-inflammatory	17	20	19	*20
Vitamin B ₁₂	Vitamin	16	24	30	43

¹Includes mentions of an agent as a single-ingredient drug and as an ingredient of a combination drug.

NOTE: Asterisk indicates that either the numerator or denominator (i.e. number of drug mentions or number of visits) has a relative standard error more than 30 percent.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Ambulatory Medical Care Survey.

Chapter VIII

Use of health care—care in short-stay hospitals

by Mary Moien, National Center for Health Statistics, and Barbara Marzetta Liu, Northwest Institute

Introduction

Although the majority of medical care takes place in the ambulatory setting, inpatient care assumes greater importance with increasing patient age. According to estimates from the National Medical Care Utilization and Expenditure Survey (NMCUES), 23 percent of males and 17 percent of females aged 65–74 years who were living in the community were hospitalized at some time during 1980 (table 45). For the population 75 years of age and over, approximately 25 percent of both sexes experienced at least one episode of hospitalization; 9 percent of the population spent a total of 17 days or more in the hospital.⁴²

A characterization of the utilization of inpatient care by older persons sheds important light on the general health of that segment of the population and on the natural history of the aging process. It also provides another perspective on recent changes in medical technology and health care delivery. In addition, care in hospitals is of great interest to policymakers because of its cost. In 1985 hospital care accounted for 45 percent of national expenditures for personal health care; in terms of public expenditures, 69 percent of the Medicare budget went for hospital care.⁴⁴

Source of data

Data on utilization of short-stay hospitals were collected by means of the National Hospital Discharge Survey, a continuous voluntary survey that has been conducted since 1965. The data for the survey are obtained from the face sheets of a sample of inpatient medical records obtained from a national sample of short-stay general and specialty hospitals located in the United States. Coding is by the *International Classification of Diseases, 9th Revision, Clinical Modification*.⁴⁵ (See the appendix for details.)

Results and comments

Hospital discharge rates and lengths of stay

During 1984 an estimated 37 million patients, excluding newborn infants, were discharged from non-Federal short-stay hospitals.⁴⁶ More than 11 million (30 percent) of those discharged patients were 65 years of age or older—a discharge rate of 400 per 1,000 population aged 65 years and over. Within the aging population, discharge rates increased markedly with advancing age: Expressed per 1,000 population, rates were 208 for those aged 55–64 years, 320 for those

65–74 years, 498 for those 75–84 years, and, finally, 591 for persons 85 years and over.

Of the 245 million days of care in 1984, 100 million, or 41 percent, were recorded for the population 65 years of age and over. The large number of days of care reflects both higher hospitalization rates and longer average lengths of stay for older persons than for younger persons. Average length of stay increased with advancing age from 7.5 days for those aged 55–64 years to 9.8 days for those aged 85 and over. Older people tend to have relatively high rates of chronic illness and the older age group has the highest proportion of multiple diagnoses, both of which are associated with long average lengths of stay.

From midadolescence through 44 years of age, discharge rates for females generally exceed those for males, even when deliveries are excluded from consideration.⁴⁶ However, a reversal of that phenomenon begins to occur in the age groups 45–54 and 55–64 years. At these ages, the rates are similar for both sexes. By ages 65–74, discharge rates have become proportionately higher for males, and the disparity increases with each progressive age subgroup. For example, the 1984 discharge rate for males 65 years of age and over was 11 percent higher than that for females.⁴⁶ For the subgroup aged 85 years and over, the discharge rate for males (682 per 1,000 population) was 23 percent higher than that for females. However, the average lengths of stay for elderly males and females were comparable, which suggests equivalent severity of illness, albeit for different diagnoses.

Diagnosis

For males aged 55 years and over discharged in 1984, the most common first-listed diagnosis, which is generally the principal diagnosis, was diseases of heart, followed by malignant neoplasms and cerebrovascular diseases (table 49). In the subgroup aged 55–64 years, inguinal hernia, hyperplasia of the prostate, and alcohol dependence syndrome ranked fourth, fifth, and sixth, respectively, in terms of frequent listing. At ages 65–74 years, alcohol dependence syndrome was no longer a leading diagnosis, but eye diseases and conditions, a category that includes cataract, became a leading diagnosis. In persons 75 years and over, pneumonia moved to fourth place, replacing inguinal hernia as a leading diagnosis. Finally, in those 85 years of age and over, fractures of all sites became the fifth ranking diagnosis.

A comparison with data from 1979 indicates that the discharge rate for diseases of heart remained stable at each

age group. The only significant increases in rates were noted for cerebrovascular diseases and pneumonia among males 85 years and over.

From 1979 to 1984, average lengths of stay for men decreased for most of the previously mentioned diagnoses within all age groups (table 49). Decreases of approximately 2 days were observed for diseases of heart and malignant neoplasms in the subgroup 65 years and over. Interestingly, too, the diagnosis-specific age gradient in the length of stay diminished over time. In 1984, the only diagnosis for which the average length of stay was remarkably longer at older ages was hyperplasia of the prostate.

For females discharged in 1984, diseases of heart was also the most common first-listed diagnosis for all older age groups (table 50). Next in rank for females 55–64 years of age were malignant neoplasms, diabetes, cerebrovascular diseases, fractures of all sites, and cholelithiasis. The rankings shifted gradually in older cohorts. For women 65–74 years and 75–84 years, cholelithiasis was no longer a leading diagnosis, but eye diseases and conditions had increased. By 85 years of age and over, fractures of all sites was the second most frequently listed diagnosis, followed by cerebrovascular diseases, pneumonia, malignant neoplasms, and eye diseases and conditions (including cataracts). In terms of average length of stay, the previously mentioned observations concerning time trends and age gradients for males generally also apply to females. In addition, large average length-of-stay decreases from 1979 to 1984 were noted for fractures, all sites.

In recent years death rates for ischemic heart disease have been declining (table 5). Hospital utilization rates for acute myocardial infarction, however, either remained the same or increased very slightly from 1979 to 1984 (table 51). On the other hand, average length of stay for acute myocardial infarction decreased for both sexes and most age subgroups of the population 65 years and over. This decrease in length of stay was apparent for a number of diagnoses, however, and was not unique to acute myocardial infarction.

Hip fracture (fracture of neck of femur) is a significant health problem for the aged, especially older women (table 52). Fractures, all sites, is a leading diagnosis for men only in the oldest age group (85 years and over), but it is a leading diagnosis for each subgroup of women from age 55 upward. In fact, by age 85 years and over, almost two-thirds of all fractures for both men and women are hip fractures. The overall rates of hospitalization for hip fracture are significantly higher for older women than for men at each age subgroup, but the gap between men and women seems to be narrowing in the subgroup aged 75–84 years. In 1979, the rate of hip fracture for females aged 75–84 was almost three times that for males in this age group, but in 1984 the rate for females was not quite twice that for males.

Surgical rates for open reduction of fracture of the femur with internal fixation showed no significant changes from 1979 to 1984. In women, the rates for 1979 and 1984 were 153.9 and 201.4 per 100,000 for ages 65–74, 582.8 and 590.6 per 100,000 for ages 75–84, and 1,386.7 and 1,375.7 per 100,000 for ages 85 years and over. Small numbers resulted in unstable rates for males.

Surgical and nonsurgical procedures

In 1984, almost 21 million patients underwent a surgical or nonsurgical procedure as a hospital inpatient.⁴⁶ Almost 5.6 million of these patients were 65 years and older. Relatively high proportions of persons in the age groups 15–44 and 45–64 years underwent a procedure (64 and 57 percent, respectively). Only about one-half of persons aged 65 years and over underwent a procedure. Of the elderly who had a procedure approximately 70 percent had a surgical procedure.

The leading surgical procedures for males 65 years and older in 1984 were prostatectomy and extraction of lens (table 53). Leading surgical procedures for the age subgroups are somewhat different, with cardiac catheterization, followed by repair of inguinal hernia and prostatectomy, leading in the age group 55–64 years; prostatectomy, followed by cardiac catheterization, in the age group 65–74 years; prostatectomy and extraction of lens in the age groups 75–84 and 85 years and over.

For all females 65 years and over and for the two subgroups 65–74 and 75–84 years, extraction of lens was the leading surgical procedure. This procedure was not among the leading procedures for women 55–64 years, for whom the top three were cardiac catheterization, hysterectomy, and cholecystectomy. By age 85 years and over, the lens procedures shared the lead with reduction of fracture (table 54).

Because of technological breakthroughs, the number of nonsurgical procedures performed has increased in recent years. For all men 65 years and over and for each age subgroup, cystoscopy, computerized axial tomography (CAT scan), and radioisotope scan were the leading procedures in 1984 (table 55). In contrast, for the age group 55–64 years, angiocardiology was among the top three procedures and radioisotope scan was not. For females, also, CAT scan and radioscope scan were leading procedures (table 56). In addition, diagnostic ultrasound and endoscopy of large intestine were ranked higher on the leading procedures chart for females than for males. When these leading procedures were calculated into population rates, however, the rates were either higher for males or equal to those for females in each case. For no procedures cited were the rates higher for females.

Data on surgical procedures performed on hospitalized older persons show several interesting changes from 1979 to 1984. For males, the rate of cardiac catheterization doubled in the age group 55–64 and more than tripled for those 65–74 years of age (table 53). Although the procedure was performed far less frequently in females, the time trend for them was similar. Although the rate for extraction of lens stabilized for men, it continued to increase for women 75 years and over. Rates for arthroplasty and hip replacement also increased among these women. Data on nonsurgical and diagnostic procedures show a huge increase over time in the rates at which CAT scans and diagnostic ultrasound were performed (tables 55 and 56). Rates for arteriography also increased markedly, particularly for older males (table 55).

Outcome of hospitalization and disposition of discharges

In 1984, 957,000 deaths were recorded among discharges from short-stay hospitals—2.6 percent of the discharged population.⁴⁶ Patients aged 65 years and over accounted for 689,000 deaths, or 72 percent of the total recorded. Indeed, the hospital fatality rate for patients 65 years and over was 6.1 per 100 discharges, compared with a rate of 1.0 per 100 discharges for the group of patients under 65 years of age. Hospital fatality rates in the age group 65 years and over were higher for males (6.9 per 100 discharges) than for females (5.6 per 100 discharges).

For persons aged 65 years and over, the highest fatality rates were recorded for the diagnoses of nephritis, nephrotic

syndrome, and nephrosis (26.1 per 100 discharges) and acute myocardial infarction (22.4 per 100 discharges). Other high fatality rates for this older group were attributed to malignant neoplasms (12.7 per 100 discharges), cardiac dysrhythmias (12.7 per 100 discharges), pneumonia (11.5 per 100 discharges), and cerebrovascular diseases (10.0 per 100 discharges).

Of persons aged 65–74 years discharged in 1983, 84 percent were classified as “routine” discharges (generally, discharged home); 4 percent were discharged to long-term care facilities; and 5 percent were discharged dead. In contrast only 60 percent of the group 85 years of age and over were discharged routinely; 23 percent were discharged to long-term care facilities, and 11 percent were discharged dead.⁴⁷

Table 49. Number of patients discharged, rate of discharges, days of care, and average length of stay for males 55 years of age and over, by age and selected first-listed diagnoses: United States, 1979 and 1984

[Discharges from non-Federal short-stay hospitals]

Age, diagnosis, and ICD-9-CM code ¹	Discharges				Days of care		Average length of stay	
	1979	1984	1979	1984	1979	1984	1979	1984
	Number in thousands		Number per 1,000 population		Number in thousands		Stay in days	
55-64 years								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	424	492	42.2	47.0	3,745	3,608	8.8	7.3
Malignant neoplasms 140-208, 230-234	195	212	19.4	20.3	2,256	2,151	11.6	10.1
Inguinal hernia 550	76	70	7.6	6.7	441	291	5.8	4.1
Cerebrovascular disease 430-438	65	75	6.4	7.2	663	702	10.3	9.3
Hyperplasia of prostate 600	58	65	5.8	6.2	437	406	7.5	6.3
Alcohol dependence syndrome 303	55	35	5.5	3.4	554	339	10.0	9.6
65 years and over								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	769	949	75.7	84.0	7,858	7,637	10.2	8.1
Malignant neoplasms 140-208, 230-234	463	534	45.6	47.2	5,955	5,692	12.9	10.7
Cerebrovascular disease 430-438	235	298	23.2	26.4	2,963	2,956	12.6	9.9
Hyperplasia of prostate 600	159	190	15.7	16.8	1,660	1,480	10.4	7.8
Pneumonia, all sites 480-486	130	177	12.8	15.6	1,407	1,659	10.8	9.4
Eye diseases, conditions 360-379	127	161	12.5	14.2	493	426	3.9	2.6
65-74 years								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	408	524	61.4	71.6	4,125	4,120	10.1	7.9
Malignant neoplasms 140-208, 230-234	273	299	41.1	40.8	3,433	3,107	12.6	10.4
Cerebrovascular disease 430-438	108	125	16.2	17.1	1,298	1,228	12.1	9.8
Hyperplasia of prostate 600	97	111	14.6	15.1	903	768	9.3	6.9
Eye diseases, conditions 360-379	69	79	10.4	10.7	264	210	3.8	2.7
Inguinal hernia 550	68	65	10.2	8.9	425	289	6.3	4.4
75 years and over								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	360	424	102.8	106.6	3,732	3,516	10.4	8.3
Malignant neoplasms 140-208, 230-234	190	235	54.3	59.0	2,522	2,585	13.2	11.0
Cerebrovascular disease 430-438	128	174	36.5	43.6	1,665	1,728	13.0	10.0
Pneumonia, all forms 480-486	77	109	22.0	27.4	840	1,063	10.9	9.7
Hyperplasia of prostate 600	62	79	17.6	19.9	758	711	12.3	9.0
Eye diseases, conditions 360-379	58	82	16.7	20.7	228	216	3.9	2.6
75-84 years								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	275	316	97.1	98.4	2,884	2,609	10.5	8.3
Malignant neoplasms 140-208, 230-234	154	187	54.3	58.1	2,044	2,078	13.3	11.1
Cerebrovascular disease 430-438	96	124	34.0	38.7	1,265	1,240	13.2	10.0
Pneumonia, all forms 480-486	54	71	18.9	22.1	539	644	10.1	9.1
Hyperplasia of prostate 600	50	64	17.8	20.0	595	544	11.8	8.5
Eye diseases, conditions 360-379	47	65	16.8	20.2	180	173	3.8	2.7
85 years and over								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	86	108	126.7	140.5	849	908	9.9	8.4
Malignant neoplasms 140-208, 230-234	37	48	54.5	62.5	478	507	13.0	10.5
Cerebrovascular disease 430-438	32	49	46.9	64.0	399	488	12.6	9.9
Pneumonia, all forms 480-486	24	38	35.1	49.2	302	418	12.7	11.0
Fractures, all sites 800-829	17	19	25.0	24.0	268	247	15.9	13.4
Hyperplasia of prostate 600	11	15	16.8	19.3	163	167	14.3	11.2

¹Coded according to the 9th Revision, International Classification of Diseases, Clinical Modification. (See reference 45.)

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Unpublished data from the National Hospital Discharge Survey.

Table 50. Number of patients discharged, rate of discharges, days of care, and average length of stay for females 55 years of age and over, by age and selected first-listed diagnoses: United States, 1979 and 1984

[Discharges from non-Federal short-stay hospitals]

Age, diagnosis, and ICD-9-CM code ¹	Discharges				Days of care		Average length of stay	
	1979	1984	1979	1984	1979	1984	1979	1984
55-64 years								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	265	295	23.2	24.9	2,450	2,227	9.2	7.5
Malignant neoplasms 140-208, 230-234	226	278	19.8	23.5	2,689	2,457	11.9	8.8
Diabetes 250	76	68	6.6	5.8	739	550	9.7	8.0
Fractures, all sites 800-829	62	62	5.5	5.3	717	567	11.5	9.1
Cholelithiasis 574	57	50	5.0	4.2	533	382	9.4	7.6
Cerebrovascular disease 430-438	54	64	4.8	5.4	609	650	11.2	10.2
65 years and over								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	916	1,161	61.1	69.3	9,910	10,022	10.8	8.6
Malignant neoplasms 140-208, 230-234	421	536	28.1	32.0	5,842	5,774	13.9	10.8
Cerebrovascular disease 430-438	319	369	21.3	22.0	4,109	3,953	12.9	10.7
Fractures, all sites 800-829	291	321	19.4	19.2	4,780	4,209	16.4	13.1
Eye diseases, conditions 360-379	235	328	15.7	19.6	971	872	4.1	2.7
Diabetes 250	159	152	10.6	9.1	2,022	1,532	12.8	10.1
65-74 years								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	373	472	43.0	50.1	3,946	4,034	10.6	8.5
Malignant neoplasms 140-208, 230-234	230	285	26.5	30.3	2,975	2,830	12.9	9.9
Cerebrovascular disease 430-438	108	125	12.4	13.3	1,287	1,348	11.9	10.8
Eye diseases, conditions 360-379	105	126	12.1	13.3	422	343	4.0	2.7
Fractures, all sites 800-829	93	99	10.7	10.5	1,313	1,159	14.1	11.7
Diabetes 250	91	86	10.5	9.1	1,179	884	12.9	10.3
75 years and over								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	542	689	86.2	94.2	5,963	5,988	11.0	8.7
Cerebrovascular disease 430-438	211	243	33.5	33.3	2,822	2,605	13.4	10.7
Fractures, all sites 800-829	198	222	31.5	30.4	3,466	3,050	17.5	13.7
Malignant neoplasms 140-208, 230-234	190	251	30.2	34.3	2,867	2,943	15.1	11.7
Eye diseases, conditions 360-379	130	203	20.7	27.7	549	528	4.2	2.6
Pneumonia, all forms 480-486	80	136	12.8	18.6	864	1,405	10.8	10.3
75-84 years								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	376	495	78.9	91.6	4,153	4,255	11.0	8.6
Malignant neoplasms 140-208, 230-234	148	201	31.0	37.1	2,255	2,307	15.2	11.5
Cerebrovascular disease 430-438	140	156	29.5	28.9	1,848	1,716	13.2	11.0
Fractures, all sites 800-829	119	127	25.0	23.4	1,982	1,701	16.6	13.4
Eye diseases, conditions 360-379	104	154	21.7	28.5	428	406	4.1	2.6
Diabetes 250	53	53	11.2	9.7	661	528	12.4	10.0
85 years and over								
Diseases of heart 391-392.0, 393-398, 402, 404, 410-416, 420-429	166	194	109.2	101.8	1,810	1,733	10.9	8.9
Fractures, all sites 800-829	79	96	51.7	50.3	1,484	1,349	18.9	14.1
Cerebrovascular disease 430-438	70	87	46.1	45.8	975	889	13.9	10.2
Malignant neoplasms 140-208, 230-234	42	50	27.8	26.3	612	636	14.5	12.7
Pneumonia, all forms 480-486	33	58	21.5	30.4	337	616	10.3	10.7
Eye diseases, conditions 360-379	27	48	17.4	25.5	121	123	4.6	2.5

¹Coded according to the 9th Revision, International Classification of Diseases, Clinical Modification. (See reference 45.)

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Unpublished data from the National Hospital Discharge Survey.

Table 51. Number of patients discharged, rate of discharges, and average length of stay for persons 55 years of age and over with a diagnosis of acute myocardial infarction, by sex and age: United States, 1979, 1982, and 1984

[Discharges from non-Federal short-stay hospitals]

Sex and age	Discharges						Average length of stay		
	1979	1982	1984	1979	1982	1984	1979	1982	1984
Both sexes									
	Number in thousands			Number per 1,000 population			Stay in days		
55-64 years	185	191	188	8.6	8.6	8.4	12.8	11.0	10.0
65 years and over	363	449	481	14.5	16.7	17.2	13.4	12.3	10.8
65-74 years	186	220	242	12.1	13.6	14.4	13.3	12.5	10.5
75 years and over	177	229	239	18.1	21.4	21.3	13.5	12.1	11.1
75-84 years	136	175	184	17.9	21.2	21.4	13.7	11.7	10.8
85 years and over	41	54	55	18.8	22.1	20.9	12.7	13.5	11.9
Male									
55-64 years	122	129	131	12.2	12.5	12.5	12.7	11.0	9.6
65 years and over	190	234	247	18.7	21.7	21.8	13.0	11.7	10.3
65-74 years	109	131	143	16.3	18.6	19.5	12.5	11.9	10.1
75 years and over	81	103	104	23.2	27.3	26.2	13.6	11.3	10.6
75-84 years	65	83	82	23.0	27.2	25.6	13.2	11.1	10.3
85 years and over	16	20	21	24.2	27.6	28.4	15.4	12.4	11.6
Female									
55-64 years	63	62	57	5.5	5.2	4.8	13.1	11.1	10.9
65 years and over	173	216	234	11.6	13.4	14.0	13.8	13.0	11.3
65-74 years	77	90	99	8.9	9.8	10.5	14.3	13.2	11.1
75 years and over	96	126	135	15.2	18.2	18.6	13.5	12.8	11.5
75-84 years	71	92	102	14.9	17.7	18.8	14.4	12.3	11.3
85 years and over	25	34	33	16.5	19.8	17.9	10.9	14.1	12.1

NOTE: Acute myocardial infarction comprises code 410 of the 9th Revision, *International Classification of Diseases, Clinical Modification*. (See reference 45.)

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Unpublished data from the National Hospital Discharge Survey.

