# Chartbook on Trends in the Health of Americans

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Monitoring the health of the Nation is essential for identifying and prioritizing health policy, program, and research initiatives. Current measures of the health status of the population, as well as its determinants, provide critical information about how the Nation's resources should be directed to improve the health of its population. Examination of emerging trends also identifies diseases, conditions, and risk factors that warrant study and intervention.

Many factors, including public health programs, advances in technology and medical science, and improved nutrition and economic status have contributed to increased life expectancy, reduced mortality and morbidity, and better overall health (1). However, the United States also spends more per capita than any other country on health and health care and the rate of increase in spending is increasing. Much of this spending is on health care—notable examples are prescribed medicines and cardiac operations—that control or reduce the impact of chronic diseases and conditions affecting an increasingly elderly population. Increasing prevalence of risk factors such as obesity also contribute to increased morbidity and its associated costs.

The *2003 Chartbook on Trends in the Health of Americans* assesses the current state of the Nation's health and how it is changing over time, both positively and negatively. This year's chartbook is an updated and revised version of the 2002 chartbook. Selection of the measures used in the chartbook was difficult because no single, limited set of measures can fully summarize the health of a large and diverse population. Any set of health measures involves some arbitrary choices and a good case could be made for including a number of other measures of health. In selecting overall measures, several factors were considered, including whether the measure was commonly used by health researchers and policy makers, whether the measure was easily understandable by a wide range of users, and whether information was available over time. As a group, the measures featured in the chartbook were selected to cover major topics of public health concern. In addition to sociodemographic information that provides the context within which to interpret health measures, the topics covered include: health insurance coverage, health-related risk factors, use of preventive care, disability, and mortality.

Because of the importance and availability of the measures selected for the 2002 chartbook, most have been included in this 2003 chartbook and will continue to be updated in future years. Each year, however, some charts will be replaced or revised to allow the inclusion of charts displaying new or emerging trends, and newly available or timely data. In addition, each year the *Chartbook on Trends in the Health of Americans* will include a special focus. This year's focus is on diabetes, a leading cause of morbidity and mortality that is affecting an increasing proportion of the population.

## Organization of the Chartbook

Figures in the chartbook have been grouped into seven sections covering selected health determinants and outcomes. The first section (figures 1–5) presents major demographic, economic, and social factors influencing health: growth and aging of the national population, changing patterns of racial and ethnic diversity, and low income. The second section (figures 6–7) describes trends over time in health insurance coverage and characteristics of the uninsured. The third section (figures 8–11) presents trends in use of two types of preventive health care: prenatal care beginning during the first trimester of pregnancy and vaccination for influenza and pneumococcal disease among the elderly. The fourth section (figures 12–16) focuses on specific risk factors associated with increased risk of disease and death: cigarette smoking, overweight and obesity, and lack of physical activity. The fifth section (figures 17–20) shows the percent of children and working-age adults who have limitation of activity caused by chronic health conditions, and the prevalence of specific chronic health conditions causing activity limitation. It also contains a new chart on limitations in activities of daily living (ADLs) among elderly persons. The sixth section (figures 21–31) describes trends over time in mortality by showing changes in life expectancy at birth and at 65 years of age since 1901, changes in infant mortality since 1950, and age- and cause-specific death rates for persons ages 15 and over since 1950.

The seventh section, new this year, focuses on diabetes (figures 32–34). Diabetes is a serious chronic health condition and a significant cause of illness, disability, and death in the United States. Because of trends in obesity and aging of the population, diabetes is expected to reach almost epidemic proportions in coming years. This year's chartbook presents trends in prevalence of self-reported diabetes, as well as

utilization of ambulatory and hospital care for persons diagnosed with this disease.

Many measures are shown separately for persons of different ages because of the strong effect age has on most health outcomes. Selected figures in the chartbook also highlight current differences in health and health determinants by variables such as sex, race, and Hispanic origin. Some estimates are age adjusted using the age distribution of the 2000 standard population. Line charts for which only selected years of data are displayed have dot markers on the data years. Line charts for which data are displayed for every year in the trend are shown without the use of dot markers. Time trends for some measures are shown on a logarithmic scale to emphasize the rate of change and to enable measures with large differences in magnitude to be shown on the same chart (figures 24, 26, 28, and 30). Other trends are shown on a linear scale to emphasize absolute differences over time (figures 1, 4, 6, 8, 10, 12, 15, 20, 21, 22, 32, 33, and 34). Time trends for some measures are not presented because of the relatively short amount of time that comparable national estimates are available (figures 13, 14, 17, 18, and 19). For some charts, data years are combined to increase sample size and reliability of the estimates. Changes in survey methodology, such as question wording, measures, sample size, and coding have also occurred, making comparability across years difficult in some instances. For example, the National Health Interview Survey was redesigned in 1997 to improve its efficiency and flexibility. These changes, however, make comparisons before and after 1997 problematic for many measures (see Appendix I, *National Health Interview Survey*).

Following the figures in the chartbook is a section containing data tables for each figure that show the data points graphed. For some measures, standard errors for the data points are provided and data not shown in the figures may be included. Additional information about the health measures is included in the notes to each data table as well as in Appendix II. Finally, the 151 trend tables in the body of *Health, United States, 2003* supplement the broad picture of the Nation's health presented in the chartbook by providing detailed data for many population groups within the United States. Additional measures of health status and determinants as well as information on health care use, health care resources, and health care expenditures are presented in these trend tables.

## Chartbook Data Sources

Health-related and demographic data presented in this chartbook are from several national data systems. These are listed below and described in Appendix I.

Population counts and projections are from the U.S. Census Bureau. Poverty rates are based on data from the Current Population Survey. The National Health Interview Survey supplied data on health insurance coverage, adult cigarette smoking, adult physical inactivity, elderly vaccination, activity limitation due to chronic health conditions, and diagnosed diabetes prevalence. The National Ambulatory Medical Care Survey and the National Hospital Ambulatory Medical Care Survey data were used to estimate utilization of physician and hospital outpatient services by persons with diabetes. The National Hospital Discharge Survey provided data on hospitalizations by persons diagnosed with diabetes. The Youth Risk Behavior Survey provided data on smoking and physical activity among high school students. The Medicare Current Beneficiary Survey provided data on limitations in activities of daily living (ADLs) for the elderly population. The National Health and Nutrition Examination Survey was the source of data on overweight and obesity. Data from the National Vital Statistics System were used to estimate life expectancy, death rates, smoking during pregnancy, and use of early prenatal care. The National Linked File of Live Births and Infant Deaths provided data for estimates of infant mortality according to the race and Hispanic origin of the mother.

## Conclusions

The health of our Nation has improved overall, in part due to the resources that have been devoted to health education, public health programs, health research, and health care. Over the past 50 years many infectious diseases have been controlled or their morbidity and mortality substantially reduced. However, other infectious diseases have re-emerged due to antibiotic resistant strains, while still other entirely new diseases have appeared as important threats to the Nation's health. Improved health care technologies, procedures, and medicines have also reduced mortality and morbidity associated with many chronic diseases and conditions. The cost of these advances, however, has been considerable (2).

Throughout the 21st century, efforts to improve health will be shaped by important changes in the U.S. population. As Americans meet this challenge, it will be in the context of a Nation that is growing older, and becoming more racially and ethnically diverse. The fraction of the population 65 years of age and over is increasing. With this increase, there will be more elderly Americans living longer, many with chronic health conditions or functional limitations. The Nation is becoming more diverse, with an increasing percent of Hispanic and other racial and ethnic groups who have historically been socioeconomically disadvantaged. Persons living in poverty and near poverty remain a segment of the national population at high risk for poor health outcomes and in need of greater access to health care. Socioeconomic and cultural differences among racial and ethnic groups in the United States will likely continue to influence patterns of disease, disability, and health care use in the future.

Recent improvements in health and increase in life expectancy reflect the influence of life style changes, greater use of some types of preventive care, public health efforts, new research findings, and advances in medicine. Decreased cigarette smoking among adults is a prime example of a risk factor for disease and death that has contributed to recent declines in mortality. Improvements in medical care and increased use of preventive health care have contributed to mortality reductions at all ages. A decline in the death rate from heart disease is an example of a major public health achievement, in part due to public education campaigns and increased use of cholesterol-lowering medications (3). The increasing percent of mothers who report beginning prenatal care during the first trimester of pregnancy and the increasing percent of elderly persons who have been vaccinated against influenza and pneumococcal disease illustrate the role for preventive health care throughout the life span. Public health and private efforts to improve motor vehicle transportation safety, as well as to increase safety in homes and workplaces, have contributed to lower death rates due to unintentional injuries for children and adults. Finally, the decline in the death rate for HIV disease in the 1990s demonstrates how new medical treatments can dramatically decrease the number of deaths caused by a particular disease.

For some important determinants of health, recent trends have not been favorable. Further lifestyle changes are needed to reduce risk factors for several chronic diseases. Even with decreases in cigarette smoking, in 2001 about 25 percent of men and 21 percent of women were smokers. Overweight and obesity, and physical inactivity among adults and children are significant risk factors for several chronic diseases, including diabetes and hypertension, and these indicators have not shown improvement—in fact, obesity is rising at an alarming rate. The rising prevalence of overweight in children and adolescents, and the high percent of both adults and adolescents not engaging in recommended amounts of physical activity raise additional concerns for future health outcomes (4–6).

Over the last half of the 20th century the prevalence of diabetes has steadily increased, and by 2002, more than 6 percent of the adult noninstitutionalized population reported they had diabetes (7,8). This is a conservative estimate of the true percentage of people who have the disease, as results from the National Health and Nutrition Examination Surveys in 1988–94 and 1999–2000 show that sizeable number of adults have undiagnosed diabetes (9,10).

Diabetes is a group of chronic diseases characterized by high levels of blood glucose (sugar). Type I diabetes accounts for 5–10 percent of diagnosed cases and the onset is generally in childhood or young adulthood. Type 2 diabetes accounts for 90–95 percent of diagnosed cases and is associated with older age, obesity, physical inactivity, and race/ethnicity. Prevalence rates of Type 2 diabetes are especially high among persons who are African American, Hispanic, or American Indian (11). Type 2 diabetes is also being diagnosed in an increasing number of adolescents and children (12).

Persons with diabetes are consuming an increasing amount of health care resources, including physicians' services and medications (13). Hospitalizations for persons with diabetes have also increased since 1990, while discharge rates for persons without diabetes remained stable or declined slightly during this time period. The importance of diabetes will substantially increase over time as the population ages, particularly if recent trends in obesity and physical inactivity continue.

This chartbook illustrates important trends in health and its associated risk factors, care, and resources. Many of the chartbook figures, as well as many of the 151 trend tables that follow the chartbook section provide more detailed information on these topics by racial, ethnic, and socioeconomic subpopulation. While many aspects of the health of the Nation have improved as a whole, the health of

some subpopulations has lagged behind. Continued collection and dissemination of reliable and accurate information about health, its determinants, and resources expended will be critical for charting future trends, identifying how resources can be most effectively targeted, and prioritizing and evaluating programs and policies that will improve the health of all Americans.

## References


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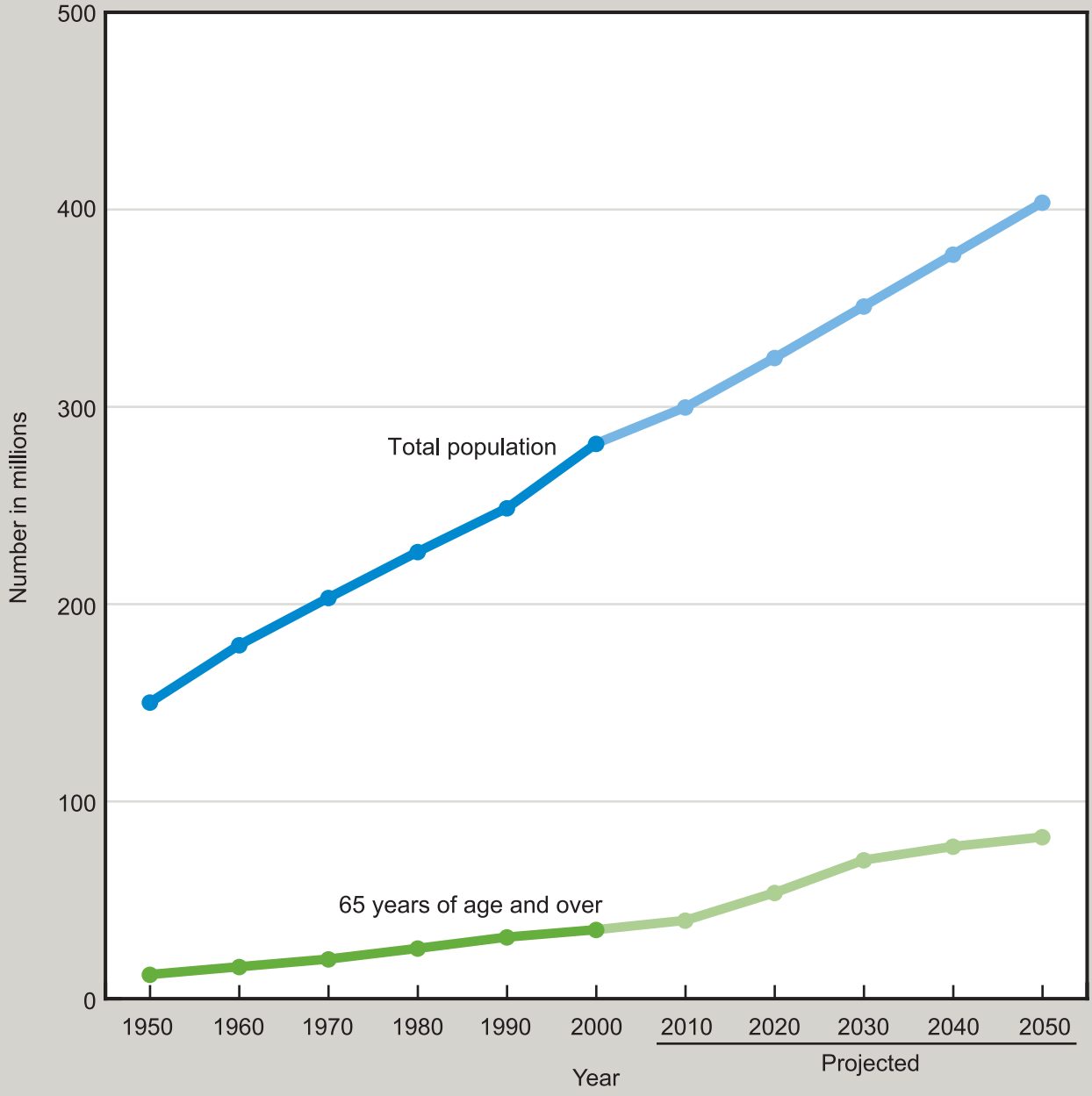
## Figure 1. Total and elderly population: United States, 1950-2050




NOTE: See Data Table for data points graphed and additional notes.

SOURCES: U.S. Census Bureau, 1950-2000 decennial censuses and 2010-50 middle series population projections.

## Age

From 1950 to 2000 the total resident population of the United States increased from 150 million to 281 million, representing an average annual growth rate of 1 percent (figure 1). During the same time period, the elderly population (65 years of age and over) grew twice as rapidly and increased from 12 to 35 million persons. Projections indicate that while both the total and elderly population will grow at a slower rate over the next 50 years the elderly population will continue to increase more rapidly than the total population.

During the past 50 years, the U.S. population has grown older (figure 2). From 1950 to 2000 the percent under 18 years of age fell from 31 percent to 26 percent while the percent elderly rose from 8 percent to 12 percent. From 2000 to 2050 a small decline in the percent of the population under 18 years of age is anticipated while a sizeable increase in the percent elderly is expected. Growth in the elderly population is projected to be particularly rapid as the "baby boom" generation turns 65 years of age beginning in 2011, with the rate of growth in the elderly population diminishing somewhat after 2030. By 2050 it is projected that one in five Americans will be elderly.

The aging of the population has important consequences for the health care system (1,2). As the elderly fraction of the population increases, more services will be required for the treatment and management of chronic and acute health conditions. Providing health care services needed by Americans of all ages will be a major challenge in the 21st century.

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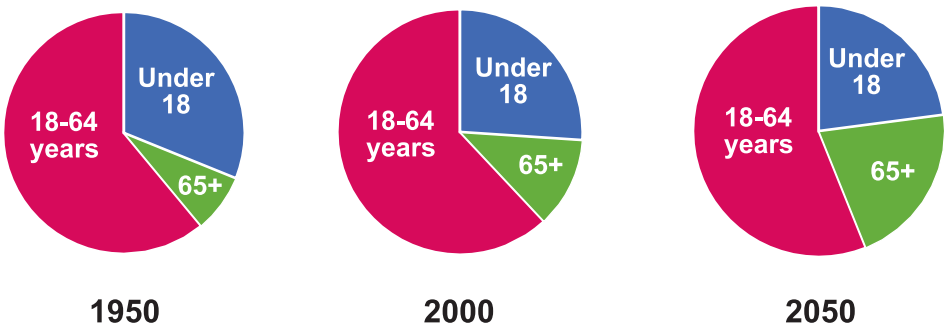
### Figure 2. Percent of population in 3 age groups: United States, 1950, 2000, and 2050




NOTE: See Data Table for data points graphed and additional notes.

SOURCES: U.S. Census Bureau, 1950 and 2000 decennial censuses and 2050 middle series population projections.

## Race and Ethnicity

Changes in the racial and ethnic composition of the population have important consequences for the Nation's health because many measures of disease and disability differ significantly by race and ethnicity (*Health, United States, 2003*, trend tables). One of the overarching goals of U.S. public health policy is elimination of racial and ethnic disparities in health.

Diversity has long been a characteristic of the U.S. population, but the racial and ethnic composition of the Nation has changed over time. In recent decades the percent of the population of Hispanic origin and Asian or Pacific Islander race has risen (figure 3). In 2000 over one-quarter of adults and more than one-third of children identified themselves as Hispanic, black, Asian or Pacific Islander, or American Indian or Alaska Native.

In the 1980 and 1990 decennial censuses, Americans could choose only one racial category to describe their race (1). In the 2000 census the question on race was modified to allow the choice of more than one racial category. Although overall a small percent of persons of non-Hispanic origin selected two or more races in 2000, a higher percent of children than adults were described as being of more than one race. The number of American adults identifying themselves or their children as multiracial is expected to increase in the future (2).

In 2000 the percent of persons reporting two or more races also varied considerably among racial groups. For example, the percent of all persons reporting a specified race who mentioned that race in combination with one or more additional racial groups was 1.4 percent for white persons and 37 percent for American Indians or Alaska Natives (3).

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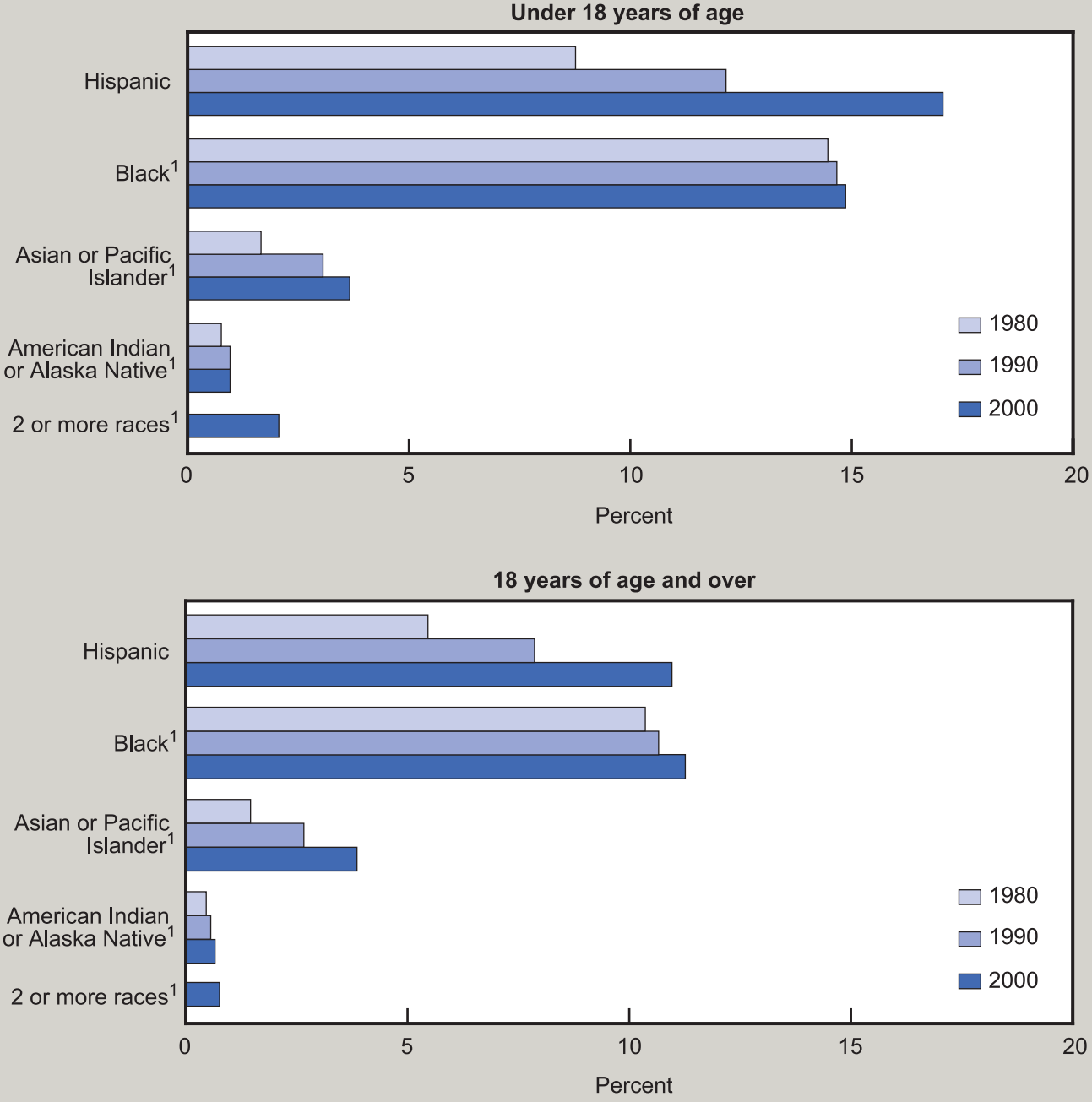
## Figure 3. Percent of population in selected race and Hispanic origin groups by age: United States, 1980-2000




[1] Not Hispanic

NOTES: Persons of Hispanic origin may be of any race. Race data for 2000 are not directly comparable with data from 1980 and 1990. Individuals could report only one race in 1980 and 1990, and more than one race in 2000. Persons who selected only one race in 2000 are shown in single-race categories; persons who selected more than one race in 2000 are shown as having 2 or more races and are not included in single-race categories. In 2000 the category "Asian or Pacific Islander" includes Asian and Native Hawaiian or Other Pacific Islander. See Data Table for data points graphed.

SOURCE: U.S. Census Bureau, 1980-2000 decennial censuses.

## Poverty

Children and adults in families with incomes below or near the Federal poverty level have worse health than those with higher incomes (see Appendix II, Poverty level for a definition of the Federal poverty level). Although, in some cases, illness can lead to poverty, more often poverty causes poor health by its connection with inadequate nutrition, substandard housing, exposure to environmental hazards, unhealthy lifestyles, and decreased access to and use of health care services (1).

In 2001 the overall percent of Americans living in poverty increased to 11.7 percent, up from 11.3 percent in 2000, reflecting the recession that started in the spring of 2000. This was the first increase in the poverty rate since 1993. Most of the increase in the poverty rate from 2000 to 2001 was accounted for by working-age adults who are less likely to receive income from government programs than are children and the elderly (2).

Starting in 1974 children have been more likely than either working-age adults or elderly persons to live in poverty (figure 4). Since 1974 poverty among children increased and remained at 20 percent or above from 1981 to 1997. Since then, the children's poverty rate has gradually declined to 16 percent.

Before 1974 the elderly were more likely to live in poverty than people of other ages. With the increasing dependence of the elderly on inflation adjusted government social insurance programs such as Social Security and Supplemental Security Income the poverty rate among the elderly declined rapidly until 1974 and has continued to decline gradually (3).

In 2001 the percent of persons living in poverty continued to differ significantly by age, race, and ethnicity (figure 5). At all ages, a higher percent of Hispanic and black persons than non-Hispanic white persons were poor or near poor (100–199 percent of the poverty level). In 2001 more than one-quarter of Hispanic and black children were poor and more than one-half were either poor or near poor. In addition, more than one-half of elderly Hispanic and black persons were either poor or near poor. Persons of Asian and Pacific Islander descent had poverty rates slightly higher than those of non-Hispanic white persons but much lower than those of black and Hispanic persons. In 1999–2001 one in four American Indians and Alaska Natives lived in poverty. Poverty estimates for American Indians and Alaska Natives combine data for all age groups and several years in order to produce an estimate (2).

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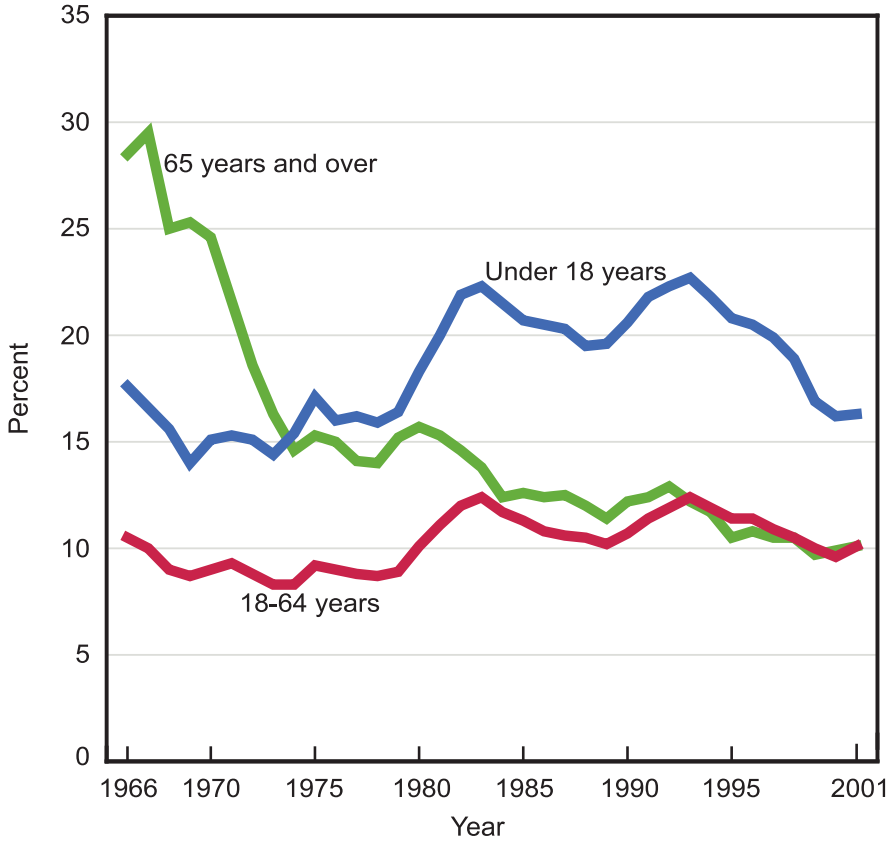
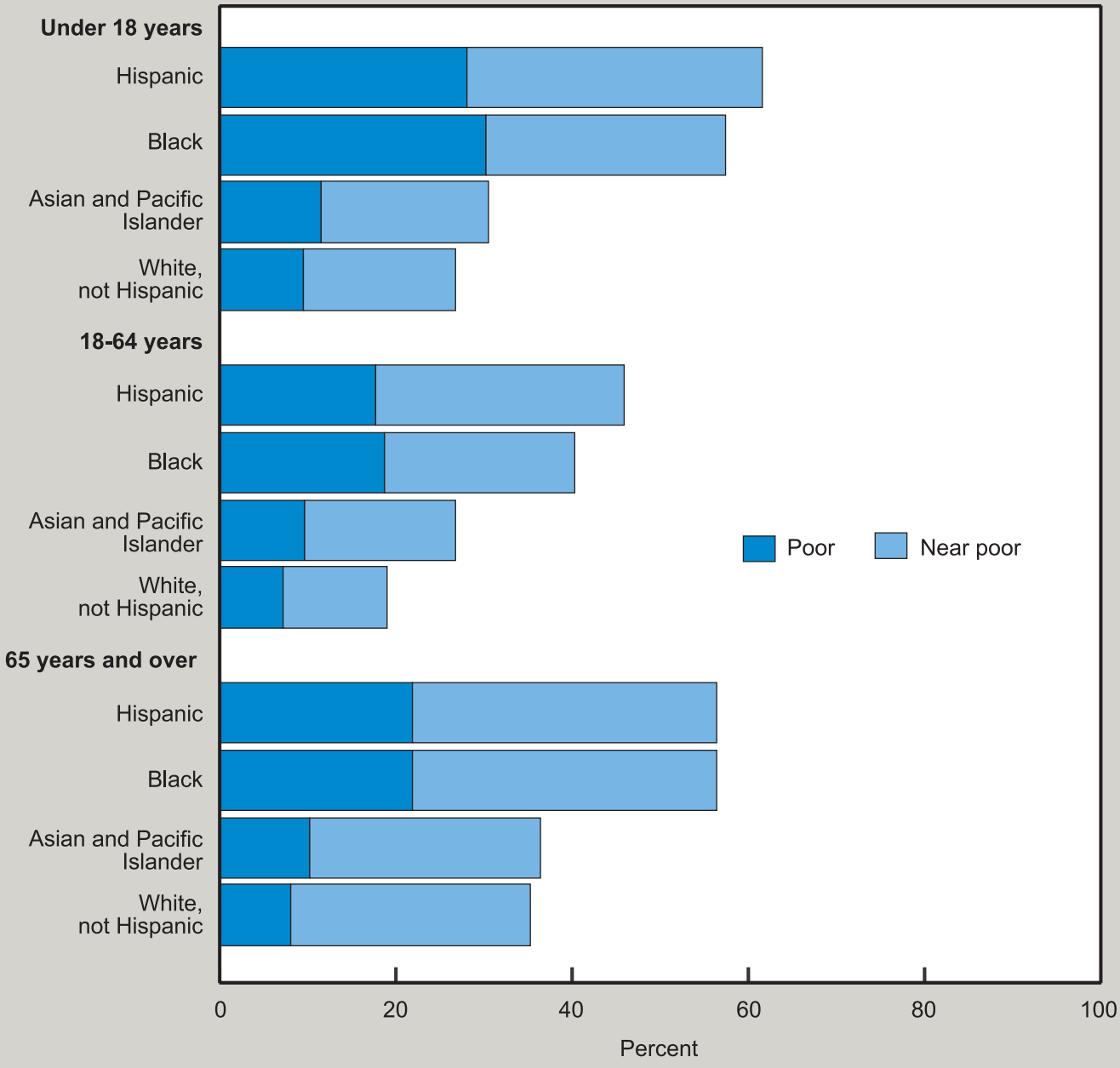
**Figure 4. Poverty rates by age: United States, 1966-2001**




NOTES: Data shown are the percent of persons with family income below the poverty level. See Data Table for data points graphed and additional notes.

