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HEALTH AND DISEASE IN THE UNITED STATES[1]

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INTRODUCTION

The characterization of the overall health status of a population or of an individual is not a simple task. Many factors must be considered. Factors relating to mortality, such as life expectancy, mortality rates, both total and cause specific, infant mortality, and maternal mortality, are frequently used to assess the health of the people in an area. These measures are relatively easy to obtain and are available for small geographic areas and often for subgroups of the population. In addition, these measures are frequently available for other countries and, although there are definitional differences, international comparisons can be helpful. Finally, the impact of medical intervention on these measures is generally very direct, i.e. mortality rates should go down and life expectancy should increase—both desirable objectives—with necessary and appropriate medical treatment.

Many other measures of health status have been used to characterize a population. The most common are measures of illness, i.e. the prevalence and incidence of specific diseases and the impact of these diseases as measured by disability (8). In the past much of the information of this type was based on research conducted in hospitals at medical schools. However, because only about 10% of the population in any year is hospitalized and of this group only 10% is in teaching hospitals, much of the health information from examinations was based on only 1% of the population. In 1960 the National Center for Health Statistics (NCHS) initiated a major effort to improve the representativeness of health data by forming the National Health Examination Survey (now called Health and Nutrition Examination

[1]Much of the information presented in this chapter has been taken from *Health, United States, 1979* (1) or earlier volumes. This chapter includes selected tables from *Health, United States, 1979.* Reprints are available from NCHS.

Survey, or HANES), in which a national probability sample of persons was given an extensive clinical examination with highly standardized procedures in portable clinics that were moved around the country to the various sampling sites. Information has been collected about selected conditions, both known and previously undiagnosed, as well as about a variety of physical, physiological, biochemical, and psychological measures (2a). Data from these surveys have added greatly to the knowledge of our nation's health. Only a limited amount of health data, however, can be collected at any one time, thus necessitating the utilization of other sources of health information.

Health data can also be obtained by simply asking people about their health, either as a part of an examination survey or as a part of separate health surveys. Interview surveys can provide information about what kinds of illnesses people think they have or are willing to report and the presence of various symptoms, as well as the ability of people to perform the routine activities of daily living, the impact of health on their ability to perform these activities, and the use of medical services. These and related questions have been asked for more than 20 years in the National Health Interview Survey conducted by NCHS.

Many of these "nonmortality" health indicators are difficult to interpret, especially when changes are observed over time. For example, does an increase in the prevalence rate of a disease mean that people are less healthy, or does it indicate that doctors are changing a diagnostic procedure? Does an increase in the number of days lost from work as a result of illness mean that employees are getting sicker, or does it mean that employers are providing more liberal sick leave benefits? Does an increase in the number of persons who are unable to work because of a disability indicate a less healthy population, or does it reflect more liberal disability retirement benefits, or possibly a change in the work ethic? Does an increase in the number of people with long-term limitation of activities from chronic diseases indicate a deterioration in health status, or does it reflect improvements in health care that permit a person to survive a heart attack or a stroke, although with some permanent disability? An increase in a health status measure, therefore, does not necessarily mean that the true health status is deteriorating (2b).

Mental and emotional health are now considered to be an aspect of overall health status. This type of measure is usually even more difficult to interpret than the physical illness and disability data. In recent years there has been an increased interest in the development of health status indexes that combine a number of indicators into a single measure of health. Although there are many conceptual problems in the development of health

index, similar to the Gross National Product or the Consumer Price Index, that will tell us if the health of the country is improving or deteriorating. A number of indexes have been proposed and some have been used to assess the health status of selected populations (3). However, most of the proposed indexes are not composed of indicators that are currently available from national data bases and therefore the collection of new data is required before they can be applied.

One of the best single indicators of general health status is self-assessment of health. The vast majority of the population perceive their own status to be excellent or good when asked the question: Compared with other persons your age, would you say that your health is excellent, good, fair, or poor? Just under half (48%) of the population perceive themselves as in excellent health. Only about 12% report their health to be fair or poor (Table 1). Even though respondents are asked to use other persons their own age as a reference group, respondents perceive their health as declining with age. Whereas only about 8% of young adults see themselves as in fair or poor

Table 1 Health status, utilization, and expenditure measures according to age, United States, 1977[a]