Table 52. Rate of patients discharged with a diagnosis of fractures, all sites, and hip fracture (fracture of neck of femur) for persons 55 years of age and over, by sex and age: United States, 1979 and 1984

[Discharges from non-Federal short-stay hospitals]

Sex and age	Fractures, all sites		Hip fracture	
	1979	1984	1979	1984
Male				
	Number of discharges per 1,000 population			
55-64 years	4.4	3.1	*0.5	*0.6
65-74 years	5.8	5.3	*1.4	2.0
75-84 years	11.8	12.7	4.5	6.6
85 years and over	27.3	24.0	16.6	15.0
Female				
55-64 years	5.5	5.3	*0.9	1.1
65-74 years	11.0	10.5	3.6	3.4
75-84 years	29.6	23.4	12.2	12.0
85 years and over	62.3	50.3	32.8	32.0

NOTES: Fractures, all sites, comprise codes 800-829 of the 9th Revision, *International Classification of Diseases, Clinical Modification*, and hip fracture comprises code 820. (See reference 45.) Asterisk indicates sample size of 30-59 or relative standard error more than 30 percent.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Unpublished data from the National Hospital Discharge Survey.

Table 53. Number and rate of surgical procedures for males 55 years of age and over discharged from short-stay hospitals, by age and selected procedures: United States, 1979 and 1984

[Discharges from non-Federal short-stay hospitals]

<i>Age, procedure category, and ICD-9-CM code¹</i>	<i>1979</i>	<i>1984</i>	<i>1979</i>	<i>1984</i>
55-64 years	Number of procedures in thousands		Number of procedures per 10,000 population	
Repair of inguinal hernia. 53.0-53.1	79	74	78.3	70.4
Cardiac catheterization. 37.21-37.23	62	118	62.2	112.8
Prostatectomy. 60.2-60.6	59	70	58.9	67.1
Direct heart revascularization. 36.1	39	60	39.3	57.4
Extraction of lens 13.1-13.6	32	29	31.4	27.7
65 years and over				
Prostatectomy. 60.2-60.6	218	275	214.6	243.3
Extraction of lens 13.1-13.6	108	132	106.0	116.6
Repair of inguinal hernia. 53.0-53.1	112	120	109.9	106.2
Pacemaker insertion ² 37.7-37.8	62	84	61.0	74.6
Cardiac catheterization. 37.21-37.23	29	101	28.6	89.1
65-74 years				
Prostatectomy. 60.2-60.6	122	151	183.0	206.9
Repair of inguinal hernia. 53.0-53.1	72	68	107.6	93.2
Extraction of lens 13.1-13.6	56	65	85.0	88.8
Pacemaker insertion ² 37.7-37.8	23	40	35.3	55.3
Cardiac catheterization. 37.21-37.23	22	83	33.8	113.8
75 years and over				
Prostatectomy. 60.2-60.6	96	124	274.6	310.3
Extraction of lens 13.1-13.6	51	67	145.8	167.8
Repair of inguinal hernia. 53.0-53.1	40	52	114.4	130.0
Pacemaker insertion ² 37.7-37.8	39	44	109.9	110.2
Cholecystectomy. 51.2	17	23	47.7	57.4
75-84 years				
Prostatectomy. 60.2-60.6	79	102	279.4	317.3
Extraction of lens 13.1-13.6	42	51	146.9	158.4
Repair of inguinal hernia. 53.0-53.1	32	45	111.9	139.3
Pacemaker insertion ² 37.7-37.8	31	32	107.9	101.0
Cholecystectomy. 51.2	14	19	48.0	60.7
85 years and over				
Prostatectomy. 60.2-60.6	17	22	254.8	281.1
Extraction of lens 13.1-13.6	10	16	140.7	207.2
Repair of inguinal hernia. 53.0-53.1	8	7	124.9	91.4
Pacemaker insertion ² 37.7-37.8	8	11	118.2	148.5
Reduction of fracture ³ 76.70, 76.78-76.79, 79.0-79.6	8	9	113.9	113.0

¹Coded according to the 9th Revision, *International Classification of Diseases, Clinical Modification*. (See reference 45.)

²Including replacement, removal, and repair.

³Excluding skull, nose, and jaw.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Unpublished data from the National Hospital Discharge Survey.

Table 54. Number and rate of surgical procedures for females 55 years of age and over discharged from short-stay hospitals, by age and selected procedures: United States, 1979 and 1984

[Discharges from non-Federal short-stay hospitals]

Age, procedure category, and ICD-9-CM code ¹	1979	1984	1979	1984
55-64 years	Number of procedures in thousands		Number of procedures per 10,000 population	
Diagnostic dilation and curettage of uterus 69.09	59	31	51.6	26.1
Cholecystectomy 51.2	55	50	48.2	42.0
Hysterectomy 68.3-68.7	47	51	41.5	43.2
Reduction of fracture ² 76.70, 76.78-76.79, 79.0-79.6	40	38	34.9	32.3
Oophorectomy and salpingo-oophorectomy 65.3-65.6	38	44	33.0	37.4
65 years and over				
Extraction of lens 13.1-13.6	198	277	132.1	165.6
Reduction of fracture ² 76.70, 76.78-76.79, 79.0-79.6	133	145	88.7	86.5
Cholecystectomy 51.2	77	91	51.4	54.3
Arthroplasty and replacement of hip 81.5, 81.6	73	104	48.7	62.2
Pacemaker insertion ³ 37.7-37.8	68	80	45.6	47.8
65-74 years				
Extraction of lens 13.1-13.6	87	100	100.7	106.0
Reduction of fracture ² 76.70, 76.78-76.79, 79.0-79.6	47	56	53.7	59.8
Cholecystectomy 51.2	45	57	51.8	60.1
Hysterectomy 68.3-68.7	29	43	33.1	46.0
Cardiac catheterization 37.21-37.23	15	57	17.5	60.0
75 years and over				
Extraction of lens 13.1-13.6	110	177	175.5	242.4
Reduction of fracture ² 76.70, 76.78-76.79, 79.0-79.6	86	88	137.2	120.8
Arthroplasty and replacement of hip 81.5-81.6	46	72	73.8	98.1
Pacemaker insertion ³ 37.7-37.8	43	56	68.1	76.9
Cholecystectomy 51.2	32	34	50.9	46.8
75-84 years				
Extraction of lens 13.1-13.6	89	136	185.7	251.5
Reduction of fracture ² 76.70, 76.78-76.79, 79.0-79.6	52	54	109.9	99.1
Pacemaker insertion ³ 37.7-37.8	30	41	63.5	74.9
Arthroplasty and replacement of hip 81.5-81.6	29	44	61.7	82.2
Cholecystectomy 51.2	25	29	53.2	53.1
85 years and over				
Reduction of fracture ² 76.70, 76.78-76.79, 79.0-79.6	34	35	222.6	182.6
Extraction of lens 13.1-13.6	22	41	143.6	216.6
Arthroplasty and replacement of hip 81.5-81.6	17	27	111.9	143.2
Pacemaker insertion ³ 37.7-37.8	13	16	82.8	82.5
Cholecystectomy 51.2	7	5	43.5	28.6

¹Coded according to the 9th Revision, International Classification of Diseases, Clinical Modification. (See reference 45.)

²Excluding skull, nose, and jaw.

³Including replacement, removal, and repair.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Unpublished data from the National Hospital Discharge Survey.

Table 55. Number and rate of diagnostic and other nonsurgical procedures for male hospital discharges 55 years of age and over, by age and selected procedures: United States, 1979 and 1984

[Discharges from non-Federal short-stay hospitals]

<i>Age, procedure category, and ICD-9-CM code¹</i>	1979	1984	1979	1984
55-64 years	Number of procedures in thousands		Number of procedures per 10,000 population	
Cystoscopy 57.31-57.32	99	95	98.6	90.6
Angiocardiology using contrast material 88.5	54	107	53.6	101.9
Radiolotope scan 92.0-92.1	52	71	52.2	67.9
Arteriography using contrast material 88.4	47	64	47.3	61.0
Endoscopy of large intestine 45.21-45.24	45	43	45.2	41.5
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	17	87	16.5	82.7
65 years and over				
Cystoscopy 57.31-57.32	259	316	255.4	280.0
Radiolotope scan 92.0-92.1	105	171	103.0	151.8
Endoscopy of large intestine 45.21-45.24	83	134	82.2	119.0
Arteriography using contrast material 88.4	59	130	58.0	115.5
Diagnostic ultrasound 88.7	36	140	35.0	124.1
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	33	224	32.4	198.3
65-74 years				
Cystoscopy 57.31-57.32	145	163	218.3	222.6
Radiolotope scan 92.0-92.1	60	84	90.1	115.1
Endoscopy of large intestine 45.21-45.24	51	66	76.5	89.8
Arteriography using contrast material 88.4	46	75	69.2	102.2
Diagnostic ultrasound 88.7	21	70	31.7	96.2
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	20	109	30.7	148.7
75 years and over				
Cystoscopy 57.31-57.32	114	153	326.1	385.5
Radiolotope scan 92.0-92.1	45	87	127.4	219.1
Endoscopy of large intestine 45.21-45.24	33	69	93.1	172.7
Diagnostic ultrasound 88.7	14	70	41.2	175.4
Arteriography using contrast material 88.4	13	56	36.8	139.9
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	12	115	35.6	289.5
75-84 years				
Cystoscopy 57.31-57.32	90	127	316.7	397.1
Radiolotope scan 92.0-92.1	36	67	126.7	207.7
Endoscopy of large intestine 45.21-45.24	26	56	92.9	174.4
Arteriography using contrast material 88.4	12	48	43.8	149.8
Diagnostic ultrasound 88.7	11	56	40.1	175.3
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	10	88	35.6	274.2
85 years and over				
Cystoscopy 57.31-57.32	25	26	365.4	337.4
Radiolotope scan 92.0-92.1	9	21	130.2	266.7
Endoscopy of large intestine 45.21-45.24	6	13	93.7	165.7
Diagnostic ultrasound 88.7	3	14	45.9	175.4
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	2	27	35.9	353.1
Endoscopy of small intestine 45.11-45.13	2	12	30.2	159.4

¹Coded according to the 9th Revision, *International Classification of Diseases, Clinical Modification*. (See reference 45.)

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Unpublished data from the National Hospital Discharge Survey.

Table 56. Number and rate of diagnostic and other nonsurgical procedures for female hospital discharges 55 years of age and over, by age and selected procedures: United States, 1979 and 1984

[Discharges from non-Federal short-stay hospitals]

Age, procedure category, and ICD-9-CM code ¹	1979	1984	1979	1984
55-64 years				
	Number of procedures in thousands		Number of procedures per 10,000 population	
Radioisotope scan 92.0-92.1	55	80	47.8	67.2
Cystoscopy 57.31-57.32	52	34	45.5	28.8
Endoscopy of large intestine 45.21-45.24	50	64	44.2	53.7
Arteriography using contrast material 88.4	31	47	26.9	39.6
Angiocardiography using contrast material 88.5	23	56	20.2	47.5
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	16	92	14.4	78.1
65 years and over				
Radioisotope scan 92.0-92.1	127	207	84.5	123.9
Endoscopy of large intestine 45.21-45.24	112	200	74.8	119.6
Cystoscopy 57.31-57.32	96	86	64.3	51.5
Arteriography using contrast material 88.4	51	108	34.3	64.6
Diagnostic ultrasound 88.7	35	193	23.4	115.1
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	34	277	22.6	165.7
65-74 years				
Radioisotope scan 92.0-92.1	67	95	76.7	100.6
Endoscopy of large intestine 45.21-45.24	58	88	66.8	92.9
Cystoscopy 57.31-57.32	52	42	59.7	44.2
Arteriography using contrast material 88.4	34	66	38.6	70.5
Diagnostic ultrasound 88.7	19	80	22.4	84.7
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	19	116	21.5	123.4
75 years and over				
Radioisotope scan 92.0-92.1	60	113	95.3	153.9
Endoscopy of large intestine 45.21-45.24	54	113	86.0	154.0
Cystoscopy 57.31-57.32	45	45	70.8	61.1
Arteriography using contrast material 88.4	18	42	28.3	57.1
Diagnostic ultrasound 88.7	16	113	24.9	154.2
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	15	161	24.1	220.3
75-84 years				
Radioisotope scan 92.0-92.1	47	82	97.9	151.5
Endoscopy of large intestine 45.21-45.24	43	80	89.5	148.4
Cystoscopy 57.31-57.32	34	34	70.9	62.0
Arteriogram using contrast material 88.4	15	35	31.3	64.9
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	12	123	24.7	227.8
Diagnostic ultrasound 88.7	11	84	23.8	154.9
85 years and over				
Radioisotope scan 92.0-92.1	13	31	87.2	160.9
Endoscopy of large intestine 45.21-45.24	11	32	74.8	170.0
Cystoscopy 57.31-57.32	11	11	70.4	58.4
Diagnostic ultrasound 88.7	4	29	28.2	152.3
Computerized axial tomography (CAT scan) 87.03, 87.41, 87.71, 88.01, 88.38	3	38	22.4	199.0
Endoscopy of small intestine 45.11-45.13	3	23	21.7	121.0

¹Coded according to the 9th Revision, International Classification of Diseases, Clinical Modification. (See reference 45.)

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Unpublished data from the National Hospital Discharge Survey.

Chapter IX

Use of health care—nursing home care

by Esther Hing and Edward Sekscenski, National Center for Health Statistics

Introduction

Although the majority of older Americans are able to maintain their residence in the community, the risk of institutionalization in a nursing home increases with advancing age. Preliminary data from the National Nursing Home Survey indicate that slightly less than 5 percent of the population aged 65 years and over resided in nursing homes in 1985. That figure increased to 10 percent for persons 75 years of age and over and to 22 percent for persons in the subgroup 85 years and over. With the "graying" of the U.S. population, nursing home care is receiving increased attention, in part because it is the only major type of health care expenditure that is generally not reimbursable by private medical insurance. An understanding of the characteristics of nursing home residents, their functional disabilities, and the services they require is important to assess risk of institutionalization and alternative care strategies.

Source of data

Data on nursing homes were collected by means of the 1973-74, 1977, and 1985 National Nursing Home Surveys. In these nationwide sample surveys, information was obtained on all types of nursing homes, their residents, their discharges, and their staff.

Results and comments

Resident characteristics

In 1985 an estimated 1.4 million persons aged 55 years and over resided in nursing homes (table 57). The vast majority of those residents (93 percent) were aged 65 years and over, 78 percent were 75 years or over, and 42 percent had passed their 85th birthday. Rates of institutionalization were generally lower for males than for females and lower for black persons than for white persons. By far, white females had the highest rates of nursing home use: 6 percent of the population aged 65 years and over and 26 percent of those 85 years and over were in nursing homes in 1985. By contrast, only 3 percent of white males aged 65 and over and 15 percent of those aged 85 years and over were institutionalized.

Comparisons with 1977 data show little change in the rate of nursing home residency for the population aged 65 years and over. A change, however, occurred in the age distribution of nursing home residents during the period 1977-85, with a shift toward the oldest age groups (table 58).

Whereas 35 percent of all residents in 1977 were 85 years of age and over, 40 percent of 1985 residents were in that age group. The proportion of residents aged 95 years and over increased from 3 to 6 percent during that time period. The distribution of residents according to sex and marital status did not change from 1977 to 1985.

Length of stay

The notion that everyone who enters a nursing home stays for an extended period of time has recently been largely dispelled. Indeed, long-term care institutions may be viewed as having two fairly distinct populations: resident patients who stay for many years and patients admitted for recuperative or terminal care of specific ailments who stay for relatively short periods.⁴⁸ Examples of the former are patients with chronic conditions such as arteriosclerosis, blindness, or chronic brain syndrome, whose disabilities are such that they can no longer be cared for in the community. Examples of the latter, short-stay patients, are persons recovering from acute myocardial infarction or hip fracture and persons suffering from terminal cancer. Cross-sectional data collected on nursing home residents in 1985 reveal a median length of stay since admission of 614 days (table 58). By age group, that figure ranged from 510 days for persons aged 70-74 years to 917 days for those aged 95 years and over. More information on short-stay patients is gained from data on discharges than from data on residents because patients staying for a short time account for a disproportionate share of discharges compared with residents. The median length of stay for patients discharged in 1984-85 was 82 days. Persons discharged alive had a median length of stay of 70 days; those discharged dead had a median stay of 163 days.

Deaths

During the period 1984-85, 343,800 deaths occurred in nursing homes, of which 329,800 were among persons 65 years and over. These nursing home deaths accounted for roughly 23 percent of the 1.4 million deaths among the entire U.S. population 65 years and over in 1984. An even greater proportion of deaths among persons 85 years and over occurred in nursing homes: 174,900 or 44 percent, of the 399,500 deaths among persons 85 years and over in the United States in 1984. In the National Nursing Home Survey, information was obtained on the type of place or facility to which a live discharge went after discharge and, if the discharge was sent to another health facility, whether he or she was known

to have died there. Of the 877,400 live discharges recorded, 30 percent were discharged to a private or semiprivate residence, and 67 percent went to another health facility, most commonly a general or short-stay hospital. Twenty percent (116,600) of those discharged to another facility were known to have died there. To estimate the number of nursing home discharges whose outcome of care was death (including persons discharged in terminally ill states to hospitals to die), the number of deaths known to have occurred in those discharges to other health facilities was added to the number of deaths in nursing homes, and death rates were calculated. The resultant adjusted nursing home death rates are minimum estimates because they include only known deaths in other health facilities. Nonetheless, these statistics are useful in enhancing our understanding of nursing home utilization rates. During the period 1984–85, 30 percent of deaths among persons aged 65 years and over and 55 percent of deaths among persons aged 85 years and over followed a stay in a nursing home. These data indicate that nursing homes play an important role in providing service to older persons in their final years.

Functional status

A consideration of various functional disabilities present in the nursing home population reveals increasing disability with advancing age (table 59). The proportion of residents experiencing difficulty in performing activities of daily living

(dressing, using the toilet room, mobility, continence, and eating)² increased progressively from the age group 55–64 years to the group 85 years or older. In general, older women were more severely disabled than older men: Of those 85 years and over, 83 percent were unable to dress independently and 83 percent could not walk independently. Of men in that age group, 77 percent could not dress independently and 78 percent could not walk independently. Difficulties with continence increased with age but were similar for men and women.

Although the nursing home residents surveyed in 1985 had lower rates of visual and auditory impairments than residents surveyed in 1977 had, the proportion with difficulties in activities of daily living was higher in 1985 than in 1977 for most of the categories. The increased level of disability seen in the 1985 nursing home population may be partially explained by a shift in the age distribution of nursing home residents to the older age groups. In 1977, 10 percent of residents in the group 85 years and over had passed their 95th birthday; that figure was 15 percent in 1985. As the rates presented here are not age adjusted, they do not reflect the older age distribution. Another possibility is that the Medicare prospective payment system, by which hospitals are encouraged to reduce a patient's length of stay, may have resulted in a greater proportion of very sick people being cared for in nursing homes.

Table 57. Number and rate of nursing home residents 55 years of age and over, by sex, race, and age: United States, 1973-74, 1977, and 1985

[Data are based on a sample of nursing homes]

Sex, race, and age	1973-74 ¹	1977	1985	1973-74 ¹	1977	1985
Total ²	Number of residents			Number of residents per 1,000 population		
55-64 years.....	62,500	100,800	91,800	3.2	4.9	4.1
65 years and over.....	961,500	1,126,000	1,315,800	45.1	47.9	46.1
65-74 years.....	163,100	211,400	212,100	12.3	14.5	12.5
75 years and over.....	798,400	914,600	1,103,200	98.4	102.6	95.6
75-84 years.....	384,900	464,700	509,000	59.4	68.0	57.7
85 years and over.....	413,600	449,900	594,700	253.7	216.4	219.4
White male³						
55-64 years.....	23,700	38,400	34,400	2.9	4.4	3.7
65 years and over.....	250,800	272,600	302,700	31.4	31.6	29.1
65-74 years.....	59,100	69,400	70,600	11.4	12.2	10.5
75 years and over.....	191,700	203,200	232,200	68.8	69.4	63.3
75-84 years.....	97,500	115,800	127,600	42.5	49.4	42.9
85 years and over.....	94,200	87,300	104,600	191.1	149.7	150.4
Black male						
55-64 years.....	3,300	4,600	8,700	4.4	5.7	9.3
65 years and over.....	13,100	18,800	26,800	18.3	23.3	28.5
65-74 years.....	5,400	9,200	8,900	11.0	16.5	14.5
75 years and over.....	7,700	9,600	17,900	33.6	38.2	55.7
75-84 years.....	4,000	5,400	11,700	21.4	28.3	45.6
85 years and over.....	3,800	4,200	6,200	83.8	70.0	95.6
White female³						
55-64 years.....	32,100	51,800	41,800	3.5	5.4	4.0
65 years and over.....	669,800	787,300	922,100	58.4	62.1	60.1
65-74 years.....	91,000	118,100	117,200	13.4	15.8	13.7
75 years and over.....	578,700	669,200	804,700	123.6	128.2	117.9
75-84 years.....	272,200	327,400	346,000	73.9	83.3	68.6
85 years and over.....	306,600	341,800	458,900	307.5	264.6	258.0
Black female						
55-64 years.....	2,900	5,700	4,800	3.2	5.9	4.2
65 years and over.....	24,600	42,000	55,200	25.4	37.3	39.4
65-74 years.....	6,900	12,800	13,500	11.0	17.6	16.0
75 years and over.....	17,700	29,200	41,400	51.8	73.4	74.1
75-84 years.....	9,400	14,400	18,900	36.0	51.6	45.1
85 years and over.....	8,300	14,900	22,800	103.5	125.2	162.7

¹Excludes patients in personal care or domiciliary homes.