SOURCE: U.S. Census Bureau, Current Population Survey.

## Figure 5. Low income population by age, race, and Hispanic origin: United States, 2001




NOTES: Poor is defined as family income less than 100 percent of the poverty level and near poor as 100-199 percent of the poverty level. Persons of Hispanic origin may be of any race. Black, and Asian and Pacific Islander races include persons of Hispanic and non-Hispanic origin. See Data Table for data points graphed and additional notes.

SOURCE: U.S. Census Bureau, Current Population Survey.

## Health Insurance

Health insurance coverage is an important determinant of access to health care (1). Uninsured children and nonelderly adults are substantially less likely to have a usual source of health care or a recent health care visit than their insured counterparts (*Health, United States, 2003*, tables 70, 73, 74, and 76). Uninsured persons are more likely to forgo needed health care due to cost concerns (2). The major source of coverage for persons under 65 years of age is private employer-sponsored group health insurance. Private health insurance may also be purchased on an individual basis, but it costs more and generally provides less coverage than group insurance. Public programs such as Medicaid and the State Children's Health Insurance Program provide coverage for many low-income children and adults.

Between 1984 and 1994 private coverage declined among the nonelderly population while Medicaid coverage and the percent of uninsured increased. Since 1994 the age-adjusted percent of the nonelderly population with no health insurance coverage has been between 16–17 percent, Medicaid between 9–11 percent, and private coverage between 70–73 percent (figure 6).

In 2001 more than 16 percent of Americans under 65 years of age reported having no health insurance coverage. The percent of nonelderly adults without health insurance coverage decreases with age. In 2001 adults 18–24 years of age were most likely to lack coverage and those 55–64 years of age were least likely (figure 7). Persons with incomes below or near the poverty level were at least three to four times as likely to have no health insurance coverage as those with incomes twice the poverty level or higher. Hispanic persons and non-Hispanic black persons were more likely to lack health insurance than non-Hispanic white persons. Persons of Mexican origin were more likely to be uninsured than non-Hispanic black persons or other Hispanics. Access to health insurance coverage through employment is lowest for Hispanic persons (3).

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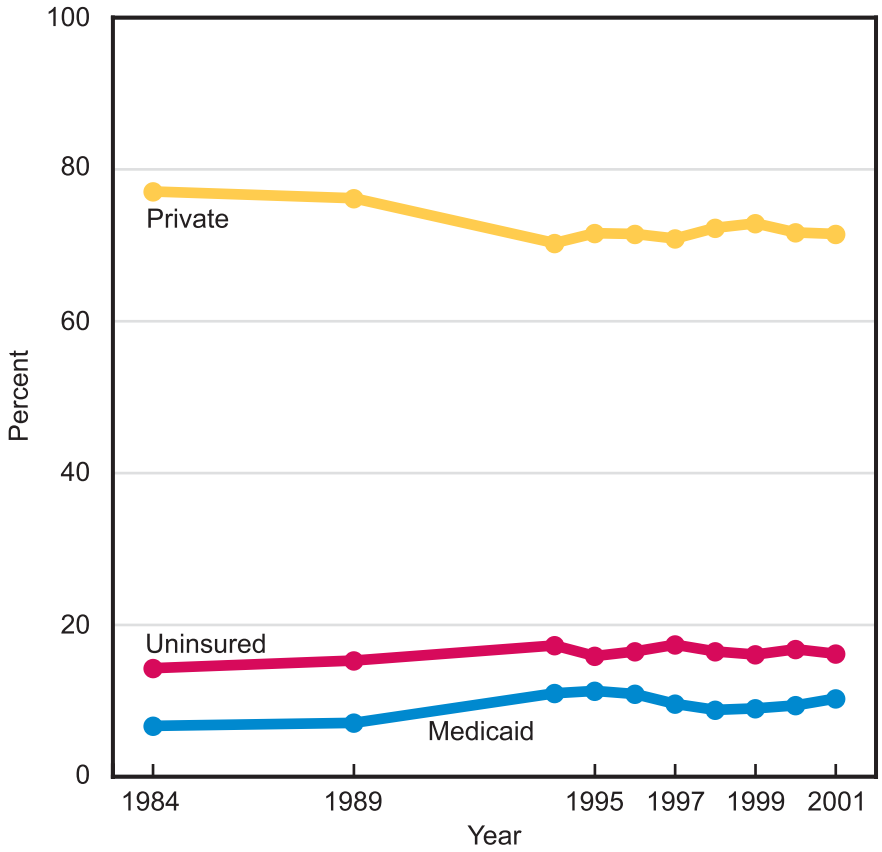
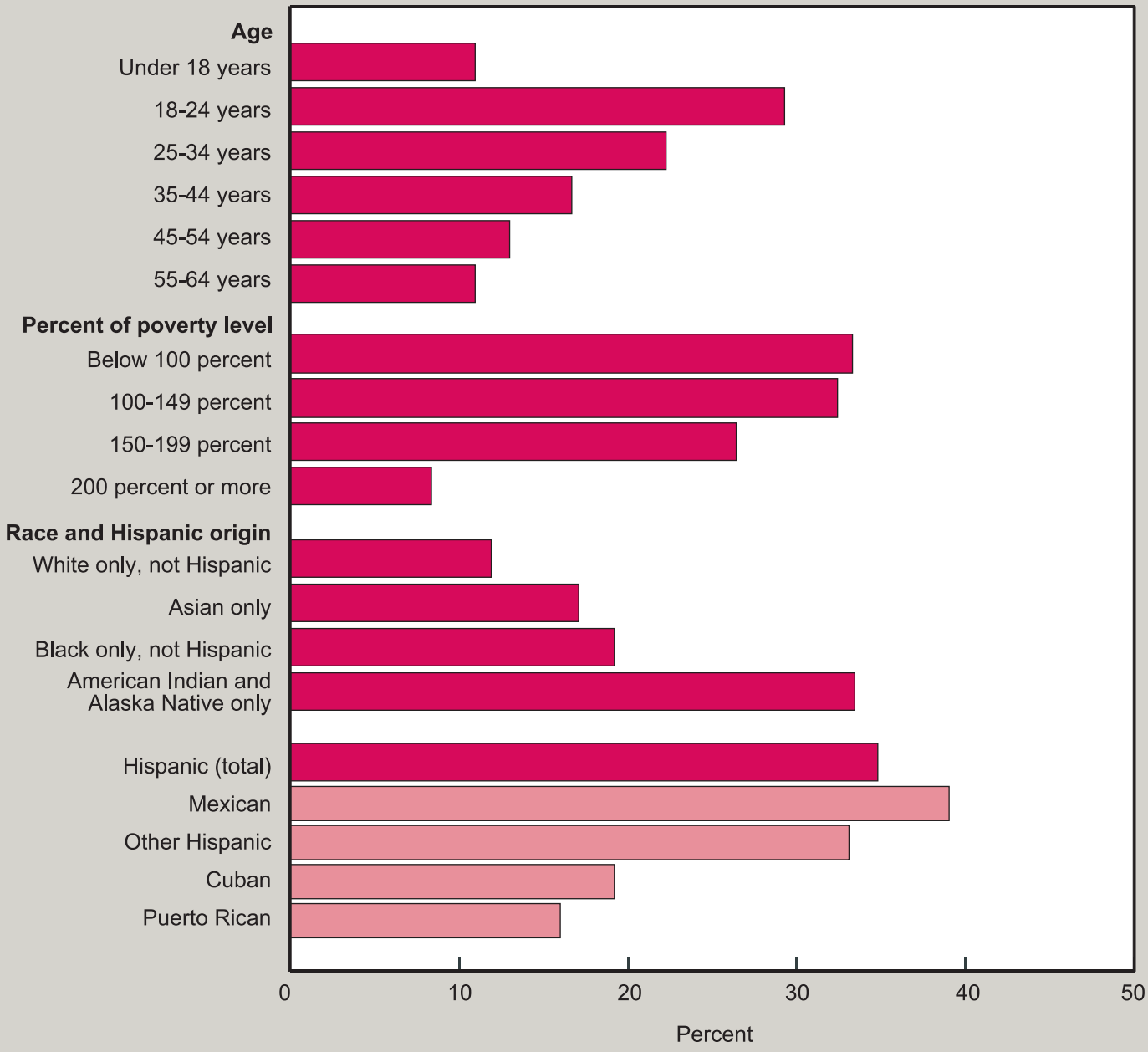
**Figure 6. Health insurance coverage among persons under 65 years of age: United States, 1984-2001**




NOTES: Percents are age adjusted. See Data Table for data points graphed, standard errors, and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

## Figure 7. No health insurance coverage among persons under 65 years of age by selected characteristics: United States, 2001




NOTES: Percents by poverty level, Hispanic origin, and race are age adjusted. Persons of Hispanic origin may be of any race. Asian, and American Indian and Alaska Native races include persons of Hispanic and non-Hispanic origin. See Data Table for data points graphed, standard errors, and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

## Prenatal Care

Prenatal care that begins in the first trimester and continues throughout pregnancy reduces the risk of maternal morbidity and poor birth outcomes. Appropriate prenatal care can enhance pregnancy outcome and long-term maternal health by managing preexisting and pregnancy-related medical conditions, providing health behavior advice, and assessing the risk of poor pregnancy outcome (1). Attitudes toward pregnancy, lifestyle factors, and cultural beliefs have been suggested as reasons women delay recommended prenatal care. Financial and health insurance problems are among the most important barriers to such care (2). Expansion of Medicaid coverage for pregnancy-related services has increased availability and use of prenatal care by low income women (3).

During the last three decades, the percent of mothers reporting prenatal care beginning in the first trimester has risen (figure 8). This upward trend reflects increases during the 1970s and the 1990s. By 2001, 83 percent of mothers reported receiving early prenatal care.

Increases in use of prenatal care beginning in the first trimester have been observed among mothers in all major racial and ethnic groups. Increases in use of prenatal care in the 1990s were greatest for those with the lowest rates of care: Hispanic, non-Hispanic black, and American Indian or Alaska Native women (*Health, United States, 2003*, table 6).

Important racial and ethnic differences in the percent of mothers reporting early prenatal care persist (figure 9). In 2001 the percent receiving early care was higher for non-Hispanic white women than for non-Hispanic black women, American Indian or Alaska Native women, and most groups of Hispanic women.

In 2001 about 4 percent of women began care in the third trimester of pregnancy or received no care at all, compared with 6 percent in 1990. The proportion of women receiving late or no prenatal care was highest among American Indian or Alaska Native women, non-Hispanic black women, and women of Mexican origin (6–8 percent) (*Health, United States, 2003*, table 6).

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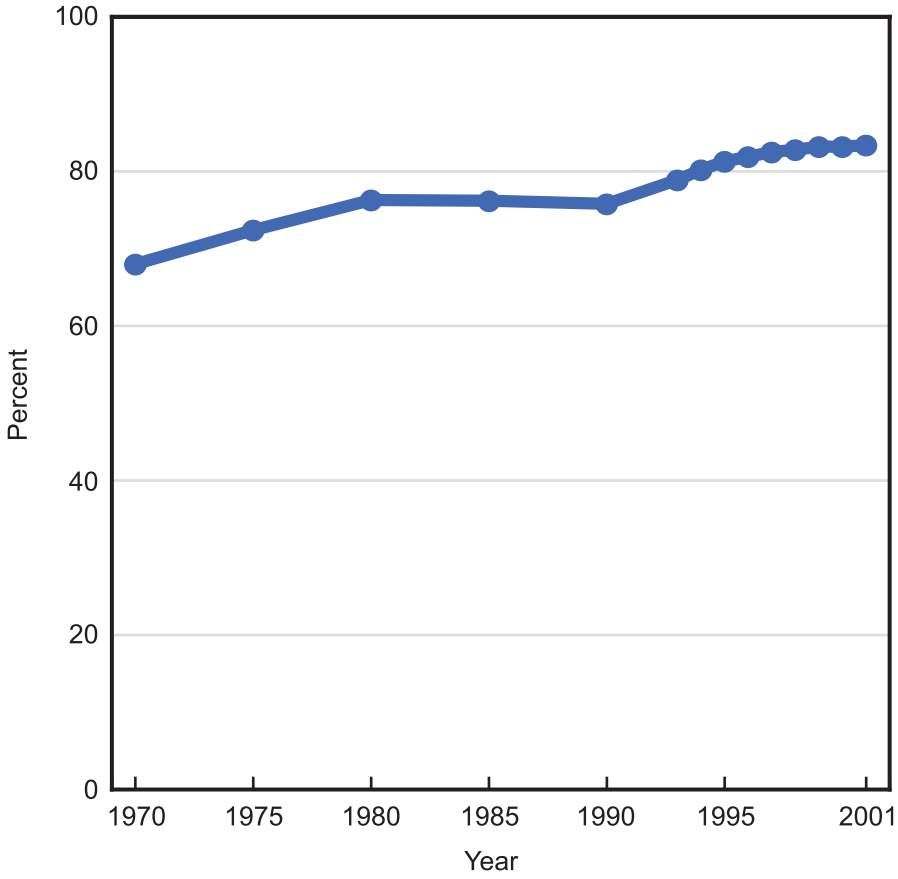
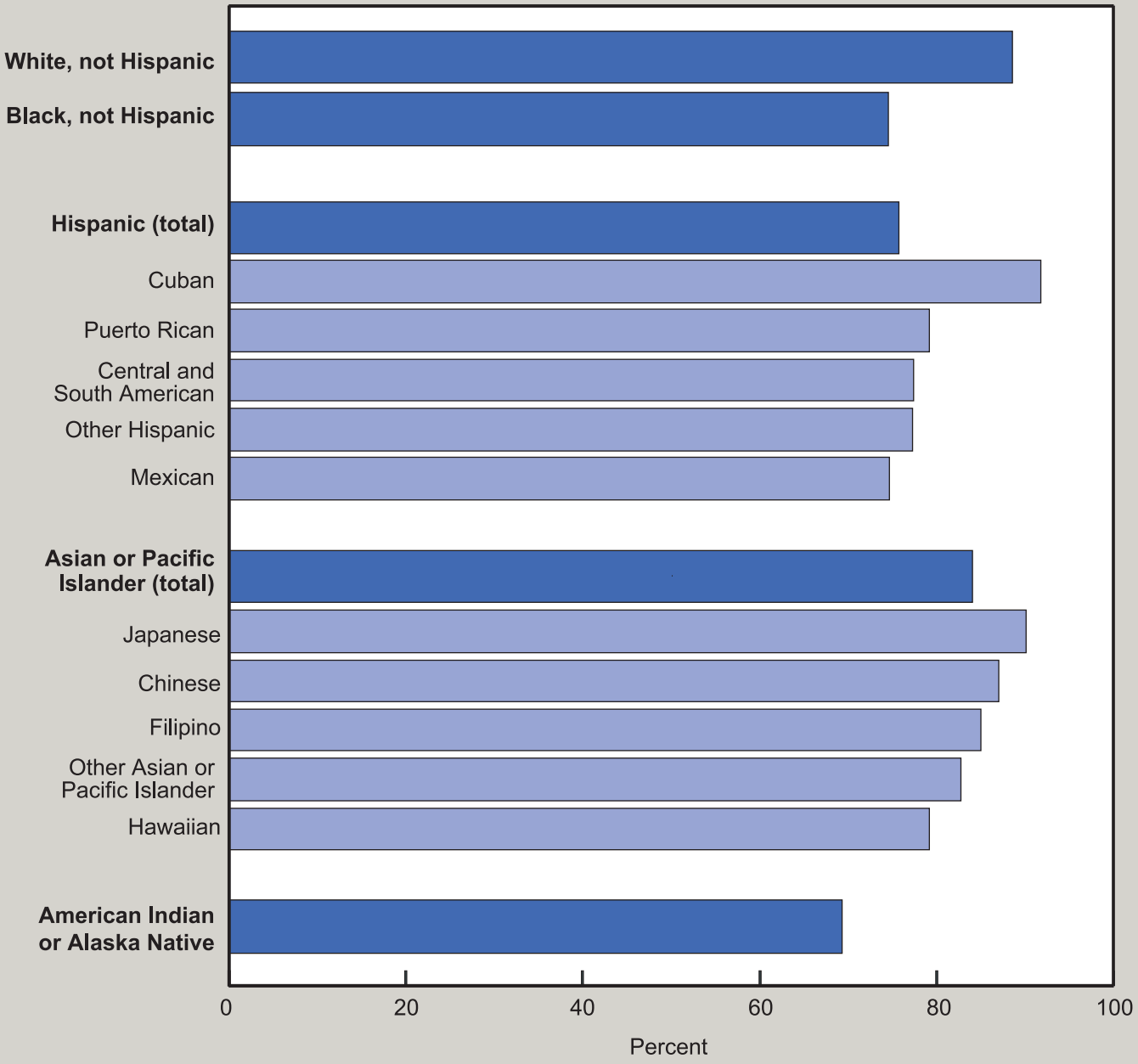
**Figure 8. Early prenatal care among mothers: United States, 1970-2001**




NOTES: Early prenatal care begins during the first trimester of pregnancy. See Data Table for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

## Figure 9. Early prenatal care by detailed race and Hispanic origin of mother: United States, 2001




NOTES: Early prenatal care begins during the first trimester of pregnancy. Persons of Hispanic origin may be of any race. The race groups, Asian or Pacific Islander and American Indian or Alaska Native, include persons of Hispanic and non-Hispanic origin. See Data Table for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

## Vaccination: Adults 65 Years of Age and Over

In the United States influenza resulted in the death of about 36,000 persons 65 years of age and over each year during the 1990s (1). Pneumococcal disease accounts for more deaths than any other vaccine-preventable bacterial disease. Annual influenza vaccination and one dose of pneumococcal polysaccharide vaccine can lessen the risk of illness and subsequent complications among elderly persons.

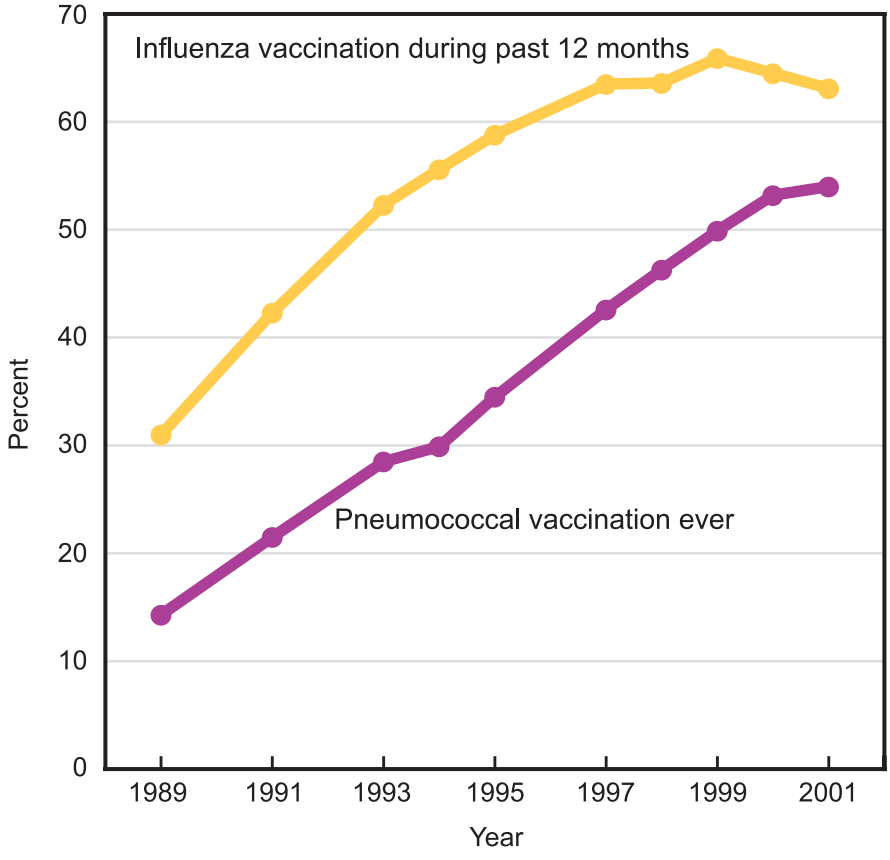
Between 1989 and 1999 the percent of noninstitutionalized elderly adults 65 years of age and over who reported an influenza vaccination within the past year more than doubled to 66 percent and then decreased slightly to 63 percent in 2001 (figure 10). During the same period the percent of elderly adults ever having received a pneumococcal vaccine increased sharply from 14 percent to 54 percent. Several factors have been suggested as contributing to these increases: greater acceptance of preventive health care by consumers and practitioners, improved Medicare coverage for these vaccines since 1993, and wider delivery of this care by health care providers other than physicians (2).

Vaccination levels varied by race and Hispanic origin in 1999–2001 (figure 11) but not by gender. Vaccinations against influenza were received by approximately two-thirds of non-Hispanic white and Asian, and approximately one-half of Hispanic and non-Hispanic black elderly adults. Vaccinations against pneumococcal disease were received by approximately one-half of non-Hispanic white, and approximately one-third of Asian, non-Hispanic black, and Hispanic elderly adults. Continued monitoring of vaccination rates for all racial and ethnic groups is needed to apprise efforts to improve rates overall and to reduce disparities in vaccination levels (3).

### References


1. Thompson WW, et al. Mortality associated with influenza and respiratory syncytial virus in the United States. JAMA 289(2):179–86. 2003.
2. Singleton JA, et al. Influenza, pneumococcal, and tetanus toxoid vaccination of adults—United States, 1993–97. In: CDC Surveillance Summaries. MMWR 49(SS-9):39–62. 2000.
3. Fedson, DS. Adult immunization: Summary of the National Vaccine Advisory Committee report. JAMA 272(14):1133–7. 1994.

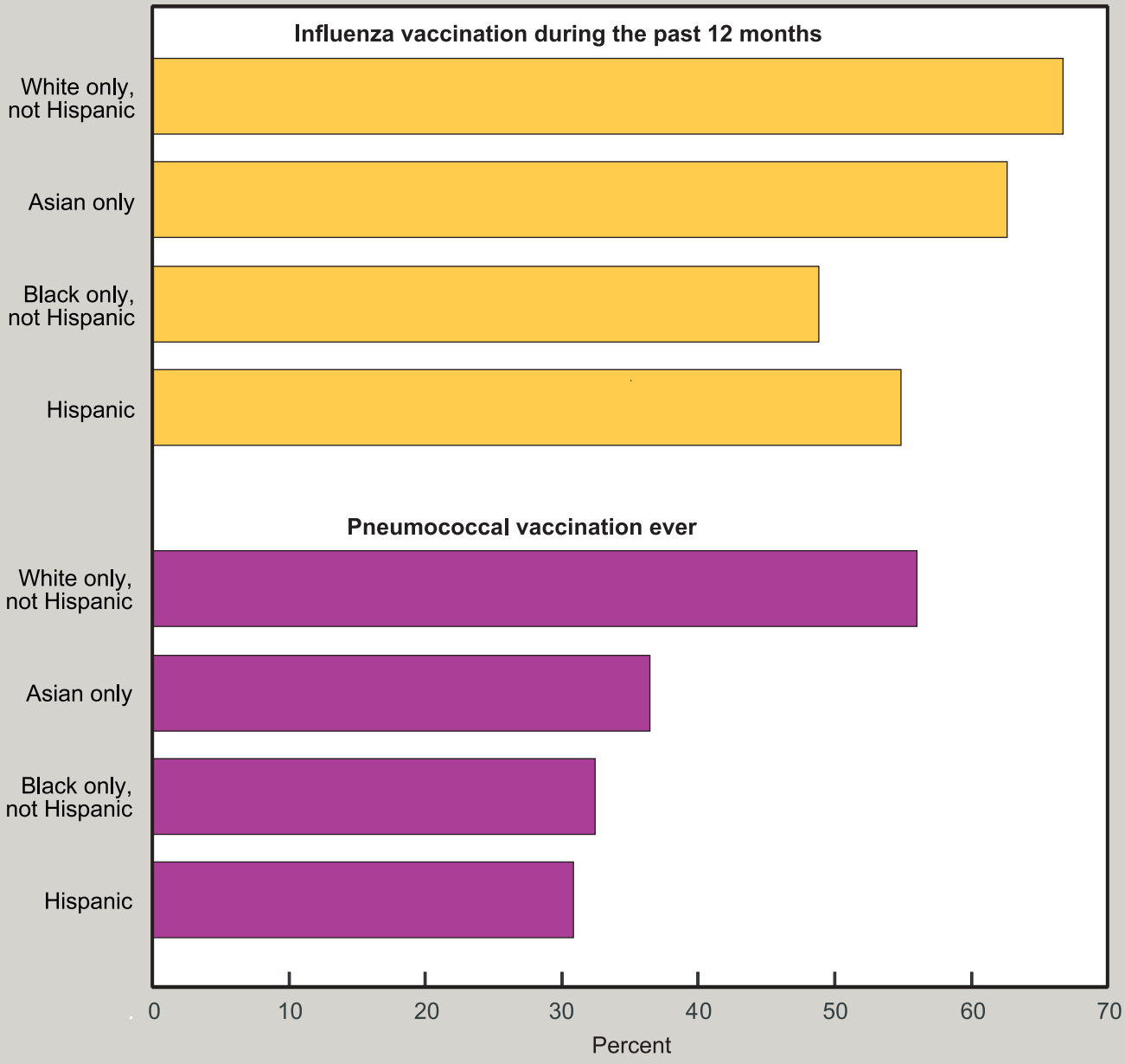

### Figure 10. Influenza and pneumococcal vaccination among adults 65 years of age and over: United States, 1989-2001




NOTES: Data are for the civilian noninstitutionalized population and are age adjusted. See Data Table for data points graphed, standard errors, and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

## Figure 11. Influenza and pneumococcal vaccination among adults 65 years of age and over by race and Hispanic origin: United States, 1999-2001




NOTES: Data are for the civilian noninstitutionalized population and are age adjusted. Persons of Hispanic origin may be of any race. Asian only race includes persons of Hispanic and non-Hispanic origin. See Data Table for points graphed, standard errors, and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

## Smoking

As the leading cause of preventable death and disease in the United States, smoking is associated with significantly increased risk of heart disease, stroke, lung cancer, and chronic lung diseases (1). Smoking during pregnancy contributes to elevated risk of miscarriage, premature delivery, and having a low birthweight infant. Preventing smoking among teenagers is critical since smoking usually begins in adolescence (2). Decreasing cigarette smoking among adolescents and adults is a major public health objective for the Nation.