Measure	All ages	Under 17 years	17–44 years	45–64 years	65 years and over
Disability days per person per year	17.8	11.2	14.2	24.4	36.5
Percentage limited in activity	13.5	3.4	8.1	23.1	43.0
Percentage unable to carry on major activity	3.6	0.2	1.2	6.2	17.2
Percentage feeling fair or poor	12.3	4.2	8.5	22.0	29.9
Discharges from short-stay hospitals per 1,000 population[b]	169.2	73.3	159.7	198.4	374.4
Days of care from short-stay hospitals per 1,000 population[b]	1,236.7	308.2	849.2	1,688.3	4,156.3
Surgical operations per 1,000 population[b]	99.7	41.0	104.7	124.6	165.9
Office visits to physicians per person[b]	2.7	2.0	2.5	3.3	4.1
Percentage of office visits at which patient's principal problem judged not serious[b]	51.0	63.0	58.8	41.8	31.9
Per capita personal health care expenditures[c]	$646.00	$253.00	$661.00		$1,745.00

[a] Source: National Center for Health Statistics and Health Care Financing Administration. Data are based on household interviews of a sample of the civilian noninstitutionalized population, on medical records, and on compilations from government sources.
[b] The rates for the under 17 age group are for under 15 age group and rates for 17–44 age group are for 15–44 age group.

health, 30% of those 65 or over feel they are in fair or poor health. On the other hand, an equal proportion of the elderly view themselves as being in excellent health. Only minor differences exist between males and females in self-perception of health.

Striking differences are found in self-perceived health status between persons living in families with low income and those with high family incomes, even when the data are adjusted to account for the different age structure of low and high income families. Almost one quarter of persons in low income families (under $5,000) report that they are in fair or poor health, compared with only 5% of those living in high income families (over $25,000) (Table 11). Blacks are twice as likely to perceive themselves in fair or poor health as are whites. Some racial differences remain even within income categories.

In an effort to present a more detailed, although not necessarily comprehensive, picture of the nation's health, this chapter presents data on (*a*) mortality, including information on life expectancy, infant mortality, and selected causes of death, (*b*) morbidity, including information on selected chronic diseases, (*c*) disability, (*d*) selected data related to prevention of illness, and (*e*) health care costs and financing.

DEMOGRAPHIC DISTRIBUTION OF THE POPULATION

The size and distribution of the population of the United States have and will continue to have important implications for health status and the use of health resources. Assuming a constant level of health, the more people there are, the more health services will be necessary. However, as the shape of the population changes, so too does the overall health status of the nation. An aging population, for example, will place greater demands on the health care system by virtue of its poorer health relative to the younger population.

The population of the United States is aging. A quarter of a century ago, 8% of the country's 152 million people were 65 years of age and over; now close to 11% or 23 million are aged 65 and over. This latter age group is the most rapidly growing population group. Based on various population projections, with each projection assuming different rates of mortality decline, an estimated 11 to 13% of the population, or 32 million people, will be 65 years of age and over in the year 2000. Within that age group, the population over age 75 will grow most rapidly. By 2000, an estimated 14 million people will be at least 75 years of age, 62% more than in 1977 (4).

How will these changes affect health status and health care utilization in

people. They have more chronic illnesses, more disabilities and physical impairments. About 30% of the personal health care dollar, and close to half of the public portion, is spent on people 65 years of age or over. The per capita personal health care expenditure for people aged 65 years and over is almost seven times that of people under 19 years of age (Table 1). Projected changes in the size and age distribution of the population alone will have an impact on health status, on utilization, and consequently on expenditures (5). For example, it is estimated that by the year 2000, 24% of all hospital days will be used by people aged 75 years and over, a third more than in 1977, and 24% of all disability days will be reported by those of at least 65 years of age, an eighth more than in 1977.

In addition to the age distribution of the population, the geographic variation in the residential patterns of the elderly will necessitate selective placement of medical care services. Most elderly people do not change residences. However, those who do move, do so very selectively. For instance, whereas only 5% of all migrants are age 65 and older, about a fifth of Florida's migrants are within this age group. Elderly migrants are likely to seek destinations that have well developed social and medical services and mild climates. In states such as California, Florida, Arizona, and Texas, recreational and health service centers for the elderly are being promoted (6). Further, the rapid growth of "retirement counties"[2] is accounted for primarily by migration. Between 1970 and 1975, growth rates of these counties doubled.

An increasingly older population will also place greater demands on alternative care facilities. For instance, with death rates being much higher for men than for women at older ages, widowed women with chronic or disabling illness may need care they cannot provide for themselves. The need for nursing homes, home health services, adult day care, etc will therefore be heightened.

MORTALITY

The crude death rate in the United States continues its downward trend that has been observed since the early 1930s when national mortality data were first collected.[3] At that time the rate was 10.7 deaths per 1,000 population. After a slight rise in the mid-1950s to mid-1960s, the rate declined every year from 1968 (when the rate was 9.7) to 1977 except for 1971–1972 and 1975–1976. In 1977, there were 8.8 deaths per 1,000 population.

[2]Counties characterized by high in-migration of persons 60 years of age and over—360 of them were identified by Calvin Beale in 1970 (7a).

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