²Includes races other than white and black.

³Data for 1973-74 and 1977 include persons of Hispanic origin.

SOURCES: Division of Health Care Statistics, National Center for Health Statistics: Unpublished data from the National Nursing Home Survey; U.S. Bureau of the Census: Estimates of the population of the United States, by age, sex, and race, 1970-1977. *Current Population Reports*. Series P-25, No. 721. Washington. U.S. Government Printing Office, 1978; U.S. Bureau of the Census: Estimates of the population of the United States, by age, sex, and race: 1980 to 1985. *Current Population Reports*. Series P-25, No. 985. Washington. U.S. Government Printing Office, 1986.

Table 58. Percent distributions and median length of stay since admission of nursing home residents, live discharges, and dead discharges by age, sex, and marital status: United States, selected years 1976-85

Age, sex, and marital status	All residents				Live discharges				Dead discharges			
	1977		1985		1976		1984-85		1976		1984-85	
	Percent distribution	Median stay in days	Percent distribution	Median stay in days	Percent distribution	Median stay in days	Percent distribution	Median stay in days	Percent distribution	Median stay in days	Percent distribution	Median stay in days
Total	100.0	597	100.0	614	100.0	60	100.0	70	100.0	130	100.0	163
Age												
Under 45 years . . .	2.5	657	3.1	551	3.9	37	3.6	87	*0.4	*27	*0.6	*30
45-54 years.	3.3	786	2.5	876	3.6	56	3.1	36	*1.2	*53	*0.6	*225
55-64 years.	7.7	632	6.2	686	6.7	73	6.5	80	4.7	37	2.8	34
65-69 years.	6.3	592	5.5	657	8.0	62	6.1	60	5.1	40	2.9	162
70-74 years.	10.0	440	8.7	510	11.6	42	10.2	53	9.2	91	8.6	48
75-79 years.	15.3	517	14.6	544	19.3	48	16.5	66	15.5	110	14.8	74
80-84 years.	20.4	513	19.6	560	20.8	65	21.8	58	24.0	119	18.7	114
85-89 years.	20.2	621	19.8	615	17.6	74	17.1	85	22.3	263	24.2	195
90-94 years.	10.8	821	14.0	684	6.7	140	11.1	99	12.1	302	16.8	404
95 years and over	3.4	940	6.0	917	1.8	169	4.0	118	5.5	791	9.8	563
Sex												
Male	28.8	488	28.4	575	37.3	55	37.0	65	34.3	84	37.7	74
Female	71.2	643	71.6	630	62.7	65	63.0	72	65.7	175	62.3	246
Marital status												
Married	11.9	335	12.6	357	24.0	38	22.5	42	19.9	58	21.9	38
Widowed.	62.2	599	61.3	629	54.0	73	52.3	81	62.7	177	60.9	232
Divorced or separated	6.7	552	7.8	538	7.6	63	7.6	81	4.3	112	5.2	116
Never married.	19.1	887	18.2	865	11.9	99	13.7	85	9.9	309	8.9	308
Unknown	-	-	-	-	2.6	71	3.8	91	3.1	135	3.1	237

SOURCES: National Center for Health Statistics, J. F. Van Nostrand, A. Zappolo, E. Hing, et al.: The National Nursing Home Survey, 1977 summary for the United States. *Vital and Health Statistics*. Series 13, No. 43. DHEW Pub. No. (PHS) 79-1794. Public Health Service, Washington, U.S. Government Printing Office, July 1979; Division of Health Care Statistics, National Center for Health Statistics: Unpublished data from the 1985 National Nursing Home Survey.

Table 59. Percent distributions of nursing home residents 55 years of age and over by functional status, according to age and sex: United States, 1985

Functional status	Total	55-64 years		65-74 years		75-84 years		85 years and over	
		Male	Female	Male	Female	Male	Female	Male	Female
Percent distribution									
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dressing									
Independent	23.3	40.3	35.5	35.8	26.2	28.9	22.3	22.7	17.1
Requires assistance ¹	76.7	59.7	64.5	64.2	73.8	71.1	77.7	77.3	82.9
Using toilet room									
Independent	37.8	58.6	48.2	50.7	39.0	44.8	37.7	37.6	30.4
Requires assistance	50.3	34.5	39.2	42.5	47.8	45.9	48.5	50.8	57.3
Does not use toilet room	11.9	*6.9	12.6	6.8	13.2	9.3	13.8	11.6	12.3
Mobility									
Walks independently	27.8	52.5	45.0	45.0	36.3	35.4	28.5	22.3	17.1
Walks with assistance	25.5	13.6	16.4	17.2	22.4	23.4	25.3	30.5	29.5
Chairfast	40.2	29.1	30.2	33.4	33.9	36.3	39.6	43.0	45.9
Bedfast	6.5	*4.8	*8.4	*4.4	7.5	4.9	6.6	4.2	7.5
Continence									
No difficulty controlling bowels or bladder	46.9	69.3	64.3	61.1	54.6	45.8	44.6	41.6	42.0
Difficulty controlling bowels	1.8	*2.9	-	*2.7	*1.5	*2.1	1.6	*1.8	2.0
Difficulty controlling bladder	10.7	*5.5	12.0	6.4	7.0	11.0	11.0	13.6	11.7
Difficulty controlling both bowels and bladder	32.5	18.7	12.5	24.1	29.6	31.3	34.5	33.9	36.4
Ostomy in either bowels or bladder	8.1	*3.5	11.1	5.7	7.2	9.9	8.3	9.2	7.9
Eating									
Independent	60.3	71.2	69.5	67.1	66.2	67.7	58.3	60.8	54.9
Requires assistance ²	39.7	28.8	30.5	32.9	33.8	32.3	41.7	39.2	45.1
Vision									
Not impaired	75.2	88.2	88.8	85.7	81.8	75.2	78.8	71.3	67.2
Partially impaired	15.1	*6.8	*5.2	8.7	10.8	16.8	13.2	17.0	19.7
Severely impaired	5.9	*2.8	*2.9	*3.5	4.8	4.5	3.9	6.8	8.8
Completely lost	2.5	*2.3	*3.1	*0.7	*1.7	*2.0	2.1	*3.8	3.1
Unknown	1.3	-	-	*1.4	*0.8	*1.5	2.0	*1.1	1.2
Hearing									
Not impaired	77.5	92.3	95.9	90.8	90.1	77.6	84.6	61.6	66.9
Partially impaired	17.5	*6.8	*3.6	7.6	7.3	19.4	13.0	27.7	24.8
Severely impaired	3.6	*0.4	-	*0.3	*1.6	*1.6	1.5	8.9	6.4
Completely lost	0.6	*0.5	-	*0.3	*0.4	*0.6	*0.6	*1.0	*0.8
Unknown	0.8	-	*0.6	*0.9	*0.6	*0.8	*0.4	*0.9	1.2

¹Includes persons who do not dress themselves.

²Includes persons who are fed by tube or intravenously.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Unpublished data from the 1985 National Nursing Home Survey.

Chapter X

Cost of health care

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Barbara Marzetta Liu, Northwest Institute

Introduction

U.S. expenditures for health care totaled \$425 billion in 1985, an amount equal to 10.7 percent of the gross national product. That figure represents expenditures averaging \$1,721 per person during the year. Forty-seven percent of the Nation's health dollars went for hospital and nursing home care. Despite numerous strategies to contain costs, health spending in 1985 was up 8.9 percent from the previous year.⁴⁹

Because older persons are more likely than their younger counterparts to need both acute and long-term care, they account for a disproportionately high percent of national health care expenditures. As the number of aged Americans increases, developing strategies to pay for their medical care has become an important priority.

Sources of data

Information on health care expenditures reported for 1980 was derived from the National Medical Care Utilization and Expenditure Survey (NMCUES), which was designed and conducted as a collaborative effort between the National Center for Health Statistics and the Health Care Financing Administration. Data were collected by means of a household interview survey based on a national probability sample of the civilian noninstitutionalized population residing in the United States. Residents of nursing homes were excluded from the survey, along with all expenditures for any health services provided to residents. (See the appendix for details.)

Data on national expenditures for health care and sources of payment were compiled by the Health Care Financing Administration.

Results and comments

Although persons 65 years of age and over represent only 12 percent of the U.S. population, they account for 31 percent of national expenditures for health care.⁵⁰ In 1984 per capita health care expenditures for persons 65 years of age and over were \$4,202 (table 60). Of that amount, almost one-half (\$1,900) went for hospital charges. Expenditures for nursing home care were \$880 per person, a remarkably high figure when one considers that only 5 percent of the population aged 65 years and over resides in a nursing home.

Of the total per capita expenditures for the aged of \$4,202, 25 percent was paid out of pocket and 67 percent was covered

by government programs, chiefly Medicare. However, there was considerable variation in the source of funds according to type of service. For instance, government programs paid for the lion's share (89 percent) of hospital charges for older persons in 1984; private funds paid for only 11 percent. In contrast, private funds (generally, out-of-pocket payments and private insurance) paid for 40 percent of expenditures for physicians' services. More than one-half of expenditures for nursing home care were covered by the consumer out of pocket; Medicaid contributed an additional 42 percent.

Information on the distribution of charges for health services according to diagnostic category is presented in table 61. For the civilian noninstitutionalized population aged 65 years and over in 1980, the highest charges (28 percent of the total) were for diseases of the circulatory system. Neoplasms accounted for 13 percent of charges, and injury and poisoning represented 9 percent of the total.

Diseases of the circulatory system also accounted for the greatest proportion (nearly 40 percent) of nursing home expenditures in 1980. Another 21 percent of nursing home expenditures were attributable to mental disorders.⁵⁰

Although the aged, as a group, consume a disproportionate share of the health dollar, that does not mean that all, or even most, older persons have high medical care expenditures. Rather, it has been demonstrated that a small proportion of persons aged 65 years and over account for the bulk of that group's health care expenditures. An analysis of data from NMCUES⁵¹ revealed that about 5 percent of persons aged 65 years and over who were living in the community at the beginning of 1980 left during the course of the year through death or institutionalization. They accounted for 22 percent of total charges for persons in the community in their age group even though they were in the community, on average, for only one-half of the year. Their per capita charges, which were mostly for hospitalization, were high: \$7,000 per person, or a yearly average of \$13,000.

In contrast, older persons who lived in the community all year had low charges for health care. The mean charge was \$1,327 because a few had very high charges, but the median charge was only \$329. High charges were almost uniformly attributable to hospitalization. A person's level of charges was not related to age, sex, or socioeconomic status—only to health status.

A large portion of expenditures for health care among older persons is associated with persons who are in their last year of life. In a recent study, reimbursement and use

of services by Medicare enrollees who died in 1978 were compared with those of enrollees who survived the year.⁵² The average reimbursement for those who died was \$4,909, an amount four times as great as the reimbursement for those who lived. Decedents comprised 6 percent of the group studied, yet accounted for 28 percent of Medicare reimbursement. Decedents had five times as many hospital discharges per 1,000 enrollees as did survivors and seven times as many days of care per 1,000 enrollees.

There has been some concern that the use of heroic measures to extend life in recent years has contributed to increases in health care expenditures in this country. Recently, increases in Medicare reimbursements from 1967 to 1982 were compared for survivors and decedents.⁵³ It was found that per capita expenditures for both groups increased at the same rate over that time span. Thus, it appears that there has not been an increase in the cost of treating dying persons as compared with persons who do not die.

Table 60. Per capita personal health care expenditures for persons 65 years of age and over, by type of service and source of funds: United States, 1984

Source of funds	Type of service				
	All services	Hospital	Physician	Nursing home	Other
Total	\$4,202	\$1,900	\$868	\$880	\$554
Private	1,379	216	344	457	362
Consumer	1,363	209	344	451	359
Out of pocket	1,059	59	227	441	332
Insurance	304	150	117	10	27
Other private	16	7	1	6	3
Government	2,823	1,684	524	423	192
Medicare	2,051	1,420	502	19	110
Medicaid	536	91	16	365	63
Other government	236	172	6	39	19

¹Less than \$.50.

SOURCE: Office of Financial and Actuarial Analysis, Health Care Financing Administration.

Table 61. Total charges for health services and percent distribution for persons 45 years of age and over by selected diagnostic categories, according to age: United States, 1980

[Data are from a household sample of the civilian noninstitutionalized population]

Diagnostic category ¹	45-64 years	65 years and over	45-64 years	65 years and over
	Amount in millions		Percent distribution	
Total	\$35,732	\$37,925	100.0	100.0
Neoplasms	3,946	4,884	11.0	12.9
Endocrine, nutritional, and metabolic diseases and immunity disorders	1,543	1,097	4.3	2.9
Diseases of the nervous system and sense organs	2,254	2,908	6.3	7.7
Diseases of the circulatory system	6,715	10,465	18.8	27.6
Diseases of the respiratory system	2,639	2,354	7.4	6.2
Diseases of the digestive system	4,020	2,558	11.3	6.7
Diseases of the genitourinary system	2,357	2,085	6.6	5.5
Diseases of the musculoskeletal system and connective tissue	4,330	2,948	12.1	7.8
Injury and poisoning	2,332	3,478	6.5	9.2
All others and unknown	5,597	5,147	15.7	13.6

¹Categories are from the 9th Revision, International Classification of Diseases, Clinical Modification. (See reference 45.)

SOURCE: P. E. Parsons, R. Lichtenstein, S. E. Berkli, et al.: Costs of illness, United States, 1980. *National Medical Care Utilization and Expenditure Survey*. Series C, No. 3. DHHS Pub. No. 86-20403. National Center for Health Statistics, Public Health Service, Washington. U.S. Government Printing Office, Apr. 1986.

References

- ¹World Health Organization: *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*, Based on the Recommendations of the Ninth Revision Conference, 1975. Geneva. World Health Organization, 1977.
- ²S. Katz, A. Ford, R. Moskowitz, et al.: Studies of illness in the aged, the Index of ADL, a standardized measure of biological and psychosocial function. *JAMA* 185(12):914-919, Sept. 21, 1963.
- ³National Center for Health Statistics, L. A. Fingerhut: Changes in mortality among the elderly, United States, 1940-78, Supplement to 1980. *Vital and Health Statistics*. Series 3, No. 22a. DHHS Pub. No. (PHS) 82-1406a. Public Health Service. Washington. U.S. Government Printing Office, Apr. 1984.
- ⁴National Center for Health Statistics: Advance report of final mortality statistics, 1984. *Monthly Vital Statistics Report*. Vol. 35, No. 6 Supp. 2. DHHS Pub. No. (PHS) 86-1120. Public Health Service. Hyattsville, Md., Sept. 26, 1986.
- ⁵I. Rosenwaike: *The Extreme Aged in America*. Westport, Conn. Greenwood Press, 1985.
- ⁶R. A. Israel, H. M. Rosenberg, and L. R. Curtin: Analytical potential for multiple cause-of-death data. *Am. J. Epidemiol.* 124(2):161-179, 1986.
- ⁷K. Manton and E. Stallard: *Recent Trends in Mortality Analysis*. Orlando, Fla. Academic Press, 1984.
- ⁸National Center for Health Statistics: *Health, United States, 1985*. DHHS Pub. No. (PHS) 86-1232. Public Health Service. Washington. U.S. Government Printing Office, Dec. 1985.
- ⁹J. W. Horn and L. G. Kessler: Falling rates of lung cancer in men in the United States. *Lancet* I(8478):425-427, Feb. 22, 1986.
- ¹⁰N. J. Osgood: *Suicide in the Elderly, A Practitioner's Guide to Diagnosis and Mental Health Intervention*. Rockville, Md. Aspen Systems Corporation, 1985.
- ¹¹U.S. Bureau of the Census: Projections of the population of the United States, by age, sex, and race, 1983 to 2080. *Current Population Reports*. Series P-25, No. 952. Washington. U.S. Government Printing Office, 1984.
- ¹²Conference Planning Committee, Fourth Manitoba Conference on Aging: *Provincial Factbook on Aging—Manitoba*. Winnipeg, Canada. Manitoba Council on Aging, 1985.
- ¹³T. Kuroda and P. Hauser: *Aging of the Population of Japan and Its Policy Implications*. Tokyo, Japan. Nihon University Population Research Institute, 1981.
- ¹⁴Israel Central Bureau of Statistics: *Survey of Elderly Persons in Households, 1982*. No. 754. Jerusalem, Israel. Israel Bureau of Statistics, 1985.
- ¹⁵P. O'Neill: *Health Crisis 2000*. Copenhagen, Denmark. World Health Organization Regional Office for Europe, 1983.
- ¹⁶United Nations: *Demographic Yearbook, 1984*. Pub. No. ST/ESA/STA/SER.R/14. New York. United Nations, 1986.
- ¹⁷United Nations: *World Population Prospects, Estimates and Projections as Assessed in 1982*. Pub. No. ST/ESA/SER.A/86. New York. United Nations, 1985.
- ¹⁸National Center for Health Statistics, P. W. Ries: Current estimates from the National Health Interview Survey, United States, 1984. *Vital and Health Statistics*. Series 10, No. 156. DHHS Pub. No. (PHS) 86-1584. Public Health Service. Washington. U.S. Government Printing Office, July 1986.
- ¹⁹National Center for Health Statistics, J. G. Collins: Prevalence of selected chronic conditions, United States, 1979-81. *Vital and Health Statistics*. Series 10, No. 155. DHHS Pub. No. (PHS) 86-1583. Public Health Service. Washington. U.S. Government Printing Office, July 1986.
- ²⁰National Center for Health Statistics: *Eighth Revision International Classification of Diseases, Adapted for Use in the United States*. PHS Pub. No. 1693. Public Health Service. Washington. U.S. Government Printing Office, 1967.
- ²¹National Center for Health Statistics, C. S. Wilder: Prevalence of chronic circulatory conditions, United States, 1972. *Vital and Health Statistics*. Series 10, No. 94. DHEW Pub. No. (HRA) 75-1521. Health Resources Administration. Washington. U.S. Government Printing Office, Sept. 1974.
- ²²National Center for Health Statistics, J. G. Collins: Types of injuries and impairments due to injuries, United States. *Vital and Health Statistics*. Series 10, No. 159. DHHS Pub. No. (PHS) 87-1587. Public Health Service. Washington. U.S. Government Printing Office, Nov. 1986.
- ²³G. C. Meyers and B. F. Wilson: Marriage trends and patterns of older Americans. *Gerontologist* 26:133A, Oct. 1986.
- ²⁴National Center for Health Statistics, M. G. Kovar: Aging in the eighties, age 65 years and over and living alone, contacts with family, friends, and neighbors. *Advance Data From Vital and Health Statistics*. No. 116. DHHS Pub. No. (PHS) 86-1250. Public Health Service. Hyattsville, Md., May 9, 1986.
- ²⁵L. G. Branch and A. M. Jette: A prospective study of long-term care institutionalization among the aged. *Am. J. Public Health* 72(12):1373-1379, Dec. 1982.
- ²⁶Long-Term Care Bed Need Methodologies, Background Information and Suggested Methodology. Available through National Technical Information Service, Springfield, Va. NTIS No. HRP-0906628. Madison, Wisc. Institute for Health Planning, 1985.
- ²⁷National Center for Health Statistics, J. E. Fitti and M. G. Kovar: Supplement on Aging, 1984 National Health Interview Survey. *Vital and Health Statistics*. Series 1, No. 21. Public Health Service, DHHS, Hyattsville, Md. In preparation.
- ²⁸R. Stone: The use of community services by the elderly. *Gerontologist* 26:268A, Oct. 1986.