Cigarette smoking among adult men and women declined substantially following the first Surgeon General's Report on smoking in 1964 (figure 12). Since 1990 the percent of adults who smoke has continued to decline but at a slower rate than previously. In 2001, 25 percent of men and 21 percent of women were smokers. Cigarette smoking by adults continues to be strongly associated with educational attainment. Among adults, persons with less than a high school education were almost three times as likely to smoke as those with a bachelor's degree or more education (*Health, United States, 2003*, table 60).

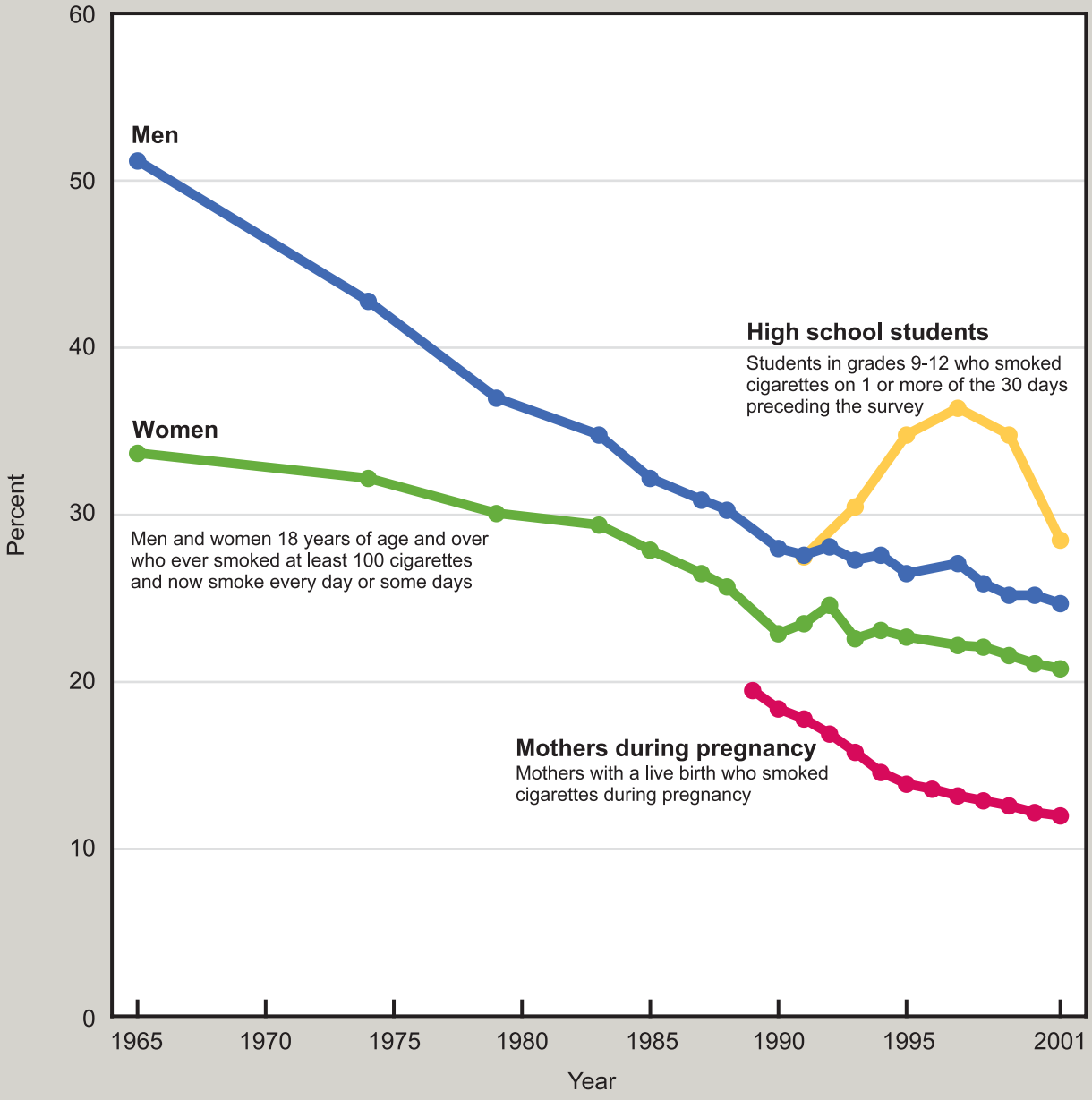
Among high school students, the percent reporting recent cigarette smoking decreased between 1997 and 2001 after increasing in the early 1990s. During the last decade, a similar percent of male and female students reported smoking. In 2001 white and Hispanic students were more likely than black students to report current smoking (3).

Among mothers with a live birth, the percent reporting smoking during pregnancy declined between 1989 and 2001 (4). Twelve percent of mothers with a live birth in 2001 reported smoking during pregnancy. Maternal smoking declined for all racial and ethnic groups in the 1990s, but differences among these groups persist (*Health, United States, 2003*, table 11). In 2001 the percent of mothers reporting smoking during pregnancy was highest for American Indian or Alaska Native mothers (20 percent) and non-Hispanic white mothers (16 percent).

### References


1. Centers for Disease Control and Prevention. Tobacco use—United States, 1900–1999. MMWR 48(43):986–93. 1999.
2. U.S. Department of Health and Human Services. Preventing tobacco use among young people: A report of the Surgeon General. Atlanta, Georgia: Centers for Disease Control and Prevention. 1994.
3. Centers for Disease Control and Prevention. Trends in cigarette smoking among high school students—United States, 1991–2001. MMWR 51(19):409–12. 2002.
4. Mathews TJ. Smoking during pregnancy in the 1990s. National vital statistics reports; vol 49 no 7. Hyattsville, Maryland: National Center for Health Statistics. 2001.

## Figure 12. Cigarette smoking among men, women, high school students, and mothers during pregnancy: United States, 1965-2001




NOTES: Percents for men and women are age adjusted. See Data Table for data points graphed, standard errors, and additional notes.

SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey (data for men and women); National Vital Statistics System (data for mothers during pregnancy); National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Survey (data for high school students).

## Physical Activity

Many epidemiologic and clinical studies have shown the benefits of regular physical activity for reducing mortality, preventing cardiovascular disease, enhancing physical functioning, and controlling weight (1). Regular physical activity lessens the risk of heart disease, diabetes, colon cancer, high blood pressure, osteoporosis, arthritis, and obesity. It also improves symptoms associated with mental health conditions such as depression and anxiety. Although vigorous physical activity produces the greatest cardiovascular benefits, moderate amounts of physical activity are associated with lower levels of mortality. Among the elderly, even small amounts of physical activity may improve cardiovascular functioning (2).

In 2001, 38 percent of female high school students and 24 percent of male high school students reported a level of physical activity that did not meet the criteria for the recommended amount of either moderate or vigorous physical activity (figure 13, see data table for definition of physical activity levels). The percent reporting a lack of moderate and vigorous physical activity was higher among older students in 10th–12th grades than among younger students in 9th grade. Between 1999 and 2001 the percent of students reporting a lack of moderate and vigorous physical activity remained stable.

Overall physical activity level in adults was measured using questions about both leisure-time and usual daily activity. Respondents were categorized as being inactive, or having low, medium, medium/high, or high physical activity (see data table for figure 14, and reference 3). In 2000, 22 percent of men and 28 percent of women 18 years of age and over were either inactive or had low physical activity. A substantial proportion of adults in all age groups were either inactive or had low physical activity, taking into account both leisure-time and usual daily activity (figure 14).

The percent of adults who were inactive or with low activity increased with age, and was higher for women than men, due to gender and age differences in the percents who were inactive. In 2000, 12 percent of women compared with 7 percent of men were inactive. Inactivity increased with advancing age with nearly one-fifth of elderly men and more than one-quarter of elderly women being inactive.

Increasing physical activity during leisure-time is one way to counterbalance an otherwise sedentary lifestyle. However, trends in leisure-time activity show the need for improvement. In 2000–01 about 38 percent of adults 18 years of age and over reported that they did not engage in physical activity during leisure time, about the same as in 1997–98 (4,5).

### References


1. U.S. Department of Health and Human Services. Physical activity and health: A report of the Surgeon General. Atlanta, Georgia: Centers for Disease Control and Prevention. 1996.
2. Mensink GB, Ziese T, Kok FJ. Benefits of leisure-time physical activity on the cardiovascular risk profile at older age. Int J Epidemiol 28(4):659–66. 1999.
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4. Schoenborn CA, Barnes PM. Leisure-time physical activity among adults: United States, 1997–98. Advance data from vital and health statistics; no 325. Hyattsville, Maryland: National Center for Health Statistics. 2002.
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**Figure 13. High school students not engaging in recommended amounts of physical activity (neither moderate nor vigorous) by grade and sex: United States, 2001**

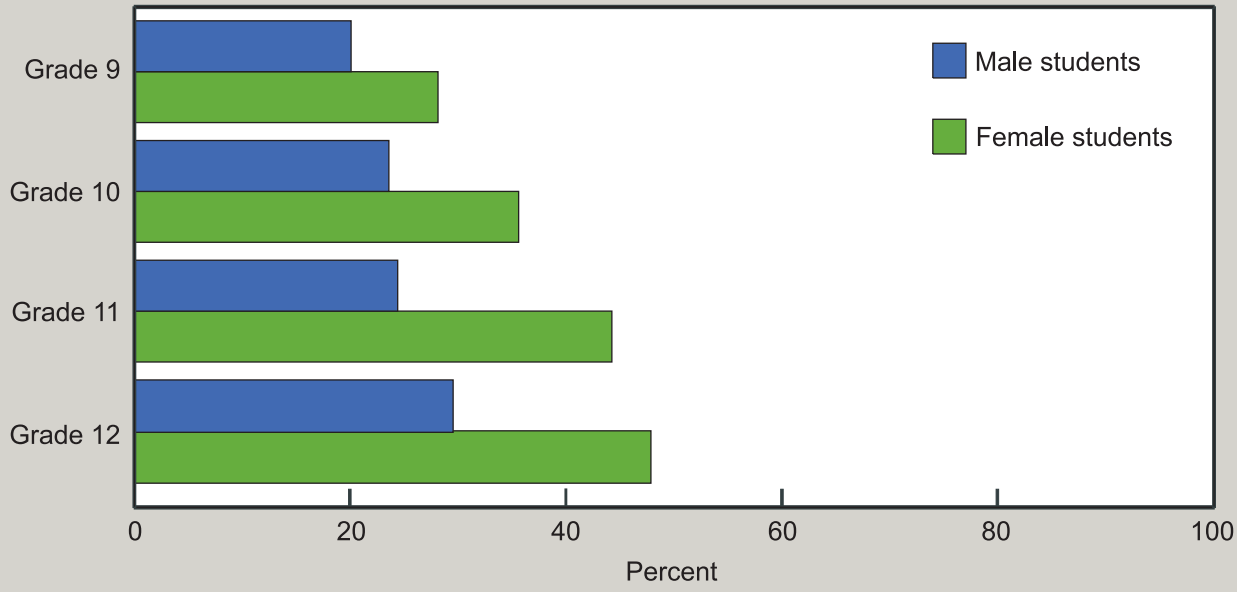
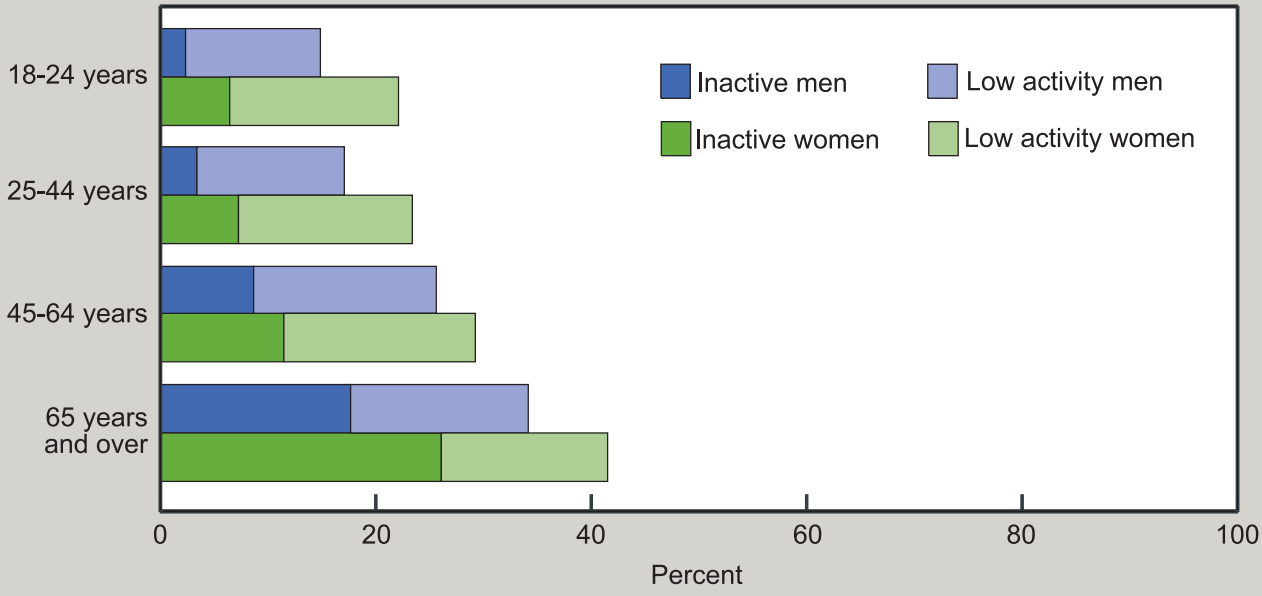



**Figure 14. Adults who are inactive or have a low level of overall physical activity by age and sex: United States, 2000**

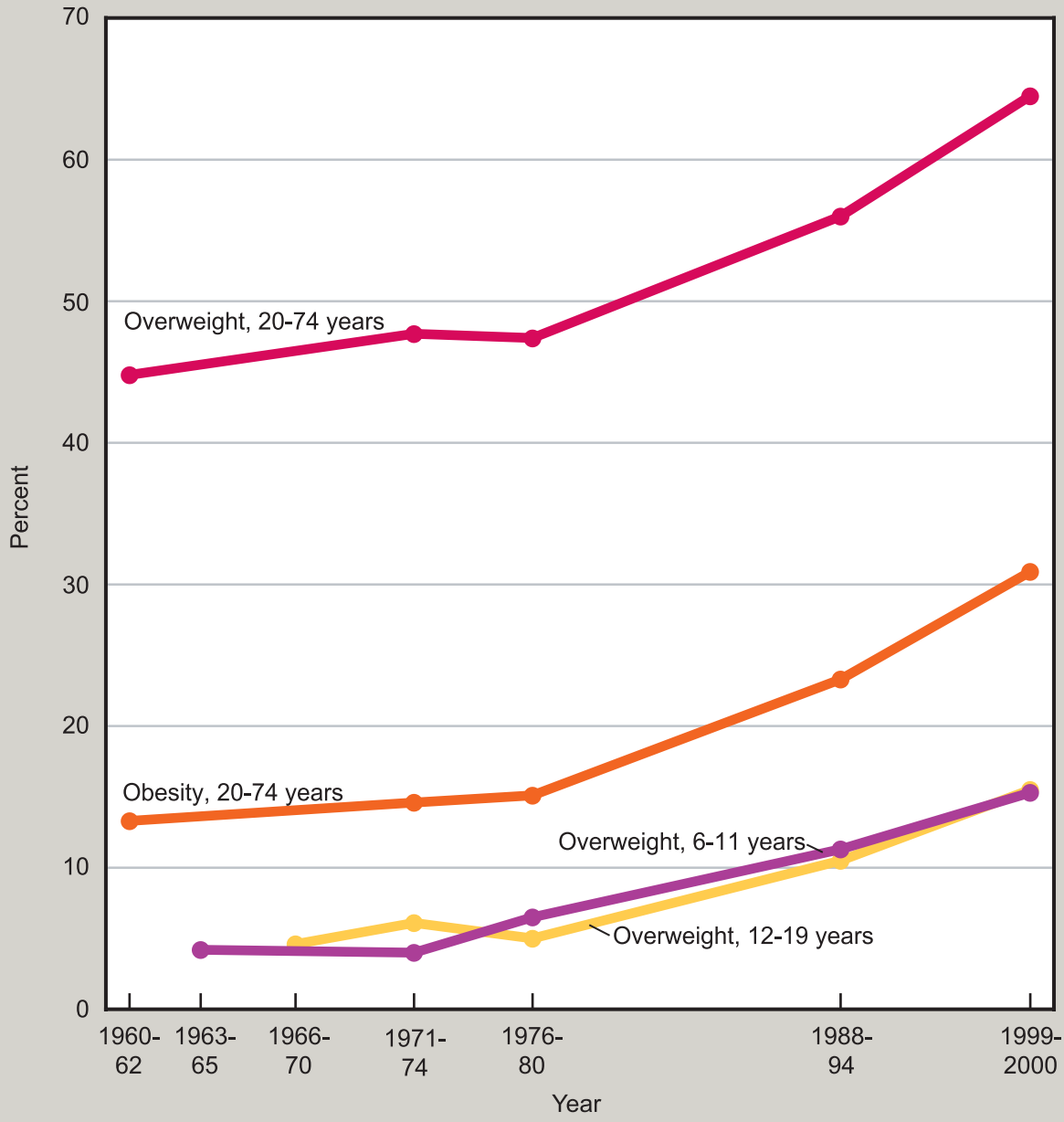



NOTE: See Data Table for data points graphed, standard errors, and additional notes defining moderate, vigorous, and overall activity level.

SOURCE for figure 13: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Survey.

SOURCE for figure 14: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

## Figure 15. Overweight and obesity by age: United States, 1960-2000




NOTES: Percents for adults are age adjusted. Overweight for children is defined as a body mass index (BMI) at or above the sex- and age-specific 95th percentile BMI cut points from the 2000 CDC Growth Charts: United States. Overweight for adults is defined as a BMI greater than or equal to 25 and obesity as a BMI greater than or equal to 30. Obesity is a subset of the percent with overweight. See Data Table for data points graphed, standard errors, and additional notes.

SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Examination Survey and National Health and Nutrition Examination Survey.

## Overweight and Obesity

Many epidemiologic and actuarial studies have shown that increased body weight is associated with excess morbidity and mortality (1). Among adults, overweight and obesity substantially elevate the risk of illness from heart disease, diabetes, and some types of cancer. Overweight and obesity are also factors that increase the severity of disease associated with hypertension, arthritis, and other musculoskeletal problems (2). Among children and adolescents, obesity increases the risk of high cholesterol, hypertension, and diabetes (3). Diet, physical activity, genetic factors, and health conditions all contribute to overweight in children and adults. The potential health benefits from reduction in overweight and obesity are of significant public health importance (4).

Results from a series of National Health and Nutrition Examination Surveys indicate that the prevalence of overweight and obesity changed little between the early 1960s and 1980 (figure 15). Findings from the 1988–94 survey, however, showed substantial increases in overweight and obesity among adults. The upward trend in overweight since 1980 reflects primarily an increase in the percent of adults who are obese. Estimates from the 1999–2000 survey indicate that overweight and obesity have continued to increase. In 1999–2000, 65 percent of adults were overweight with 31 percent obese.

Among children (6–11 years of age) and adolescents (12–19 years of age) the percent overweight increased after the mid-1970s. Estimates from the 1999–2000 survey indicate that about 15 percent of children and adolescents were overweight. The increase in overweight prevalence is highest among non-Hispanic black and Mexican-origin adolescents. More than 23 percent of non-Hispanic black and Mexican-origin adolescents were overweight in 1999–2000 (5).

The prevalence of obesity varies among adults by sex, race, and ethnicity (figure 16). In 1999–2000, 28 percent of men and 34 percent of women were obese. The prevalence of obesity among men differed little by racial and ethnic group; among women, non-Hispanic black women had a higher prevalence of obesity than did non-Hispanic white women. In 1999–2000 one-half of non-Hispanic black women were obese.

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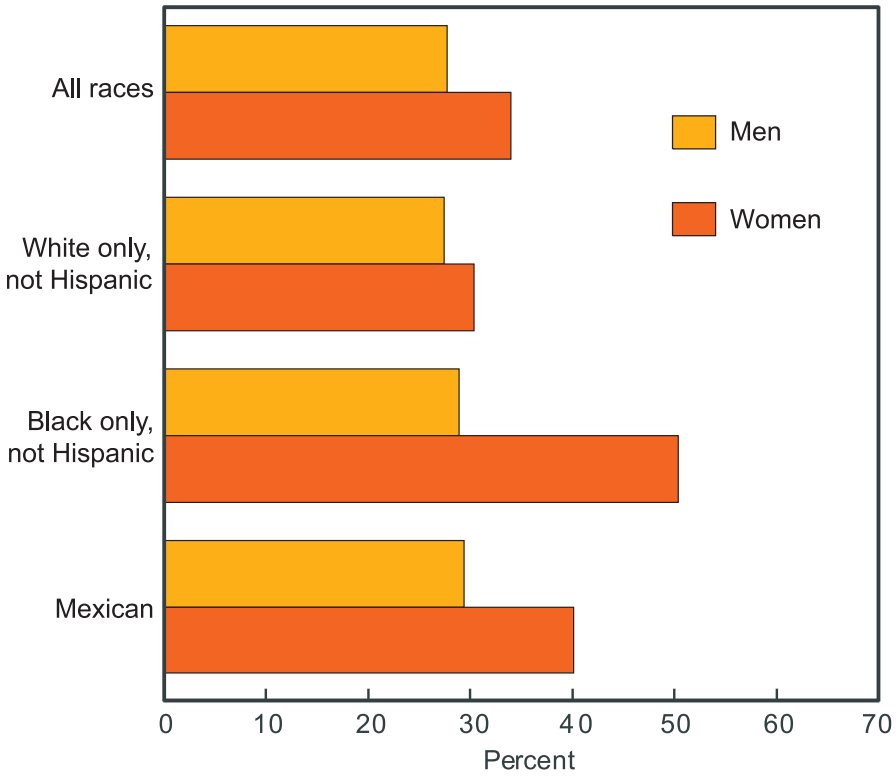
**Figure 16. Obesity among adults 20-74 years of age by sex, race, and Hispanic origin: United States, 1999-2000**




NOTES: Percents are age adjusted. Obesity is defined as a body mass index (BMI) greater than or equal to 30. Persons of Mexican origin may be of any race. See Data Table for data points graphed, standard errors, and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey.

# Limitation of Activity: Children

Limitation of activity due to chronic physical, mental, or emotional disorders or deficits is a broad measure of health and functioning. Among children chronic health conditions that limit activity include, but are not restricted to, hearing, visual, and speech problems; learning disabilities; mental retardation and other developmental problems (such as cerebral palsy); mental and emotional problems; and a variety of chronic health conditions (such as asthma). The long-term impact of activity limitation in children can often be ameliorated by use of health care and educational services.

The identification of activity limitation in children is sometimes uncertain because children are learning and mastering new activities as they develop. As a result some variation in children's activities may be due to differences in the pace of development. Estimates of the number of children with an activity limitation vary depending on the type of disabilities included and the methods used to identify them (1).

The National Health Interview Survey identifies children with activity limitation in two ways: by asking about specific limitations in play, self-care, walking, memory, and other activities and by determining if a child receives special education or early intervention services. Comparable national data on activity limitation have been available since 1997 (see Appendix I, National Health Interview Survey). Between 1997 and 2001 levels of activity limitation among children remained about the same (*Health, United States, 2003*, table 56).

In 1999–2001 limitation of activity due to chronic health conditions occurred nearly twice as often among boys as among girls (figure 17). Among preschoolers (under 5 years of age) 4 percent of boys as compared with 2 percent of girls had an activity limitation. Among school-age children (5–11 years of age) and adolescents (12–17 years of age), 9–10 percent of boys had an activity limitation compared with about 5 percent of girls. Physiological, maturational, behavioral, and social differences between boys and girls have been suggested as explanations for the higher prevalence of activity limitation in boys (2).

The percent of children with activity limitation was significantly higher among school-age children and adolescents than among preschoolers. For boys and girls, the higher percent of school-age children and adolescents with activity limitation was largely explained by the number of children identified solely by participation in special education. About 7–8 percent of school-age and adolescent boys and approximately 4 percent of girls were classified as having activity limitation solely by their participation in special education.

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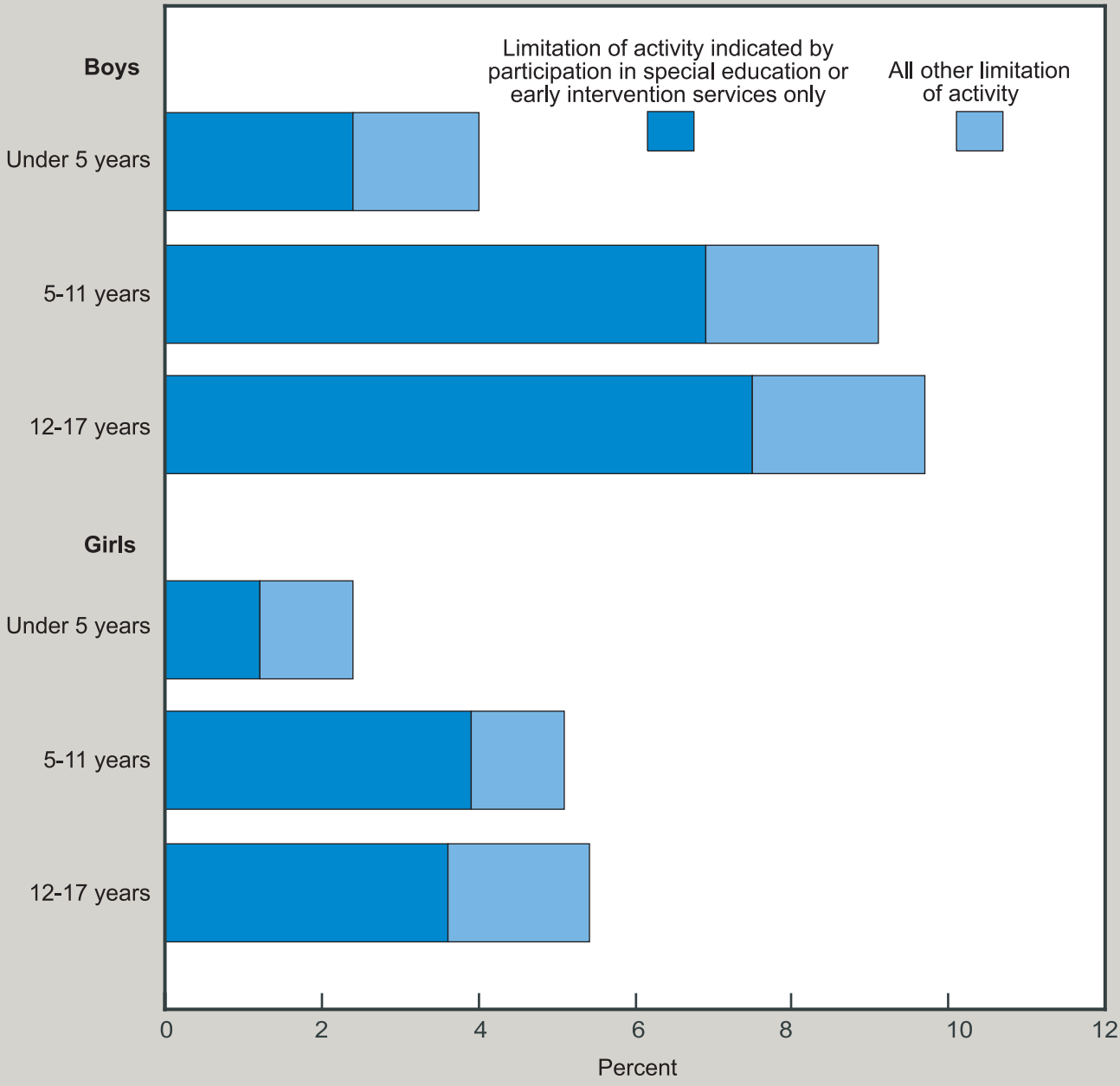
## Figure 17. Limitation of activity caused by 1 or more chronic health conditions among children by sex and age: United States, 1999-2001




NOTES: Data are for noninstitutionalized children. Children with limitation of activity caused by chronic health conditions may be identified by enrollment in special programs (special education or early intervention services) or by some other activity limitation. The category "all other limitation of activity" may include children receiving special education or early intervention services. See Data Table for data points graphed and standard errors.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

# Limitation of Activity: Working-Age Adults

Measuring limitations in everyday activities due to chronic physical, mental, or emotional problems is one way to assess the impact of health conditions on self-care and social participation (1). Chronic health conditions can alter the ability of adults to lead independent lives by affecting a person's capacity to carry out a variety of activities. The effect that chronic health conditions have on activity limitation may vary with the availability of supportive and health care services.