- ²⁹W. G. Weissert: Hard choices, Targeting long-term care to the "at risk" aged. *J. Health Polit. Policy Law* 11(3):463-481, Fall 1986.
- ³⁰P. E. Leaverton, R. J. Havlik, and L. Ingster-Moore: Coronary Heart Disease and Hypertension, in J. Cornoni-Huntley, R. R. Huntley, and J. J. Feldman, eds., *Health Status and Well-Being of the Elderly*. Oxford University Press. New York. In press.
- ³¹Office of Disease Prevention and Health Promotion: Promoting health/preventing disease, Public Health Service implementation plans for attaining the objectives for the Nation. *Public Health Reports*. Sept.-Oct. Supp. DHHS Pub No. (PHS) 83-50193A. Washington. U.S. Government Printing Office, 1983.
- ³²National Center for Health Statistics. T. Drizd, A. L. Dannenberg, and A. Engel: Blood pressure levels in persons 18-74 years of age in 1976-80 and trends in blood pressure from 1960 to 1980 in the United States. *Vital and Health Statistics*. Series 11, No. 234. DHHS Pub. No. (PHS) 86-1684. Public Health Service. Washington. U.S. Government Printing Office, July 1986.
- ³³Hypertension Detection and Follow-up Program Cooperative Group: Five-year findings of the Hypertension Detection and Follow-up Program, I, Reduction in mortality of persons with high blood pressure, including mild hypertension. *JAMA* 242(23):2562-2571, 1979.
- ³⁴J. D. Curb, N. O. Borhani, G. Entwisle, et al.: Isolated systolic hypertension in 14 communities. *Am. J. Epidemiol.* 121(3):362-370, 1985.
- ³⁵R. W. Gifford, Jr.: Isolated systolic hypertension in the elderly. *JAMA* 247(6):781-785, 1982.
- ³⁶National Institutes of Health Consensus Development Panel: National Institutes of Health consensus development statement on lowering blood cholesterol to prevent heart disease. *JAMA* 253(14):2080-2086, 1985.
- ³⁷National Center for Health Statistics and National Heart, Lung, and Blood Institute Collaborative Lipid Group: Trends in serum cholesterol levels among U.S. adults aged 20 to 74 years. *JAMA*. 257(7):937-942, 1987.
- ³⁸J. D. Posner, K. M. Gorman, H. S. Klein, and A. Woldow: Exercise capacity in the elderly. *Am. J. Cardiol.* 57:52C-58C, 1986.
- ³⁹National Center for Health Statistics, T. Harris: Aging in the eighties, Prevalence and impact of urinary problems in individuals age 65 years and over, Preliminary data from the Supplement on Aging to the National Health Interview Survey, United States, January-June 1984. *Advance Data From Vital and Health Statistics*. No. 121. DHHS Pub. No. (PHS) 86-1250. Public Health Service. Hyattsville, Md., Aug. 27, 1986.
- ⁴⁰Urinary incontinence in elderly patients (editorial). *Lancet* II(8519):1316-1317, 1986.
- ⁴¹National Center for Health Statistics, P. Ries: Physician contacts by sociodemographic and health characteristics, United States, 1982-83. *Vital and Health Statistics*. Series 10, No. 161. DHHS Pub. No. (PHS) 87-1589. Public Health Service. Washington. U.S. Government Printing Office, Apr. 1987.
- ⁴²S. E. Berki, J. N. Lepkowski, L. Wyszewianski, et al.: High-volume and low-volume users of health services, United States, 1980. *National Medical Care Utilization and Expenditure Survey*. Series C, No. 2. DHHS Pub. No. 86-20402. National Center for Health Statistics, Public Health Service. Washington. U.S. Government Printing Office, Nov. 1985.
- ⁴³National Center for Health Statistics, H. Koch and M. C. Smith: Office-based ambulatory care for patients 75 years old and over, National Ambulatory Medical Care Survey, 1980 and 1981. *Advance Data From Vital and Health Statistics*. No. 110. DHHS Pub. No. (PHS) 85-1250. Public Health Service. Hyattsville, Md., Aug. 21, 1985.
- ⁴⁴National Center for Health Statistics: *Health, United States, 1986*. DHHS Pub. No. (PHS) 87-1232. Public Health Service. Washington. U.S. Government Printing Office, Mar. 1987.
- ⁴⁵Public Health Service and Health Care Financing Administration: *International Classification of Diseases, 9th Revision, Clinical Modification*. DHHS Pub. No. (PHS) 80-1260. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1980.
- ⁴⁶National Center for Health Statistics, E. J. Graves: Utilization of short-stay hospitals, United States, 1984, annual summary. *Vital and Health Statistics*. Series 13, No. 84. DHHS Pub. No. (PHS) 86-1745. Public Health Service. Washington. U.S. Government Printing Office, Mar. 1986.
- ⁴⁷M. Moien and E. McCarthy: Hospital Utilization by the Elderly, A Focus on the Oldest Old. Paper presented at the Annual Meeting of the American Public Health Association. Washington, D.C., Nov. 1985.
- ⁴⁸K. Liu and Y. Palesch: The nursing home population, Different perspectives and implications for policy. *Health Care Financing Review*. Vol. 3, No. 2. HCFA Pub. No. 03139. Office of Research, Demonstrations, and Statistics, Health Care Financing Administration. Washington. U.S. Government Printing Office, Dec. 1981.
- ⁴⁹D. R. Waldo, K. R. Levit, and H. Lazenby: National health expenditures, 1985. *Health Care Financing Review*. Vol. 8, No. 1. HCFA Pub. No. 03224. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Fall 1986.
- ⁵⁰T. A. Hodgson and A. N. Kopstein: Health care expenditures for major diseases in 1980. *Health Care Financing Review*. Vol. 5, No. 4. HCFA Pub. No. 03173. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1984.
- ⁵¹M. G. Kovar: Expenditures for the medical care of elderly people living in the community in 1980. *Milbank Mem. Fund Q.* 64(1):100-132, 1986.
- ⁵²J. Lubitz and R. Prihoda: The use and costs of Medicare services in the last 2 years of life. *Health Care Financing Review*. Vol. 5, No. 3. HCFA Pub. No. 03169. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Spring 1984.
- ⁵³G. Riley, J. Lubitz, R. Prihoda, and M. A. Stevenson: Changes in distribution of Medicare expenditures among aged enrollees, 1969-82. *Health Care Financing Review*. Vol. 7, No. 3. HCFA Pub. No. 03222. Office of Research and Demonstrations, Health Care Financing Administration. Washington. U.S. Government Printing Office, Spring 1986.

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Appendix

Data systems with statistics on aging

The National Center for Health Statistics is one of the major Federal statistical agencies. It operates a diverse survey and inventory program with legislative authorization to collect statistics on:

- o The extent and nature of illness and disability of the population of the United States, including life expectancy, maternal morbidity, and mortality;
- o The impact of illness and disability of the population on the economy of the United States and on other aspects of the well-being of its population;
- o Environmental, social, and other health hazards;
- o Determinants of health;
- o Health resources, including health professionals by specialty and type of practice and the supply of services by hospitals, extended care facilities, home health agencies, and other health institutions;
- o Utilization of health care, including ambulatory health services, the services of hospitals, extended care facilities, home health agencies, and other institutions;
- o Health care costs and financing; and
- o Family formation, growth, and dissolution.

The Center's own data collection staff is very small. It collects most of its data through interagency agreements with the U.S. Bureau of the Census or through contracts with non-Federal organizations. Its major data collection programs are:

Vital Statistics: births, deaths, marriages, and divorces
National Survey of Family Growth
National Health Interview Survey
National Medical Care Utilization and Expenditure Survey
National Health and Nutrition Examination Survey
National Hospital Discharge Survey
National Ambulatory Medical Care Survey
National Nursing Home Survey
National Master Facility Inventory

These are described briefly in "Data Systems of the National Center for Health Statistics," (Series 1, No. 16, DHHS Pub. No. 82-1318, December 1981), which also carries a description of the publication series (A series is used to publish data from a particular survey or data collection system.) The Center releases an annual Catalog of Publications of the National Center for Health Statistics. The Center also releases annually a Catalog of Public Use Data Tapes From the National Center for Health Statistics. The majority of these data tapes are now sold by the National Technical Information Service.

Requests for publications and information or inquiries concerning data tapes, special tabulations, and other assistance should be directed to:

Scientific and Technical Information Branch
National Center for Health Statistics
Public Health Service
3700 East-West Highway, Room 1-57
Hyattsville, MD 20782

SPONSOR: National Center for Health Statistics (NCHS),
Department of Health and Human Services (DHHS)

TITLE: **National Mortality Statistics File**

Project Director: Harry M. Rosenberg, Ph.D.
Chief, Mortality Statistics Branch
Division of Vital Statistics
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: To produce uniform national, State, and local data on numbers of deaths, causes of death, and sociodemographic characteristics of decedents.

DESIGN: Mortality data include all deaths (approximately 2 million) occurring annually within the United States reported to State vital registration offices. In 1972, a 50 percent sample of mortality data was used; generally, however, 100 percent of deaths are included. Data are collected annually. Data are available for the entire U.S. annually since 1933 and for selected States since 1900.

CONTENT: Demographic and medical information is coded from information reported on the death certificate including residence, age, race, sex, underlying cause of death, and multiple causes of death.

YEARS OF DATA COLLECTION: Data are collected annually. National data available since 1933.

PUBLICATIONS: National Center for Health Statistics: Vital Statistics of the United States, Volume II, Mortality, Parts A and B, and Monthly Vital Statistics Report.

AVAILABILITY OF UNPUBLISHED DATA: Public use data tapes for 1968 and subsequent years are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161. Mortality Detail Files, 1969-83 (ICPSR 7632) are also in the collection of the National Archive of Computerized Data on Aging maintained by the Inter-University Consortium for Political and Social Research, P.O. Box 1248, Ann Arbor, MI 48106.

CONTACT: Harry M. Rosenberg, Ph.D.
(301) 436-8884

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Mortality Statistics File**

TYPES OF DATA COLLECTED

Data File	Public Use	Tape	Data File	Public Use	Tape
		<u>DEMOGRAPHIC DATA</u>			<u>HEALTH</u>
		Educational level	(1)	(1)	Acute and chronic conditions
x	x	Race			Disability days
x	x	Ethnicity			Chronic limitations of activity
x	x	Sex			of mobility
x	x	Marital status			Impairments
		Migration or mobility			Usual activity status
		<u>VITAL STATISTICS</u>			<u>ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH</u>
		Natality			Cognitive impairment scale
x	x	Mortality			Behavior problems
		Marriage			Depression
		Divorce			Alcohol use
		<u>HOUSING</u>			Drug abuse
		Type of dwelling			<u>CHANGES IN HEALTH STATUS</u>
		No. of persons in household			Morbidity
		Relationship of persons in household			Functional limitations
		<u>INCOME AND WEALTH</u>			Self-perceived health
		Labor force participation			<u>FUNCTIONAL LEVELS</u>
		Total income			Social interaction
		Sources of income			Activities of daily living
		Net assets			Instrumental activities of daily living
		<u>SOCIAL SERVICES</u>			<u>HEALTH CARE UTILIZATION</u>
		<u>HEALTH RESOURCES</u>	(1)	(1)	General hospital services
		General hospitals			Nursing home services
		Private psychiatric hospitals			Home health care
		Public mental health hospitals			Rehabilitation
		Nursing homes			Mental health hospitalization
		Other institutional resources			Mental health outpatient services
		Community-based resources			Alcohol and drug abuse centers
		Health professions			Physician services/visits
		Other professional resources			Dental services/visits
		<u>HEALTH EXPENSES</u>			Prescription drugs
		Costs of care			Other
		Out-of-pocket costs			<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
		Medicare			
		Medicaid			
		State expenditures			
		Private insurance coverage			

¹ Cause of death.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Mortality Statistics File**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Age</u>	<u>Number in Sample</u> ¹
Total	2,039,369
Under 65	612,421
65-74	476,570
75-84	550,912
<u>85+</u>	399,466

¹ Age distribution excludes deaths with age not stated.

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth			
Social Security no.			
Veteran status			
Geographic data			
Largest unit	U.S.	U.S.	U.S.
Smallest unit	County/city of 10,000+ pop.	County/city of 100,000+ pop.	County/city of 10,000+ pop.
Age classes			
Single years	x	x	x
60-64			x
65+			x
65-74, 75-84, 85+			x
Other			

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **Life Tables, Vital Statistics of the United States**

Project Directors: Harry Rosenberg, Ph.D.
Chief, Mortality Statistics Branch, and
Robert Armstrong
Actuarial Advisor
Division of Vital Statistics
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: To summarize death rates in order to obtain standardized measures of comparative longevity.

DESIGN: For annual complete tables, numerators are deaths by single years of age for a calendar year; for decennial tables, numerators are deaths by single years of age for the 3-year period around a census year. Abridged life tables contain values by age group. Provisional life tables are based on a 10 percent sample, compared with final tables, which are based on a complete count of deaths. Denominators for decennial tables are based on decennial census data; denominators for annual tables are based on midyear postcensal population estimates from the Bureau of the Census. Life tables are also computed by cause of death.

CONTENT: See Publications.

YEARS OF DATA COLLECTION: Complete life tables, United States, decennially since 1900 and annually since 1960.
Abridged life tables, United States, annually since 1945.
Provisional life tables, United States, annually since 1958.
Decennial life tables, States since 1940 (every 10 years).

PUBLICATIONS: Complete tables--National Center for Health Statistics: Vital Statistics of the United States, Mortality, Vol. II, Part A.

National Center for Health Statistics: U.S. Decennial Life Tables. (Publication includes tables for individual States and for selected causes of death).

Provisional tables--National Center for Health Statistics: Annual summary of births, deaths, marriages, and divorces, United States. Monthly Vital Statistics Report.

AVAILABILITY OF UNPUBLISHED DATA: Latest tables available on request.

CONTACT: Robert J. Armstrong (decennial life tables), (301) 436-8951

Harry M. Rosenberg, Ph.D. (annual data-provisional and final life tables),
(301) 436-8884

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: Life Tables, Vital Statistics of the United States

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>	(1)	<u>HEALTH</u>
x	Educational level		Acute and chronic conditions
	Race		Disability days
x	Ethnicity		Chronic limitations of activity
	Sex		of mobility
	Marital status		Impairments
	Migration or mobility		Usual activity status
	<u>VITAL STATISTICS</u>		<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
x	Natality		Cognitive impairment scale
	Mortality		Behavior problems
	Marriage		Depression
	Divorce		Alcohol use
	<u>HOUSING</u>		Drug abuse
	Type of dwelling		<u>CHANGES IN HEALTH STATUS</u>
	No. of persons in household		Morbidity
	Relationship of persons in household		Functional limitations
	<u>INCOME AND WEALTH</u>		Self-perceived health
	Labor force participation		<u>FUNCTIONAL LEVELS</u>
	Total income		Social interaction
	Sources of income		Activities of daily living
	Net assets		Instrumental activities of daily living
	<u>SOCIAL SERVICES</u>		<u>HEALTH CARE UTILIZATION</u>
	<u>HEALTH RESOURCES</u>		General hospital services
	General hospitals		Nursing home services
	Private psychiatric hospitals		Home health care
	Public mental health hospitals		Rehabilitation
	Nursing homes		Mental health hospitalization
	Other institutional resources		Mental health outpatient services
	Community-based resources		Alcohol and drug abuse centers
	Health professions		Physician services/visits
	Other professional resources		Dental services/visits
	<u>HEALTH EXPENSES</u>		Prescription drugs
	Costs of care		Other
	Out-of-pocket costs		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	Medicare coverage		
	Medicaid coverage		
	State expenditures		
	Private insurance coverage		

¹Decennial life tables by cause of death.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: Life Tables, Vital Statistics of the United States

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Age</u>	<u>Number in Sample</u>	<u>Nonresponse Rate</u>
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Total		
Under 65		
65-74	Not applicable	
75-84		
85+		

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth			
Social Security no.			
Veteran status			
Geographic data			
Largest unit			U.S.
Smallest unit			State
Age classes			
Single years			x (decennial)
60-64			x (annual)
65+			x (annual)
65-74, 75-84, 85+			x (annual)
Other			

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Death Index (NDI)**

Project Director: Robert Bilgrad
Special Assistant to the Director
Division of Vital Statistics
National Center for Health Statistics
3700 East-West Highway, Room 1-44
Hyattsville, MD 20782

PURPOSE: The National Death Index (NDI) is a computerized central file of death record information. It is compiled from magnetic tapes submitted to the National Center for Health Statistics (NCHS) by the State vital statistics offices. These tapes contain a standard set of identifying information for each decedent, beginning with deaths occurring in 1979.

Investigators conducting prospective and retrospective studies can use the NDI to determine whether persons in their studies may have died, and, if so, be provided with the names of the States in which those deaths occurred, the dates of death, and the corresponding death certificate numbers. The NDI user can then arrange with the appropriate State offices to obtain copies of death certificates or specific statistical information such as cause of death.

DESIGN: The NDI file contains identifying death record information for virtually all deaths in the United States, Puerto Rico, and the Virgin Islands.

CONTENT: The identifying information on the NDI file is provided to NCHS on magnetic tapes submitted by the State vital statistics offices via contractual agreements. The items of information are: State of death, death certificate number, date of death, first and last name, middle initial, father's surname, social security number, date of birth, race, sex, marital status, State of residence, State of birth, age at death.

YEARS OF DATA The NDI file contains 14.6 million death records for 1979-85.

COLLECTION: Deaths are added to the file annually, approximately 12 months after the end of a calendar year. About 2 million records are added each year.

PUBLICATIONS: Patterson, B.H., and Bilgrad, R., "Use of the National Death Index in Cancer Studies," Journal of the National Cancer Institute, Vol. 77, No. 4, October 1986. Includes references.

Patterson, J.E., and Bilgrad, R., "The National Death Index Experience: 1981-1985" (Presented at the Workshop on Exact Matching Methodologies, Arlington, VA. May 1985). Includes published and unpublished references.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Death Index (NDI)** (continued)

National Center for Health Statistics, DHHS User's Manual: The National Death Index, DHHS Pub. No. (PHS) 81-1148, September 1981.

AVAILABILITY OF UNPUBLISHED DATA: The data on the NDI file are used solely for matching purposes to assist health investigators in their mortality ascertainment activities. The file is confidential and copies are not available.

CONTACT: Robert Bilgrad
(301) 436-8951

SPONSOR National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: National Death Index (NDI)

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	Educational level		Acute and chronic conditions
	Race		Disability days
	Ethnicity		Chronic limitations of activity
x	Sex		of mobility
x	Marital status		Impairments
	Migration or mobility		Usual activity status
	<u>VITAL STATISTICS</u>		<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
	Natality		Cognitive impairment scale
x	Mortality		Behavior problems
	Marriage		Depression
	Divorce		Alcohol use
	<u>HOUSING</u>		Drug abuse
	Type of dwelling		<u>CHANGES IN HEALTH STATUS</u>
	No. of persons in household		Morbidity
	Relationship of persons in household		Functional limitations
	<u>INCOME AND WEALTH</u>		Self-perceived health
	Labor force participation		<u>FUNCTIONAL LEVELS</u>
	Total income		Social interaction
	Sources of income		Activities of daily living
	Net assets		Instrumental activities of daily living
	<u>SOCIAL SERVICES</u>		<u>HEALTH CARE UTILIZATION</u>
	<u>HEALTH RESOURCES</u>		General hospital services
	General hospitals		Nursing home services
	Private psychiatric hospitals		Home health care
	Public mental health hospitals		Rehabilitation
	Nursing homes		Mental health hospitalization
	Other institutional resources		Mental health outpatient services
	Community-based resources		Alcohol and drug abuse centers
	Health professions		Physician services/visits
	Other professional resources		Dental services/visits
	<u>HEALTH EXPENSES</u>		Prescription drugs
	Costs of care		Other
	Out-of-pocket costs		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	Medicare coverage		Identifying death record information
	Medicaid coverage		
	State expenditures		
	Private insurance coverage	x	

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Death Index (NDI)**

SELECTED ITEMS IN DATA SET

SIZE OF POPULATION

<u>Age</u>	<u>Number in File</u>
Total	10,289,958
Under 60	2,448,436
60+	7,841,522

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	1x		
Social Security no.	1x		
Veteran status			
Geographic data			
Largest unit		State	
Smallest unit		County	
Age classes			
Single years		x	
60-64			
65+			
65-74, 75-84, 85+			
Other			

¹ Available solely for matching purposes. Actual information is not disclosed.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Marriage Statistics**

Project Director: Robert L. Heuser
Acting Chief, Marriage and Divorce
Statistics Branch
Division of Vital Statistics
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: To collect demographic data on marriages performed in the United States.

DESIGN: Count of marriages performed from all States. Data on characteristics from sample of marriages occurring in States meeting criteria for marriage-registration area (42 States and the District of Columbia in 1984). Systematic sample designed to include at least 2,500 records from each State.

CONTENT: Characteristics include: age, race, number of the marriage, previous marital status, interval since last marriage, and education of the bride and groom; type of ceremony (civil or religious).

YEARS OF DATA COLLECTION: Marriage-registration area (MRA) established in 1957. Data collected annually.

PUBLICATIONS: National Center for Health Statistics: Vital Statistics of the United States, Vol. III, Marriage and Divorce. Published annually.

Periodic reports in Vital and Health Statistics, Series 21, and, in 1987, Advance Report of Final Marriage Statistics, 1984 in the Monthly Vital Statistics Report, published by the National Center for Health Statistics.

AVAILABILITY OF UNPUBLISHED DATA: Public use data tapes for 1968 and subsequent years are available from National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

CONTACT: Robert L. Heuser
(301) 436-8954

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Marriage Statistics**

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
			<u>HEALTH</u>
x	x		Acute and chronic conditions
x	x		Disability days
			Chronic limitations of activity of mobility
x	x		Impairments
x	x		Usual activity status
			<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
			Cognitive impairment scale
			Behavior problems
			Depression
			Alcohol use
			Drug abuse
			<u>CHANGES IN HEALTH STATUS</u>
			Morbidity
			Functional limitations
			Self-perceived health
			<u>FUNCTIONAL LEVELS</u>
			Social interaction
			Activities of daily living
			Instrumental activities of daily living
			<u>HEALTH CARE UTILIZATION</u>
			General hospital services
			Nursing home services
			Home health care
			Rehabilitation
			Mental health hospitalization
			Mental health outpatient services
			Alcohol and drug abuse centers
			Physician services/visits
			Dental services/visits
			Prescription drugs
			Other
			<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
			<u>DEMOGRAPHIC DATA</u>
			Educational level
			Race
			Ethnicity
			Sex
			Marital status
			Migration or mobility
			<u>VITAL STATISTICS</u>
			Natality
			Mortality
x	x		Marriage
			Divorce
			<u>HOUSING</u>
			Type of dwelling
			No. of persons in household
			Relationship of persons in household
			<u>INCOME AND WEALTH</u>
			Labor force participation
			Total income
			Sources of income
			Net assets
			<u>SOCIAL SERVICES</u>
			<u>HEALTH RESOURCES</u>
			General hospitals
			Private psychiatric hospitals
			Public mental health hospitals
			Nursing homes
			Other institutional resources
			Community-based resources
			Health professions
			Other professional resources
			<u>HEALTH EXPENSES</u>
			Costs of care
			Out-of-pocket costs
			Medicare coverage
			Medicaid coverage
			State expenditures
			Private insurance coverage

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Marriage Statistics**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Age</u>	<u>Number in Sample¹</u>
Total	1,904,243
Under 65	1,885,396 women 1,869,947 men
65-85+	18,847 women 34,296 men

¹ Weighted numbers, MRA, 1984.

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth			
Social Security no.			
Veteran status			
Geographic data			
Largest unit	MRA	MRA	U.S.
Smallest unit	State	State	County (totals)
Age classes			
Single years	x	x	
60-64			
65+			x
65-74, 75-84, 85+			
Other			

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Divorce Statistics**

Project Director: Robert L. Heuser, Acting Chief
Marriage and Divorce Statistics Branch
Division of Vital Statistics
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: To collect demographic data on divorces, dissolutions of marriages, and annulments in the United States.

DESIGN: Count of divorces granted from all States. Data on characteristics from sample of divorces occurring in States meeting criteria for divorce-registration area (31 States in 1984). Systematic sample designed to include at least 2,500 records from each State.

CONTENT: Characteristics include: age, race, number of the marriage being dissolved, and education of husband and wife, place and duration of marriage, and number of children involved in the divorce.

YEARS OF DATA COLLECTION: Divorce-registration area (DRA) established in 1958. Data collected annually.

PUBLICATIONS: Vital Statistics of the United States. Vol. III, Marriage and Divorce.

Periodic reports in Vital and Health Statistics, Series 21, published by the National Center for Health Statistics.

AVAILABILITY OF UNPUBLISHED DATA: Public use data tapes for 1968 and subsequent years are available from National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

CONTACT: Robert L. Heuser
(301) 436-8954

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Divorce Statistics**

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	x Educational level		Acute and chronic conditions
x	x Race		Disability days
	Ethnicity		Chronic limitations of activity
x	x Sex		of mobility
x	x Marital status		Impairments
	Migration or mobility		Usual activity status
	<u>VITAL STATISTICS</u>		
	Natality		<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
	Mortality		Cognitive impairment scale
	Marriage		Behavior problems
x	x Divorce		Depression
	<u>HOUSING</u>		Alcohol use
	Type of dwelling		Drug abuse
x	x No. of persons in household ¹		<u>CHANGES IN HEALTH STATUS</u>
	Relationship of persons in household		Morbidity
	<u>INCOME AND WEALTH</u>		Functional limitations
	Labor force participation		Self-perceived health
	Total income		<u>FUNCTIONAL LEVELS</u>
	Sources of income		Social interaction
	Net assets		Activities of daily living
	<u>SOCIAL SERVICES</u>		Instrumental activities of daily living
	<u>HEALTH RESOURCES</u>		<u>HEALTH CARE UTILIZATION</u>
	General hospitals		General hospital services
	Private psychiatric hospitals		Nursing home services
	Public mental health hospitals		Home health care
	Nursing homes		Rehabilitation
	Other institutional resources		Mental health hospitalization
	Community-based resources		Mental health outpatient services
	Health professions		Alcohol and drug abuse centers
	Other professional resources		Physician services/visits
	<u>HEALTH EXPENSES</u>		Dental services/visits
	Costs of care		Prescription drugs
	Out-of-pocket costs		Other
	Medicare coverage		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	Medicaid coverage		
	State expenditures		
	Private insurance coverage		

¹Children involved in divorce.

SPONSOR National Center for Health Statistics (NCHS), Department
of Health and Human Services (DHHS)

TITLE: National Divorce Statistics

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Age</u>	<u>Number in Sample</u>	¹
Total	567,783	
Under 65	498,272 men	
	499,175 women	
65+	7,845 men	
	4,221 women	

¹ Weighted numbers, DRA, 1984. (Age distribution
excludes cases with age not stated.)

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth			
Social Security no.			
Veteran status			
Geographic data			
Largest unit	U.S.	U.S.	U.S.
Smallest unit	State	State	County
Age classes			(Totals only)
Single years	x	x	
60-64			x
65+			x
65-74, 75-84, 85+			
Other			

SPONSOR: National Center for Health Statistics (NCHS),
Department of Health and Human Services (DHHS)

TITLE: **National Natality Statistics**

Project Director: Robert L. Heuser
Chief, Natality Statistics Branch
Division of Vital Statistics
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: To collect demographic and health data on births for use in
the study of fertility and in the planning and evaluation of
health programs.

DESIGN: Data are obtained from live-birth certificates collected by State
vital registration offices. For some years data are based on a
50 percent systematic sample; for some years on a 100 percent
sample; and for some years a combination of 50 percent and
100 percent samples.

CONTENT: Demographic and health characteristics including age of mother,
live-birth order, race, sex, plurality, marital status and
education of mother, residence, birth weight, length of gestation,
prenatal care, attendant at delivery, and in- or out-of-hospital
delivery. Information on births of Hispanic parentage was
available for 23 States in 1982.

YEARS OF DATA
COLLECTION: Annual. National data available since 1933.

PUBLICATIONS: Vital Statistics of the United States, Volume I, Natality.
Periodic reports in Vital and Health Statistics, Series 21, and
provisional data in the Monthly Vital Statistics Report published
by the National Center for Health Statistics.

AVAILABILITY
OF UNPUBLISHED
DATA: Public use data tapes for 1968 and subsequent years are
available from the National Technical Information Service,
5285 Port Royal Road, Springfield, VA 22161.

CONTACT: Robert L. Heuser
(301) 436-8954

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Natality Statistics**

TYPES OF DATA COLLECTED

Data File	Public Use Tape		Data File	Public Use Tape
		<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	x	Educational level		Acute and chronic conditions
x	x	Race		Disability days
x	x	Ethnicity		Chronic limitations of activity of mobility
x	x	Sex		Impairments
x	x	Marital status		Usual activity status
		Migration or mobility		
		<u>VITAL STATISTICS</u>		<u>ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH</u>
x	x	Natality		Cognitive impairment scale
		Mortality		Behavior problems
		Marriage		Depression
		Divorce		Alcohol use
		<u>HOUSING</u>		Drug abuse
		Type of dwelling		<u>CHANGES IN HEALTH STATUS</u>
		No. of persons in household		Morbidity
		Relationship of persons in household		Functional limitations
		<u>INCOME AND WEALTH</u>		Self-perceived health
		Labor force participation		<u>FUNCTIONAL LEVELS</u>
		Total income		Social interaction
		Sources of income		Activities of daily living
		Net assets		Instrumental activities of daily living
		<u>SOCIAL SERVICES</u>		<u>HEALTH CARE UTILIZATION</u>
		<u>HEALTH RESOURCES</u>		General hospital services
		General hospitals	x	Nursing home services
		Private psychiatric hospitals		Home health care
		Public mental health hospitals		Rehabilitation
		Nursing homes		Mental health hospitalization
		Other institutional resources		Mental health outpatient services
		Community-based resources		Alcohol and drug abuse centers
		Health professions		Physician services/visits
		Other professional resources	x	Dental services/visits
		<u>HEALTH EXPENSES</u>		Prescription drugs
		Costs of care		Other
		Out-of-pocket costs		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
		Medicare		
		Medicaid		
		State expenditures		
		Private insurance coverage		

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Natality Statistics**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Age</u>	<u>Number in Sample¹</u>	<u>Nonresponse Rate</u>
Total	3,669,141 (1984)	Est. 99.3% registration completeness

¹Live births

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x	x	
Social Security no.			
Veteran status			
Geographic data			
Largest unit	U.S.	U.S.	U.S.
Smallest unit	County/city of 10,000 or more population	x	x
Age classes			
Single years (Age of mother)	x	x	x

SPONSORS: National Center for Health Statistics (NCHS), National Heart, Lung, and Blood Institute (NHLBI), and Bureau of the Census

TITLE: **National Longitudinal Mortality Study**

Project Director: Eugene Rogot, Statistician
National Heart, Lung, and Blood Institute
Federal Building, Room 2C-08
Bethesda, MD 20892

Investigators: Diane Makuc, Dr.P.H.
Chief, Analytical Coordination Branch
Division of Analysis
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

Norman Johnson, Mathematical Statistician
Bureau of the Census, Room 3725-3
Washington, DC 20233

PURPOSE: To study socioeconomic differentials in mortality.

DESIGN: Universe--noninstitutionalized population of the United States sampled through the Current Population Survey (CPS).

Records for about 1 million persons included in several CPS samples (March 1973; February 1978; March 1979; April, August, December 1980; March 1981-83) are being linked to the National Death Index to identify deaths. Cause of death is obtained for all deaths.

CONTENT: The information collected is all CPS data (socioeconomic, demographic, labor force participation information) and death certificate data for all deaths. The March CPS files contain more detailed information on income, occupation, and labor force participation than other CPS files.

YEARS OF DATA CPS data--1973, 1978, 1979, 1980, 1981, 1982, 1983.

COLLECTION: Mortality data--1979-83. Additional data for 1984-85 have been budgeted.

SPONSORS: National Center for Health Statistics (NCHS), National Heart, Lung, and Blood Institute (NHLBI), and Bureau of the Census

TITLE: **National Longitudinal Mortality Study** (continued)

PUBLICATIONS: Makuc et al., An Overview of the U.S. National Longitudinal Mortality Study. 1984 ASA Proceedings of the Social Statistics Section.

Rogot et al. On the feasibility of linking Census samples to the NDI for epidemiologic studies. AJPH Vol. 73, No. 11, November 1983, 1265-69.

Rogot et al. Mortality by cause of death among selected Census Bureau sample cohorts, 1979-81; 1985 ASA Proceedings of the Social Statistics Section.

AVAILABILITY OF UNPUBLISHED DATA: In-house tapes now being developed for use of sponsors. Future plans not yet determined.

CONTACT: Diane Makuc, Dr.P.H.
(301) 436-5975

SPONSORS: National Center for Health Statistics (NCHS), National Heart, Lung, and Blood Institute (NHLBI), and Bureau of the Census

TITLE: **National Longitudinal Mortality Study**

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	Educational level	(1)	Acute and chronic conditions
x	Race		Disability days
x	Ethnicity		Chronic limitations of activity
x	Sex		of mobility
x	Marital status		Impairments
x	Migration or mobility	(1)	Usual activity status
	<u>VITAL STATISTICS</u>		
	Natality		<u>ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH</u>
x	Mortality		Cognitive impairment scale
	Marriage		Behavior problems
	Divorce		Depression
	<u>HOUSING</u>		Alcohol use
x	Type of dwelling		Drug abuse
x	No. of persons in household		
x	Relationship of persons in household		<u>CHANGES IN HEALTH STATUS</u>
			Morbidity
			Functional limitations
			Self-perceived health
	<u>INCOME AND WEALTH</u>		
x	Labor force participation		<u>FUNCTIONAL LEVELS</u>
x	Total income		Social interaction
x	Sources of income		Activities of daily living
x	Net assets		Instrumental activities of daily living
	<u>SOCIAL SERVICES</u>		
	<u>HEALTH RESOURCES</u>		<u>HEALTH CARE UTILIZATION</u>
	General hospitals		General hospital services
	Private psychiatric hospitals		Nursing home services
	Public mental health hospitals		Home health care
	Nursing homes		Rehabilitation
	Other institutional resources		Mental health hospitalization
	Community-based resources		Mental health outpatient services
	Health professions		Alcohol and drug abuse centers
	Other professional resources		Physician services/visits
			Dental services/visits
	<u>HEALTH EXPENSES</u>		Prescription drugs
	Costs of care		Other
	Out-of-pocket costs		
	Medicare		
	Medicaid		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	State expenditures		
	Private insurance coverage		

¹ Cause of death.

SPONSORS: National Center for Health Statistics (NCHS), National Heart, Lung, and Blood Institute (NHLBI), and Bureau of the Census

TITLE: **National Longitudinal Mortality Study**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Age</u>	<u>Approximate Number in all CPS Samples</u>
Total	1,000,000
Under 65	896,000
65+	104,000

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>ITEM</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x		
Social Security no.	x		
Veteran status	x		
Geographic data			
Largest unit	U.S.		
Smallest unit			
Age classes			
Single years	x		
60-64	x		
65+	x		
65-74, 75-84, 85+	x		
Other			

SPONSOR: National Center for Health Statistics (NCHS),
Department of Health and Human Services (DHHS)

TITLE: **National Mortality Followback Surveys**

Project Director: Gloria Kapantais
National Mortality Followback Survey
Office of Vital and Health Care Statistics
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: To expand knowledge about the mortality experience of the U.S. population, without burdening the ongoing State and national vital statistics registration system.

DESIGN: Data sources: next of kin of the decedents, identified as the informants on the death certificate. Hospitals, nursing homes, and other facilities used by the decedent in the last year of life.

A systematic sample of all deaths in the United States.

1961	n = 5,145; nonresponse 7%
1962-63	n = 10,822; nonresponse 8%
1964-65	n = 10,408; nonresponse 9%
1966-68	n = 19,526; nonresponse 8%
1986 survey	underway

CONTENT:	1961	Utilization of hospitals and institutions during the last year of life.
	1962-63	Utilization of hospitals and institutions in the last year of life; household composition, education, income, residence.
	1964-65	Utilization; hospital and surgical insurance coverage, charges for hospital care and source of payment, surgeon's bills and source of payment, household composition, assets, and income.
	1966-68	Utilization; family composition, smoking habits.
	1986	Care in the last year of life; lifestyle habits and risk factors; socioeconomic status; reliability of selected items reported on the death certificate.

YEARS OF DATA	1961
COLLECTION:	1962-63
	1964-65
	1966-68
	1986

SPONSOR: National Center for Health Statistics (NCHS),
Department of Health and Human Services (DHHS)

TITLE: **National Mortality Followback Surveys** (continued)

PUBLICATIONS: National Center for Health Statistics, G. F. Sutton:
Hospitalization in the last year of life, United States, 1961.
Vital and Health Statistics. Series 22, No. 1. PHS Pub. No. 1000.
Public Health Service. Washington. U.S. Government Printing
Office, Sept. 1965.

National Center for Health Statistics, G. S. Wunderlich and
G. F. Sutton: Episodes and duration of hospitalization in the
last year of life, United States, 1961. Vital and Health
Statistics. Series 22, No. 2. PHS Pub. No. 1000. Public Health
Service. Washington. U.S. Government Printing Office, June 1966.

National Center for Health Statistics, E. S. Mathis:
Socioeconomic characteristics of deceased persons, United States,
1962-63 deaths. Vital and Health Statistics. Series 22, No. 9.
PHS Pub. No. 1000. Public Health Service. Washington.
U.S. Government Printing Office, Feb. 1969.

National Center for Health Statistics, E. J. Timmer: Health
insurance coverage of adults who died in 1964 or 1965, United
States. Vital and Health Statistics. Series 22, No. 10. PHS
Pub. No. 1000. Public Health Service. Washington. U.S. Government
Printing Office, Oct. 1969.

AVAILABILITY OF UNPUBLISHED DATA: Public use tape for 1966-68 and future surveys. Unpublished
data for prior surveys available through the National Center
for Health Statistics.

CONTACT: Gloria Kapantais
(301) 436-7107

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Mortality Followback Surveys**

TYPES OF DATA COLLECTED

Data File	Public Use Tape		Data File	Public Use Tape	
		<u>DEMOGRAPHIC DATA</u>			<u>HEALTH</u>
x	x	Educational level			Acute and chronic conditions
x	x	Race			Disability days
x	x	Ethnicity			Chronic limitations of activity of mobility
x	x	Sex	x	x	Impairments
x	x	Marital status			Usual activity status
		Migration or mobility			
		<u>VITAL STATISTICS</u>			<u>ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH</u>
		Natality			Cognitive impairment scale
x	x	Mortality			Behavior problems
x	x	Marriage	x	x	Depression
x	x	Divorce	x	x	Alcohol use
		<u>HOUSING</u>			Drug abuse
		Type of dwelling			
x	x	No. of persons in household			<u>CHANGES IN HEALTH STATUS</u>
x	x	Relationship of persons in household			Morbidity
		<u>INCOME AND WEALTH</u>			Functional limitations
x	x	Labor force participation			Self-perceived health
x	x	Total income			
		Sources of income			<u>FUNCTIONAL LEVELS</u>
x	x	Net assets	x	x	Social interaction
Limited		<u>SOCIAL SERVICES</u>			Activities of daily living
		<u>HEALTH RESOURCES</u>			Instrumental activities of daily living
		General hospitals	x	x	<u>HEALTH CARE UTILIZATION¹</u>
		Private psychiatric hospitals	x	x	General hospital services
		Public mental health hospitals	x	x	Nursing home services
		Nursing homes			Home health care
		Other institutional resources	x	x	Rehabilitation
		Community-based resources	x	x	Mental health hospitalization
		Health professions			Mental health outpatient services
		Other professional resources	x	x	Alcohol and drug abuse centers
		<u>HEALTH EXPENSES</u>	x	x	Physician services/visits
		Costs of care			Dental services/visits
x	x	Out-of-pocket costs			Prescription drugs
x	x	Medicare			Other
x	x	Medicaid			
		State expenditures			<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
x	x	Private insurance coverage			

¹ Utilization in last year of life.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Mortality Followback Surveys**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

Age Number in Sample ¹

Total 20,000

¹ Sample--25 years and over.

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x	x	
Social Security no.	x		
Veteran status	x	x	
Geographic data			
Largest unit	U.S.		
Smallest unit	U.S.		
Age classes			
Single years	x		
60-64			
65+			
65-74, 75-84, 85+			
Other			

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Health Interview Survey (NHIS): Basic Health and Demographic Questionnaire**

Project Director: Owen T. Thornberry, Jr., Ph.D.
Director
Division of Health Interview Statistics
National Center for Health Statistics
3700 East-West Highway
Hyattsville, Maryland 20782

PURPOSE: To provide data on the incidence of acute conditions, limitation of activity, episodes of persons injured, hospitalizations, disability days, physician contacts, the prevalence of selected chronic conditions, and assessed health status.

DESIGN: The NHIS is a continuing, nationwide, household interview survey. A probability sample of households in the civilian noninstitutionalized population of the United States is interviewed each week by interviewers from the Bureau of the Census. Since 1985 a full sample consists of about 50,000 households representing about 130,000 persons. The NHIS "basic" is not longitudinal and historically has not been linked to other files. An NHIS/National Death Index linkage capability was made possible after the 1984 NHIS survey year. In the future, beginning at the conclusion of the 1987 NHIS survey year, linkage capabilities will also exist between the NHIS and the National Survey of Family Growth.

CONTENT: The NHIS provides current information on the amount, distribution, and effects of illness and disability in the United States, and the services rendered for or because of such conditions. The NHIS "basic" has changed about every 10 years and most recently in 1982.

YEARS OF DATA COLLECTION: Annual since 1957.

PUBLICATIONS: Current Estimates, an annual publication of the basic statistics derived from the NHIS, is the primary publication. Other publications of specialized analyses are referenced as Series 10 reports in the Catalog of Publications of the National Center for Health Statistics and Advance Data reports.

National Center for Health Statistics, M.G. Kovar and G.S. Poe: The National Health Interview Survey Design, 1973-84, and Procedures, 1975-83. Vital and Health Statistics. Series 1, No. 18. DHHS Pub. No. (PHS) 85-1320. Public Health Service. Washington. U.S. Government Printing Office, August 1985.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Health Interview Survey (NHIS): Basic Health and Demographic Questionnaire** (continued)

AVAILABILITY OF UNPUBLISHED DATA: Data are available both in public use data tape form and in unpublished tabulations. Public use data tapes are available through 1984. Unpublished tabulations exist for all years through 1985 and are on a variety of subjects relative to health status information. These data can be obtained by contacting the Division of Health Interview Statistics, National Center for Health Statistics.

Data tapes for 1970, 1975, 1977, 1978, 1979, and 1980 are in the collection of the National Archive of Computerized Data on Aging maintained by the Inter-University Consortium for Political and Social Research, Ann Arbor, MI 48106 (ICPSR 7838, 7672, 7839, 8044, 8049, 8223).

Data tapes are also in the collection of the Duke University Archive for Aging and Adult Development (DAAAD), Durham, NC 27710.