In the National Health Interview Survey, limitation of activity in adults includes limitations in handling personal care needs (activities of daily living), routine needs (instrumental activities of daily living), having a job outside the home, walking, remembering, and other activities. Comparable national data on activity limitation have been available since 1997 (see Appendix I, National Health Interview Survey). Between 1997 and 2001 the percent of adults 18–64 years of age reporting any activity limitation caused by a chronic health condition remained relatively stable (*Health, United States, 2003*, table 56).

Among working-age adults, 6 percent of younger adults reported limitation in activity, in contrast to 21 percent of adults 55–64 years of age (figure 18). The percent of poor working-age adults reporting a limitation was three times that of adults with family income at 200 percent or more of the poverty level. After adjusting for differences in age, limitation of activity was about the same for men and women. Limitation of activity varies modestly by race and Hispanic origin from 8 percent of Hispanic persons to 12 percent of non-Hispanic black persons.

Health surveys that measure limitation of activity have typically asked about chronic conditions causing these restrictions. Health conditions usually refer to broad categories of disease and impairment rather than medical diagnoses and reflect the understanding the general public has of factors causing disability or limitation of activity (2). Persons who reported more than one chronic health condition as the cause of their activity limitation were counted in each category. Among younger and older working-age adults, arthritis and other musculoskeletal conditions were the most frequently mentioned chronic conditions causing limitation of activity (figure 19). Among persons 18–44 years of age, mental illness was the second most prevalent cause of activity limitation. Among older working-age adults (45–64 years), heart disease was the second most frequently mentioned condition.

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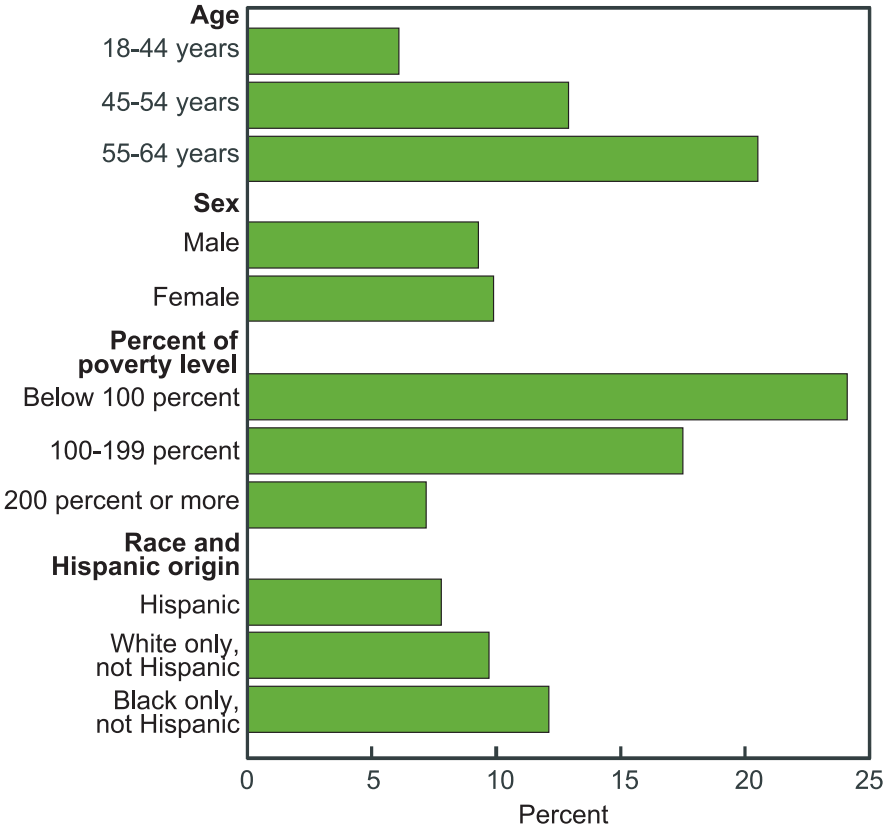
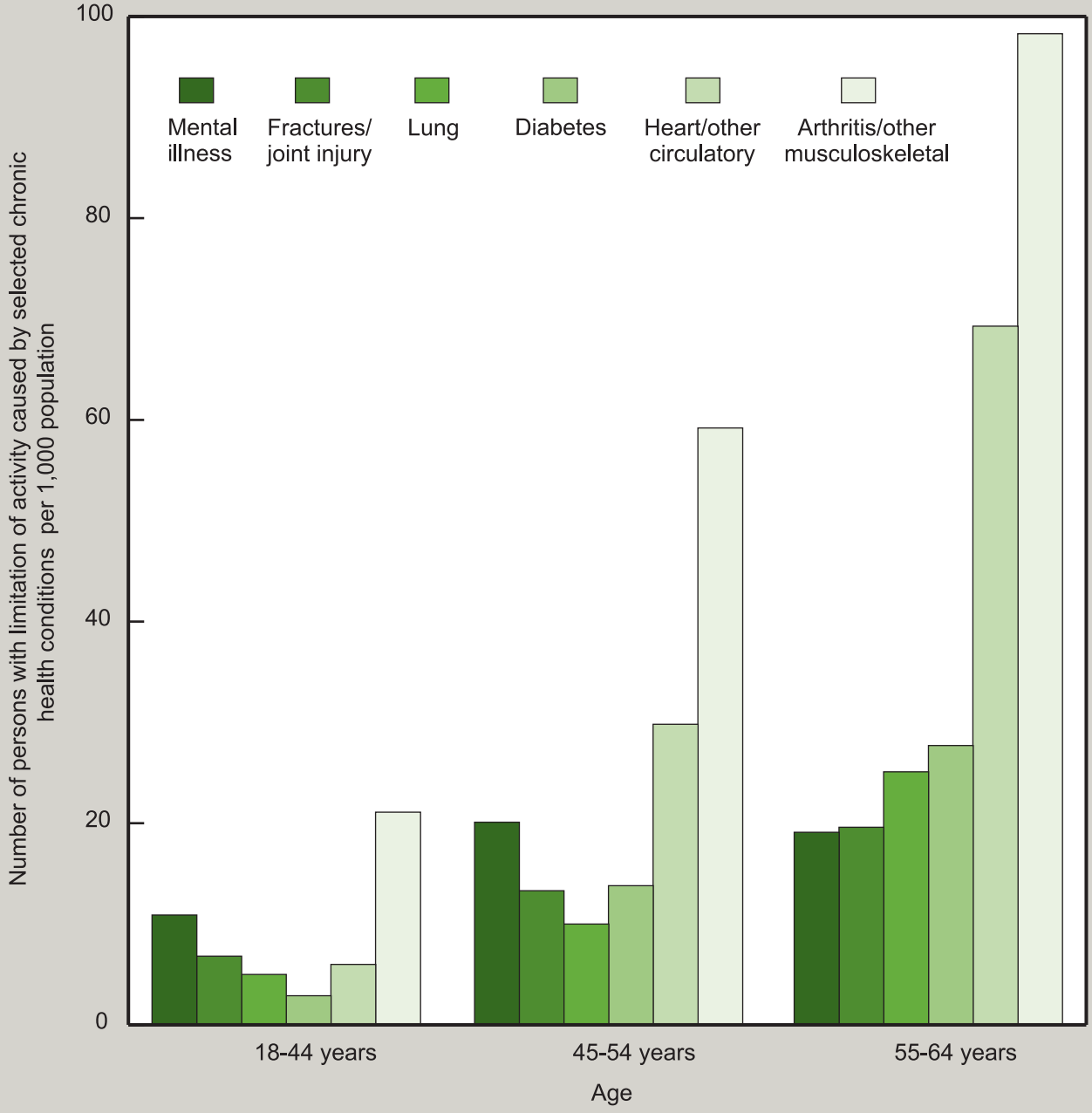
**Figure 18. Limitation of activity caused by 1 or more chronic health conditions among working-age adults by selected characteristics: United States, 1999-2001**




NOTES: Data are for the civilian noninstitutionalized population and are age adjusted. Persons of Hispanic origin may be of any race. See Data Table for data points graphed, standard errors, and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

## Figure 19. Selected chronic health conditions causing limitation of activity among working-age adults by age: United States, 1999-2001




NOTES: Persons who reported more than one chronic health condition as the cause of their activity limitation were counted in each category. Selected chronic health conditions include the four leading causes of activity limitation among adults in each age group. See Data Table for data points graphed, standard errors, and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

# Limitation of Activity: Adults 65 Years of Age and Over

The ability to perform basic activities of daily living (ADL), such as bathing, dressing, and using the toilet is an indicator of the health and functional well-being of the older population. Being limited in ADLs compromises the quality of life of older persons and often results in the need for informal or formal caregiving services, including institutionalization.

The Medicare Current Beneficiary Survey reports the health and health care utilization of a representative sample of Medicare beneficiaries of all ages and in all types of residences, both institutional and noninstitutional. Respondents are asked about their level of difficulty and the kind of assistance received in performing six ADLs: bathing or showering, dressing, eating, getting in or out of bed or chairs, walking, and using the toilet. The definition of limitation here includes persons who have difficulty and who receive help or supervision performing at least one of the six activities.

From 1992 to 2001 the percent of all Medicare beneficiaries 65 years of age and over who were limited in at least one of six ADLs declined from 16 percent to 14 percent (figure 20). In 2001, 10 percent of noninstitutionalized persons had difficulty and received help or supervision with at least one ADL compared with 91 percent of institutionalized persons, who constitute 5 percent of all Medicare beneficiaries 65 years of age and over (1).

Among noninstitutionalized older Medicare beneficiaries, the percent limited in ADLs was higher for women than men and rises with age for women and men. For the oldest age group, persons 85 years of age and over, 27 percent of women and 21 percent of men received help or supervision with at least one basic activity of daily living in 2001. Among persons in institutions, nearly all, regardless of age, received help or supervision with ADLs (91 percent of men and 90 percent of women).

Some studies show that limitations in certain aspects of disability have declined among the older population, including the ability to perform physical tasks such as walking up steps and reaching arms overhead and the ability to perform instrumental activities of daily living (IADLs) such as shopping and managing money (2–5). Evidence on the trends in ADL limitation is mixed. The percent of noninstitutionalized Medicare beneficiaries 65 years of age and over who were limited in ADLs declined from 12 percent in 1992 to 10 percent in 2001. Among persons in institutions, however, the percent needing assistance increased from 86 percent to 91 percent during the same time period. Over time, the distinction between institutionalized and noninstitutionalized settings has blurred as "assisted living" facilities have become more prominent. More studies over a longer time period are needed to determine whether a sustained overall decline in ADL limitation is occurring.

## References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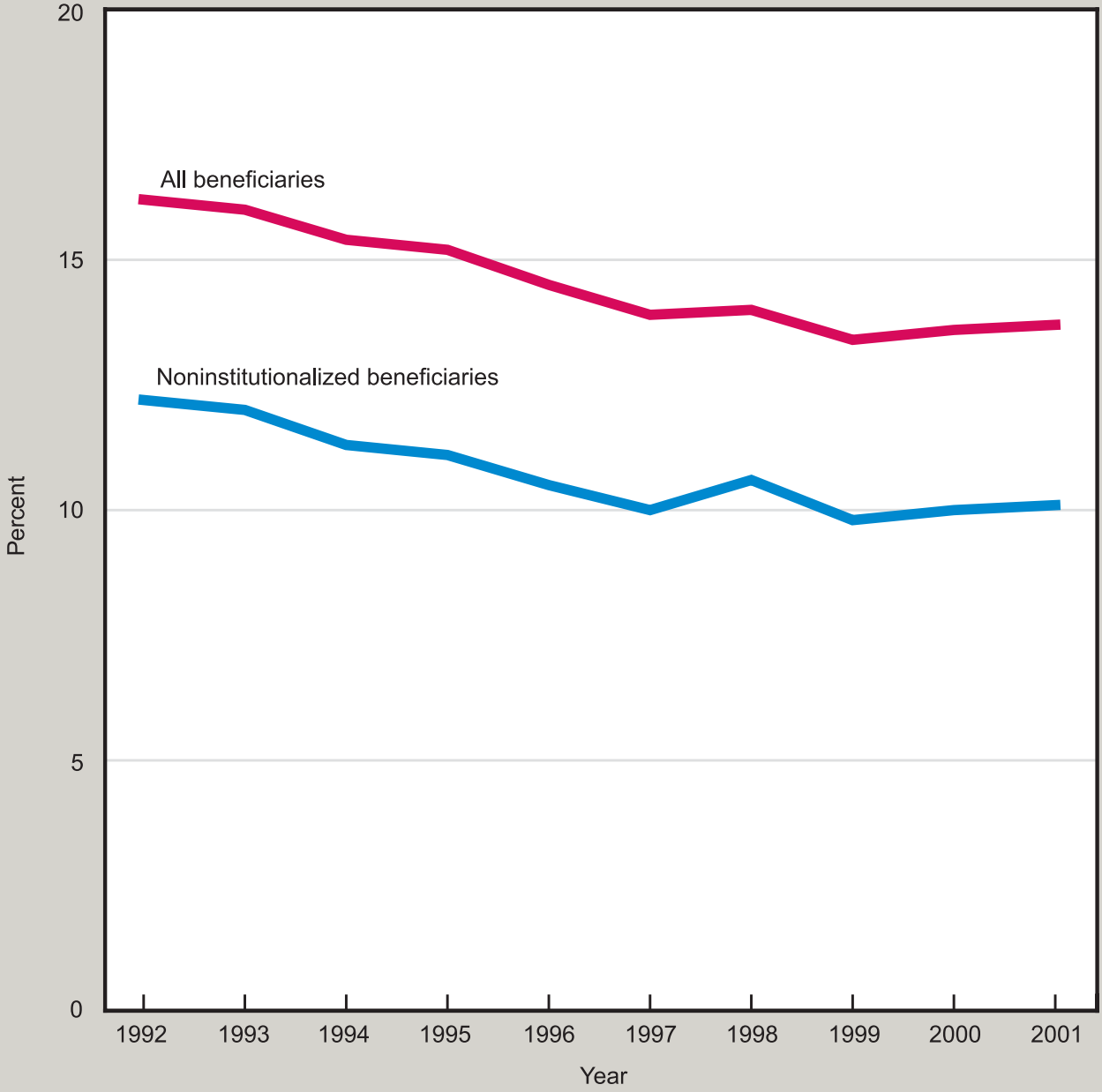
## Figure 20. Limitation in activities of daily living among Medicare beneficiaries 65 years of age and over: United States, 1992-2001




NOTES: Percents are age adjusted. Limitation in activities of daily living is defined as having difficulty and receiving help or supervision with at least one of the following six activities: bathing or showering, dressing, eating, getting in or out of bed or chairs, walking, and using the toilet. See Data Table for data points graphed, standard errors, and additional notes.

SOURCE: Centers for Medicare and Medicaid Services, Medicare Current Beneficiary Survey, Access to Care files.

# Life Expectancy

Life expectancy is a measure often used to gauge the overall health of a population. As a summary measure of mortality, life expectancy represents the average number of years of life that could be expected if current death rates were to remain constant. Shifts in life expectancy are often used to describe trends in mortality. Life expectancy at birth is strongly influenced by infant and child mortality. Life expectancy later in life reflects death rates at or above a given age and is independent of the effect of mortality at younger ages (1).

During the 20th century, life expectancy at birth increased from 48 to 74 years for men and from 51 to almost 80 years for women (figure 21). Improvements in nutrition, housing, hygiene, and medical care contributed to decreases in death rates throughout the lifespan. Prevention and control of infectious diseases had a profound impact on life expectancy in the first half of the 20th century (2).

Life expectancy at age 65 also increased during the last century. Among men, life expectancy at age 65 rose from 12 to 16 years and among women from 12 to 19 years. In contrast to life expectancy at birth, which increased sharply early in the century, life expectancy at age 65 improved primarily after 1950. Improved access to health care, advances in medicine, healthier lifestyles, and better health before age 65 are factors underlying decreased death rates among the elderly (3).

While the overall trend in life expectancy for the United States has been upward throughout the 20th century, the gain in years of life expectancy for women generally exceeded that for men until the 1970s, widening the gap in life expectancy between men and women. The increasing gap during these years is attributed to increases in male mortality due to ischemic heart disease and lung cancer, both of which increased largely as the result of men's early and widespread adoption of cigarette smoking (4). After the 1970s the gain in life expectancy for men exceeded that for women and the gender gap in life expectancy began to narrow. During the 1990s the total gain in life expectancy for women was less than 1 year compared with more than 2 years for men, reflecting proportionately greater decreases in heart disease and cancer mortality for men than for women and proportionately larger increases in chronic lower respiratory disease mortality among women (4).

Longer life expectancies at birth in many other developed countries suggest the possibility of improving longevity in the United States (*Health, United States, 2003*, table 26). Decreasing death rates of less advantaged groups could raise life expectancy in the United States (*Health, United States, 2003*, table 27).

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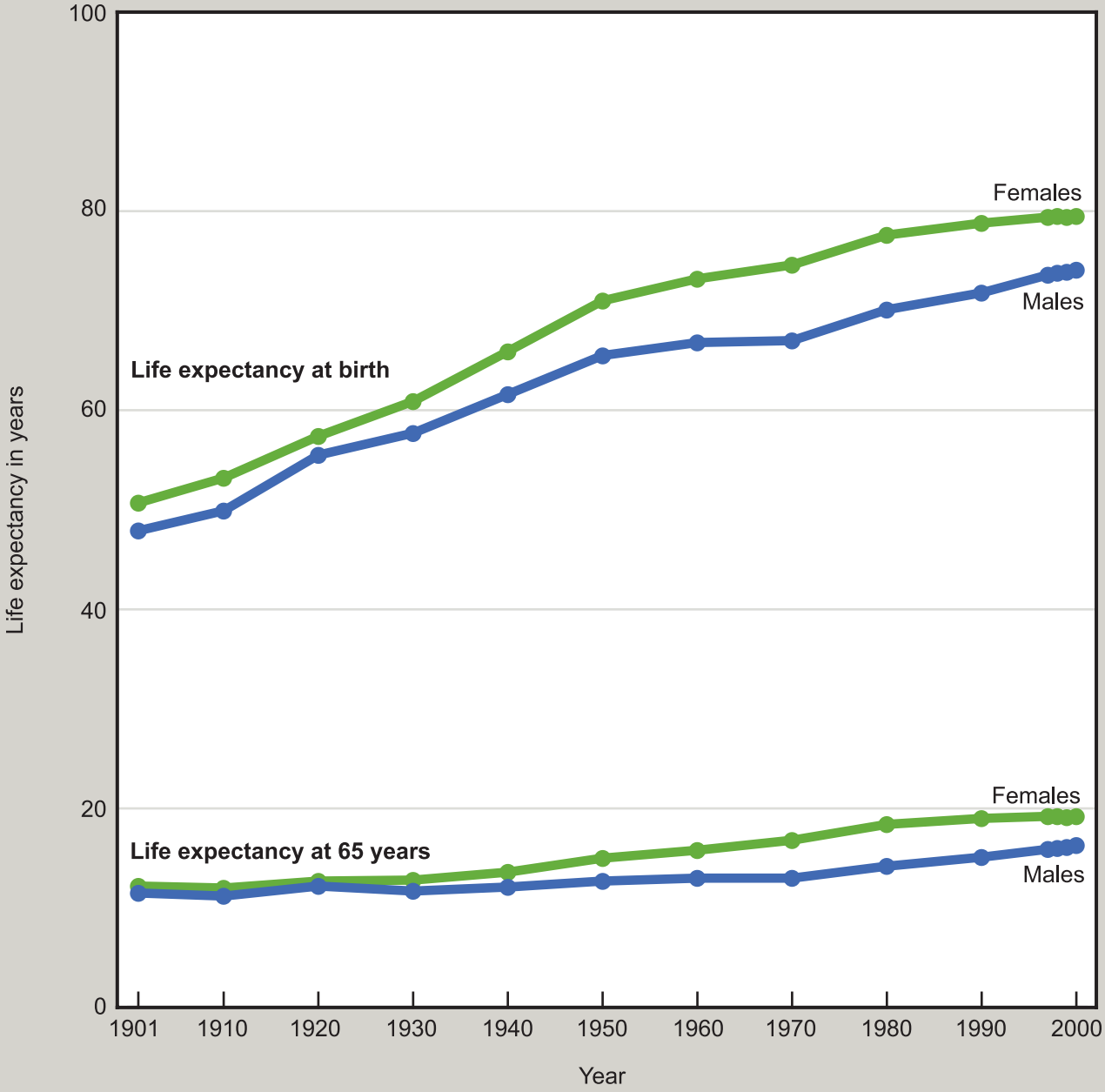
## Figure 21. Life expectancy at birth and at 65 years of age by sex: United States, 1901-2000




NOTE: See Data Table for data points graphed and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

## Infant Mortality

Infant mortality, the risk of death during the first year of life, is related to the underlying health of the mother, public health practices, socioeconomic conditions, and availability and use of appropriate health care for infants and pregnant women. Disorders related to short gestation and low birthweight, and congenital malformations are the leading causes of death during the first month of life (neonatal mortality). Sudden Infant Death Syndrome (SIDS) and congenital malformations rank as the leading causes of infant deaths after the first month of life (postneonatal mortality) (1).

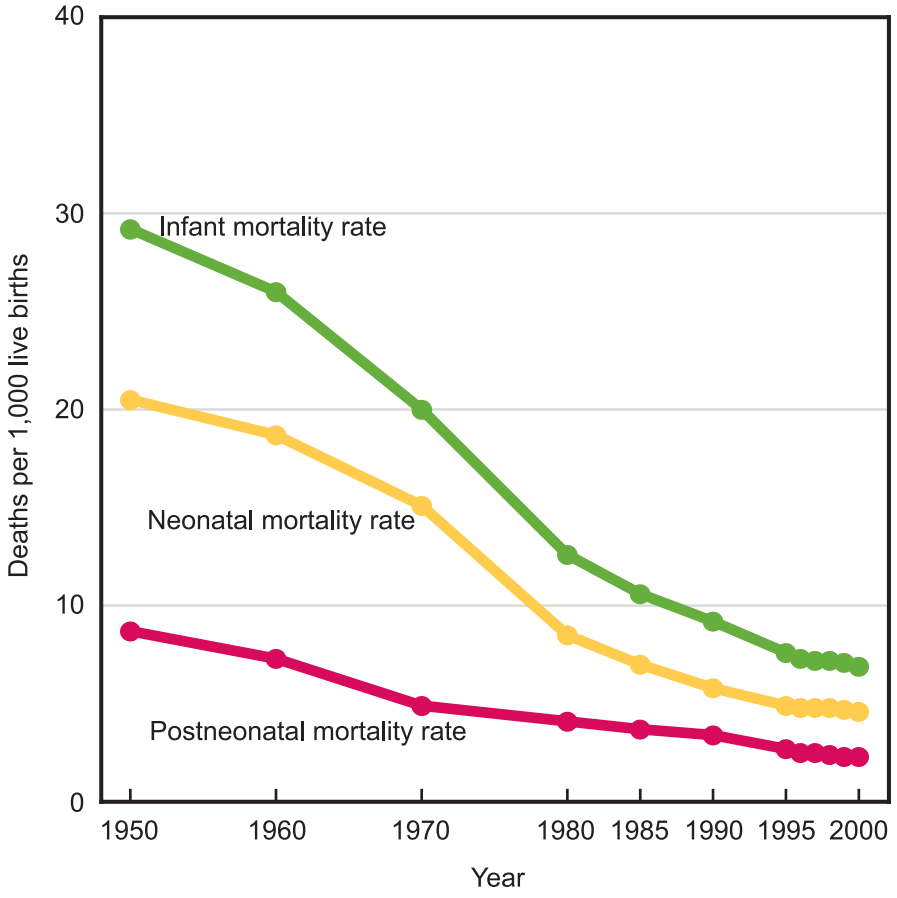
Between 1950 and 2000 the infant mortality rate declined by more than 75 percent (figure 22).The overall 2000 infant mortality rate of 6.9 deaths per 1,000 live births represented a decline of 25 percent from 1990. Substantial declines occurred for both neonatal and postneonatal mortality. Two-thirds of all infant deaths occurred during the neonatal period (*Health, United States, 2003*, table 22). Declines in infant mortality have been linked to improved access to health care, advances in neonatal medicine, and educational campaigns such as the "Back to Sleep" campaign to curb fatalities caused by SIDS (2).

Infant mortality rates have declined for all racial and ethnic groups, but large disparities remain (*Health, United States, 2003*, table 19). During 1998–2000 the infant mortality rate was highest for infants of non-Hispanic black mothers (figure 23). Infant mortality rates were also high among infants of American Indian or Alaska Native mothers, Hawaiian mothers, and Puerto Rican mothers. Infants of mothers of Chinese origin had the lowest infant mortality rates.

### References


1. Anderson RN. Deaths: Leading causes for 2000. National vital statistics reports; vol 50 no 16. Hyattsville, Maryland: National Center for Health Statistics. 2002.
2. American Academy of Pediatrics Task Force on Infant Positioning and SIDS. Positioning and SIDS. Pediatrics 89(6):1120–6. 1992.