CONTACT: Owen T. Thornberry, Jr., Ph.D.
(301) 436-7085

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Health Interview Survey (NHIS): Basic Health and Demographic Questionnaire**

TYPES OF DATA COLLECTED

Data File	Public Use Tape		Data File	Public Use Tape	
		<u>DEMOGRAPHIC DATA</u>			<u>HEALTH</u>
x	x	Educational level	x	x	Acute and chronic conditions
x	x	Race	x	x	Disability days
x	x	Ethnicity			Chronic limitations of activity
x	x	Sex	x	x	of mobility
x	x	Marital status			Impairments
		Migration or mobility	x	x	Usual activity status
			x	x	
		<u>VITAL STATISTICS</u>			
		Natality			<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
		Mortality			Cognitive impairment scale
		Marriage			Behavior problems
		Divorce			Depression
					Alcohol use
		<u>HOUSING</u>			Drug abuse
x	x	Type of dwelling			
x	x	No. of persons in household			<u>CHANGES IN HEALTH STATUS</u>
x	x	Relationship of persons in household			Morbidity
					Functional limitations
		<u>INCOME AND WEALTH</u>	x	x	Self-assessed health
x	x	Labor force participation			
x	x	Total income			<u>FUNCTIONAL LEVELS</u>
		Sources of income			Social interaction
		Net assets			Activities of daily living
					Instrumental activities of daily living
		<u>SOCIAL SERVICES</u>			
		<u>HEALTH RESOURCES</u>			<u>HEALTH CARE UTILIZATION</u>
		General hospitals	x	x	General hospital services
		Private psychiatric hospitals	x	x	Nursing home services (1968)
		Public mental health hospitals			Home health care
		Nursing homes			Rehabilitation
		Other institutional resources			Mental health hospitalization
		Community-based resources			Mental health outpatient services
		Health professions			Alcohol and drug abuse centers
		Other professional resources			Physician services/visits
			x	x	Dental services/visits (1981)
		<u>HEALTH EXPENSES</u>	x	x	Prescription drugs (1965)
		Costs of care	x	x	Other
		Out-of-pocket costs			
		Medicare coverage			
		Medicaid coverage			
		State expenditures			<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
		Private insurance coverage			

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: National Health Interview Survey (NHIS): Basic Health and Demographic Questionnaire

SELECTED ITEMS IN DATA SET

SIZE OF FINAL SAMPLE

Age	Number in Sample	Nonresponse Rate
Total	92,000 - 135,000	3-5%
Under 65	81,000 - 120,400	
65-74	6,600 - 8,800	
75+	4,100 - 5,700	

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

Item	Data File	Public Use Tape	Published Tables
Date of birth	x	x	
Social Security no.			
Veteran status	x	x	
Geographic data			
Largest unit	Total U.S.	Total U.S.	Total U.S.
Smallest unit	4 regions	4 regions	4 regions
Age classes			
Single years	x	x	
60-64			
65+	x	x	x
65-74, 75-84, 85+			
Other			

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Health Interview Survey (NHIS): Current Health Topics**
Project Director: Owen T. Thornberry, Jr., Ph.D.
Director
Division of Health Interview Statistics,
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: To provide data, in addition to the basic NHIS data, on special topic areas pertinent to the aging population, such as living arrangements, activities of daily living (ADL), instrumental activities of daily living (IADL), retirement status, and support systems.

DESIGN: The universe studied is those persons in the U.S. noninstitutionalized civilian population in the age categories of interest, as represented by persons in those age categories in the NHIS probability sample of households.

CONTENT: Selected health topics have been covered annually in the NHIS for the past 20 years. Items of coverage in the health topics vary from year to year and may or may not apply to the aging population. Among those that include or are designed specifically for an aging population are:

Residential mobility--1979, 1980.
Hearing aid--1971, 1977, 1979.
Visual and hearing impairment--1971, 1977, 1984
(sample--other years).
Edentulousness--1971, 1983, 1986.
Home care--1979, 1980.
Supplement on Aging--1984.
Functional limitations--1986.
Disability--1977

YEARS OF DATA COLLECTION: See Content.

PUBLICATIONS: NCHS Series 10 publications in the Catalog of Publications of the National Center for Health Statistics.

AVAILABILITY OF UNPUBLISHED DATA: Public use data tapes are available for most selected health topics through 1985. Requests should be directed to the Director, Division of Health Interview Statistics, National Center for Health Statistics, 3700 East-West Highway, Rm. 2-44, Hyattsville, MD 20782.

CONTACT: Owen T. Thornberry, Jr., Ph.D.
(301) 436-7085

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: National Health Interview Survey (NHIS): Current Health Topics

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	x Educational level		Acute and chronic conditions
x	x Race		Disability days
x	x Ethnicity		Chronic limitations of activity
x	x Sex	x	x of mobility
x	x Marital status		Impairments
	Migration or mobility	x	x Usual activity status
	<u>VITAL STATISTICS</u>		<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
	Natality		Cognitive impairment scale
	Mortality		Behavior problems
	Marriage		Depression
	Divorce		Alcohol use
	<u>HOUSING</u>		Drug abuse
	Type of dwelling		<u>CHANGES IN HEALTH STATUS</u>
	No. of persons in household		Morbidity
	Relationship of persons in household		Functional limitations
	<u>INCOME AND WEALTH</u>	x	x Self-perceived health
x	x Labor force participation		<u>FUNCTIONAL LEVELS</u>
	Total income		Social interaction
	Sources of income		Activities of daily living
	Net assets		Instrumental activities of daily living
	<u>SOCIAL SERVICES</u>		<u>HEALTH CARE UTILIZATION</u>
	<u>HEALTH RESOURCES</u>		General hospital services
	General hospitals		Nursing home services
	Private psychiatric hospitals		Home health care
	Public mental health hospitals		Rehabilitation
	Nursing homes		Mental health hospitalization
	Other institutional resources		Mental health outpatient services
	Community-based resources		Alcohol and drug abuse centers
	Health professions		Physician services/visits
	Other professional resources		Dental services/visits
	<u>HEALTH EXPENSES</u>		Prescription drugs
	Costs of care		Other
	Out-of-pocket costs		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	Medicare coverage		
	Medicaid coverage		
	State expenditures		
	Private insurance coverage		

Note: Among all the NHIS health topics, items on many of the types of data cited in this list are included.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Health Interview Survey (NHIS): Current Health Topics**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE¹

<u>Age</u>	<u>Number in Sample</u>	<u>Nonresponse Rate</u>
Total		
Under 65		
65-74	(Varies with survey)	
75-84		
85+		

¹Sample sizes vary by supplement.

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x	x	
Social Security no.			
Veteran status	x	x	
Geographic data			
Largest unit	Total U.S.	Total U.S.	Total U.S.
Smallest unit	4 regions	4 regions	4 regions
Age classes			
Single years			
60-64	x	x	
65+	x	x	x
65-74, 75-84, 85+			
Other			

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Health Interview Survey (NHIS): Supplement on Aging (SOA), 1984**

Project Director: Owen T. Thornberry, Jr., Ph.D.
Director
Division of Health Interview Statistics
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: The Supplement on Aging (SOA) provides data on functional limitations and the health and social care received by the elderly, noninstitutionalized population, to complement the National Nursing Home Survey.

DESIGN: Persons ages 55 years and older in the 1984 NHIS household sample, which has a response rate of 97 percent, were selected for the SOA sample: 50 percent of NHIS respondents ages 55-64 and 100 percent of persons ages 65 and older were included. Of those selected from the NHIS, 96 percent had completed SOA interviews.

CONTENT: Health status, functional ability, health and community service utilization, employment status, social activities, family relationships and social support, housing characteristics and living arrangements, and existence of health conditions specific to the elderly population. The information in the supplement for each person can be associated with the basic health and condition information in the NHIS core questionnaire.

YEARS OF DATA COLLECTION: 1984 only.

PUBLICATIONS: Five Advance Data reports were published in 1986. NCHS Plan and Operation. Fitti, J. and Kovar, M.G. Series 1. In press.

AVAILABILITY OF UNPUBLISHED DATA: Public use data tapes (a person file and a condition file) can be obtained through the National Center for Health Statistics, Division of Health Interview Statistics, 3700 East-West Highway, Rm. 2-44, Hyattsville, MD 20782.

CONTACT: Mary Grace Kovar, Dr.P.H.
(301) 436-7104

Gerry Hendershot, Ph.D.
(301) 436-7089

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Health Interview Survey (NHIS): Supplement on Aging (SOA), 1984**

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	x Educational level	x	x Acute and chronic conditions
x	x Race	x	x Disability days
x	x Ethnicity		Chronic limitations of activity
x	x Sex	x	x of mobility
x	x Marital status	x	x Impairments
	Migration or mobility	x	x Usual activity status
	<u>VITAL STATISTICS</u>		<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
	Natality		Cognitive impairment scale
	Mortality		Behavior problems
	Marriage		Depression
	Divorce		Alcohol use
	<u>HOUSING</u>		Drug abuse
x	x Type of dwelling		<u>CHANGES IN HEALTH STATUS</u>
x	x No. of persons in household		Morbidity
x	x Relationship of persons in household	x	x Functional limitations
	<u>INCOME AND WEALTH</u>	x	x Self-perceived health
x	x Labor force participation		<u>FUNCTIONAL LEVELS</u>
x	x Total income		Social interaction
x	x Sources of income	x	x Activities of daily living
	Net assets	x	x Instrumental activities of daily living
	<u>SOCIAL SERVICES</u>		<u>HEALTH CARE UTILIZATION</u>
	<u>HEALTH RESOURCES</u>		General hospital services
	General hospitals	x	x Nursing home services
	Private psychiatric hospitals	x	x Home health care
	Public mental health hospitals	x	Rehabilitation
	Nursing homes		Mental health hospitalization
	Other institutional resources		Mental health outpatient services
	Community-based resources		Alcohol and drug abuse centers
	Health professions		Physician services/visits
	Other professional resources	x	x Dental services/visits
	<u>HEALTH EXPENSES</u>		Prescription drugs
	Costs of care		Other
	Out-of-pocket costs		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	Medicare coverage		
	Medicaid coverage		
	State expenditures		
	Private insurance coverage		

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Health Interview Survey (NHIS): Supplement on Aging (SOA), 1984**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Age</u>	<u>Number in Sample</u>	<u>Nonresponse Rate</u>
Total 55+	16,820	4%
Under 65	4,926	4%
65-74	7,344	3%
75+	4,550	3%

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x	x	
Social Security no.	x		
Veteran status	x	x	
Geographic data			
Largest unit	Total U.S.	Total U.S.	Total U.S.
Smallest unit	4 regions	4 regions	4 regions
Age classes			
Single years	x	x	x
60-64			
65+	x	x	x
65-74, 75-84, 85+	x	x	x
Other	x	x	

SPONSORS: National Center for Health Statistics (NCHS), and National Institute on Aging (NIA), Department of Health and Human Services (DHHS)

TITLE: **Longitudinal Study of Aging (LSOA)**

Project Director: Mary Grace Kovar, Dr.P.H.
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: Study changes in functional status. Develop transitional probability models. Study relationship between social and health factors and death.

DESIGN: The Longitudinal Study of Aging is a prospective study based on respondents to the Supplement on Aging, a special set of questions added to the National Health Interview Survey in 1984. Thus the base is a national probability sample of people age 55 and older living in the community. All respondents will be followed by linkage with death records through the National Death Index. Respondents age 65 and older will be followed by linkage with Medicare records. One-half of respondents age 70-79 and all respondents age 80 and older, or their contact persons, were reinterviewed by telephone.

CONTENT: Interview focuses on changes in functioning, care giving, and living arrangements.

YEARS OF DATA COLLECTION: Baseline survey, 1984.
First reinterview, 1986.
Record linkage biannually.

PUBLICATIONS: Kovar, M.G., and J. Fitti: "A Linked Followup Study of Older People." Proceedings of the Survey Research Section of the American Statistical Association, 1985.

AVAILABILITY OF UNPUBLISHED DATA: Public use data tapes from the first phase of followup will become available in the summer of 1987. The first public use tape will contain SOA baseline data plus responses to 1986 reinterview and matches to 1984 and 1985 National Death Index.

CONTACT: Mary Grace Kovar, Dr.P.H.
(301) 436-7104

SPONSORS: National Center for Health Statistics (NCHS), and National Institute on Aging (NIA), Department of Health and Human Services (DHHS)

TITLE: **Longitudinal Study of Aging (LSOA)**

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	Educational level	x	Acute and chronic conditions
x	Race	x	Disability days
x	Ethnicity		Chronic limitations of activity
x	Sex		of mobility
x	Marital status		Impairments
	Migration or mobility	x	Usual activity status
		x	
	<u>VITAL STATISTICS</u>		<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
	Natality		Cognitive impairment scale
	Mortality		Behavior problems
	Marriage		Depression
	Divorce		Alcohol use
			Drug abuse
	<u>HOUSING</u>		<u>CHANGES IN HEALTH STATUS</u>
x	Type of dwelling		Morbidity
x	No. of persons in household		Functional limitations
x	Relationship of persons in household		Self-perceived health
	<u>INCOME AND WEALTH</u>		<u>FUNCTIONAL LEVELS</u>
x	Labor force participation		Social interaction
x	Total income		Activities of daily living
x	Sources of income	x	Instrumental activities of daily living
	Net assets	x	
		x	
	<u>SOCIAL SERVICES</u>		<u>HEALTH CARE UTILIZATION</u>
	<u>HEALTH RESOURCES</u>		General hospital services
	General hospitals	x	Nursing home services
	Private psychiatric hospitals	x	Home health care
	Public mental health hospitals	x	Rehabilitation
	Nursing homes		Mental health hospitalization
	Other institutional resources		Mental health outpatient services
	Community-based resources		Alcohol and drug abuse centers
	Health professions		Physician services/visits
	Other professional resources	x	Dental services/visits
			Prescription drugs
	<u>HEALTH EXPENSES</u>		Other
	Costs of care		
	Out-of-pocket costs		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	Medicare coverage		
	Medicaid coverage		
	State expenditures		
	Private insurance coverage		

SPONSORS: National Center for Health Statistics (NCHS), and National Institute on Aging (NIA), Department of Health and Human Services (DHHS)

TITLE: Longitudinal Study of Aging (LSOA)

SELECTED ITEMS IN DATA SET

SIZE OF REINTERVIEW SAMPLE

<u>Age</u>	<u>Number in 1984 Sample</u>	<u>Number in 1986 Reinterview</u>
Total	7,541	5,151
Under 70	0	0
70-79	5,446	3,061
80+	2,095	2,090

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x	x	
Social Security no.	x		
Veteran status	x	x	
Geographic data			
Largest unit	U.S.	U.S.	
Smallest unit	Region	Region	
Age classes			
Single years	x	x	
60-64			
65+			
65-74, 75-84, 85+			
Other			

SPONSORS: National Center for Health Statistics (NCHS) and National Institute on Aging (NIA), Department of Health and Human Services (DHHS).

TITLE: **National Health Interview Survey (NHIS): Data for the Study of Secular Change and Aging**

Project Director: Mary Grace Kovar, Dr.P.H.
Interview and Examination Survey Program
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: To monitor change in the health of the U.S. population.

DESIGN: Sample of the civilian noninstitutionalized population.
Response rate each year is greater than 95 percent.

CONTENT: Items that were on the core questionnaire of the National Health Interview Survey during the period 1969-81 have been abstracted and put in common format. There is one record for each person who was age 30 and over at the time of the interview.

YEARS OF DATA COLLECTION: 1969-81.

PUBLICATIONS: Vital and Health Statistics Series 10 is the primary publication for data from the National Health Interview Survey.

National Center for Health Statistics, M.G. Kovar and G.S. Poe: The National Health Interview Survey Design, 1973-84, and Procedures, 1975-83. Vital and Health Statistics. Series 1, No. 18. DHHS Pub. No. (PHS) 85-1320. Public Health Service. Washington. U.S. Government Printing Office, August 1985.

AVAILABILITY OF UNPUBLISHED DATA: Public use data tape can be obtained from the National Archive of Computerized Data on Aging (NACDA), P.O. Box 1248, Ann Arbor, MI 48106, and from the Division of Health Interview Statistics, National Center for Health Statistics, Rm. 2-44, 3700 East-West Highway, Hyattsville, MD 20782.

CONTACT: Mary Grace Kovar, Dr.P.H.
(301) 436-7104

SPONSORS: National Center for Health Statistics (NCHS) and National Institute on Aging (NIA), Department of Health and Human Services (DHHS)

TITLE: **National Health Interview Survey (NHIS): Data for the Study of Secular Change and Aging**

TYPES OF DATA COLLECTED

Data File	Public Use		Data File	Public Use	
		<u>DEMOGRAPHIC DATA</u>			<u>HEALTH</u>
x	x	Educational level	x	x	Acute and chronic conditions
x	x	Race			Disability days
x	x	Ethnicity			Chronic limitations of activity
x	x	Sex	x	x	of mobility
x	x	Marital status			Impairments
		Migration or mobility	x	x	Usual activity status
			x	x	
		<u>VITAL STATISTICS</u>			<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
		Natality			Cognitive impairment scale
		Mortality			Behavior problems
		Marriage			Depression
		Divorce			Alcohol use
					Drug abuse
		<u>HOUSING</u>			<u>CHANGES IN HEALTH STATUS</u>
		Type of dwelling			Morbidity
x	x	No. of persons in household			Functional limitations
		Relationship of persons in household	x	x	Self-perceived health
			x	x	
			x	x	
		<u>INCOME AND WEALTH</u>			<u>FUNCTIONAL LEVELS</u>
x	x	Labor force participation			Social interaction
x	x	Total income			Activities of daily living
		Sources of income			Instrumental activities of daily living
		Net assets			
		<u>SOCIAL SERVICES</u>			<u>HEALTH CARE UTILIZATION</u>
		<u>HEALTH RESOURCES</u>			General hospital services
		General hospitals	x	x	Nursing home services
		Private psychiatric hospitals	x		Home health care
		Public mental health hospitals	x		Rehabilitation
		Nursing homes			Mental health hospitalization
		Other institutional resources			Mental health outpatient services
		Community-based resources			Alcohol and drug abuse centers
		Health professions			Physician services/visits
		Other professional resources			Dental services/visits
			x	x	Prescription drugs
		<u>HEALTH EXPENSES</u>	x	x	Other
		Costs of care			<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
		Out-of-pocket costs			
		Medicare coverage			
		Medicaid coverage			
		State expenditures			
		Private insurance coverage			

SPONSORS: National Center for Health Statistics (NCHS) and National Institute on Aging (NIA), Department of Health and Human Services (DHHS)

TITLE: **National Health Interview Survey (NHIS): Data for the Study of Secular Change and Aging**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

Age	Number in Sample	Nonresponse Rate
Total		
Under 65		
65-74	See NHIS description	
75-84		
85+		

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

Item	Data File	Public Use Tape	Published Tables
Date of birth	x	x	
Social Security no.			
Veteran status	x	x	
Geographic data			
Largest unit	U.S.	U.S.	
Smallest unit	State	Region	
Age classes			
Single years	x	x	
60-64			
65+			
65-74, 75-84, 85+			
Other			

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **First National Health and Nutrition Examination Survey (NHANES I)**

Project Director: Robert S. Murphy
Director
Division of Health Examination Statistics
Center Building, Room 2-58
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: Established under the National Health Survey Act of 1956 to obtain those kinds of health data optimally obtained by direct physical examinations and physiological and biochemical measurements. Measures and monitors health and nutritional status of the U.S. population. Permits estimation of the prevalence of certain diseases and the distributions of a broad variety of health-related measurements

DESIGN: Probability sample of the U.S. civilian noninstitutionalized population ages 1 through 74 years. Cross-sectional study of 31,973 persons of whom 23,808 were examined. Composed of two overlapping sets of examination components referred to as the nutrition examination and the detailed medical examination. Six distinct probability samples were contained within the overall survey. This study was used as the baseline for a later study called the NHANES I Epidemiologic Followup Study.

CONTENT: Demographic information; medical histories; dietary information; electrocardiograms; body measurements; dermatological and ophthalmological examinations; general medical examination; hematological, blood chemistry, and urological laboratory determinations. In the detailed medical examination, additional data were collected on a subsample of adults 25-74 years by supplementary questionnaires concerning arthritis, respiratory conditions, and cardiovascular conditions; an extended medical examination, X-rays of the chest for heart size and pathology as well as lung volume and pathology; X-rays of the hip, sacroiliac, and knee joints for assessment of arthritic and related changes; spirometry and additional laboratory determinations.

YEARS OF DATA COLLECTION: 1971 to 1975. NHANES II was conducted from 1976 to 1980.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **First National Health and Nutrition Examination Survey (NHANES I) (continued)**

PUBLICATIONS: National Center for Health Statistics, H. W. Miller: Plan and operation of the Health and Nutrition Examination Survey, United States, 1971-73. Vital and Health Statistics. Series 1, No. 10a and 10b. DHEW Pub. No. (HSM) 73-1310. Health Services and Mental Health Administration. Washington. U.S. Government Printing Office, Feb. 1973.

National Center for Health Statistics, A. Engel, R. S. Murphy, K. Maurer and E. Collins: Plan and operation of the NHANES I Augmentation Survey of Adults 25-74 Years, United States, 1974-75. Vital and Health Statistics. Series 1, No. 14. DHEW Pub. No. (PHS) 78-1314. Public Health Service. Washington. U.S. Government Printing Office, June 1978.

See also Catalog of Publications from the National Center for Health Statistics. Publications listed in Series 11 of Vital and Health Statistics and Advance Data reports.

AVAILABILITY OF UNPUBLISHED DATA: Data tapes are available on virtually all the information collected in NHANES I. A catalog is available from the Scientific and Technical Information Branch, National Center for Health Statistics, Room 1-57, 3700 East-West Highway, Hyattsville, MD 20782.

Data collected in the NHANES can be located by means of HINDEX, available in hard copy or on a floppy diskette. Each line of HINDEX contains information on an individual data item, giving its contents, classification, method by which the data were obtained, the age range for which it was collected, the survey year in which it was collected, and the location of the data item on the tape. HINDEX has been released in three volumes: one indexes the data items in an alphabetical sort by data category; the second is an alphabetical sort by data field; and the third, a numerical sort by tape and position field.

Data tapes for the First National Health and Nutrition Examination Survey (NHANES I) are also in the collection of the National Archive of Computerized Data on Aging, maintained by the Inter-University Consortium for Political and Social Research, P.O. Box 1248, Ann Arbor, MI 48106.

CONTACT: Patricia A. Vaive
(301) 436-7080

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: First National Health and Nutrition Examination Survey (NHANES I)

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	x Educational level	x	x Acute and chronic conditions
x	x Race		Disability days
x	x Ethnicity		Chronic limitations of activity
x	x Sex	x	x of mobility
x	x Marital status	x	x Impairments
	Migration or mobility	x	x Usual activity status
	<u>VITAL STATISTICS</u>		
	Natality		<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
	Mortality		Cognitive impairment scale
	Marriage		Behavior problems
	Divorce	x	x Depression
	<u>HOUSING</u>		Alcohol use
x	x Type of dwelling		Drug abuse
x	x No. of persons in household		
x	x Relationship of persons in household		<u>CHANGES IN HEALTH STATUS</u>
			Morbidity
			Functional limitations
			Self-perceived health
	<u>INCOME AND WEALTH</u>		
x	x Labor force participation		<u>FUNCTIONAL LEVELS</u>
x	x Total income		Social interaction
x	x Sources of income		Activities of daily living
	Net assets		Instrumental activities of daily living
	<u>SOCIAL SERVICES</u>		
	<u>HEALTH RESOURCES</u>		<u>HEALTH CARE UTILIZATION</u>
	General hospitals		General hospital services
	Private psychiatric hospitals		Nursing home services
	Public mental health hospitals		Home health care
	Nursing homes		Rehabilitation
	Other institutional resources		Mental health hospitalization
	Community-based resources		Mental health outpatient services
	Health professions		Alcohol and drug abuse centers
	Other professional resources	x	x Physician services/visits
		x	x Dental services/visits
	<u>HEALTH EXPENSES</u>		Prescription drugs
	Costs of care		Other
	Out-of-pocket costs		
	Medicare coverage		
	Medicaid coverage		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	State expenditures		Examination findings
	Private insurance coverage	x	x Nutritional status
		x	

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: First National Health and Nutrition Examination Survey (NHANES I)

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Age</u>	<u>Number in Sample¹</u>	<u>Nonresponse Rate¹</u>
Total	28,043	26.1%
Under 65	22,651	23.7%
65-74	5,392	35.7%

¹ Numbers and rates apply to the largest of the NHANES I subsamples, the 65 location nutrition examination sample.

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x	x	
Social Security no.			
Veteran status	x	x	
Geographic data			
Largest unit	National	National	National
Smallest unit	County	Region	National
Age classes			
Single years	x	x	
60-64	x	x	
65+	x	x	
65-74, 75-84, 85+	65-74	65-74	65-74
Other	1-74 years	1-74 years	10-year age intervals

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **Second National Health and Nutrition Examination Survey (NHANES II)**

Project Director: Robert S. Murphy
Director
Division of Health Examination Statistics
Center Building, Room 2-58
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: Established under the National Health Survey Act of 1956 to obtain those kinds of health data optimally obtained by direct physical examinations and physiological and biochemical measurements. Measures and monitors health and nutritional status of the U.S. population. Permits estimation of the prevalence of certain diseases and the distributions of a broad variety of health-related measurements.

DESIGN: Probability sample of the U.S. civilian noninstitutionalized population ages 6 months to 74 years. Cross-sectional study of 27,801 persons of whom 20,322 (73.1 percent) were interviewed and examined.

CONTENT: Demographic information, medical histories, dietary information, electrocardiograms, body measurements, allergy test results, X-rays of chest and cervical and lumbar spine, glucose tolerance test results, liver function and anemia testing results, lipid testing results, pesticide test results, and hematology tests. Target conditions included diabetes, kidney pathology, liver disease, allergy, osteoarthritis and disc degeneration, cardiovascular conditions, and body burdens of carbon monoxide, lead, and pesticide residues.

YEARS OF DATA COLLECTION: NHANES II was conducted from February 1976 to February 1980. Current plans are under way for an NHANES III to begin in 1988.

PUBLICATIONS: National Center for Health Statistics, A. McDowell, A. Engel, J. T. Massey and K. Maurer: Plan and operation of the Second National Health and Nutrition Examination Survey, 1976-80. Vital and Health Statistics. Series 1, No. 15. DHHS Pub. No. (PHS) 81-1317. Public Health Service. Washington. U.S. Government Printing Office, July 1981.

See also Catalog of Publications from the National Center for Health Statistics. Publications listed in Series 11 of Vital and Health Statistics and Advance Data reports.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **Second National Health and Nutrition Examination Survey (NHANES II)**
(continued)

AVAILABILITY OF UNPUBLISHED DATA: Data tapes are available on a major portion of the information collected in NHANES II. A catalog is available from the Scientific and Technical Information Branch, National Center for Health Statistics, Room 1-57, 3700 East-West Highway, Hyattsville, MD 20782.

Data collected in the NHANES surveys can be located by means of HINDEX, available in hard copy or on a floppy diskette. Each line of HINDEX contains information on an individual data item, giving its contents, classification, method by which the data were obtained, the age range for which it was collected, the survey year in which it was collected, and the location of the data item on the tape. HINDEX has been released in three volumes: one indexes the data items in alphabetical sort by data category; the second is an alphabetical sort by data field; and the third, a numerical sort by tape and position field.

Data tapes for the Second National Health and Nutrition Examination Survey (NHANES II) are also in the collection of the National Archive of Computerized Data on Aging maintained by the Inter-University Consortium for Political and Social Research, P.O. Box 1248, Ann Arbor, MI 48106.

CONTACT: Patricia A. Vaive
(301) 436-7080

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: Second National Health and Nutrition Examination Survey (NHANES II)

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	x Educational level	x	x Acute and chronic conditions
x	x Race		Disability days
x	x Ethnicity		Chronic limitations of activity
x	x Sex	x	x of mobility
x	x Marital status	x	x Impairments
	Migration or mobility	x	x Usual activity status
	<u>VITAL STATISTICS</u>		<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
	Natality		Cognitive impairment scale
	Mortality		Behavior problems
	Marriage		Depression
	Divorce		Alcohol use
	<u>HOUSING</u>		Drug abuse
x	x Type of dwelling		<u>CHANGES IN HEALTH STATUS</u>
x	x No. of persons in household		Morbidity
x	x Relationship of persons in household		Functional limitations
	<u>INCOME AND WEALTH</u>		Self-perceived health
x	x Labor force participation		<u>FUNCTIONAL LEVELS</u>
x	x Total income		Social interaction
x	x Sources of income		Activities of daily living
	Net assets		Instrumental activities of daily living
	<u>SOCIAL SERVICES</u>		<u>HEALTH CARE UTILIZATION</u>
	<u>HEALTH RESOURCES</u>		General hospital services
	General hospitals		Nursing home services
	Private psychiatric hospitals		Home health care
	Public mental health hospitals		Rehabilitation
	Nursing homes		Mental health hospitalization
	Other institutional resources		Mental health outpatient services
	Community-based resources		Alcohol and drug abuse centers
	Health professions		Physician services/visits
	Other professional resources		Dental services/visits
	<u>HEALTH EXPENSES</u>		Prescription drugs
	Costs of care		Other--Some condition-specific utilization data
	Out-of-pocket costs	x	x
	Medicare		
	Medicaid		
	State expenditures		
	Private insurance coverage		
		x	x
		x	x
			<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
			Examination findings
			Nutritional status

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **Second National Health and Nutrition Examination Survey (NHANES II)**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Age</u>	<u>Number in Sample</u>	<u>Nonresponse Rate</u>
Total	27,801	27%
Under 65	23,589	25%
65-74	4,212	38%

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x	x	
Social Security no.			
Veteran status	x	x	
Geographic data			
Largest unit	National	National	National
Smallest unit	County	Region	National
Age classes			
Single years	x	x	
60-64	x	x	
65+	x	x	
65-74, 75-84, 85+	65-74	65-74	65-74
Other	6 mos-74 yrs	6 mos-74 yrs	10-year age intervals

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **Hispanic Health and Nutrition Examination Survey (HHANES)**

Project Director: Robert S. Murphy
Director
Division of Health Examination Statistics
Center Building, Room 2-58
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: To produce estimates of health and nutritional status for the three major Hispanic subgroups comparable to estimates available for the general population from the National Health and Nutrition Examination Surveys. These estimates would include the prevalence of certain diseases and the distribution of a broad variety of health-related measurements.

DESIGN: The HHANES was a cross-sectional study covering three universes: Mexican-Americans in five southwestern States; Cuban-Americans in Dade County, Florida; and Puerto Ricans in and around New York City. Overall, of approximately 16,000 sample persons, approximately 12,000 persons (75 percent) were interviewed and examined. Sample persons were aged 6 months through 74 years inclusive and were noninstitutionalized civilians.

CONTENT: Laboratory analyses, diagnostic tests, interviews, body measurements, and physical and dental examinations were used to collect measures of health and nutritional status. Target conditions of this survey included: diabetes, hypertension, heart disease, gallstones, dental disease, otitis media and hearing problems, vision, kidney disease, liver disease, alcohol consumption, drug abuse, depression, iron status, overweight and obesity, dietary adequacy, and body burden of pesticide residues.

YEARS OF DATA COLLECTION: July 1982 through December 1984.

PUBLICATIONS: National Center for Health Statistics, "Plan and Operation of the Hispanic Health and Nutrition Examination Survey, 1982-1984." K. Maurer. Vital and Health Statistics, Series 1-No. 19, DHHS Pub. NO. (PHS) 85-1321, September 1985.

AVAILABILITY OF UNPUBLISHED DATA: Public use data tapes for Mexican Americans have been released and release of the Puerto Rican and Cuban American components is scheduled for 1987.

CONTACT: Patricia A. Vaive
(301) 436-7080

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **Hispanic Health and Nutrition Examination Survey (HHANES)**

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	Educational level	x	Acute and chronic conditions
x	Race		Disability days
x	Ethnicity		Chronic limitations of activity
x	Sex		of mobility
x	Marital status		Impairments
	Migration or mobility	x	Usual activity status
		x	
	<u>VITAL STATISTICS</u>		<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
	Natality		Cognitive impairment scale
	Mortality		Behavior problems
	Marriage		Depression
	Divorce	x	Alcohol use
		x	Drug abuse
	<u>HOUSING</u>	x	
x	Type of dwelling	x	<u>CHANGES IN HEALTH STATUS</u>
x	No. of persons in household		<u>Morbidity</u>
x	Relationship of persons in household		Functional limitations
			Self-perceived health
	<u>INCOME AND WEALTH</u>		<u>FUNCTIONAL LEVELS</u>
x	Labor force participation		Social interaction
x	Total income		Activities of daily living
x	Sources of income		Instrumental activities of daily living
	Net assets		
	<u>SOCIAL SERVICES</u>		<u>HEALTH CARE UTILIZATION</u>
	<u>HEALTH RESOURCES</u>		General hospital services
	General hospitals		Nursing home services
	Private psychiatric hospitals		Home health care
	Public mental health hospitals		Rehabilitation
	Nursing homes		Mental health hospitalization
	Other institutional resources		Mental health outpatient services
	Community-based resources		Alcohol and drug abuse centers
	Health professions		Physician services/visits
	Other professional resources	x	Dental services/visits
		x	Prescription drugs
	<u>HEALTH EXPENSES</u>	x	Other
	Costs of care		
	Out-of-pocket costs		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	Medicare coverage		Examination findings
	Medicaid coverage		Nutritional status
	State expenditures		
	Private insurance coverage	x	
		x	

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **Hispanic Health and Nutrition Examination Survey (HHANES)**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Age</u>	<u>Number in Sample¹</u>	<u>Nonresponse Rate</u>
Total	15,931	27%
Under 65	15,320	26%
65-74	611	39%

¹ Figures are preliminary.

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x		
Social Security no.	x		
Veteran status	x		
Geographic data			
Largest unit	1		
Smallest unit	2		
Age classes			
Single years	x		
60-64	x		
65+			
65-74, 75-84, 85+	65-74		
Other	6 mos.-74 yrs		

¹ Mexican-American population in 5 southwestern States, Cuban-Americans in Dade County, Florida, and Puerto Ricans in and around New York City.

² The three groups above, separately and at the county or borough level.

SPONSORS: National Center for Health Statistics (NCHS), National Institute on Aging, and other institutes

TITLE: **NHANES I Epidemiologic Followup Study: Initial Followup, 1982-84**

Project Director: Helen E. Barbano
Special Assistant
Division of Analysis
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: Identify chronic disease risk factors associated with morbidity and mortality; ascertain changes in risk factors, morbidity, functional limitation and institutionalization between NHANES I and the followup recontacts; and map the natural history of chronic diseases and functional impairments in an aging population.

DESIGN: The baseline survey, the first National Health and Nutrition Examination Survey (NHANES), conducted by NCHS from 1971 to 1975 was a probability sample of the civilian noninstitutionalized coterminous U.S. population ages 1-74 years. The population of the followup study includes the 14,407 persons who were ages 25-74 at the time they were examined in the original NHANES I Survey.

CONTENT: See Types of Data Collected.

YEARS OF DATA COLLECTION: The NHANES I Epidemiologic Followup Study: Initial Followup 1982-84; data tapes will be available in mid-1987. Continued followup of the elderly 1985-86; data tapes will be available in 1989. Continued followup of total sample 1987; data tapes will be available in 1990.

PUBLICATIONS: Cornoni-Huntley, J., Barbano, H.E., Brody, J.A., Cohen, B., Feldman, J.J., Kleinman, J.C., and Madans, J. National Health and Nutrition Examination Survey--Epidemiologic Follow-up Survey. Public Health Reports 98:245-251,1983.

Madans, J., Kleinman, J.C., Cox, C.S., Barbano, H.E., Feldman, J.J., Cohen, B. Finucane, F.F., and Cornoni-Huntley, J. 10 Years after NHANES I: Report of initial followup, 1982-84. Public Health Reports 101:465-473, 1986.

Madans, J., Cox, C.S., Kleinman, J.C., Makuc, D., Feldman, J.J., Finucane, F.F., Barbano, H.E., and Cornoni-Huntley, J. 10 Years after NHANES I: Mortality experience at initial followup, 1982-84. Public Health Reports 101:474-481, 1986.

SPONSORS: National Center for Health Statistics (NCHS)
with National Institute on Aging and other institutes

TITLE: **NHANES I Epidemiologic Followup Study: Initial Followup,
1982-84 (continued)**

AVAILABILITY OF UNPUBLISHED DATA: While data tapes are being prepared, collaborators from National Institute on Aging, other National Institutes of Health, and the Alcohol, Drug Abuse, and Mental Health Administration are using data tapes. Public use data tapes available in mid-1987.

CONTACT: Jennifer Madans
(301) 436-5975

SPONSORS: National Center for Health Statistics (NCHS), National Institute on Aging and other institutes

TITLE: **NHANES I Epidemiologic Followup Study: Initial Followup, 1982-84**

TYPES OF DATA COLLECTED

Data File ¹	Public Use Tape	Data File ¹	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	Educational level	x	Acute and chronic conditions
x	Race		Disability days
x	Ethnicity		Chronic limitations of activity
x	Sex	x	of mobility
x	Marital status	x	Impairments
	Migration or mobility	x	Usual activity status
		x	
	<u>VITAL STATISTICS</u>		<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
x	Natality		Cognitive impairment scale
x	Mortality		Behavior problems
x	Marriage	x	Depression
x	Divorce	x	Alcohol use
		x	Drug abuse
	<u>HOUSING</u>		<u>CHANGES IN HEALTH STATUS</u>
x	Type of dwelling		Morbidity
x	No. of persons in household		Functional limitations
x	Relationship of persons in household	x	Self-perceived health
	<u>INCOME AND WEALTH</u>	x	<u>FUNCTIONAL LEVELS</u>
x	Labor force participation		Social interaction
x	Total income	x	Activities of daily living
x	Sources of income	x	Instrumental activities of daily living
	Net assets	x	
	<u>SOCIAL SERVICES</u>		<u>HEALTH CARE UTILIZATION²</u>
	<u>HEALTH RESOURCES</u>		General hospital services
	General hospitals	x	Nursing home services
	Private psychiatric hospitals	x	Home health care
	Public mental health hospitals		Rehabilitation
	Nursing homes	x	Mental health hospitalization
	Other institutional resources	x	Mental health outpatient services
	Community-based resources		Alcohol and drug abuse centers
	Health professions		Physician services/visits
	Other professional resources	x	Dental services/visits
			Prescription drugs (selected)
	<u>HEALTH EXPENSES</u>		Other
	Costs of care	x	
	Out-of-pocket costs		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	Medicare coverage		
	Medicaid coverage		
	State expenditures		
	Private insurance coverage		

¹Initial followup.

²Inpatient only.

SPONSORS: National Center for Health Statistics (NCHS), National Institute on Aging, and other institutes

TITLE: NHANES I Epidemiologic Followup Study: Initial Followup, 1982-84

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

Age ¹	Number in Sample at Baseline	% Lost to Followup	% Traced but Not Interviewed ²
Total	14,407	7.1	8.7
Under 65	10,554	8.4	7.8
65+	3,853	3.7	10.8

¹ At time of sample selection in 1971-75 these data are the most current and take into account 78 additional birth-date changes that were made in September-October 1986. These data will be reflected in the NHEFS Plan and Operations series report.

² Percent of sample successfully traced not responding to questionnaire (includes refusal and subjects living outside the coterminous U.S.).

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

Item	Data File	Public Use Tape	Published Tables
Date of birth	x	x	
Social Security no.	x		
Veteran status			
Geographic data			
Largest unit	U.S.	U.S.	
Smallest unit	Cluster of counties	Region (4)	
Age classes			
Single years	x	x	
60-64			
65+			
65-74, 75-84, 85+			
Other			

SPONSOR: National Center for Health Statistics (NCHS) and
Health Care Financing Administration (HCFA)

TITLE: **National Medical Care Utilization and Expenditure Survey (NMCUES),
1980**

Project Director: Robert A. Wright
Chief, Utilization and Expenditure
Statistics Branch
Division of Health Interview Statistics
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782
and
Herbert A. Silverman
Chief, Program Statistics Branch
Office of Research and Demonstrations
Health Care Financing Administration
6340 Security Boulevard
Baltimore, MD 21235

PURPOSE: The National Medical Care Utilization and Expenditure Survey was conducted in 1980 and early 1981 by the National Center for Health Statistics and the Health Care Financing Administration. Data were collected on health, access to and use of medical services, associated charges and sources of payment, and health insurance coverage for the U.S. civilian noninstitutionalized population. Data for the year 1980 were collected in five rounds of interviews conducted at approximately 3-month intervals during 14 months of 1980-81.

The survey consisted of three components: the national household component, the State Medicaid household component, and the administrative records component. A summary of responses was computer generated from data recorded in the core questionnaire during previous interviews and was mailed to both the reporting unit and the interviewer before the next interview. The summary served as a check to make sure that recording of data entry errors was held to a minimum.

DESIGN: The national household component included 17,123 persons in about 6,600 participating reporting units (families). The State Medicaid household survey sample consisted of about 11,600 persons in 4,800 responding families selected from Medicaid eligibility files in California, Michigan, New York, and Texas (1,200 per State). Administrative records were used to obtain information on program eligibility and payments for medical care for persons receiving Medicare and Medicaid.

The sample excluded persons living in institutions, members of the active Armed Forces, and persons residing outside the United States. Sample persons were grouped into "reporting units,"

SPONSORS: National Center for Health Statistics (NCHS)
and
Health Care Financing Administration (HCFA)

TITLE: **National Medical Care Utilization and Expenditure Survey (NMCUES),
1980 (continued)**

which were defined as all persons related to each other by blood, marriage, adoption, or foster care status and living in the same housing unit or group quarters.

An overall response rate of 91.1 percent was achieved in the first interview for the national household survey. Attrition over the course of interviewing resulted in final response rates of 87.9 percent for the national household survey.

CONTENT: The core questionnaire was designed to obtain the same information in each of the five rounds. Supplements were administered in selected rounds. The supplements obtained information not expected to change or to change very slowly or to be measured only once. The core questions obtained information about health insurance coverage, bed days, restricted activity days, hospital stays, physician visits, dental visits, other medical provider visits, emergency department visits, hospital outpatient department visits, prescribed medicines, and other medical expenses. For each contact with the medical care system, data were obtained on the health conditions, the type of provider, services provided, charges, sources, and amounts of payment. Questions included in the supplements pertained to access to medical care, limitation of activities, occupation, income, and other sociodemographic characteristics.

YEARS OF DATA
COLLECTION: 1980.

PUBLICATIONS: See National Medical Care Utilization and Expenditure Survey, Data Reports Series, Methodological Reports Series, Descriptive Reports Series, and Analytic Report Series issued by the National Center for Health Statistics and the Health Care Financing Administration.

AVAILABILITY
OF UNPUBLISHED
DATA: National Household Survey public use tapes available from National Technical Information Service (NTIS). Requests for information on the NMCUES family public use data tape should be directed to the Division of Health Interview Statistics, National Center for Health Statistics, Rm. 2-44, 3700 East-West Highway, Hyattsville, MD 20782. Data tapes are also in the collection of the National Archive of Computerized Data on Aging, maintained by the Inter-University Consortium for Political and Social Research, P.O. Box 1248, Ann Arbor, MI 48106 (ICPSR 8239).