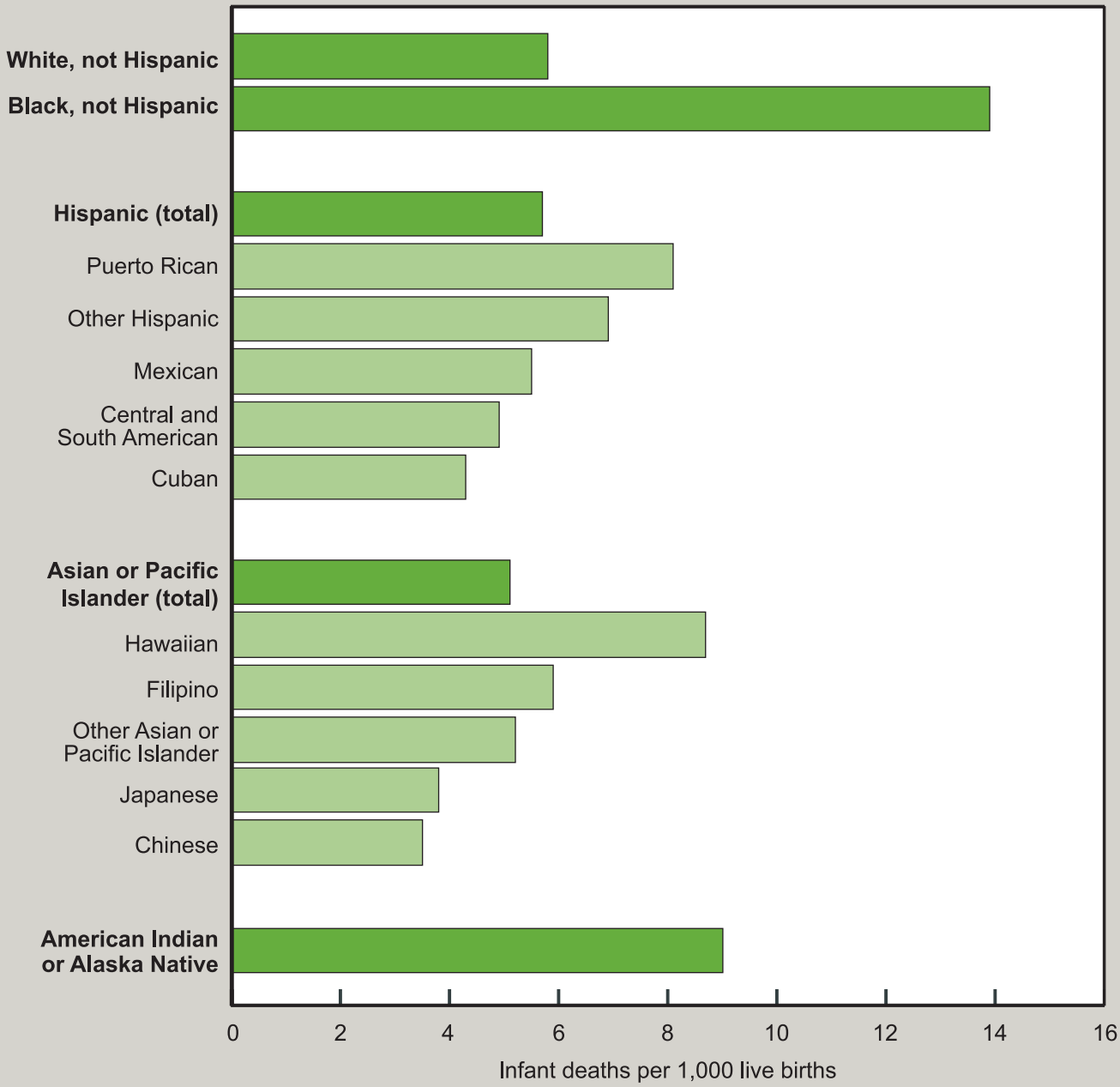

### Figure 22. Infant, neonatal, and postneonatal mortality rates: United States, 1950-2000




NOTES: Infant is defined as under 1 year of age, neonatal as under 28 days of age, and postneonatal as between 28 days and 1 year of age. See Data Table for data points graphed and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

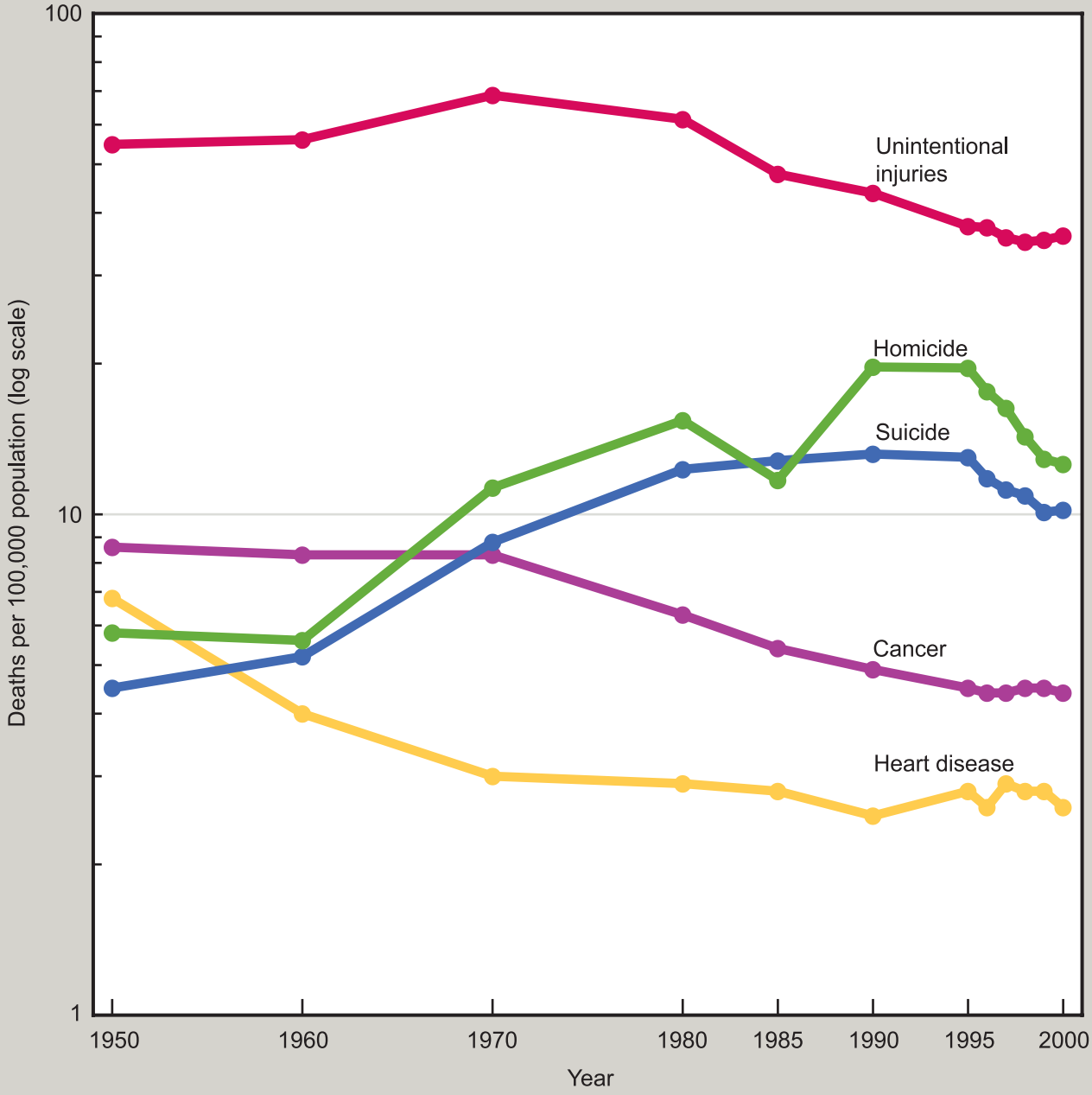
## Figure 23. Infant mortality rates by detailed race and Hispanic origin of mother: United States, 1998-2000




NOTES: Infant is defined as under 1 year of age. Persons of Hispanic origin may be of any race. Asian or Pacific Islander, and American Indian or Alaska Native races include persons of Hispanic and non-Hispanic origin. See Data Table for data points graphed and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Linked Birth/Infant Death Data Sets.

## Figure 24. Death rates for leading causes of death among persons 15-24 years of age: United States, 1950-2000




NOTES: Causes of death shown are the five leading causes of death among persons 15-24 years of age in 2000. See Data Table for data points graphed and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

## Teen and Young Adult Mortality: 15–24 Years of Age

During the past 50 years mortality among teens and young adults (15–24 years of age) has declined by almost 40 percent. In 2000 there were 31,000 deaths for this age group. The five leading causes of death in 2000 were related to either injury or chronic diseases. In 1950, in contrast, two of the five leading causes of death were infectious diseases (influenza/pneumonia and tuberculosis).

Unintentional injuries have been the leading cause of death for teens and young adults throughout the past 50 years. However, deaths rates for unintentional injuries have been declining since 1970 (figure 24). In 2000, 14,000 deaths among persons 15–24 years of age resulted from unintentional injuries accounting for 45 percent of all deaths to persons of this age group (figure 25). Nearly three-quarters of unintentional injury deaths for this age group resulted from motor-vehicle traffic related injuries (1).

Homicide and suicide were the second and third leading causes of death in this age group in 2000. Between 1960 and the mid-1990s, the homicide rate increased and then declined by more than one-third by 2000. Between 1950 and 1995 the suicide rate nearly tripled and then declined by 2000. Firearm-related injury deaths accounted for nearly three-fifths of suicides and four-fifths of homicides among teens and young adults in 2000 (2).

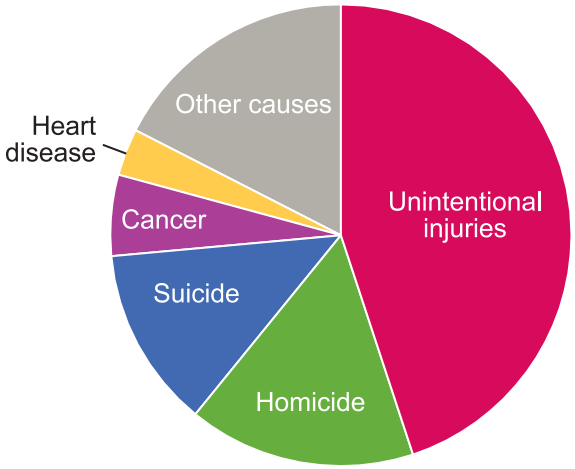
Homicide and suicide rates vary by sex and race among 15–24 year olds. Males 15–24 years of age are at substantially higher risk of homicide and suicide than females. Homicide rates for young black males were more than eight times as great as for young white males in 2000 (*Health, United States, 2003*, tables 45 and 46).

Death rates for the other leading causes of death, cancer and heart disease, have also declined, with the greatest decline in cancer mortality occurring during 1970–95 and the greatest decline in heart disease mortality during 1950–70.

### References


1. Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, unpublished analysis.
2. Minino AM, Arias E, Kochanek KD, et al. Deaths: Final data for 2000. National vital statistics reports; vol 50 no 15. Hyattsville, Maryland: National Center for Health Statistics. 2002.

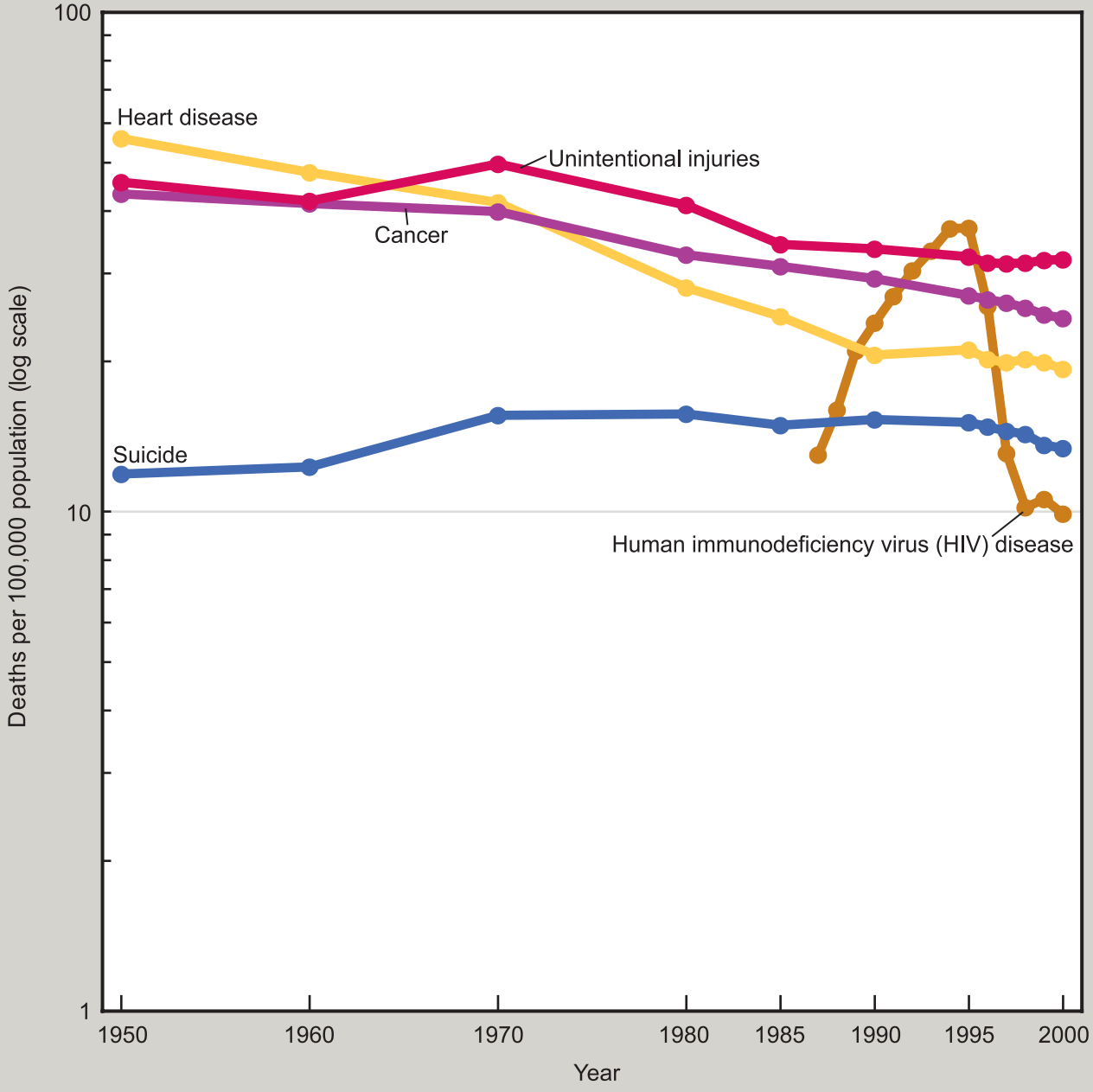

### Figure 25. Percent of deaths due to leading causes of death among persons 15-24 years of age: United States, 2000




NOTE: See Data Table for data points graphed and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

## Figure 26. Death rates for leading causes of death among persons 25-44 years of age: United States, 1950-2000




NOTES: Death rates are age adjusted. Causes of death shown are the five leading causes of death among persons 25-44 years of age in 2000. See Data Table for data points graphed and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

## Adult Mortality: 25–44 Years of Age

Since 1950 mortality among adults 25–44 years of age has declined by more than 40 percent. Underlying the overall decline in the death rate have been both favorable and unfavorable trends in the leading causes of death (figure 26). In 2000 there were approximately 130,000 deaths for this age group. Of the five leading causes of death in 2000, four were also leading causes of death in 1950. But tuberculosis, which was one of the top five causes of death in 1950, is no longer a significant cause of death for adults 25–44 years of age.

Mortality from heart disease has declined by about two-thirds since 1950, with most of the decrease occurring by 1990. Mortality from unintentional injury and cancer has also declined, with most of the decrease occurring after 1970. Altogether unintentional injury, cancer, and heart disease, the three leading causes of death among persons 25–44 years of age in 2000, accounted for about one-half of all deaths in this age group (figure 27).

In contrast to the declines for the top three causes of death, the suicide rate among persons 25–44 years rose between 1950 and 1980 but has declined slightly since 1980. Suicide, the fourth leading cause of death among young working-age adults in 2000, was responsible for 9 percent of deaths in this age group.

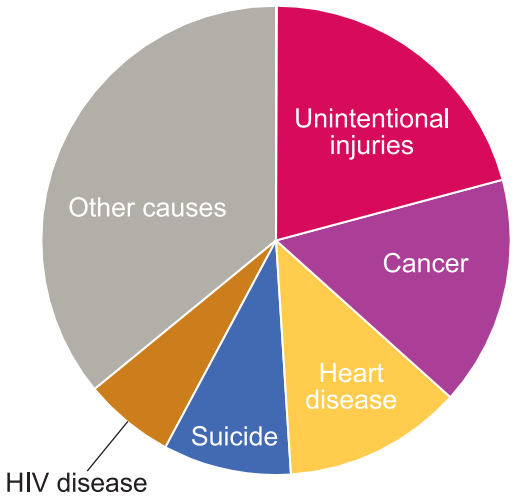
The fifth leading cause of death in 2000, human immunodeficiency virus (HIV) disease, has been an important cause of mortality among persons 25–44 years of age since the late 1980s (1). After rising rapidly in the late 1980s and the early 1990s, the HIV disease death rate began to fall sharply in the mid to late 1990s with the introduction of new antiretroviral therapies. Starting in 1998 the HIV death rate stabilized (2). In 2000 there were more than 8,000 deaths in this age group due to HIV disease.

HIV disease death rates among persons 25–44 years of age vary substantially by sex, race, and Hispanic origin. The risk of death is higher for males than females and is much higher for black and Hispanic persons than for those in other racial and ethnic groups. The HIV disease death rate for black males was six times the rate for white males in 2000. For black females, the HIV disease death rate was more than 12 times the rate for white females (*Health, United States, 2003*, table 42).

### References


1. Centers for Disease Control and Prevention. HIV and AIDS—United States, 1981–2000. MMWR 50(21): 430–4. 2001.
2. Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report, 2000. 12(1):3–41. 2001.

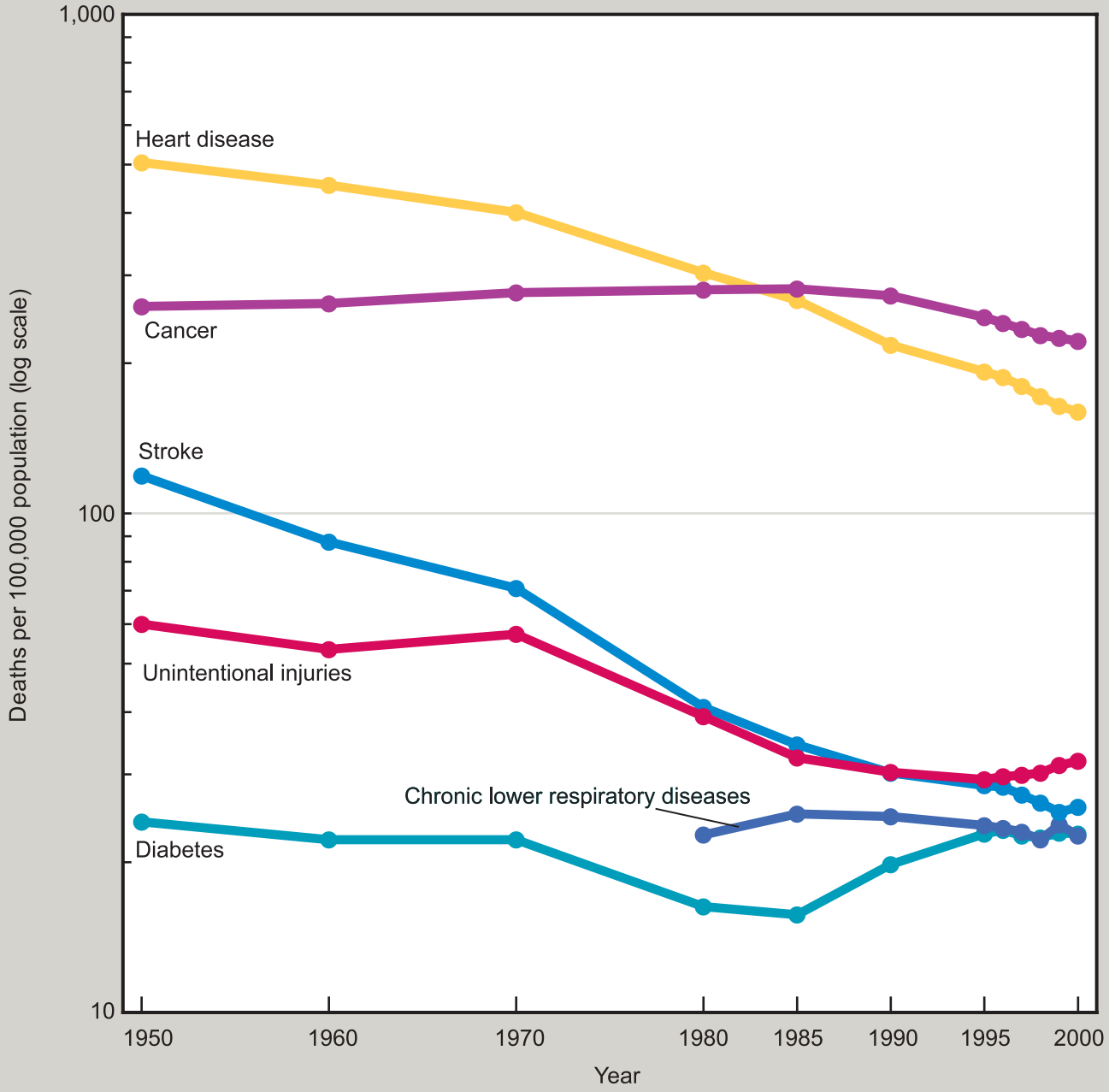

### Figure 27. Percent of deaths due to leading causes of death among persons 25-44 years of age: United States, 2000




NOTE: See Data Table for data points graphed and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

## Figure 28. Death rates for leading causes of death among persons 45-64 years of age: United States, 1950-2000




NOTES: Death rates are age adjusted. Causes of death shown are the six leading causes of death among persons 45-64 years of age in 2000. See Data Table for data points graphed and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

## Adult Mortality: 45–64 Years of Age

Death rates for persons 45–64 years of age have declined substantially over the past 50 years. Since 1950 mortality in this age group has decreased by almost 50 percent overall. In 2000 there were approximately 401,000 deaths for this age group. Of the five leading causes of death in 2000, four were also the leading causes of death in 1950. As with other age groups, tuberculosis, which ranked in the top five causes in 1950, was the cause of only a small number of deaths in 2000.

Among persons 45–64 years of age, the death rates for heart disease and stroke declined substantially between 1950 and 2000 (figure 28). During this period the death rate for heart disease declined by almost 70 percent and the death rate for stroke by nearly 80 percent. Advances in the prevention and treatment of heart disease and stroke rank among the major public health achievements of the 20th century (1).

In contrast to the large declines in heart disease and stroke mortality, the death rate for cancer among persons 45–64 years of age rose slowly through the 1980s and then declined. Cancer was the leading cause of death among persons 45–64 years of age, accounting for more than one-third of the deaths in this age group in 2000 (figure 29).

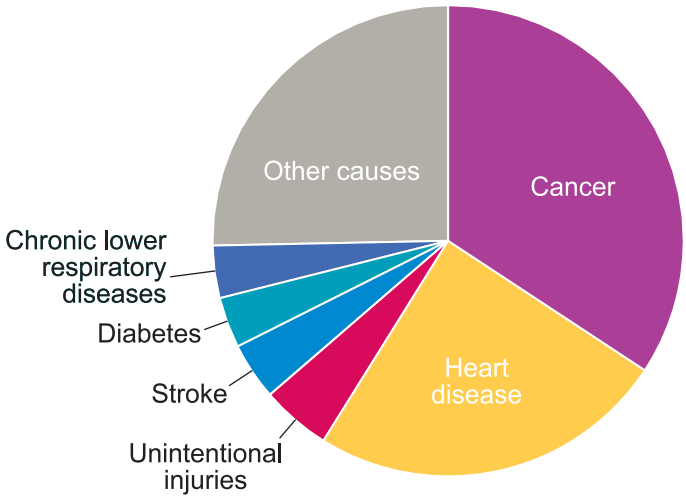
In 2000 the fifth leading cause of death for persons 45–64 years of age was diabetes. Diabetes was the underlying cause for more than 14,000 deaths in 2000. Diabetes was mentioned on the death certificates of almost twice as many additional deaths, contributing to deaths due to such underlying causes as heart disease, stroke, and kidney disease (2).

In 2000 cancer, heart disease, stroke, diabetes, and chronic lower respiratory diseases together accounted for 70 percent of all deaths in this age group. Biological and socioeconomic factors are strongly associated with death among older working-age adults. Men had a higher death rate than women, and adults with a high school education or less had a death rate more than twice as high as the rate for adults with more than a high school education in 2000 (3).

### References


1. Centers for Disease Control and Prevention. Achievements in public health, 1900–99: Decline in deaths from heart disease and stroke—United States, 1900–99. MMWR 48(30):649–56. 1999.
2. Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, unpublished analysis.
3. Minino AM, Arias E, Kochanek KD, Murphy SL, Smith BL. Deaths: Final data for 2000. National vital statistics reports; vol 50 no 15. Hyattsville, Maryland: National Center for Health Statistics. 2002.

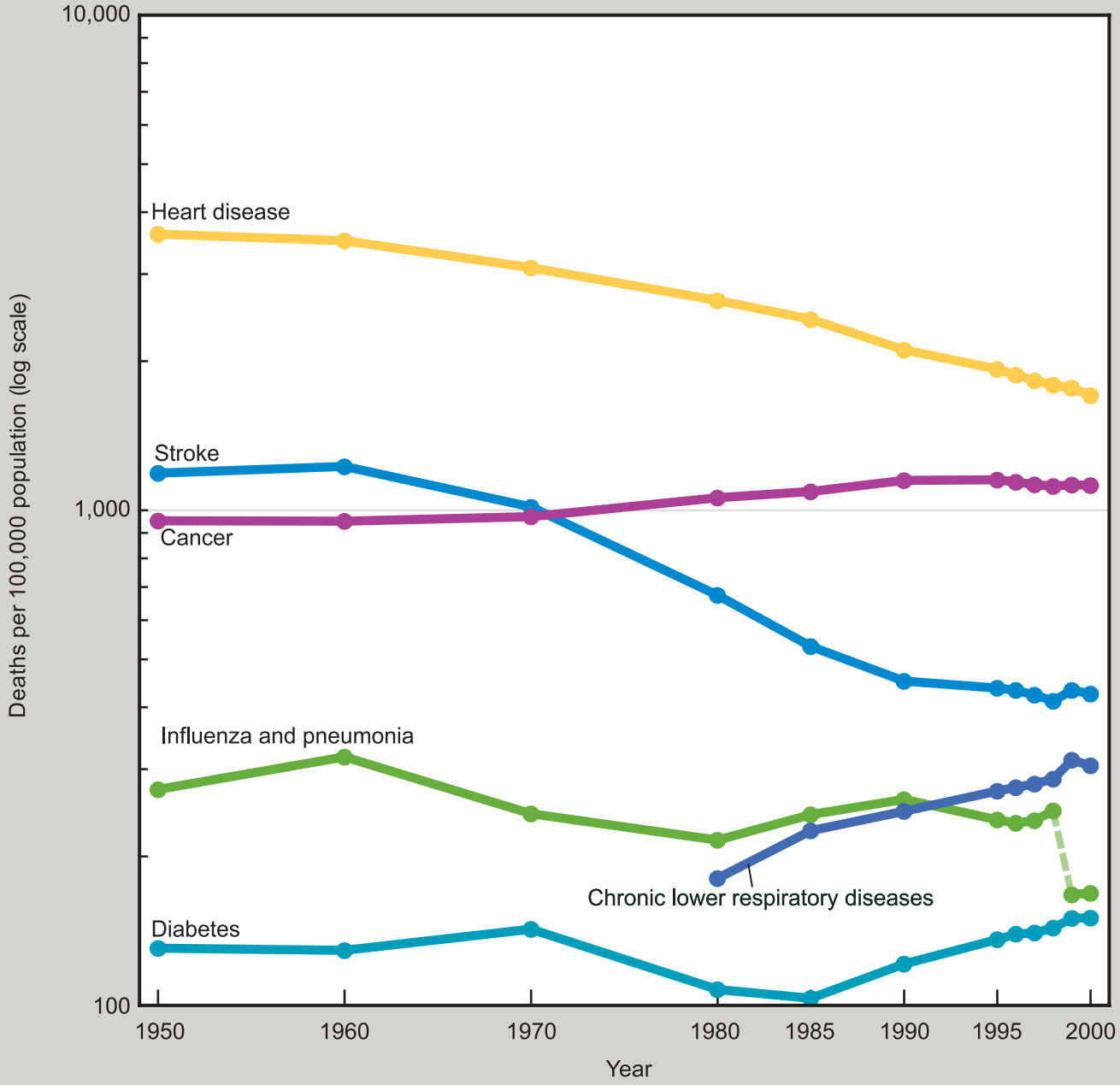

### Figure 29. Percent of deaths due to leading causes of death among persons 45-64 years of age: United States, 2000




NOTE: See Data Table for data points graphed and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

## Figure 30. Death rates for leading causes of death among persons 65 years of age and over: United States, 1950-2000




NOTES: Death rates are age adjusted. Causes of death shown are the six leading causes of death among persons 65 years of age and over in 2000. See Data Table for data points graphed and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

## Adult Mortality: 65 Years of Age and Over

Three-quarters of all deaths in the United States occur among persons 65 years of age and over (*Health, United States, 2003*, table 32). During the past 50 years overall death rates have declined by more than one-third for older persons, with chronic diseases causing most of the deaths throughout that period.

Among the elderly, the death rate for heart disease declined between 1950 and 2000 by more than 50 percent and for stroke by more than 60 percent (figure 30). Trends in the other leading causes of death among the elderly varied. The death rate for cancer, the second leading cause of death for the elderly in 2000, rose between 1950 and 1995 and has decreased slightly since 1995. The death rate for the fourth leading cause of death, chronic lower respiratory diseases, has generally increased since 1980 reflecting, in large part, the effects of cigarette smoking (1).

In 2000 the sixth leading cause of death for the elderly was diabetes. Diabetes was the underlying cause for more than 52,000 deaths in 2000. Diabetes was mentioned on the death certificates of more than twice as many additional deaths, contributing to deaths due to such underlying causes as heart disease, stroke, and kidney disease (2).

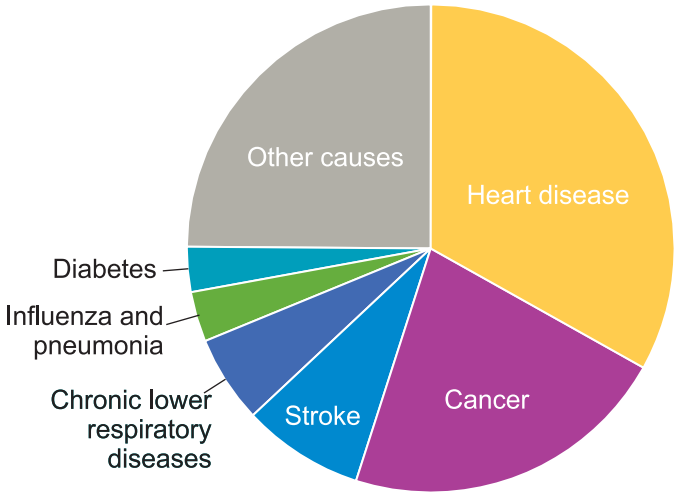
The large difference in the death rate due to influenza and pneumonia between 1998 and 1999 reflects, in large part, changes in the coding of this cause of death. A comparison of the comparability-modified 1998 rate with the 1999 rate indicates a decline of only 3 percent (see data table for figure 30 and Appendix II, Comparability ratio).

In 2000 deaths due to heart disease accounted for one-third of all deaths among the elderly (figure 31). The second leading cause of death, cancer, accounted for more than one-fifth of all deaths to this age group. Together the other leading causes of death, stroke, chronic lower respiratory diseases, influenza and pneumonia, and diabetes, accounted for more than one-fifth of deaths among the elderly.

### References


1. Office of the Surgeon General, U.S. Public Health Service. The health consequences of smoking: Chronic obstructive lung disease. Rockville, Maryland: U.S. Department of Health and Human Services. 1984.
2. Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, unpublished analysis.


### Figure 31. Percent of deaths due to leading causes of death among persons 65 years of age and over: United States, 2000




NOTE: See Data Table for data points graphed and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

# Special Feature: Diabetes

## Prevalence

Diabetes, a group of diseases characterized by high levels of blood glucose (sugar), is a significant cause of illness, disability, and death in the United States. Complications of diabetes include heart disease, blindness, kidney disease, and damage to the peripheral nervous system. In 2000 diabetes was the fifth leading cause of death among women and the sixth leading cause of death among men. Type 1 diabetes usually strikes children and young adults. Type 2 diabetes, which accounts for 90–95 percent of diagnosed diabetes cases, is more common among individuals who are obese, physically inactive, older persons, and those with a family history of diabetes. Prevalence rates of type 2 diabetes are especially high among persons who are black, Hispanic, or American Indian (1). With increasing obesity (2,3), high levels of physical inactivity, and the aging of the population, diabetes is a critical public health concern for the 21st century.

Over the last half of the 20th century there was a steady increase in diabetes prevalence and rates have continued to rise in recent years (4). Between 1997 and 2002 the percent of adults with diagnosed diabetes increased for all age groups (figure 32). Concern about the rising prevalence of diabetes is not limited to just adults. Clinic-based reports and regional studies indicate that type 2 diabetes is becoming more common among American children and adolescents, particularly among racial and ethnic subgroups (5).

In 2002 more than 6 percent of the noninstitutionalized adult population reported they had diabetes. The percent of adults with diagnosed diabetes increased sharply with age from 2 percent among adults 18–44 years of age to 16 percent of adults 65 years of age and over (6).

Results from the National Health and Nutrition Examination Survey (NHANES) in 1988–94 demonstrated that a significant percentage of adults with diabetes were unaware of their disease and had not been diagnosed (7). Updated information from 1999–2000 NHANES shows that undiagnosed diabetes remains an important public health issue (8).

Screening high-risk individuals for diabetes in health care settings is important in order to minimize or prevent its serious health complications (9). Additional public health efforts focus on preventing diabetes. Results of a research study involving persons at high risk for developing diabetes suggest that lifestyle changes involving modest weight loss and moderate physical activity of at least 150 minutes per week or medication treatment prevent or delay the onset of diabetes. Lifestyle changes were more effective than medication in reducing the onset of diabetes during the study (10).

### References


1. Centers for Disease Control and Prevention. 2002 National Diabetes Fact Sheet. Available from www.cdc.gov/diabetes/index.htm accessed on June 17, 2003.
2. Ogden CL, Flegal KM, Carroll MD, et al. Prevalence and trends in overweight among US children and adolescents, 1999–2000. JAMA 288:1728–32. 2002.
3. Flegal KM, Carroll MD, Ogden CL, et al. Prevalence and trends in obesity among US adults, 1999–2000. JAMA 288:1723–7. 2002.
4. National Diabetes Data Group. Diabetes in America, 2nd Edition. Bethesda, Maryland: National Institutes of Health (NIH publication no 95–1468). 1995.
5. Fagot-Campagna A, et al. Type 2 diabetes among North American children and adolescents: an epidemiologic review and a public health prospective. J Pediatr 136(5):664–72. 2000.
6. Ni H, Schiller J, Hao C, Cohen RA, Barnes P. Early release of selected estimates based on data from the 2002 National Health Interview Survey. Hyattsville, Maryland: National Center for Health Statistics. June 2003. Available from www.cdc.gov/nchs/nhis.htm.
7. Harris M, et al. Prevalence of diabetes, impaired fasting glucose, and impaired glucose tolerance in U.S. adults. Diabetes Care 21(4):518–24. 1998.
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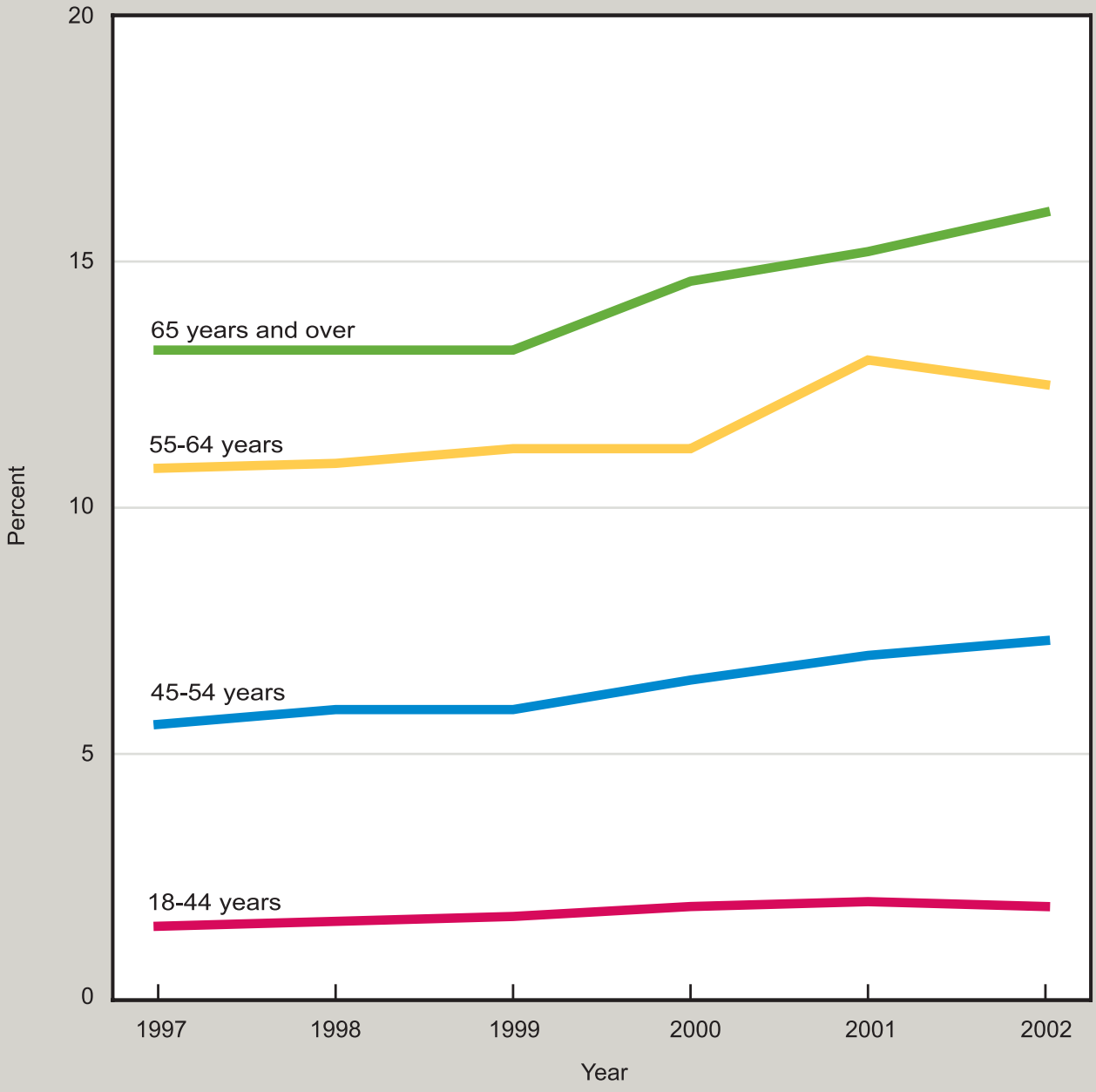
9. Engelgau MM, Narayan KM, Herman WH. Screening for type 2 diabetes. Diabetes Care 23:1563–80. 2000.
10. Diabetes Prevention Program Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. N Engl J Med 346(6):393–403. 2002.

**Figure 32. Diagnosed diabetes prevalence among adults 18 years of age and over by age: United States, 1997-2002**




NOTES: Diabetes prevalence is based on self-reports of physician diagnosis. See Data Table for data points graphed, standard errors, and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

# Special Feature: Diabetes

## Use Of Ambulatory Health Care Services

Persons with diabetes require frequent contact with the health care system in order to effectively manage this complex and chronic health condition. The hallmark of diabetes is abnormally high levels of blood sugar (glucose). Ambulatory care visits for diabetes focus on optimum management of blood sugar levels, treatment of complications, and provision of prevention-focused care such as eye, dental, and foot examinations. Tighter control of blood sugar levels has been shown to prevent some of the complications of diabetes (1,2).

Data from in-person health interview surveys indicate that adults with diagnosed diabetes are more likely than adults without diabetes to report frequent use of the health care system. In 2000–01, 37 percent of adults 18 years of age and over with diabetes reported 10 or more health care visits during the previous year compared with 14 percent of adults without diabetes. Adults with diabetes were more likely than adults without diabetes to report a recent podiatrist visit (22 percent compared with 5 percent), and eye doctor visit (57 percent compared with 34 percent) (3). However, use of preventive-care practices among persons with diabetes remains at less than desired levels (4).

Visits for diabetes have increased steadily between 1995–96 and 1999–2000 as measured by data from annual surveys of ambulatory care medical records (figure 33). A diabetes visit is defined as an ambulatory care visit to a physician office or hospital outpatient department with a diagnosis of diabetes recorded on the medical record. During this period the number of diabetes visits per 1,000 population increased for all age groups while the number of ambulatory care visits did not *(Health, United States, 2003*, table 82). In 1999–2000 ambulatory care visits for diabetes increased sharply with age with the rate among persons 65 years of age and over 12 times the rate among adults 18–44 years of age.

The upward trend in diabetes visit rates during this relatively short time period may reflect rising prevalence of diagnosed diabetes as shown in figure 32. Additional factors that may be contributing to the upward trend in diabetes visit rates include changes in diagnostic and clinical management practices. In 1997 the American Diabetes Association changed the standard for diagnosing diabetes to a more readily available blood test (5). The rise in diabetes visit rates may reflect increasing emphasis on tighter control of blood pressure and glucose levels to prevent complications among persons with diabetes (6). New information on the effectiveness of diet and exercise for glucose and blood pressure control and new medications provide practitioners with a wider array of management tools.

### References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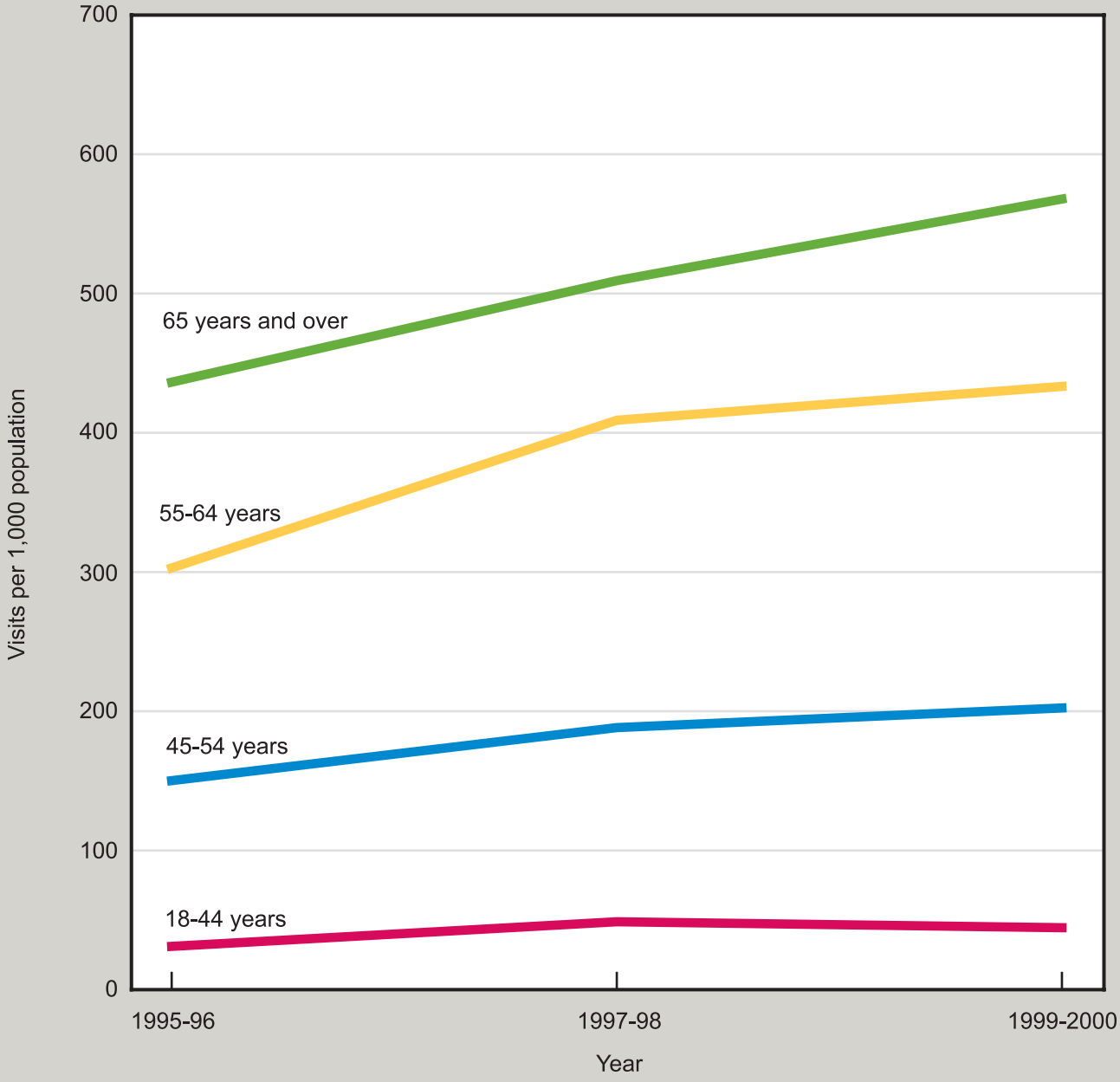
3. Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey, unpublished analysis.
4. Centers for Disease Control and Prevention. Preventive-care practices among persons with diabetes—United States, 1995 and 2001. MMWR 51(43):965–9. 2002.
5. The Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. Report of the expert committee on the diagnosis and classification of diabetes mellitus. Diabetes Care 20:1183–97. 1997.
6. Centers for Disease Control and Prevention. Diabetes: Disabling, deadly, and on the rise: At a glance, 2002. www.cdc.gov/diabetes/pubs/glance.htm accessed on December 19, 2002.

## Figure 33. Ambulatory care visits for diabetes among adults 18 years of age and over by age: United States, 1995-2000




NOTES: Diabetes visits include any visit to a physician office or hospital outpatient department with a diagnosis of diabetes and are not limited to first-listed diagnosis. See Data Table for data points graphed, standard errors, and additional notes.

SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Ambulatory Medical Care Survey and National Hospital Ambulatory Medical Care Survey.

# Special Feature: Diabetes

## Use of Inpatient Hospital Care

In addition to the human cost of diabetes— with its risk of complications, disability, and premature mortality— the medical costs of treating diabetes are substantial. Direct medical expenditures attributable to diabetes were estimated at $91.8 billion in 2002 with one-quarter of costs due to care for the complications of diabetes. Inpatient hospital care is one of the most expensive venues for diabetes care. In 2002 inpatient hospital care for diabetes was estimated at $40 billion and accounted for 44 percent of health care expenditures for diabetes (1).

Persons with diabetes are at increased risk of hospitalization for conditions such as heart disease, hypertension, and kidney disease. Examination of trends in hospital discharge rates with diabetes listed as any one of up to seven recorded diagnoses shows the increasing impact of diabetes on inpatient care. Hospital care for conditions unrelated to diabetes or its complications is more complex and expensive for persons with diabetes due to this chronic underlying condition.

Hospital discharges with any mention of diabetes represent a significant portion of inpatient care for middle-aged and elderly persons. In 2000–01, 22 percent of hospital discharges among persons 45 years of age and over included a diagnosis of diabetes (2).

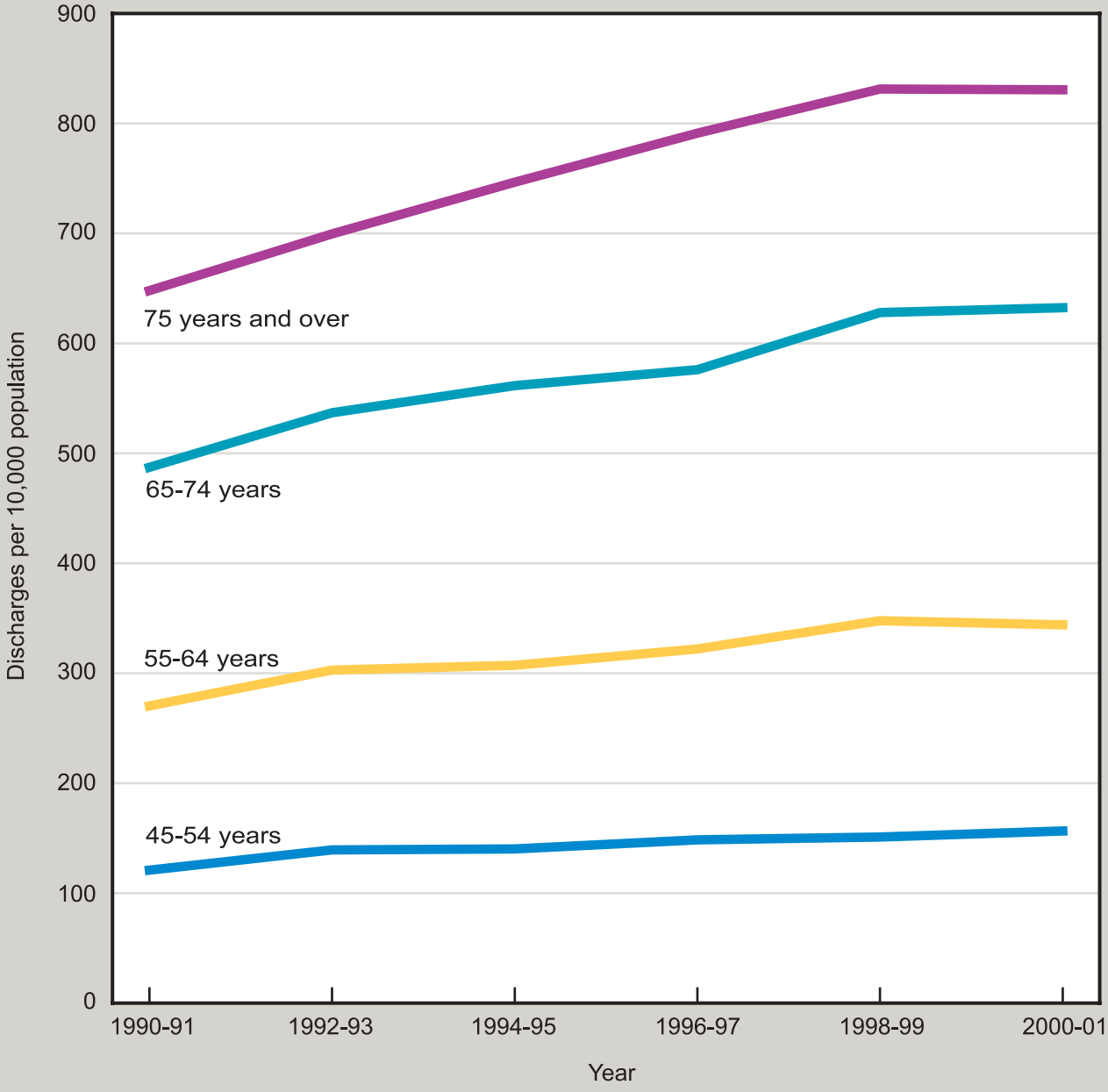
Between 1990–91 and 2000–01 the number of discharges per 10,000 population with any mention of diabetes increased for all age groups (figure 34). In contrast, rates for discharges without mention of diabetes remained stable or declined slightly during this period (2). Discharge rates for any mention of diabetes increased with advancing age with the rate among the most elderly (75 years of age and over) five times the rate among persons 45–54 years of age. Diabetes discharge rates were similar for men and women of the same age (2).

Maintaining a healthy weight through diet and exercise decreases the risk of developing diabetes and is an important public health message for persons of all ages, and especially for younger persons. With the rising prevalence of obesity and inactivity among children, adolescents, and young adults (see related figures 13–15) there is a potential for further increases in rates for diabetes, diabetic complications, and expensive hospital care.

### References

1. American Diabetes Association. Economic costs of diabetes in the U.S. in 2002. Diabetes Care 26:917–32. 2003.
2. Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey, unpublished analysis.

**Figure 34. Hospital discharges for diabetes among adults 45 years of age and over by age: United States, 1990-2001**




NOTES: Diabetes discharges include discharges with any listed diagnosis of diabetes. See Data Table for data points graphed, standard errors, and additional notes.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.

**Data table for figure 1. Total and elderly population: United States, 1950–2050**

| Year | Total | 65 years and over |
|---|---|---|
| 1950 | 150,216,000 | 12,257,000 |
| 1960 | 179,326,000 | 16,207,000 |
| 1970 | 203,212,000 | 20,066,000 |
| 1980 | 226,546,000 | 25,549,000 |
| 1990 | 248,710,000 | 31,242,000 |
| 2000 | 281,422,000 | 34,992,000 |
| 2010 | 299,862,000 | 39,715,000 |
| 2020 | 324,927,000 | 53,733,000 |
| 2030 | 351,070,000 | 70,319,000 |
| 2040 | 377,350,000 | 77,177,000 |
| 2050 | 403,687,000 | 81,999,000 |

NOTES: Data are for the resident population. Data for 1950 exclude Alaska and Hawaii. Data for 2010–2050 are projected. See Appendix II, Population.

SOURCES: U.S. Census Bureau, 1980 Census of Population, General Population Characteristics, United States Summary (PC80-1-B1) [includes data for 1950–80]; 1990 Census of Population, General Population Characteristics, United States Summary (CO-1-1); 2000 Census of Population, Profiles of General Demographic Characteristics, United States, www.census.gov/prod/cen2000/dp1/2kh00.pdf accessed on September 27, 2001; Projections of the Total Resident Population by 5-Year Age Groups, and Sex with Special Age Categories: Middle Series, 2006 to 2010 through 2050 to 2070, www.census.gov/population/projections/nation/summary/np-t3-c.txt to np-t3-g.txt accessed on September 27, 2001.

**Data table for figure 2. Percent of population in 3 age groups: United States, 1950, 2000, and 2050**

| Year | All ages | Under 18 years | 18–64 years | 65 years and over |
|---|---|---|---|---|
| | | Percent | | |
| 1950 | 100.0 | 31.3 | 60.6 | 8.2 |
| 2000 | 100.0 | 25.7 | 61.9 | 12.4 |
| 2050 | 100.0 | 23.7 | 56.0 | 20.3 |

NOTES: Data are for the resident population. Data for 1950 exclude Alaska and Hawaii. Data for 2050 are projected. See Appendix II, Population.

SOURCES: U.S. Census Bureau, 1980 Census of Population, General Population Characteristics, United States Summary (PC80-1-B1) [data for 1950]; 2000 Census of Population, Profiles of General Demographic Characteristics, United States, www.census.gov/prod/cen2000/dp1/2kh00.pdf accessed on September 27, 2001; Projections of the Total Resident Population by 5-Year Age Groups, and Sex with Special Age Categories: Middle Series, 2050 to 2070, www.census.gov/population/projections/nation/summary/np-t3-g.txt accessed on September 27, 2001.

**Data table for figure 3. Percent of population in selected race and Hispanic origin groups by age: United States, 1980–2000**

| Race and Hispanic origin | All ages | | | Under 18 years | | | 18 years and over | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1980 | 1990 | 2000 | 1980 | 1990 | 2000 | 1980 | 1990 | 2000 |
| | Percent | | | | | | | | |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Hispanic or Latino | 6.4 | 9.0 | 12.5 | 8.8 | 12.2 | 17.1 | 5.5 | 7.9 | 11.0 |
| Not Hispanic or Latino: | | | | | | | | | |
| White | 79.9 | 75.7 | 69.5 | 74.2 | 68.9 | 61.3 | 82.1 | 78.1 | 72.3 |
| Black or African American | 11.5 | 11.8 | 12.2 | 14.5 | 14.7 | 14.9 | 10.4 | 10.7 | 11.3 |
| Asian or Pacific Islander | 1.6 | 2.8 | 3.9 | 1.7 | 3.1 | 3.7 | 1.5 | 2.7 | 3.9 |
| American Indian or Alaska Native | 0.6 | 0.7 | 0.7 | 0.8 | 1.0 | 1.0 | 0.5 | 0.6 | 0.7 |
| 2 or more races | . . . | . . . | 1.2 | . . . | . . . | 2.1 | . . . | . . . | 0.8 |

. . . Category not applicable.

NOTES: Data are for the resident population. Persons of Hispanic origin may be of any race. Race data for 2000 are not directly comparable with data from 1980 and 1990. Individuals could report only one race in 1980 and 1990, and more than one race in 2000. Persons who selected only one race in 2000 are shown in single-race categories; persons who selected more than one race in 2000 are shown as having 2 or more races and are not included in the single-race categories. In 2000 the category "Asian or Pacific Islander" includes Asian and Native Hawaiian or Other Pacific Islander. See Appendix II, Hispanic origin and Race.

SOURCES: U.S. Census Bureau: U.S. population estimates, by age, sex, race, and Hispanic origin: 1980 to 1991. Current population reports, series P-25, no 1095. Washington. U.S. Government Printing Office, February 1993; U.S. Census Bureau: Census 2000 Modified Race Data Summary File: 2000 Census of Population and Housing, September 2002.

**Data table for figure 4. Poverty rates by age: United States, 1996–2001**

| Year | All ages | Under 18 years | 18–64 years | 65 years and over |
|---|---|---|---|---|
| | Percent of persons with family income below the poverty level | | | |
| 1966 | 14.7 | 17.6 | 10.5 | 28.5 |
| 1967 | 14.2 | 16.6 | 10.0 | 29.5 |
| 1968 | 12.8 | 15.6 | 9.0 | 25.0 |
| 1969 | 12.1 | 14.0 | 8.7 | 25.3 |
| 1970 | 12.6 | 15.1 | 9.0 | 24.6 |
| 1971 | 12.5 | 15.3 | 9.3 | 21.6 |
| 1972 | 11.9 | 15.1 | 8.8 | 18.6 |
| 1973 | 11.1 | 14.4 | 8.3 | 16.3 |
| 1974 | 11.2 | 15.4 | 8.3 | 14.6 |
| 1975 | 12.3 | 17.1 | 9.2 | 15.3 |
| 1976 | 11.8 | 16.0 | 9.0 | 15.0 |
| 1977 | 11.6 | 16.2 | 8.8 | 14.1 |
| 1978 | 11.4 | 15.9 | 8.7 | 14.0 |
| 1979 | 11.7 | 16.4 | 8.9 | 15.2 |
| 1980 | 13.0 | 18.3 | 10.1 | 15.7 |
| 1981 | 14.0 | 20.0 | 11.1 | 15.3 |
| 1982 | 15.0 | 21.9 | 12.0 | 14.6 |
| 1983 | 15.2 | 22.3 | 12.4 | 13.8 |
| 1984 | 14.4 | 21.5 | 11.7 | 12.4 |
| 1985 | 14.0 | 20.7 | 11.3 | 12.6 |
| 1986 | 13.6 | 20.5 | 10.8 | 12.4 |
| 1987 | 13.4 | 20.3 | 10.6 | 12.5 |
| 1988 | 13.0 | 19.5 | 10.5 | 12.0 |
| 1989 | 12.8 | 19.6 | 10.2 | 11.4 |
| 1990 | 13.5 | 20.6 | 10.7 | 12.2 |
| 1991 | 14.2 | 21.8 | 11.4 | 12.4 |
| 1992 | 14.8 | 22.3 | 11.9 | 12.9 |
| 1993 | 15.1 | 22.7 | 12.4 | 12.2 |
| 1994 | 14.5 | 21.8 | 11.9 | 11.7 |
| 1995 | 13.8 | 20.8 | 11.4 | 10.5 |
| 1996 | 13.7 | 20.5 | 11.4 | 10.8 |
| 1997 | 13.3 | 19.9 | 10.9 | 10.5 |
| 1998 | 12.7 | 18.9 | 10.5 | 10.5 |
| 1999 | 11.8 | 16.9 | 10.0 | 9.7 |
| 2000[1] | 11.3 | 16.2 | 9.6 | 9.9 |
| 2001[1] | 11.7 | 16.3 | 10.1 | 10.1 |

[1]Estimates of poverty for 2000 and 2001 have been calculated based on an expanded household sample and Census 2000-based population weights. Implementation of these changes had no effect on the all ages poverty rate for 2000 and a 0.1 to 0.3 percent difference in the age specific poverty rates for 2000.