CONTACT: Robert A. Wright
(301) 436-7100

SPONSORS: National Center for Health Statistics (NCHS) and
Health Care Financing Administration (HCFA)

TITLE: **National Medical Care Utilization and Expenditure Survey
(NMCUES), 1980**

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
x	x Educational level	x	x Acute and chronic conditions ³
x	x Race	x	x Disability days
x	x Ethnicity		Chronic limitations
x	x Sex	x	of activity
x	x Marital status	x	of mobility
	Migration or mobility	x	Impairments
		x	Usual activity status
	<u>VITAL STATISTICS</u>		
x	x Natality		<u>ALCOHOL, DRUG ABUSE,</u>
x	x Mortality		<u>AND MENTAL ILLNESS</u>
	Marriage		Cognitive impairment scale
	Divorce		Behavior problems
			Depression
	<u>HOUSING</u>		Alcohol use
	Type of dwelling		Drug abuse
x	x No. of persons in household		
x	x Relationship of persons in household		<u>CHANGES IN HEALTH STATUS</u>
		x	Morbidity
		x	Functional limitations
		x	Self-perceived health
	<u>INCOME AND WEALTH</u>		
x	x Labor force participation		<u>FUNCTIONAL LEVELS</u>
x	x Total income		Social interaction
x	x Sources of income		Activities of daily living
	Net assets		Instrumental activities of daily living
	<u>SOCIAL SERVICES</u>		
	<u>HEALTH RESOURCES</u>		<u>HEALTH CARE UTILIZATION</u>
x	x General hospitals ¹	x	x General hospital services
x	x Private psychiatric hospitals ¹		Nursing home services
	Public mental health hospitals	x	Home health care
	Nursing homes		Rehabilitation
	Other institutional resources		Mental health hospitalization
	Community-based resources	x	Mental health outpatient services
	Health professions		Alcohol and drug abuse centers
	Other professional resources	x	Physician services/visits
		x	Dental services/visits
	<u>HEALTH EXPENSES</u>		
x	x Costs of care ²	x	x Prescription drugs
x	x Out-of-pocket costs ²	x	x Other
x	x Medicare		
x	x Medicaid		
	State expenditures		<u>OTHER BROAD CATEGORY</u>
x	x Private insurance coverage		<u>FOR SAMPLING UNIT</u>

¹ NMCUES identified the type of hospital.

² NMCUES collected charges, not costs.

³ NMCUES grouped conditions together.

SPONSORS: National Center for Health Statistics (NCHS) and
Health Care Financing Administration (HCFA)

TITLE: **National Medical Care Utilization and Expenditure Survey
(NMCUES), 1980**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE (National Household Component)

<u>Age</u>	<u>Number in Sample</u>	<u>Nonresponse Rate</u>
Total	17,123	12.1%
Under 65	15,251	
65-74	1,183	
75-84	689 (75 years and over)	
85+		

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x		
Social Security no.			
Veteran status	x	x	
Geographic data			
Largest unit	U.S.	U.S.	U.S.
Smallest unit	4 regions	4 regions	4 regions
Age classes			
Single years	x	x	
60-64	x	x	
65+	x	x	x
65-74, 75-84, 85+	x	x	x
Other	x	x	x

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Ambulatory Medical Care Survey (NAMCS)**

Project Director: James DeLozier
Chief, Ambulatory Care Statistics Branch
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: To provide general purpose statistics describing the public's use of office-based physician services, the health problems presented to physicians by ambulatory patients, and the diagnostic and therapeutic services received.

DESIGN: Universe: all patient visits to office-based physicians in contiguous United States. Multistage sample design including 3,000 to 5,000 physicians in about 80 geographic areas. Probability sample, response of approximately 75 percent. Sample size 3,000 physicians, 50,000 patient visits through 1981. Sample size in 1985: 5,000 physicians, 75,000 visits.

CONTENT: Information includes patient age, sex, race, ethnicity, and reason for visit; physician's diagnostic and therapeutic services ordered or provided; diagnosis and disposition decision and drugs prescribed. Variations from year to year are slight.

YEARS OF DATA COLLECTION: Data collected annually from 1973 through 1981. Repeated in 1985 and scheduled on a triennial basis thereafter. Data from the 1985 survey will be released in 1987.

PUBLICATIONS: See advance data releases and Series 13: Data on Health Resources Utilization, National Center for Health Statistics.

AVAILABILITY OF UNPUBLISHED DATA: Data are also available in published and unpublished form as well as on public use data tapes for all years in which survey has been completed.

Data tapes are in the collection of the National Archive of Computerized Data on Aging, maintained by the Inter-University Consortium for Political and Social Research, Ann Arbor, MI 48106.

1977--ICPSR 8046, 1978--ICPSR 8047, 1979--ICPSR 8048.

Data tapes are also in the collection of the Duke University Data Archive for Aging and Adult Development (DAAAD), Durham, NC 27710.

CONTACT: Raymond Gagnon
(301) 436-7132

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Ambulatory Medical Care Survey (NAMCS)**

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
	Educational level	x	x
x	Race		Acute and chronic conditions
x	Ethnicity		Disability days
x	Sex		Chronic limitations of activity of mobility
	Marital status		Impairments
	Migration or mobility		Usual activity status
	<u>VITAL STATISTICS</u>		<u>ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH</u>
	Natality		Cognitive impairment scale
	Mortality		Behavior problems
	Marriage		Depression
	Divorce		Alcohol use
	<u>HOUSING</u>		Drug abuse
	Type of dwelling		<u>CHANGES IN HEALTH STATUS</u>
	No. of persons in household		Morbidity
	Relationship of persons in household		Functional limitations
	<u>INCOME AND WEALTH</u>		Self-perceived health
	Labor force participation		<u>FUNCTIONAL LEVELS</u>
	Total income		Social interaction
	Sources of income		Activities of daily living
	Net assets		Instrumental activities of daily living
	<u>SOCIAL SERVICES</u>		<u>HEALTH CARE UTILIZATION</u>
	<u>HEALTH RESOURCES</u>		General hospital services
	General hospitals		Nursing home services
	Private psychiatric hospitals		Home health care
	Public mental health hospitals		Rehabilitation
	Nursing homes		Mental health hospitalization
	Other institutional resources		Mental health outpatient services
	Community-based resources		Alcohol and drug abuse centers
	Health professions	x	x
	Other professional resources		Physician services/visits
	<u>HEALTH EXPENSES</u>		Dental services/visits
	Costs of care		Prescription drugs
	Out-of-pocket costs		Other
	Medicare		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	Medicaid		
	State expenditures		
	Private insurance coverage		

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: National Ambulatory Medical Care Survey (NAMCS)

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Age</u>	<u>Number in Sample</u>	<u>Nonresponse Rate</u>
Total	46,100 visits	20%

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x	x	
Social Security no.			
Veteran status			
Geographic data			
Largest unit	U.S	U.S.	U.S.
Smallest unit	4 regions	4 regions	4 regions
Age classes			
Single years	x	x	
60-64			
65+			x
65-74, 75-84, 85+			x
Other			

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Hospital Discharge Survey (NHDS)**

Project Director: Mary Moien
Chief, Hospital Care Statistics Branch
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: The survey provides information on the utilization of short-stay non-Federal hospitals in the United States. Only hospitals with six or more beds and an average length of stay of less than 30 days are included.

DESIGN: The sample is a two-stage stratified probability sample of hospitals and patients within hospitals. Stage 1 includes a 10 percent sample of all short-stay non-Federal hospitals, and stage 2 includes a sample of discharges. Approximately 200,000 records per year are collected and weighted up to national estimates. The nonresponse rate is approximately 15 percent in the last 10 years and less before that.

CONTENT: Data in medical records for discharges from hospitals are collected for patient age, sex, race, marital status, disposition; patient's length of stay and (since 1977) expected source of payment; and diagnoses and surgical procedures. Information is available on size, ownership, and region of country of hospital.

YEARS OF DATA COLLECTION: Annually since 1965.

PUBLICATIONS: Annual data are published in NCHS Advance Data series, in NCHS Vital and Health Statistics Series 13, and in Special Reports.

AVAILABILITY OF UNPUBLISHED DATA: Unpublished data are available for all years. Data tapes are available for 1970-84 from National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22101, and from the collection of the National Archive of Computerized Data on Aging maintained by the Inter-University Consortium for Political and Social Research, P.O. Box 1248, Ann Arbor, MI 48106.

CONTACT: Hospital Care Statistics Branch
(301) 436-7125

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: National Hospital Discharge Survey (NHDS)

TYPES OF DATA COLLECTED

Data File	Public Use	Tape	Data File	Public Use	Tape
		<u>DEMOGRAPHIC DATA</u>			<u>HEALTH</u>
		Educational level	x	x	Acute and chronic conditions
x	x	Race			Disability days
x	x	Ethnicity			Chronic limitations of activity
x	x	Sex			of mobility
x	x	Marital status			Impairments
		Migration or mobility			Usual activity status
		<u>VITAL STATISTICS</u>			<u>ALCOHOL, DRUG ABUSE, AND MENTAL HEALTH</u>
		Natality			Cognitive impairment scale
		Mortality			Behavior problems
		Marriage			Depression
		Divorce			Alcohol use
		<u>HOUSING</u>			Drug abuse
		Type of dwelling			<u>CHANGES IN HEALTH STATUS</u>
		No. of persons in household			Morbidity
		Relationship of persons in household			Functional limitations
		<u>INCOME AND WEALTH</u>			Self-perceived health
		Labor force participation			<u>FUNCTIONAL LEVELS</u>
		Total income			Social interaction
		Sources of income			Activities of daily living
		Net assets			Instrumental activities of daily living
		<u>SOCIAL SERVICES</u>			<u>HEALTH CARE UTILIZATION</u>
		<u>HEALTH RESOURCES</u>			General hospital services
		General hospitals	x	x	Nursing home services
		Private psychiatric hospitals			Home health care
		Public mental health hospitals			Rehabilitation
		Nursing homes			Mental health hospitalization
		Other institutional resources	x	x	Mental health outpatient services
		Community-based resources			Alcohol and drug abuse centers
		Health professions			Physician services/visits
		Other professional resources			Dental services/visits
		<u>HEALTH EXPENSES</u>			Prescription drugs
		Costs of care			Other
		Out-of-pocket costs			<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
		Medicare			
		Medicaid			
		State expenditures			
		Private insurance coverage			

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Hospital Discharge Survey (NHDS)**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE Per Year

Age	(Approximate) Number in Sample ¹	Nonresponse Rate
Total	200,000	15%
Under 65	150,000	
65-74	27,000	
75-84	21,000	
85+	7,500	

¹ Sample is weighted up to national estimates.

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

Item	Data File	Public Use Tape	Published Tables
Date of birth or age	x	x	x
Social Security no.			
Veteran status			
Geographic data			
Largest unit	U.S.	U.S.	U.S.
Smallest unit	Division	Division	Usually region
Age classes			
Single years			
60-64	x	x	
65+			x
65-74, 75-84, 85+			x
Other			

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Nursing Home Survey (NNHS)**

Project Director: Evelyn Mathis
Chief, Long-Term Care Statistics Branch
Division of Health Care Statistics
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: To collect data on nursing homes, their services, staffs, and financial characteristics, and on personal and health characteristics of residents and discharges.

DESIGN: Data are collected from a sample of all nursing homes in the coterminous United States (in 1985, 1,200 nursing homes listed in the Master Facility Inventory). In each nursing home, samples are selected of current residents, persons discharged (deceased or alive) in the last year, and staff members. Data on residents and discharges are collected by interviewing the nurse who obtains the needed information from the medical records and the next of kin. Estimates are produced for the United States, census regions, and DHHS regions, and in 1977 for the five States with the largest nursing home population.

CONTENT: The survey collects data on characteristics of the facility and its finances, of residents, of discharges, and of staff, as follows:

Facility: size, ownership, Medicare and Medicaid certification, staffing patterns, and services offered.

Financial characteristics: Total expenses and major components of operation.

Residents: Demographic characteristics, living arrangements prior to admission, diagnosis and conditions, functional status, receipt of services (medical, nursing, and therapeutic), cost of care, source of payment.

Discharges: A subset of items collected for current residents available from the medical record.

Staff: Data varied with survey. In 1985 survey, characteristics of registered nurses--work schedule, experience, activities in facility, demographic characteristics, and salary were collected.

Next of kin: Information about residents' and discharges' living arrangements, health and functional status prior to nursing home admission, lifetime use of nursing home care, Medicaid spend-down.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: National Nursing Home Survey (NNHS) (continued)

YEARS OF DATA COLLECTION: 1973-74, 1977, 1985, and proposed for 1990.

PUBLICATIONS: NCHS Series 13 for utilization and patient characteristics, NCHS Series 14 for staffing characteristics, and Advance Data reports.

AVAILABIITY OF UNPUBLISHED DATA: Public use tapes available through the Scientific and Technical Information Branch, National Center for Health Statistics, Rm. 1-57, 3700 East-West Highway, Hyattsville, MD 20782, and NTIS, 5265 Port Royal Road, Springfield, VA 22151. With the exception of individual or establishment identifiers, all data collected are available on the public use data tape. Data tapes are also in the collection of the National Archives of Computerized Data on Aging maintained by the Inter-University Consortium for Political and Social Research, Box 1248, Ann Arbor, MI 48106 (ICPSR 7946).

Data tapes are also in the collection of the Duke University Data Archive for Aging and Adult Development (DAAAD), Box 3003, Duke University Medical Center, Durham, NC 27710.

CONTACT: Evelyn Mathis
(301) 436-8830

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Nursing Home Survey (NNHS)**

TYPES OF DATA COLLECTED

Data File	Public Use Tape		Data File	Public Use Tape	
		<u>DEMOGRAPHIC DATA</u>			<u>HEALTH</u>
		Educational level	x	x	Acute and chronic conditions
x	x	Race			Disability days
x	x	Ethnicity			Chronic limitations of activity
x	x	Sex	x	x	of mobility
x	x	Marital status			Impairments
		Migration or mobility	x	x	Usual activity status
		<u>VITAL STATISTICS</u>			<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
		Natality			Cognitive impairment scale
x	x	Mortality			Behavior problems
		Marriage			Depression
		Divorce	x	x	Alcohol use
			x	x	Drug abuse
		<u>HOUSING</u>			<u>CHANGES IN HEALTH STATUS</u>
x	x	Type of dwelling			Morbidity
x	x	No. of persons in household ¹			Functional limitations
x	x	Relationship of persons in household ¹			Self-perceived health
		<u>INCOME AND WEALTH</u>			<u>FUNCTIONAL LEVELS</u>
		Labor force participation			Social interaction
		Total income			Activities of daily living
		Sources of income			Instrumental activities of daily living ¹
		Net assets	x	x	<u>HEALTH CARE UTILIZATION</u>
			x	x	General hospital services
		<u>SOCIAL SERVICES</u>			Nursing home services
		<u>HEALTH RESOURCES</u>			Home health care
		General hospitals			Rehabilitation
		Private psychiatric hospitals	x	x	Mental health hospitalization
x	x	Public mental health hospitals			Mental health outpatient services
		Nursing homes			Alcohol and drug abuse centers
		Other institutional resources			Physician services/visits
		Community-based resources			Dental services/visits
		Health professions			Prescription drugs
		Other professional resources			Other
		<u>HEALTH EXPENSES</u>			<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
x	x	Costs of care			
		Out-of-pocket costs			
x	x	Medicare coverage			
x	x	Medicaid coverage			
		State expenditures			
		Private insurance coverage			

¹ 1985 survey only.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Nursing Home Survey (NNHS)**

SELECTED ITEMS IN DATA SET

SIZE OF FINAL 1977 RESIDENT SAMPLE¹

<u>Age</u>	<u>Number in Sample</u>	<u>Nonresponse rate</u>
Total	7,033	2%
Under 65	939	
65-74	1,130	
75-84	2,509	
85+	2,455	

¹ Discharge sample about 6,000.

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth	x	x	
Social Security no.	x (only in 1985)		
Veteran status	x (only in 1985)	x	
Geographic data			
Largest unit	U.S.	U.S.	U.S.
Smallest unit	DHHS regions	DHHS regions	DHHS regions
Age classes			
Single years			
60-64	x	x	x
65+	x	x	x
65-74, 75-84, 85+	x	x	x
Other:			
Under 55, 55-64	x	x	x

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Master Facility Inventory (NMFI)**

Project Director: Evelyn S. Mathis
Chief, Long-Term Care Statistics Branch
National Center for Health Statistics
3700 East-West Highway
Hyattsville, MD 20782

PURPOSE: The NMFI has two basic purposes. It is an important national source of statistics on the number, type, and geographic distribution of inpatient facilities in the United States. In addition, it serves as the universe from which probability samples are selected for conducting sample surveys.

DESIGN: The NMFI is a comprehensive file of all facilities in the United States with three or more beds that provide medical, nursing, personal, or custodial care to groups of unrelated persons on an inpatient basis. Facilities are categorized into three broad types: hospitals, nursing and related care homes, and other custodial or remedial care facilities.

CONTENT: Basically, the types of data collected for the three categories of facilities are: ownership; major type of service; number of beds; patient census; number of admissions, discharges, and deaths; and information about staffing.

YEARS OF DATA COLLECTION: Data were collected for the following years: 1963, 1967, 1969, 1971, 1973, 1976, 1978, 1980, 1982. Because an evaluation of the NMFI program is under way, the Inventory will not be conducted before 1988. Starting with the 1978 NMFI, only the nursing and related care homes were surveyed.

PUBLICATIONS: Data from the NMFI are published in Health, United States and in Vital and Health Statistics, Series 14.

National Center for Health Statistics. A. Sirrocco: An Overview of the 1982 National Master Facility Inventory Survey of nursing and related care homes. Advance Data From Vital and Health Statistics. No. 111. DHHS Pub. No (PHS) 85-1250. Public Health Service. Hyattsville, Md., Sept. 20, 1985.

National Center for Health Statistics. D.A. Roper: Nursing and related care homes as reported from the 1982 National Master Facility Inventory Survey. Vital and Health Statistics. Series 14, No. 32. DHHS Publ. No. (PHS) 86-1826. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1986.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Master Facility Inventory (NMFI)** (continued)

AVAILABILITY OF UNPUBLISHED DATA: Data are available in the form of public use tapes for all years. These tapes can be obtained from the National Technical Information Service, Springfield, VA 22161. Additional data are released in the form of special tabulations prepared specifically for individual requestors.

Data tapes for the 1976 National Master Facility Inventory are in the collection of the National Archive of Computerized Data on Aging, maintained by the Inter-University Consortium for Political and Social Research, P.O. Box 1248, Ann Arbor, MI 48106 (ICPSR 9630 and 7631).

CONTACT: Al Sirrocco
(301) 436-8830

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: National Master Facility Inventory (NMFI)

TYPES OF DATA COLLECTED

Data File	Public Use Tape	Data File	Public Use Tape
	<u>DEMOGRAPHIC DATA</u>		<u>HEALTH</u>
	Educational level		Acute and chronic conditions
	Race		Disability days
	Ethnicity		Chronic limitations of activity
x	Sex		of mobility
	Marital status		Impairments
	Migration or mobility		Usual activity status
	<u>VITAL STATISTICS</u>		<u>ALCOHOL, DRUG ABUSE, AND MENTAL ILLNESS</u>
	Natality		Cognitive impairment scale
	Mortality		Behavior problems
	Marriage		Depression
	Divorce		Alcohol use
	<u>HOUSING</u>		Drug abuse
	Type of dwelling		<u>CHANGES IN HEALTH STATUS</u>
	No. of persons in household		Morbidity
	Relationship of persons in household		Functional limitations
	<u>INCOME AND WEALTH</u>		Self-perceived health
	Labor force participation		<u>FUNCTIONAL LEVELS</u>
	Total income		Social interaction
	Sources of income		Activities of daily living
	Net assets		Instrumental activities of daily living
	<u>SOCIAL SERVICES</u>		<u>HEALTH CARE UTILIZATION</u>
(1)	(1) <u>HEALTH RESOURCES</u>	(1)	(1) General hospital services
(1)	(1) General hospitals	x	x Nursing home services
(1)	(1) Private psychiatric hospitals		Home health care
(1)	(1) Public mental health hospitals		Rehabilitation
x	x Nursing homes	(1)	(1) Mental health hospitalization
(1)	(1) Other institutional resources	(1)	(1) Mental health outpatient services
	Community-based resources		Alcohol and drug abuse centers
x	Health professions	(1)	(1) Physician services/visits
	Other professional resources	(1)	(1) Dental services/visits
	<u>HEALTH EXPENSES</u>		Prescription drugs
	Costs of care		Other
	Out-of-pocket costs		<u>OTHER BROAD CATEGORY FOR SAMPLING UNIT</u>
	Medicare coverage		
	Medicaid coverage		
	State expenditures		
	Private insurance coverage		

¹ These facilities are on files from 1963-76 only.

SPONSOR: National Center for Health Statistics (NCHS), Department of Health and Human Services (DHHS)

TITLE: **National Master Facility Inventory (NMFI)**

SELECTED ITEMS IN DATA SET

SIZE OF SAMPLE

<u>Facility</u>	<u>Number in Universe</u>	<u>Nonresponse Rate</u>
Hospitals ¹	6,915	10.3%
Nursing homes	17,819	4.0%

¹ Hospital data provided by the American Hospital Association.

AVAILABILITY AND LOCATION OF SPECIFIC DATA ITEMS

<u>Item</u>	<u>Data File</u>	<u>Public Use Tape</u>	<u>Published Tables</u>
Date of birth			
Social Security no.			
Veteran status			
Geographic data			
Largest unit	U.S.	U.S.	U.S.
Smallest unit	ZIP code	ZIP code	State
Age classes			
Single years			
60-64			
65+	x		x
65-74, 75-84, 85+			
Other			

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