NOTES: Data are for the civilian noninstitutionalized population. See Appendix II, Poverty level. See related *Health, United States, 2003,* table 2.

SOURCES: U.S. Census Bureau, Current population survey, March 1967–2002. U.S. Bureau of the Census. Proctor B, Dalaker J. Poverty in the United States: 2001. Current population reports, series P-60, no 219. Washington, DC: U.S. Government Printing Office. 2002.

**Data table for figure 5. Low income population by age, race, and Hispanic origin: United States, 2001**

| Age, race, and Hispanic origin | Percent | | Number in millions | |
|---|---|---|---|---|
| | Poor | Near poor | Poor | Near poor |
| **All ages** | | | | |
| All races and origins | 11.7 | 18.5 | 32.9 | 52.0 |
| Hispanic or Latino | 21.4 | 30.4 | 8.0 | 11.3 |
| Black or African American | 22.7 | 24.3 | 8.1 | 8.7 |
| Asian and Pacific Islander | 10.2 | 16.6 | 1.3 | 2.1 |
| White, not Hispanic or Latino | 7.8 | 15.3 | 15.3 | 29.6 |
| **Under 18 years** | | | | |
| All races and origins | 16.3 | 21.9 | 11.7 | 15.8 |
| Hispanic or Latino | 28.0 | 33.5 | 3.6 | 4.3 |
| Black or African American | 30.2 | 27.1 | 3.5 | 3.1 |
| Asian and Pacific Islander | 11.5 | 19.0 | 0.4 | 0.6 |
| White, not Hispanic or Latino | 9.5 | 17.2 | 4.2 | 7.6 |
| **18–64 years** | | | | |
| All races and origins | 10.1 | 15.3 | 17.8 | 26.8 |
| Hispanic or Latino | 17.7 | 28.2 | 4.0 | 6.4 |
| Black or African American | 18.7 | 21.5 | 4.0 | 4.6 |
| Asian and Pacific Islander | 9.7 | 17.1 | 0.8 | 1.2 |
| White, not Hispanic or Latino | 7.2 | 11.8 | 8.8 | 14.5 |
| **65 years and over** | | | | |
| All races and origins | 10.1 | 28.1 | 3.4 | 9.5 |
| Hispanic or Latino | 21.8 | 34.5 | 0.4 | 0.7 |
| Black or African American | 21.9 | 34.5 | 0.6 | 1.0 |
| Asian and Pacific Islander | 10.2 | 26.1 | 0.1 | 0.2 |
| White, not Hispanic or Latino | 8.1 | 27.1 | 2.3 | 7.6 |

NOTES: Data are for the civilian noninstitutionalized population. Poor is defined as family income less than 100 percent of the poverty level and near poor as 100–199 percent of the poverty level. See Appendix II, Poverty level. Persons of Hispanic origin may be of any race. Black, and Asian and Pacific Islander races include persons of both Hispanic and non-Hispanic origin. See related *Health, United States, 2003,* table 2.

SOURCES: Proctor B, Dalaker J. Poverty in the United States: 2001. Current population reports, series P-60 no 219. Washington, DC: U.S. Government Printing Office. 2002; Table 2. Age, sex, household relationship, race and hispanic origin by ratio of income to poverty level: 2001, ferret.bls.census.gov/macro/032002/pov/new02_000.htm accessed on March 10, 2003.

**Data table for figure 6. Health insurance coverage among persons under 65 years of age: United States, 1984–2001**

| Year | Health insurance coverage | | | | | |
|---|---|---|---|---|---|---|
| | Private | | Medicaid | | Uninsured | |
| | Percent | SE | Percent | SE | Percent | SE |
| 1984 | 77.1 | 0.6 | 6.7 | 0.3 | 14.3 | 0.4 |
| 1989 | 76.2 | 0.4 | 7.1 | 0.2 | 15.3 | 0.3 |
| 1994 | 70.3 | 0.4 | 11.0 | 0.3 | 17.3 | 0.3 |
| 1995 | 71.6 | 0.4 | 11.3 | 0.2 | 15.9 | 0.2 |
| 1996 | 71.5 | 0.5 | 10.9 | 0.3 | 16.5 | 0.3 |
| 1997 | 70.9 | 0.3 | 9.6 | 0.2 | 17.4 | 0.2 |
| 1998 | 72.3 | 0.4 | 8.8 | 0.2 | 16.5 | 0.2 |
| 1999 | 72.9 | 0.3 | 9.0 | 0.2 | 16.1 | 0.2 |
| 2000 | 71.7 | 0.3 | 9.4 | 0.2 | 16.8 | 0.2 |
| 2001 | 71.5 | 0.4 | 10.3 | 0.2 | 16.2 | 0.2 |

SE Standard error.

NOTES: Data are for the civilian noninstitutionalized population. Percents are age adjusted to the 2000 standard population using three age groups: under 18 years, 18–44 years, and 45–64 years. Medicaid includes other public assistance through 1996; includes State-sponsored health plans starting in 1997; and includes State Child Health Insurance Program (SCHIP) starting in 1999. Uninsured persons are not covered by private insurance, Medicaid, SCHIP, public assistance (through 1996), State-sponsored or other government-sponsored health plans (starting in 1997), Medicare, or military plans. Percents do not add to 100 because the percent of persons with Medicare, military plans, and other government-sponsored plans is not shown and because persons with both private insurance and Medicaid appear in both categories. See Appendix II, Age adjustment and Health insurance coverage. See related *Health, United States, 2003,* tables 127–129.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

**Data table for figure 7. No health insurance coverage among persons under 65 years of age by selected characteristics: United States, 2001**

| Characteristic | Percent | SE |
|---|---|---|
| **Age** | | |
| Under 65 years, age adjusted | 16.2 | 0.2 |
| Under 18 years | 11.0 | 0.3 |
| 18–24 years | 29.3 | 0.7 |
| 25–34 years | 22.3 | 0.5 |
| 35–44 years | 16.7 | 0.4 |
| 45–54 years | 13.0 | 0.4 |
| 55–64 years | 11.0 | 0.4 |
| **Percent of poverty level** | | |
| Below 100 percent | 33.3 | 0.9 |
| 100–149 percent | 32.4 | 0.9 |
| 150–199 percent | 26.4 | 1.0 |
| 200 percent or more | 8.4 | 0.2 |
| Unknown poverty level | 20.0 | 0.5 |
| **Race and Hispanic origin** | | |
| White only, not Hispanic or Latino | 11.9 | 0.3 |
| Asian only | 17.1 | 1.3 |
| Black or African American only, not Hispanic or Latino | 19.2 | 0.6 |
| American Indian and Alaska Native only | 33.4 | 4.6 |
| Hispanic or Latino | 34.8 | 0.7 |
| Mexican | 39.0 | 0.9 |
| Other Hispanic | 33.1 | 1.2 |
| Cuban | 19.2 | 2.1 |
| Puerto Rican | 16.0 | 1.1 |

SE Standard error.

NOTES: Data are for the civilian noninstitutionalized population. Percents for the total, by poverty level, race, and Hispanic origin are age adjusted to the year 2000 standard population using three age groups: under 18 years, 18–44 years, and 45–64 years. Persons of Hispanic origin may be of any race. Asian only, and American Indian and Alaska Native only races include persons of Hispanic and non-Hispanic origin. Uninsured persons are not covered by private insurance, Medicaid, State Child Health Insurance Program (SCHIP), State-sponsored or other government-sponsored health plans, Medicare, Indian Health Service only, or military plans. Percent of poverty level was unknown for 26 percent of sample persons under 65 years of age in 2001. See Appendix II, Age adjustment, Health insurance coverage, Poverty, and Race. See related *Health, United States, 2003,* table 129.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

**Data table for figure 8. Early prenatal care among mothers: United States, 1970–2001**

| Year | Percent |
|---|---|
| 1970 | 68.0 |
| 1975 | 72.4 |
| 1980 | 76.3 |
| 1985 | 76.2 |
| 1990 | 75.8 |
| 1993 | 78.9 |
| 1994 | 80.2 |
| 1995 | 81.3 |
| 1996 | 81.9 |
| 1997 | 82.5 |
| 1998 | 82.8 |
| 1999 | 83.2 |
| 2000 | 83.2 |
| 2001 | 83.4 |

NOTES: Early prenatal care begins during the first trimester of pregnancy. See related *Health, United States, 2003,* table 6.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

**Data table for figure 9. Early prenatal care by detailed race and Hispanic origin of mother: United States, 2001**

| Race and Hispanic origin of mother | Percent |
|---|---|
| White, not Hispanic or Latino | 88.5 |
| Black or African American, not Hispanic or Latino | 74.5 |
| Hispanic or Latino | 75.7 |
| Cuban | 91.8 |
| Puerto Rican | 79.1 |
| Central and South American | 77.4 |
| Other and unknown Hispanic or Latino | 77.3 |
| Mexican | 74.6 |
| Asian or Pacific Islander | 84.0 |
| Japanese | 90.1 |
| Chinese | 87.0 |
| Filipino | 85.0 |
| Other Asian or Pacific Islander | 82.7 |
| Hawaiian | 79.1 |
| American Indian or Alaska Native | 69.3 |

NOTES: Early prenatal care begins during the first trimester of pregnancy. Persons of Hispanic origin may be of any race. The race groups, Asian or Pacific Islander and American Indian or Alaska Native, include persons of Hispanic and non-Hispanic origin. See related *Health, United States, 2003,* table 6.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

**Data table for figure 10. Influenza and pneumococcal vaccination among adults 65 years of age and over: United States, 1989–2001**

| Year | Influenza vaccination during past 12 months | | Pneumococcal vaccination ever | |
|---|---|---|---|---|
| | Percent | SE | Percent | SE |
| 1989 | 31.0 | 0.5 | 14.3 | 0.4 |
| 1990 | - - - | - - - | - - - | - - - |
| 1991 | 42.3 | 0.7 | 21.5 | 0.6 |
| 1992 | - - - | - - - | - - - | - - - |
| 1993 | 52.3 | 0.9 | 28.5 | 0.8 |
| 1994 | 55.6 | 0.9 | 29.9 | 0.8 |
| 1995 | 58.8 | 0.9 | 34.5 | 0.9 |
| 1996 | - - - | - - - | - - - | - - - |
| 1997 | 63.5 | 0.7 | 42.6 | 0.7 |
| 1998 | 63.6 | 0.7 | 46.3 | 0.8 |
| 1999 | 65.9 | 0.8 | 49.9 | 0.8 |
| 2000 | 64.5 | 0.7 | 53.2 | 0.8 |
| 2001 | 63.1 | 0.7 | 54.0 | 0.8 |

SE Standard error.
- - - Data not available.

NOTES: Data are for the civilian noninstitutionalized population and are age adjusted to the 2000 standard population using two age groups: 65–74 years and 75 years and over. See Appendix II, Age adjustment.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

**Data table for figure 11. Influenza and pneumococcal vaccination among adults 65 years of age and over by race and Hispanic origin: United States, 1999–2001**

| Race and Hispanic origin | Influenza vaccination during past 12 months | | Pneumococcal vaccination ever | |
|---|---|---|---|---|
| | Percent | SE | Percent | SE |
| White only, not Hispanic or Latino | 66.7 | 0.5 | 56.0 | 0.5 |
| Asian only | 62.6 | 3.6 | 36.4 | 3.8 |
| Black or African American only, not Hispanic or Latino | 48.8 | 1.4 | 32.4 | 1.3 |
| Hispanic or Latino | 54.8 | 1.6 | 30.8 | 1.5 |

SE Standard error.

NOTES: Data are for the civilian noninstitutionalized population and are age adjusted to the 2000 standard population using two age groups: 65–74 years and 75 years and over. Persons of Hispanic origin may be of any race. Asian only race includes persons of both Hispanic and non-Hispanic origin. See Appendix II, Age adjustment and Race.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

**Data table for figure 12. Cigarette smoking among men, women, high school students, and mothers during pregnancy: United States, 1965–2001**

| Year | Men | | Women | | High school students | | Mothers during pregnancy |
|---|---|---|---|---|---|---|---|
| | Percent | SE | Percent | SE | Percent | SE | Percent |
| 1965 | 51.2 | 0.3 | 33.7 | 0.3 | --- | --- | --- |
| 1974 | 42.8 | 0.5 | 32.2 | 0.4 | --- | --- | --- |
| 1979 | 37.0 | 0.5 | 30.1 | 0.5 | --- | --- | --- |
| 1983 | 34.8 | 0.6 | 29.4 | 0.4 | --- | --- | --- |
| 1985 | 32.2 | 0.5 | 27.9 | 0.4 | --- | --- | --- |
| 1987 | 30.9 | 0.4 | 26.5 | 0.4 | --- | --- | --- |
| 1988 | 30.3 | 0.4 | 25.7 | 0.3 | --- | --- | --- |
| 1989 | --- | --- | --- | --- | --- | --- | 19.5 |
| 1990 | 28.0 | 0.4 | 22.9 | 0.3 | --- | --- | 18.4 |
| 1991 | 27.6 | 0.4 | 23.5 | 0.3 | 27.5 | 1.4 | 17.8 |
| 1992 | 28.1 | 0.5 | 24.6 | 0.5 | --- | --- | 16.9 |
| 1993 | 27.3 | 0.6 | 22.6 | 0.4 | 30.5 | 1.0 | 15.8 |
| 1994 | 27.6 | 0.5 | 23.1 | 0.5 | --- | --- | 14.6 |
| 1995 | 26.5 | 0.6 | 22.7 | 0.5 | 34.8 | 1.1 | 13.9 |
| 1996 | --- | --- | --- | --- | --- | --- | 13.6 |
| 1997 | 27.1 | 0.4 | 22.2 | 0.4 | 36.4 | 1.2 | 13.2 |
| 1998 | 25.9 | 0.4 | 22.1 | 0.4 | --- | --- | 12.9 |
| 1999 | 25.2 | 0.5 | 21.6 | 0.4 | 34.8 | 1.3 | 12.6 |
| 2000 | 25.2 | 0.4 | 21.1 | 0.4 | --- | --- | 12.2 |
| 2001 | 24.7 | 0.4 | 20.8 | 0.4 | 28.5 | 1.0 | 12.0 |

SE Standard error.
--- Data not available.

NOTES: Data for men and women are for the civilian noninstitutionalized population. Percents for men and women are age adjusted to the 2000 standard population using five age groups: 18–24 years, 25–34 years, 35–44 years, 45–64 years, and 65 years and over. (See Appendix II, Age adjustment). Cigarette smoking is defined as follows: among men and women 18 years and over, those who ever smoked 100 cigarettes in their lifetime and now smoke every day or some days; among high school students (grades 9–12), those who smoked cigarettes on 1 or more of the 30 days preceding the survey; and among mothers with a live birth, those who smoked during pregnancy. Data from States that did not require the reporting of mother's tobacco use during pregnancy on the birth certificate are not included (see Appendix II, Tobacco use). See related *Health, United States, 2003,* tables 11 and 59.

SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey (data for men and women); National Vital Statistics System (data for mothers during pregnancy); National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Survey (data for high school students).

**Data table for figure 13. High school students not engaging in recommended amounts of physical activity (neither moderate nor vigorous) by grade and sex: United States, 2001**

| Grade | All students | | Male students | | Female students | |
|---|---|---|---|---|---|---|
| | Percent | SE | Percent | SE | Percent | SE |
| Grade 9 | 24.3 | 1.4 | 20.1 | 1.6 | 28.1 | 1.9 |
| Grade 10 | 29.6 | 0.9 | 23.6 | 1.1 | 35.6 | 1.7 |
| Grade 11 | 34.4 | 1.2 | 24.4 | 1.3 | 44.2 | 1.6 |
| Grade 12 | 38.9 | 1.4 | 29.5 | 2.1 | 47.9 | 1.2 |
| All grades | 31.2 | 0.7 | 24.2 | 0.8 | 37.9 | 1.2 |

SE Standard error.

NOTES: The recommended amount of physical activity for high school students is at least 30 minutes of moderate activity (does not cause sweating or hard breathing) on 5 or more of the past 7 days; or at least 20 minutes of vigorous activity (causes sweating and hard breathing) on 3 or more of the past 7 days. The recommended amounts of physical activity for high school students are based on the Healthy People 2010 objectives 22–6 and 22–7 (moderate and vigorous activity in adolescents).

SOURCE: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Youth Risk Behavior Survey.

**Data table for figure 14. Overall physical activity levels for adults by age and sex: United States, 2000**

| Sex and age | Overall physical activity level | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Inactive | | Low | | Medium | | Medium/high | | High | |
| | Percent | SE | Percent | SE | Percent | SE | Percent | SE | Percent | SE |
| Men | | | | | | | | | | |
| 18 years and over, age adjusted | 7.3 | 0.3 | 15.0 | 0.4 | 33.2 | 0.5 | 23.3 | 0.5 | 21.3 | 0.4 |
| 18 years and over, crude | 6.9 | 0.3 | 14.9 | 0.4 | 33.3 | 0.5 | 23.5 | 0.5 | 21.5 | 0.4 |
| 18–24 years | 2.3 | 0.5 | 12.6 | 1.2 | 27.5 | 1.4 | 27.0 | 1.4 | 30.5 | 1.5 |
| 25–44 years | 3.4 | 0.3 | 13.7 | 0.5 | 35.3 | 0.8 | 25.0 | 0.7 | 22.5 | 0.7 |
| 45–64 years | 8.7 | 0.6 | 16.9 | 0.6 | 34.9 | 0.8 | 22.1 | 0.8 | 17.5 | 0.7 |
| 65 years and over | 17.7 | 1.0 | 16.4 | 0.9 | 29.2 | 1.1 | 18.5 | 0.9 | 18.2 | 1.0 |
| Women | | | | | | | | | | |
| 18 years and over, age adjusted | 11.6 | 0.3 | 16.5 | 0.4 | 31.3 | 0.4 | 23.8 | 0.4 | 16.9 | 0.3 |
| 18 years and over, crude | 11.7 | 0.3 | 16.5 | 0.4 | 31.2 | 0.4 | 23.7 | 0.4 | 16.9 | 0.3 |
| 18–24 years | 6.4 | 0.7 | 15.7 | 1.0 | 32.2 | 1.4 | 28.0 | 1.4 | 17.7 | 1.1 |
| 25–44 years | 7.2 | 0.3 | 16.2 | 0.6 | 32.8 | 0.7 | 25.3 | 0.6 | 18.5 | 0.6 |
| 45–64 years | 11.4 | 0.5 | 17.8 | 0.6 | 31.2 | 0.8 | 22.9 | 0.7 | 16.7 | 0.6 |
| 65 years and over | 26.1 | 1.0 | 15.4 | 0.7 | 27.0 | 0.9 | 18.4 | 0.7 | 13.1 | 0.7 |

SE Standard error.

NOTES: Data are for the civilian noninstitutionalized population and the total is age adjusted to the 2000 standard population using four age groups: 18–24, 25–44, 45–64, and 65 years and over. Overall physical activity level is based on two series of questions: (1) questions on frequency, duration, and intensity of leisure-time physical activity; and (2) questions on usual daily activity (sitting, standing, walking during most of the day; lifting or carrying things). Responses from the two series of questions were combined into a continuum of overall physical activity ranging from inactive to high. Persons coded as: Inactive reported being inactive during usual daily activities and never or unable to engage in leisure-time physical activity; Low activity level reported being moderately active during usual daily activities and never or unable to engage in leisure-time physical activity or inactive during usual daily activity and engaged in some leisure-time physical activity but less than regular; Medium activity level reported being very active during usual daily activities and never or unable to engage in leisure-time physical activity or moderately active during usual daily activities and engaged in some leisure-time physical activity but less than regular or inactive during usual daily activities and engaged in regular leisure-time physical activity; Medium/high activity level reported being very active during usual daily activities and engaged in some leisure-time physical activity but less than regular or moderately active during usual daily activities and engaged in regular leisure-time physical activity; High activity level reported being very active during usual daily activity and engaged in regular leisure-time physical activity. For more information see: Barnes, PM Schoenborn, CA. Physical activity among adults: United States, 2000. Advance data from vital and health statistics; no 333 Hyattsville, Maryland. National Center for Health Statistics. 2003. Available on the NCHS website: www.cdc.gov/nchs/data/ad/ad333.pdf.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

**Data table for figure 15. Overweight and obesity by age: United States, 1960–2000**

| Year | Children, 6–11 years | | Adolescents, 12–19 years | | Adults, 20–74 years | | | |
|---|---|---|---|---|---|---|---|---|
| | Overweight | | | | Overweight | | Obesity | |
| | Percent | SE | Percent | SE | Percent | SE | Percent | SE |
| 1960–62 | - - - | - - - | - - - | - - - | 44.8 | 1.0 | 13.3 | 0.6 |
| 1963–65 | 4.2 | 0.4 | - - - | - - - | - - - | - - - | - - - | - - - |
| 1966–70 | - - - | - - - | 4.6 | 0.3 | - - - | - - - | - - - | - - - |
| 1971–74 | 4.0 | 0.5 | 6.1 | 0.7 | 47.7 | 0.7 | 14.6 | 0.5 |
| 1976–80 | 6.5 | 0.6 | 5.0 | 0.6 | 47.4 | 0.8 | 15.1 | 0.5 |
| 1988–94 | 11.3 | 1.0 | 10.5 | 0.9 | 56.0 | 0.9 | 23.3 | 0.7 |
| 1999–2000 | 15.3 | 1.7 | 15.5 | 1.2 | 64.5 | 1.5 | 30.9 | 1.6 |

SE Standard error.
- - - Data not available.

NOTES: Data are for the civilian noninstitutionalized population. Percents for adults are age adjusted to the 2000 standard population using five age groups (20–34 years, 35–44 years, 45–54 years, 55–64 years, and 65–74 years) except for the 1999–2000 estimates which are age adjusted using three age groups (20–39 years, 40–59 years, and 60–74 years) due to a smaller sample size; however use of three rather than five groups had virtually no effect on age-adjusted rates. Overweight for children is defined as a body mass index (BMI) at or above the sex- and age-specific 95th percentile BMI cut points from the 2000 CDC Growth Charts: United States (www.cdc.gov/growthcharts/). Overweight for adults is defined as a BMI greater than or equal to 25 and obesity as a BMI greater than or equal to 30. Data for 1966–70 are for adolescents 12–17 years, not 12–19 years. Pregnant adolescents were excluded beginning in 1971–74. Pregnant women 20 years of age and over were excluded in all years. Estimates for 1999–2000 are based on a smaller sample size than estimates for earlier time periods and therefore are subject to greater sampling error. See Appendix II, Age adjustment and Body mass index (BMI). See related *Health, United States, 2003,* tables 68 and 69.

SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Examination Survey and National Health and Nutrition Examination Survey.

**Data table for figure 16. Obesity among adults 20–74 years of age by sex, race, and Hispanic origin: United States, 1999–2000**

| | Obesity | |
|---|---|---|
| *Age, race, and Hispanic origin* | *Percent* | *SE* |
| All races and origins | 30.9 | 1.6 |
| Men | 27.7 | 1.7 |
| Women | 34.0 | 2.0 |
| White only, not Hispanic or Latino | 28.9 | 1.7 |
| Men | 27.4 | 1.9 |
| Women | 34.4 | 2.3 |
| Black or African American only, not Hispanic or Latino | 40.4 | 2.1 |
| Men | 28.9 | 2.4 |
| Women | 50.4 | 2.8 |
| Mexican | 34.9 | 2.3 |
| Men | 29.4 | 2.5 |
| Women | 40.1 | 3.8 |

SE Standard error.

NOTES: Data are for the civilian noninstitutionalized population. Percents are age adjusted to the 2000 standard population using three age groups: 20–39 years, 40–59 years, and 60–74 years. Obesity is defined as having a body mass index (BMI) greater than or equal to 30. Pregnant women were excluded. See Appendix II, Age adjustment and Body mass index (BMI). Estimates by race and Hispanic origin are tabulated using the 1997 Standards for Federal data on race and ethnicity. See Appendix II, Race. Persons of Hispanic origin may be of any race. See related *Health, United States, 2003,* table 68.

SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Examination Survey and National Health and Nutrition Examination Survey.

**Data table for figure 17. Limitation of activity caused by 1 or more chronic health conditions among children by sex and age: United States, 1999–2001**

| Sex and age | Any limitation of activity | | Limitation of activity indicated by participation in special education or early intervention services only | | All other limitation of activity | |
|---|---|---|---|---|---|---|
| | Percent | SE | Percent | SE | Percent | SE |
| Boys | | | | | | |
| Under 18 years | 7.9 | 0.2 | 5.9 | 0.1 | 2.0 | 0.1 |
| Under 5 years | 4.0 | 0.2 | 2.4 | 0.2 | 1.6 | 0.1 |
| 5–11 years | 9.1 | 0.2 | 6.9 | 0.2 | 2.2 | 0.1 |
| 12–17 years | 9.7 | 0.3 | 7.5 | 0.3 | 2.2 | 0.1 |
| Girls | | | | | | |
| Under 18 years | 4.5 | 0.1 | 3.1 | 0.1 | 1.4 | 0.1 |
| Under 5 years | 2.4 | 0.2 | 1.2 | 0.1 | 1.2 | 0.1 |
| 5–11 years | 5.1 | 0.2 | 3.9 | 0.2 | 1.2 | 0.1 |
| 12–17 years | 5.4 | 0.2 | 3.6 | 0.2 | 1.8 | 0.1 |

SE Standard error.

NOTES: Data are for noninstitutionalized children. Children with limitation of activity caused by chronic health conditions may be identified by enrollment in special programs (special education or early intervention services) or by some other activity limitation. The category "All other limitation of activity" may include children receiving special education or early intervention services. See Appendix II, Limitation of activity.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

**Data table for figure 18. Limitation of activity caused by 1 or more chronic health conditions among working-age adults by selected characteristics: United States, 1999–2001**

| Characteristic | Any limitation of activity | |
|---|---|---|
| | Percent | SE |
| **Age** | | |
| 18–44 years | 6.1 | 0.1 |
| 45–54 years | 12.9 | 0.2 |
| 55–64 years | 20.5 | 0.3 |
| **Sex** | | |
| Male | 9.3 | 0.1 |
| Female | 9.9 | 0.1 |
| **Percent of poverty level** | | |
| Below 100 percent | 24.1 | 0.5 |
| 100–199 percent | 17.5 | 0.3 |
| 200 percent or more | 7.2 | 0.1 |
| **Race and Hispanic origin** | | |
| Hispanic or Latino | 7.8 | 0.2 |
| Not Hispanic or Latino: | | |
| White only | 9.7 | 0.1 |
| Black or African American only | 12.1 | 0.3 |

SE Standard error.

NOTES: Data are for the civilian noninstitutionalized population. Percents by sex, race and Hispanic origin, and poverty level are age adjusted to the year 2000 standard population using three age groups: 18–44 years, 45–54 years, and 55–64 years. Persons of Hispanic origin may be of any race. Limitation of activity is assessed by asking respondents a series of questions about limitations in their ability to perform activities usual for their age group because of a physical, mental, or emotional problem. Respondents are asked about limitations in activities of daily living, instrumental activities of daily living, limitations in work, walking, memory, and other activities. For adults identified as having limitation of activity, the causal health conditions are determined and respondents are considered limited if 1 or more of these conditions is chronic. See Appendix II, Limitation of activity. See related *Health, United States, 2003,* table 56.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

**Data table for figure 19. Selected chronic health conditions causing limitation of activity among working-age adults by age: United States, 1999–2001**

| Type of chronic health condition | Number of persons with limitation of activity caused by selected chronic health conditions per 1,000 population | | | | | |
|---|---|---|---|---|---|---|
| | 18–44 years | | 45–54 years | | 55–64 years | |
| | Rate | SE | Rate | SE | Rate | SE |
| Mental illness | 10.9 | 0.4 | 20.1 | 0.8 | 19.1 | 1.0 |
| Fractures/joint injury | 6.8 | 0.3 | 13.3 | 0.6 | 19.6 | 1.0 |
| Lung | 5.0 | 0.2 | 10.0 | 0.6 | 25.1 | 1.2 |
| Diabetes | 2.9 | 0.2 | 13.8 | 0.7 | 27.7 | 1.2 |
| Heart/other circulatory | 6.0 | 0.3 | 29.8 | 1.0 | 69.3 | 2.1 |
| Arthritis/other musculoskeletal | 21.1 | 0.6 | 59.2 | 1.4 | 98.3 | 2.4 |

SE Standard error.

NOTES: Data are for the civilian noninstitutionalized population. Selected chronic health conditions include the four leading causes of activity limitation among adults in each age category. Conditions refer to response categories in the National Health Interview Survey; some conditions include several response categories. "Mental illness" includes depression, anxiety or emotional problem, and other mental conditions. "Heart/other circulatory" includes heart problem, stroke problem, hypertension or high blood pressure, and other circulatory system conditions. "Arthritis/other musculoskeletal" includes arthritis/rheumatism, back or neck problem, and other musculoskeletal system conditions. Persons who reported more than one chronic health condition as the cause of their activity limitation were counted in each reported category. See Appendix II, Limitation of activity.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

**Data table for figure 20. Limitation in activities of daily living among Medicare beneficiaries 65 years of age and over: United States, 1992–2001**

| Year | All beneficiaries | | Noninstitutionalized beneficiaries | |
|---|---|---|---|---|
| | Percent | SE | Percent | SE |
| 1992 | 16.2 | 0.4 | 12.2 | 0.5 |
| 1993 | 16.0 | 0.4 | 12.0 | 0.4 |
| 1994 | 15.4 | 0.4 | 11.3 | 0.4 |
| 1995 | 15.2 | 0.4 | 11.1 | 0.4 |
| 1996 | 14.5 | 0.4 | 10.5 | 0.4 |
| 1997 | 13.9 | 0.4 | 10.0 | 0.4 |
| 1998 | 14.0 | 0.4 | 10.6 | 0.4 |
| 1999 | 13.4 | 0.4 | 9.8 | 0.4 |
| 2000 | 13.6 | 0.4 | 10.0 | 0.4 |
| 2001 | 13.7 | 0.3 | 10.1 | 0.3 |

SE Standard error.

NOTES: Percents are age adjusted to the year 2000 standard population using three age groups: 65–74 years, 75–84 years, and 85 years and over. Limitation in activities of daily living is defined as having difficulty and receiving help or supervision with at least one of the following six activities: bathing or showering, dressing, eating, getting in or out of bed or chairs, walking, and using the toilet (See Appendix II, Activities of daily living). Institutions are defined as facilities with 3 or more beds and providing long-term care services throughout the facility or in a separate identifiable unit. Data on institutionalized beneficiaries are obtained from proxy respondents.

SOURCE: Centers for Medicare and Medicaid Services, Medicare Current Beneficiary Survey, Access to Care files.

**Data table for figure 21. Life expectancy at birth and at 65 years of age by sex: United States, 1901–2000**

| Year | At birth | | At 65 years | |
|---|---|---|---|---|
| | Male | Female | Male | Female |
| | Life expectancy in years | | | |
| 1900–02 | 47.9 | 50.7 | 11.5 | 12.2 |
| 1909–11 | 49.9 | 53.2 | 11.2 | 12.0 |
| 1919–21 | 55.5 | 57.4 | 12.2 | 12.7 |
| 1929–31 | 57.7 | 60.9 | 11.7 | 12.8 |
| 1939–41 | 61.6 | 65.9 | 12.1 | 13.6 |
| 1949–51 | 65.5 | 71.0 | 12.7 | 15.0 |
| 1959–61 | 66.8 | 73.2 | 13.0 | 15.8 |
| 1969–71 | 67.0 | 74.6 | 13.0 | 16.8 |
| 1979–81 | 70.1 | 77.6 | 14.2 | 18.4 |
| 1989–91 | 71.8 | 78.8 | 15.1 | 19.0 |
| 1997 | 73.6 | 79.4 | 15.9 | 19.2 |
| 1998 | 73.8 | 79.5 | 16.0 | 19.2 |
| 1999 | 73.9 | 79.4 | 16.1 | 19.1 |
| 2000 | 74.1 | 79.5 | 16.3 | 19.2 |

NOTES: Death rates used to calculate life expectancies for 1997–2000 are based on postcensal 1990-based population estimates. See Appendix I, Population Census and Population Estimates. Life expectancies prior to 1997 are from decennial life tables based on census data and deaths for a 3-year period around the census year. Beginning in 1997, the annual life tables are complete life tables based on a methodology similar to that used for decennial life tables. Alaska and Hawaii were included beginning in 1959. For decennial periods prior to 1929–31, data are limited to death registration States: 1900–02 and 1909–11, 10 States and the District of Columbia; 1919–21, 34 States and the District of Columbia. Deaths to nonresidents were excluded beginning in 1970. See Appendix II, Life expectancy. See related *Health, United States, 2003,* table 27.

SOURCES: Anderson RN. United States life tables, 1997. National vital statistics reports; vol 47 no 28. Hyattsville, Maryland: National Center for Health Statistics. 1999 (data for 1900–97); Anderson RN. United States life tables, 1998. National vital statistics reports; vol 48 no 18. Hyattsville, Maryland: National Center for Health Statistics. 2001 (data for 1998); Anderson RN, DeTurk PB. United States life tables, 1999. National vital statistics reports; vol 50 no 6. Hyattsville, Maryland: National Center for Health Statistics. 2002 (data for 1999); Arias E. United States life tables, 2000. National vital statistics reports; vol 51 no 3. Hyattsville, Maryland: National Center for Health Statistics. 2002 (data for 2000).

**Data table for figure 22. Infant, neonatal, and postneonatal mortality rates: United States, 1950–2000**

| Year | Infant | Neonatal | Postneonatal |
|---|---|---|---|
| | Deaths per 1,000 live births | | |
| 1950 | 29.2 | 20.5 | 8.7 |
| 1960 | 26.0 | 18.7 | 7.3 |
| 1970 | 20.0 | 15.1 | 4.9 |
| 1980 | 12.6 | 8.5 | 4.1 |
| 1985 | 10.6 | 7.0 | 3.7 |
| 1990 | 9.2 | 5.8 | 3.4 |
| 1995 | 7.6 | 4.9 | 2.7 |
| 1996 | 7.3 | 4.8 | 2.5 |
| 1997 | 7.2 | 4.8 | 2.5 |
| 1998 | 7.2 | 4.8 | 2.4 |
| 1999 | 7.1 | 4.7 | 2.3 |
| 2000 | 6.9 | 4.6 | 2.3 |

NOTES: Infant is defined as under 1 year of age, neonatal as under 28 days of age, and postneonatal as between 28 days and 1 year of age. See related *Health, United States, 2003,* table 22.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

**Data table for figure 23. Infant mortality rates by detailed race and Hispanic origin of mother: United States, 1998–2000**

| *Race and Hispanic origin of mother* | *Infant deaths per 1,000 live births* |
|---|---|
| White, not Hispanic or Latino | 5.8 |
| Black or African American, not Hispanic or Latino | 13.9 |
| Hispanic or Latino | 5.7 |
| Puerto Rican | 8.1 |
| Other and unknown Hispanic or Latino | 6.9 |
| Mexican | 5.5 |
| Central and South American | 4.9 |
| Cuban | 4.3 |
| Asian or Pacific Islander | 5.1 |
| Hawaiian | 8.7 |
| Filipino | 5.9 |
| Other Asian or Pacific Islander | 5.2 |
| Japanese | 3.8 |
| Chinese | 3.5 |
| American Indian or Alaska Native | 9.0 |

NOTES: Infant is defined as under 1 year of age. Persons of Hispanic origin may be of any race. Asian or Pacific Islander, and American Indian or Alaska Native races include persons of Hispanic and non-Hispanic origin. See related *Health, United States, 2003,* table 19.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, National Linked Birth/Infant Death Data Sets.

**Data table for figure 24. Death rates for leading causes of death among persons 15–24 years of age: United States, 1950–2000**

| Year | All causes | Unintentional injuries | Homicide | Suicide | Cancer | Heart disease |
|---|---|---|---|---|---|---|
| | Deaths per 100,000 population | | | | | |
| 1950 | 128.1 | 54.8 | 5.8 | 4.5 | 8.6 | 6.8 |
| 1960 | 106.3 | 56.0 | 5.6 | 5.2 | 8.3 | 4.0 |
| 1970 | 127.7 | 68.7 | 11.3 | 8.8 | 8.3 | 3.0 |
| 1980 | 115.4 | 61.5 | 15.4 | 12.3 | 6.3 | 2.9 |
| 1985 | 94.9 | 47.8 | 11.7 | 12.8 | 5.4 | 2.8 |
| 1990 | 99.2 | 43.8 | 19.7 | 13.2 | 4.9 | 2.5 |
| 1995 | 93.4 | 37.6 | 19.6 | 13.0 | 4.5 | 2.8 |
| 1996 | 88.2 | 37.4 | 17.6 | 11.8 | 4.4 | 2.6 |
| 1997 | 84.6 | 35.7 | 16.3 | 11.2 | 4.4 | 2.9 |
| 1998 | 80.6 | 35.0 | 14.3 | 10.9 | 4.5 | 2.8 |
| 1998 (Comparability-modified) | 80.6 | 36.1 | 14.3 | 10.9 | 4.5 | 2.8 |
| 1999 | 79.3 | 35.3 | 12.9 | 10.1 | 4.5 | 2.8 |
| 2000 | 79.9 | 36.0 | 12.6 | 10.2 | 4.4 | 2.6 |

NOTES: Causes of death shown are the five leading causes of death among persons 15–24 years of age in 2000. 1950 death rates are based on the 6th revision of the International Classification of Diseases (ICD-6), 1960 death rates on the ICD-7, 1970 death rates on the ICDA-8, and 1980–98 death rates on the ICD-9. 1998 (Comparability-modified) death rates use comparability ratios to adjust the rate to be comparable to records classified according to ICD-10. Starting in 1999 death rates are based on ICD-10. Comparability ratios for selected ICD revisions are available at www.cdc.gov/nchs/data/statab/comp2.pdf. Homicide refers to deaths due to assault. Suicide refers to deaths from intentional self-harm. Cancer refers to malignant neoplasms. The population estimates used to compute rates for 1991 through 2000 differ from those used previously. Starting with *Health, United States, 2003,* rates for 1991–99 were revised using intercensal population estimates based on Census 2000. Rates for 2000 were computed using Census 2000 counts. See Appendix I, Population Census and Population Estimates. See Appendix II, Age adjustment, Cause of death, and Comparability ratio. See related *Health, United States, 2003,* tables 35, 36, 38, 45, and 46.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

**Data table for figure 25. Percent of deaths due to leading causes of death among persons 15–24 years of age: United States, 2000**

| Cause of death | Number | Percent |
|---|---|---|
| All causes | 31,307 | 100.0 |
| Unintentional injuries | 14,113 | 45.1 |
| Homicide | 4,939 | 15.8 |
| Suicide | 3,994 | 12.8 |
| Cancer | 1,713 | 5.5 |
| Heart disease | 1,031 | 3.3 |
| Other causes | 5,517 | 17.6 |

NOTES: 2000 deaths are coded according to the 10th revision of the International Classification of Diseases (ICD-10). Homicide refers to deaths due to assault. Suicide refers to deaths from intentional self-harm. Cancer refers to malignant neoplasms. See Appendix II, Cause of death. See related *Health, United States, 2003,* tables 32, 36, 38, 45, and 46.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

**Data table for figure 26. Death rates for leading causes of death among persons 25–44 years of age: United States, 1950–2000**

| Year | All causes | Unintentional injuries | Cancer | Heart disease | Suicide | Year | Human immunodeficiency virus (HIV) disease |
|---|---|---|---|---|---|---|---|
| | Deaths per 100,000 population | | | | | | Deaths per 100,000 population |
| 1950 | 276.9 | 45.7 | 43.3 | 55.9 | 11.9 | 1987 | 13.0 |
| 1960 | 229.8 | 41.9 | 41.4 | 47.8 | 12.3 | 1988 | 16.0 |
| 1970 | 243.1 | 49.7 | 39.9 | 41.6 | 15.6 | 1989 | 21.0 |
| 1980 | 185.9 | 41.1 | 32.7 | 28.1 | 15.7 | 1990 | 23.9 |
| 1985 | 169.8 | 34.3 | 31.0 | 24.6 | 14.9 | 1991 | 27.0 |
| 1990 | 185.0 | 33.6 | 29.3 | 20.6 | 15.3 | 1992 | 30.4 |
| 1995 | 193.0 | 32.4 | 27.1 | 21.1 | 15.1 | 1993 | 33.3 |
| 1996 | 175.9 | 31.5 | 26.6 | 20.2 | 14.8 | 1994 | 36.9 |
| 1997 | 160.3 | 31.4 | 26.2 | 19.9 | 14.5 | 1995 | 37.0 |
| 1998 | 155.7 | 31.5 | 25.6 | 20.2 | 14.3 | 1996 | 25.8 |
| 1998 (Comparability-modified) | 155.7 | 32.5 | 25.8 | 19.9 | 14.2 | 1997 | 13.1 |
| 1999 | 154.4 | 31.9 | 24.8 | 19.9 | 13.6 | 1998 | 10.2 |
| 2000 | 154.6 | 32.0 | 24.4 | 19.3 | 13.4 | 1998 (Comparability-modified) | 11.7 |
| | | | | | | 1999 | 10.6 |
| | | | | | | 2000 | 9.9 |

NOTES: Death rates are age adjusted to the year 2000 standard population using two age groups: 25–34 years and 35–44 years. Causes of death shown are the five leading causes of death among persons 25–44 years of age in 2000. 1950 death rates are based on the 6th revision of the International Classification of Diseases (ICD-6), 1960 death rates on the ICD-7, 1970 death rates on the ICDA-8, and 1980–98 death rates on the ICD-9. 1998 (Comparability-modified) death rates use comparability ratios to adjust the rate to be comparable to records classified according to ICD-10. Starting in 1999 death rates are based on ICD-10. Comparability ratios for selected ICD revisions are available at www.cdc.gov/nchs/statab/data/comp2.pdf. Cancer refers to malignant neoplasms. Suicide refers to deaths from intentional self-harm. The population estimates used to compute rates for 1991 through 2000 differ from those used previously. Starting with *Health, United States, 2003,* rates for 1991–99 were revised using intercensal population estimates based on Census 2000. Rates for 2000 were computed using Census 2000 counts. See Appendix I, Population Census and Population Estimates. See Appendix II, Age adjustment, Cause of death, and Comparability ratio. See related *Health, United States, 2003,* tables 35, 36, 38, 42, and 46.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

**Data table for figure 27. Percent of deaths due to leading causes of death among persons 25–44 years of age: United States, 2000**

| Cause of death | Number | Percent |
|---|---|---|
| All causes | 130,249 | 100.0 |
| Unintentional injuries | 27,182 | 20.9 |
| Cancer | 20,436 | 15.7 |
| Heart disease | 16,139 | 12.4 |
| Suicide | 11,354 | 8.7 |
| Human immunodeficiency virus (HIV) disease | 8,356 | 6.4 |
| Other causes | 46,782 | 35.9 |

NOTES: 2000 deaths are coded according to the 10th revision of the International Classification of Diseases (ICD-10). Cancer refers to malignant neoplasms. Suicide refers to deaths from intentional self-harm. See Appendix II, Cause of death. See related *Health, United States, 2003,* tables 32, 36, 38, 42, and 46.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

**Data table for figure 28. Death rates for leading causes of death among persons 45–64 years of age: United States, 1950–2000**

| Year | All causes | Cancer | Heart disease | Unintentional injuries | Stroke | Diabetes | Chronic lower respiratory diseases |
|---|---|---|---|---|---|---|---|
| | Deaths per 100,000 population | | | | | | |
| 1950 | 1,265.3 | 259.8 | 504.8 | 60.0 | 119.0 | 24.1 | - - - |
| 1960 | 1,140.7 | 263.4 | 454.9 | 53.4 | 87.7 | 22.2 | - - - |
| 1970 | 1,094.9 | 277.0 | 401.0 | 57.3 | 70.8 | 22.2 | - - - |
| 1980 | 883.5 | 280.6 | 303.5 | 39.2 | 40.9 | 16.3 | 22.7 |
| 1985 | 823.7 | 281.9 | 267.4 | 32.4 | 34.4 | 15.7 | 25.0 |
| 1990 | 757.6 | 273.1 | 217.5 | 30.3 | 30.2 | 19.8 | 24.7 |
| 1995 | 709.8 | 247.2 | 192.3 | 29.3 | 28.5 | 22.8 | 23.7 |
| 1996 | 692.5 | 240.6 | 187.4 | 29.7 | 28.3 | 23.2 | 23.4 |
| 1997 | 669.8 | 234.1 | 179.9 | 29.9 | 27.3 | 22.6 | 23.0 |
| 1998 | 651.5 | 227.4 | 171.5 | 30.2 | 26.3 | 22.4 | 22.2 |
| 1998 (Comparability-modified) | 651.5 | 228.9 | 169.1 | 31.1 | 27.8 | 22.6 | 23.3 |
| 1999 | 648.7 | 224.6 | 164.1 | 31.3 | 25.2 | 22.9 | 23.8 |
| 2000 | 648.2 | 221.5 | 159.8 | 31.9 | 25.8 | 22.8 | 22.6 |

- - - Data not available.

NOTES: Death rates are age adjusted to the year 2000 standard population using two age groups: 45–54 years and 55–64 years. Causes of death shown are the six leading causes of death among persons 45–64 years of age in 2000. 1950 death rates are based on the 6th revision of the International Classification of Diseases (ICD-6), 1960 death rates on the ICD-7, 1970 death rates on the ICDA-8, and 1980–98 death rates on the ICD-9. 1998 (Comparability-modified) death rates use comparability ratios to adjust the rate to be comparable to records classified according to ICD-10. Starting in 1999 death rates are based on ICD-10. Comparability ratios for selected ICD revisions are available at www.cdc.gov/nchs/data/statab/comp2.pdf. Death rates for chronic lower respiratory diseases are not available prior to 1980 because of changes in medical terminology and the classification of these terms in the relevant ICD revisions. Cancer refers to malignant neoplasms. Stroke refers to cerebrovascular diseases. The population estimates used to compute rates for 1991 through 2000 differ from those used previously. Starting with *Health, United States, 2003,* rates for 1991–99 were revised using intercensal population estimates based on Census 2000. Rates for 2000 were computed using Census 2000 counts. See Appendix I, Population Census and Population Estimates. See Appendix II, Age adjustment, Cause of death, and Comparability ratio. See related *Health, United States, 2003,* tables 35, 36, 37, 38, and 41.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

**Data table for figure 29. Percent of deaths due to leading causes of death among persons 45–64 years of age: United States, 2000**

| Cause of death | Number | Percent |
|---|---|---|
| All causes | 401,187 | 100.0 |
| Cancer | 137,039 | 34.2 |
| Heart disease | 98,879 | 24.6 |
| Unintentional injuries | 19,783 | 4.9 |
| Stroke | 15,967 | 4.0 |
| Diabetes | 14,140 | 3.5 |
| Chronic lower respiratory diseases | 13,990 | 3.5 |
| Other causes | 101,389 | 25.3 |

NOTES: 2000 deaths are coded according to the 10th revision of the International Classification of Diseases (ICD-10). Cancer refers to malignant neoplasms. Stroke refers to cerebrovascular diseases. See Appendix II, Cause of death. See related *Health, United States, 2003,* tables 32, 36, 37, 38, and 41.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

**Data table for figure 30. Death rates due to leading causes of death among persons 65 years of age and over: United States, 1950–2000**

| Year | All causes | Heart disease | Cancer | Stroke | Chronic lower respiratory diseases | Influenza and pneumonia | Diabetes |
|---|---|---|---|---|---|---|---|
| | Deaths per 100,000 population | | | | | | |
| 1950 | 7,933.3 | 3,613.3 | 952.4 | 1,188.8 | - - - | 273.0 | 130.5 |
| 1960 | 7,536.4 | 3,503.6 | 950.9 | 1,225.9 | - - - | 317.7 | 129.2 |
| 1970 | 6,717.5 | 3,089.4 | 971.0 | 1,015.5 | - - - | 243.9 | 142.6 |
| 1980 | 5,900.2 | 2,652.9 | 1,060.2 | 673.8 | 180.6 | 215.8 | 107.7 |
| 1985 | 5,694.0 | 2,430.8 | 1,091.2 | 531.0 | 225.4 | 242.9 | 103.4 |
| 1990 | 5,395.9 | 2,108.8 | 1,149.3 | 451.9 | 246.7 | 260.7 | 121.3 |
| 1995 | 5,264.7 | 1,927.4 | 1,152.5 | 437.6 | 271.1 | 237.1 | 135.9 |
| 1996 | 5,221.7 | 1,877.6 | 1,140.8 | 433.1 | 275.5 | 233.5 | 139.4 |
| 1997 | 5,178.8 | 1,827.2 | 1,127.3 | 423.7 | 280.2 | 236.3 | 140.2 |
| 1998 | 5,168.0 | 1,791.5 | 1,119.2 | 411.8 | 286.7 | 247.4 | 143.4 |
| 1998 (Comparability-modified) | 5,168.0 | 1,766.1 | 1,126.8 | 436.0 | 300.4 | 172.7 | 144.6 |
| 1999 | 5,220.0 | 1,766.9 | 1,126.1 | 433.2 | 313.0 | 167.4 | 150.0 |
| 2000 | 5,168.9 | 1,706.6 | 1,123.6 | 425.9 | 305.1 | 168.6 | 150.3 |

NOTES: Death rates are age adjusted to the year 2000 standard population using three age groups: 65–74 years, 75–84 years, and 85 years and over. Causes of death shown are the six leading causes of death among persons 65 years of age and over in 2000. 1950 death rates are based on the 6th revision of the International Classification of Diseases (ICD-6), 1960 death rates on the ICD-7, 1970 death rates on the ICDA-8, and 1980–98 death rates on the ICD-9. 1998 (Comparability-modified) death rate use comparability ratios to adjust the rate to be comparable to records classified according to ICD-10. Starting in 1999 death rates are based on ICD-10. Comparability ratios for selected ICD revisions are available at www.cdc.gov/nchs/data/statab/comp2.pdf. Death rates for chronic lower respiratory diseases are not shown prior to 1980 because of changes in medical terminology and the classification of these terms in the relevant ICD revisions. Cancer refers to malignant neoplasms. Stroke refers to cerebrovascular diseases. The population estimates used to compute rates for 1991 through 2000 differ from those used previously. Starting with *Health, United States,* 2003, rates for 1991–99 were revised using intercensal population estimates based on Census 2000. Rates for 2000 were computed using Census 2000 counts. See Appendix I, Population Census and Population Estimates. See Appendix II, Age adjustment, Cause of death, and Comparability ratio. See related *Health, United States, 2003,* tables 35, 36, 37, 38, and 41.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

**Data table for figure 31. Percent of deaths due to leading causes of death among persons 65 years of age and over: United States, 2000**

| Cause of death | Number | Percent |
|---|---|---|
| All causes | 1,799,825 | 100.0 |
| Heart disease | 593,707 | 33.0 |
| Cancer | 392,366 | 21.8 |
| Stroke | 148,045 | 8.2 |
| Chronic lower respiratory diseases | 106,375 | 5.9 |
| Influenza and pneumonia | 58,557 | 3.3 |
| Diabetes | 52,414 | 2.9 |
| Other causes | 448,361 | 24.9 |

NOTES: 2000 deaths are coded according to the 10th revision of the International Classification of Diseases (ICD-10). Cancer refers to malignant neoplasms. Stroke refers to cerebrovascular diseases. See Appendix II, Cause of death. See related *Health, United States, 2003,* tables 32, 36, 37, 38, and 41.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

**Data table for figure 32. Diagnosed diabetes prevalence among adults 18 years of age and over by age: United States, 1997–2002**

| Year | *All adults, age adjusted* | | *All adults, crude* | | *18–44 years* | | *45–54 years* | | *55–64 years* | | *65 years and over* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Percent* | *SE* | *Percent* | *SE* | *Percent* | *SE* | *Percent* | *SE* | *Percent* | *SE* | *Percent* | *SE* |
| 1997 | 5.3 | 0.1 | 5.1 | 0.1 | 1.5 | 0.1 | 5.6 | 0.3 | 10.8 | 0.6 | 13.2 | 0.5 |
| 1998 | 5.4 | 0.1 | 5.3 | 0.1 | 1.6 | 0.1 | 5.9 | 0.4 | 10.9 | 0.6 | 13.2 | 0.5 |
| 1999 | 5.5 | 0.1 | 5.4 | 0.1 | 1.7 | 0.1 | 5.9 | 0.4 | 11.2 | 0.6 | 13.2 | 0.5 |
| 2000 | 6.0 | 0.1 | 5.9 | 0.2 | 1.9 | 0.1 | 6.5 | 0.4 | 11.2 | 0.6 | 14.6 | 0.5 |
| 2001 | 6.5 | 0.2 | 6.4 | 0.2 | 2.0 | 0.1 | 7.0 | 0.4 | 13.0 | 0.6 | 15.2 | 0.5 |
| 2002 | 6.5 | 0.2 | 6.5 | 0.2 | 1.9 | 0.1 | 7.3 | 0.4 | 12.5 | 0.6 | 16.0 | 0.5 |

SE Standard error.

NOTES: Data are for the civilian noninstitutionalized population. Percents are age adjusted to the 2000 standard population using four age groups: 18–44 years, 45–54 years, 55–64 years, and 65 years and over. Diabetes prevalence is based on self-report of physician diagnosis and excludes women reporting diabetes only during pregnancy. Persons reporting borderline diabetes were not coded as having diabetes in this analysis. See Appendix II, Age adjustment.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey (1997–2001 data).
Ni H, Schiller J, Hao C, Cohen RA, Barnes P. Early release of selected estimates based on data from the 2002 National Health Interview Survey. National Center for Health Statistics. Available from www.cdc.gov/nchs/nhis.htm. June 2003.

**Data table for figure 33. Ambulatory care visits for diabetes among adults 18 years of age and over by age: United States, 1995–96, 1997–98, and 1999–2000**

| Year | *18–44 years* | | *45–54 years* | | *55–64 years* | | *65 years and over* | |
|---|---|---|---|---|---|---|---|---|
| | *Rate* | *SE* | *Rate* | *SE* | *Rate* | *SE* | *Rate* | *SE* |
| | Visits per 1,000 population | | | | | | | |
| 1995–96 | 31.1 | 3.4 | 150.1 | 12.1 | 302.9 | 21.7 | 436.3 | 24.9 |
| 1997–98 | 48.8 | 4.0 | 188.2 | 13.1 | 409.0 | 30.1 | 509.2 | 28.7 |
| 1999–2000 | 44.5 | 4.8 | 202.3 | 18.1 | 433.3 | 33.2 | 567.9 | 41.5 |

SE Standard error.

NOTES: Population estimates are for the civilian noninstitutionalized population. Population estimates are 1990-based postcensal estimates as of July 1 and are adjusted for net underenumeration using the 1990 National Population Adjustment Matrix from the U.S. Bureau of the Census. See Appendix I, Population Census and Population Estimates. Diabetes visits include visits to physician offices and hospital outpatient department clinics with a diagnosis of diabetes (ICD–9–CM:250) and are not limited to first-listed diagnosis.

SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Ambulatory Medical Care Survey, and National Hospital Ambulatory Medical Care Survey.

**Data table for figure 34. Hospital discharges for diabetes among adults 45 years of age and over by age: United States, 1990–2001**

| Year | Age | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 45 years and over, age adjusted | | 45–54 years | | 55–64 years | | 65–74 years | | 75 years and over | |
| | Rate | SE | Rate | SE | Rate | SE | Rate | SE | Rate | SE |
| | Discharges per 10,000 population | | | | | | | | | |
| 1990–91 | 319.1 | 11.9 | 121.0 | 4.8 | 270.3 | 9.4 | 487.3 | 16.9 | 648.0 | 25.9 |
| 1992–93 | 352.7 | 13.0 | 139.4 | 5.2 | 302.9 | 11.8 | 536.9 | 19.3 | 699.5 | 25.5 |
| 1994–95 | 367.0 | 13.8 | 140.3 | 5.2 | 307.3 | 11.7 | 561.6 | 21.6 | 746.6 | 27.3 |
| 1996–97 | 384.3 | 13.0 | 148.5 | 5.6 | 322.1 | 11.5 | 576.1 | 19.3 | 791.1 | 24.8 |
| 1998–99 | 408.5 | 14.2 | 151.1 | 5.5 | 347.8 | 12.8 | 628.0 | 20.1 | 831.3 | 29.4 |
| 2000–01 | 410.4 | 15.8 | 156.6 | 5.4 | 344.0 | 13.9 | 632.4 | 24.2 | 830.6 | 32.4 |

SE Standard error.

NOTES: Population estimates are for the civilian population. Data for 1990–99 were computed using 1990-based postcensal population estimates as of July 1 and are adjusted for net underenumeration using the 1990 National Population Adjustment Matrix from the U.S. Bureau of the Census. Data for 2000–01 were computed using 2000-based postcensal estimates and are not strictly comparable with estimates for earlier years (See Appendix I, Population Census and Population Estimates). Rates for adults 45 years of age and over are age adjusted to the 2000 standard population using four age groups: 45–54 years, 55–64 years, 65–74 years, and 75 years and over. Diabetes discharges include any discharge diagnosis of diabetes (ICD–9–CM: 250) recorded and are not limited to first-listed diagnosis.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey.