Health, United States, 2003

With Chartbook on Trends in the Health of Americans

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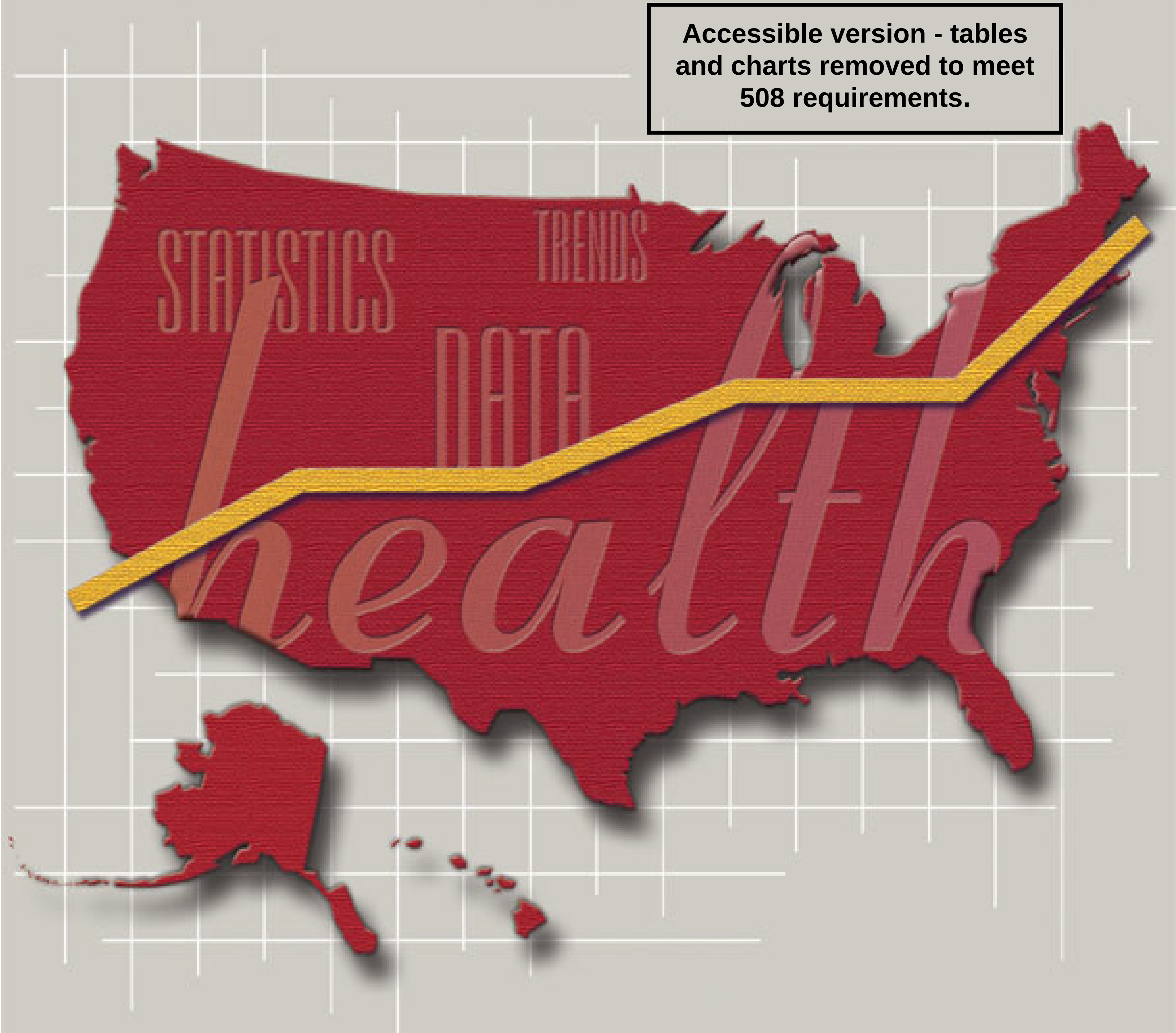

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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National Center for Health Statistics

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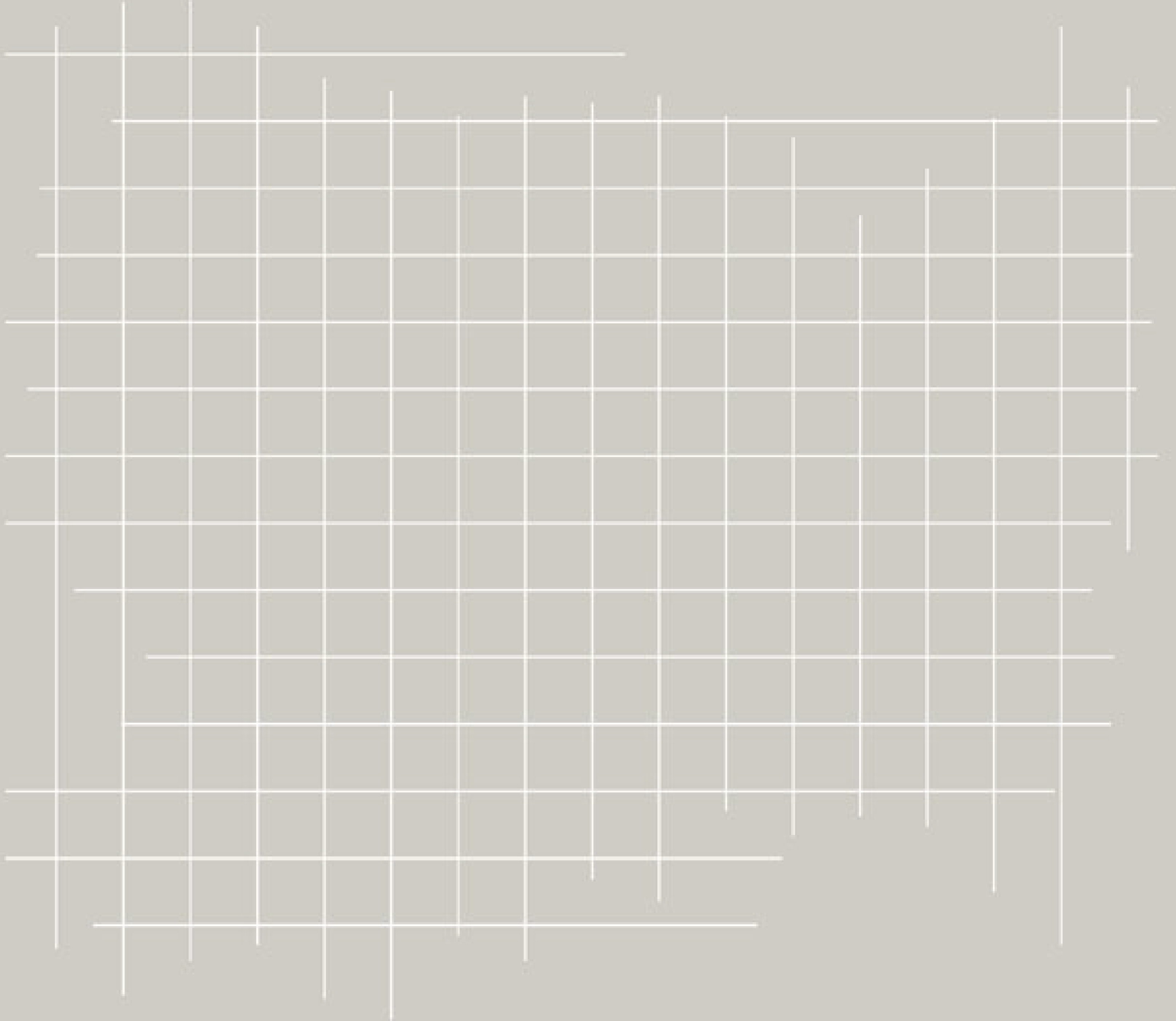

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

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Preface

Health, United States, 2003 is the 27th report on the health status of the Nation, and is submitted by the Secretary of the Department of Health and Human Services to the President and Congress of the United States in compliance with Section 308 of the Public Health Service Act. This report was compiled by the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC). The National Committee on Vital and Health Statistics served in a review capacity.

The *Health, United States* series presents national trends in health statistics. Major findings are presented in the highlights section. The report also includes a chartbook, trend tables, extensive appendixes, and an index.

Chartbook

The second *Chartbook on Trends in the Health of Americans* updates and expands information in last year's chartbook. In addition to assessing the Nation's health by presenting trends and current information on selected determinants and measures of health status, the 2003 chartbook includes a feature on diabetes with charts on prevalence, utilization of ambulatory and inpatient health services by persons with a diagnosis of diabetes, and mortality due to diabetes. Information was expanded to include more data by race and ethnicity in charts where sample size is sufficiently large, a more inclusive measure of physical activity for adults that takes into account both leisure-time and usual daily activity, limitation in activities of daily living by Medicare beneficiaries, and trends in poverty by age. Determinants of health considered in the chartbook include demographic factors, health insurance coverage, health behaviors and risk factors, and preventive health care. Measures of health status include mortality and limitations of activity due to chronic health conditions. Many measures are shown separately for persons of different ages because of the strong effect of age on health, as well as differences in causes of morbidity and mortality across the age span. Selected figures also highlight differences in determinants and measures of health status by such characteristics as sex, race, and Hispanic origin.

Trend Tables

The chartbook section is followed by 151 trend tables organized around four major subject areas: health status and determinants, health care utilization, health care resources, and health care expenditures. A major criterion used in selecting the trend tables is availability of comparable national data over a period of several years. The tables report data for selected years to highlight major trends in health statistics. Earlier editions of *Health, United States* may present data for additional years that are not included in the current printed report. Where possible, these additional years of data are available in Excel spreadsheet files on the *Health, United States* Web site. Tables with additional data years are listed in Appendix III.

Racial and Ethnic Data

Many tables in *Health, United States* present data according to race and Hispanic origin consistent with Department-wide emphasis on expanding racial and ethnic detail when presenting health data. Trend data on race and ethnicity are in the greatest detail possible, after taking into account the quality of data, the amount of missing data, and the number of observations. The large differences in health status by race and Hispanic origin documented in this report may be explained by several factors including socioeconomic status, health practices, psychosocial stress and resources, environmental exposures, discrimination, and access to health care. New standards for Federal data on race and ethnicity are described in Appendix II under *Race*.

Changes in This Edition

Each volume of *Health, United States* is prepared to maximize its usefulness as a standard reference source while maintaining its continuing relevance. Comparability is fostered by including similar trend tables in each volume. Timeliness is maintained by adding new tables each year to reflect emerging topics in public health and improving the content of ongoing tables. New to *Health, United States, 2003* is a table on screening for cervical cancer (table 81) based on National Health Interview Survey (NHIS) data and a table that compares the distribution of medical expenditures by age between 1987 and 1998–99 (table 119) based on data from the National Medical Expenditure Survey (1987) and Medical

Expenditure Panel Survey (1998–99). Medicare coverage in table 130 is now differentiated between those with Medicare managed care through an HMO and those with only Medicare fee-for-service, based on NHIS data.

Other changes were prompted by the availability of population estimates that were revised to reflect the 2000 census. Population estimates in table 1 include bridged-race intercensal population estimates for 1991–99, and bridged-race population estimates for 2000 and 2001 that were produced under a collaborative arrangement with the U.S. Census Bureau. Mortality rates in tables 29, 35–42, and 44–47, and birth rates in table 3 were recalculated based on these revised population estimates. Hospital discharge rates for 2000 and 2001 in tables 90–92 and 94 are also based on the 2000 census.

Appendixes

Appendix I describes each data source used in the report and provides references for further information about the sources. Appendix I is reorganized with data sources listed alphabetically within two broad categories: Government Sources, and Private and Global Sources.

Appendix II is an alphabetical listing of terms used in the report. It also presents standard populations used for age adjustment (tables I, II, and III); ICD codes for causes of death shown in *Health, United States* from the Sixth through Tenth Revisions and the years when the Revisions were in effect (tables IV and V); comparability ratios between ICD-9 and ICD-10 for selected causes (table VI); ICD-9-CM codes for external cause-of-injury, diagnostic, and procedure categories (tables VII, IX, and X); industry codes from the Standard Industrial Classification Manual (table VIII); and sample tabulations of NHIS data comparing the 1977 and 1997 Standards for Federal data on race and Hispanic origin (tables XI and XII).

Appendix III lists tables for which additional years of trend data are available electronically in Excel spreadsheet files on the *Health, United States* home page and CD-ROM, described below under Electronic Access.

Index

The Index to Trend Tables is a useful tool for locating data by topic. Tables are cross-referenced by such topics as Child and adolescent health; Women's health; Nutrition-related data; State data; American Indian, Asian, Black, and Hispanic origin populations; Education; Poverty status; Disability; and Metropolitan/nonmetropolitan data.

Electronic Access

Health, United States may be accessed on the World Wide Web at www.cdc.gov/nchs/hus.htm. From the *Health, United States* Web site, one may also register for the *Health, United States* electronic mailing list to receive announcements about release dates and notices of updates to tables.

Health, United States, 2003, the chartbook, and each of the 151 individual trend tables are available as separate Acrobat .pdf files on the Web. Individual tables are downloadable as Excel spreadsheet files. Pdf and spreadsheet files for selected tables will be updated on the Web if more current data become available near the time when the printed report is released. Readers who register for the electronic mailing list will be notified of these table updates. Previous editions of *Health, United States* and chartbooks, starting with the 1993 edition, also may be accessed from the *Health, United States* Web site.

Health, United States is also available on CD-ROM, where it can be viewed, searched, printed, and saved using Adobe Acrobat software on the CD-ROM.

Copies of the Report

Copies of *Health, United States, 2003* and the CD-ROM may be purchased from the Government Printing Office through links to GPO on the *Health, United States* Web site.

Questions?

For answers to questions about this report, contact:

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Health, United States, 2003 highlights, trend tables, and appendixes were prepared under the leadership of Kate Prager. Trend tables were prepared by Amy B. Bernstein, Alan J. Cohen, Margaret A. Cooke, La-Tonya D. Curl, Catherine R. Duran, Virginia M. Freid, Ji-Eun Lee, Andrea P. MacKay, Mitchell B. Pierre, Jr., Rebecca A. Placek, Anita L. Powell, Kate Prager, Laura A. Pratt, and Henry Xia, with assistance from Stephanie Furr and Ryan Sheely. Appendix tables and index to trend tables were assembled by Anita L. Powell. Production planning and coordination of trend tables were managed by Rebecca A. Placek. Administrative and word processing assistance were provided by Carole J. Hunt, Lillie C. Featherstone, and Anne E. Mann.

The ***Chartbook on Trends in the Health of Americans*** was prepared by Virginia M. Freid, Kate Prager, Andrea P. MacKay, and Henry Xia. This year's chartbook updates and expands on information presented in last year's edition prepared by Patricia N. Pastor, Diane M. Makuc, Cynthia Reuben, and Henry Xia. Data and analysis for specific charts were provided by Patricia M. Barnes, Margaret A. Cooke, Deborah D. Ingram, Ellen A. Kramarow, Patricia N. Pastor, and Charlotte A. Schoenborn. Graphs were drafted by La-Tonya D. Curl. Technical assistance was provided by Liming Cai, Alan J. Cohen, Catherine R. Duran, Mark S. Eberhardt, Lois A. Fingerhut, Ji-Eun Lee, Hanyu Ni, Elsie R. Pamuk, Mitchell B. Pierre, Jr., Rebecca A. Placek, Felicity Skidmore, and Gregory Spencer of the U.S. Census Bureau.

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Major Findings From *Health, United States, 2003*

Health, United States, 2003 *is the 27th report on the health status of the Nation. It assesses the Nation's health by presenting trends and current information on selected determinants and measures of health status in a chartbook followed by 151 trend tables organized around four major subject areas: health status and determinants, health care utilization, health care resources, and health care expenditures. The 2003 Chartbook on Trends in the Health of Americans features a section on diabetes, a serious and increasingly common chronic health condition and a significant cause of illness, disability, and death in the United States. Highlights on the featured topic, diabetes, follow other major findings from the report.*

Health Status and Determinants

Population characteristics

Important changes in the U.S. population will shape future efforts to improve health and health care. Two major changes in the demographic characteristics of the U.S. population are the growth of the older population and the increasing racial and ethnic diversity of the Nation.

From 1950 to 2000 the proportion of the **population age 65 years and over** rose from 8 to 12 percent. By 2050 it is projected that one in five Americans will be 65 years of age or over (figure 2).

The **racial and ethnic composition** of the Nation has changed over time. The Hispanic population and the Asian and Pacific Islander population have grown more rapidly than other racial and ethnic groups in recent decades. In 2000 more than 12 percent of the U.S. population identified themselves as Hispanic and 4 percent as Asian or Pacific Islander (figure 3).

In 2001 the overall percent of Americans living in **poverty** was 11.7 percent, up from 11.3 percent in 2000, the first increase in the poverty rate since 1993. In 2001 more than one-half of black and Hispanic children under 18 years and more than one-half of the black and Hispanic population age 65 years and over were either poor or near poor (figures 4 and 5 and table 2).

Fertility

Birth rates for teens continued their steady decline while birth rates for women 30–44 years of age increased in 2001.

The **birth rate for teenagers** declined for the 10th consecutive year in 2001, to 45.3 births per 1,000 women aged 15–19 years, the lowest rate in more than six decades. The birth rate for 15–17 year olds in 2001 was 34 percent lower than in 1990, and the birth rate for older teens 18–19 years of age was 14 percent lower than the rate in 1990 (table 3).

In 2001 the **fertility rate** for Hispanic women (96.0 births per 1,000 Hispanic women 15–44 years) was 66 percent higher than for non-Hispanic white women (57.7 per 1,000) (table 3).

Between 1995 and 2001 the **birth rate for unmarried women** was relatively stable, about 44–45 births per 1,000 unmarried women ages 15–44 years. The birth rate for unmarried black women declined steadily over the past decade to 70.1 per 1,000 in 2001, and the birth rate for unmarried Hispanic women increased for the third year in a row to 98.0 per 1,000 (table 9).

Health Behaviors and Risk Factors

Health behaviors and risk factors have a significant effect on health outcomes. Cigarette smoking increases the risk of lung cancer, heart disease, emphysema, and other respiratory diseases. Overweight and obesity increase the risk of death and disease as well as the severity of disease. Regular physical activity lessens the risk of disease and enhances physical functioning. Heavy and chronic use of alcohol and use of illicit drugs increase the risk of disease and injuries. Environmental exposures also affect health. For example, air pollution contributes to respiratory illness, cardiovascular disease, and some cancers.

Since 1990 the percent of **adults who smoke cigarettes** has declined only slightly. In 2001, 25 percent of men and 21 percent of women were smokers. Cigarette smoking by adults is strongly associated with educational attainment. Adults with less than a high school education were nearly three times as likely to smoke as were those with a bachelor's degree or more education in 2001 (figure 12 and tables 59 and 60).

Between 1997 and 2001 the percent of **high school students who reported smoking cigarettes** in the past month declined from 36 percent to 29 percent, reversing an upward trend that began in the early 1990s (figure 12).

Cigarette smoking during pregnancy is a risk factor for poor birth outcomes such as low birthweight and infant death. In 2001 the proportion of mothers who smoked cigarettes during pregnancy declined to 12 percent, down from 20 percent in 1989. In 2001 the smoking rate during pregnancy for mothers ages 18–19 years (19 percent) remained higher than that for mothers of other ages (figure 12 and table 11).

In 2001, 38 percent of female **high school students** and 24 percent of male high school students did not engage in the recommended amounts of moderate or vigorous **physical activity**, about the same as in 1999 (figure 13).

In 2000 the percent of adults 18 years of age and over who were **inactive during their usual daily activity and leisure time** was higher for women than men (12 percent and 7 percent, age adjusted) and increased sharply with age. Nearly one-fifth of men age 65 years and over and more than one-quarter of women age 65 years and over were inactive (figure 14).

The prevalence of **overweight and obesity among adults** 20–74 years of age increased from 47 percent in 1976–80 to 65 percent in 1999–2000. During this period the prevalence of obesity among adults 20–74 years of age increased from 15 to 28 percent (percents are age adjusted) (figures 15 and 16 and table 68).

The prevalence of **obesity** among adults varies by **race and ethnicity**. In 1999–2000, 50 percent of non-Hispanic black women 20–74 years of age were obese, compared with 40 percent of women of Mexican origin and 30 percent of non-Hispanic white women (percents are age adjusted). Obesity among black women increased more than 60 percent since 1976–80, from 31 percent to 50 percent (figure 16 and table 68).

Between 1976–80 and 1999–2000 the prevalence of **overweight among children** 6–11 years of age more than doubled from 7 to 15 percent and the prevalence of overweight among **adolescents** 12–19 years of age more than tripled from 5 to 16 percent (figure 15 and table 69).

In 2001 among current drinkers age 18 years and over, 41 percent of men and 20 percent of women reported drinking **five or more alcoholic drinks** on at least 1 day in the past year (age-adjusted). This level of alcohol consumption was most common among young adults 18–24 years of age (table 65).

Between 2000 and 2001 the prevalence of **illicit drug use** within the past 30 days among youths 12–17 years of age increased 1 percentage point to 11 percent. The percent of youths reporting illicit drug use increased with age, from 4 percent among 12–13 year olds to 11 percent among those age 14–15 years and 18 percent among those 16–17 years in 2001 (table 62).

Between 1991 and 2001 the number of **cocaine-related emergency department episodes** per 100,000 population nearly tripled for persons 35 years and over, to 76 episodes per 100,000. The age group 26–34 years has the highest episode rate, 176 per 100,000 in 2001. The same patient may be involved in multiple drug-related episodes (table 64).

Air pollution causes premature death, cancer, and long-term damage to respiratory and cardiovascular systems. The presence of unacceptable levels of ground-level **ozone** is the largest source of air pollution. In 2001 approximately 41 percent of the U.S. population lived in areas designated as nonattainment areas for established health-based standards for ozone (table 51).

Morbidity

Limitation of activity due to chronic health conditions, limitations in activities of daily living, and self-assessed (or family member-assessed) health status are summary measures of morbidity presented in this report. Additional measures of morbidity that are presented include the incidence of specific diseases, injury-related emergency department use, and suicide attempts.

Limitation of activity due to chronic health conditions among children was more common among boys than among girls and was more than twice as high among school-age children (5–11 and 12–17 years of age) as among preschoolers (under 5 years of age) during the period 1999–2001. More than 9 percent of school-age and adolescent boys had an activity limitation compared with about 5 percent of girls, with the majority classified as having a limitation based on participation in special education. Between 1997 and 2001 levels of activity limitation among children remained about the same (figure 17 and table 56).

Limitations in handling personal care needs such as bathing (**activities of daily living or ADLs**) and routine needs such as shopping (**instrumental activities of daily living or IADLs**) increase sharply with age among the noninstitutionalized population. In 2001, about 14 percent of all Medicare beneficiaries 65 years of age and over were limited in at least one of six ADLs. Among noninstitutionalized persons age 65 years and over, about 10 percent had difficulty and received help or supervision with at least one ADL (figure 20).

Mental illness is a significant **cause of activity limitation** among working-age adults living in the community. In 1999–2001 mental illness was the second most frequently mentioned causal condition for activity limitation among adults 18–44 years of age and third among adults 45–54 years (figure 19).

In 2001 the percent of persons reporting **fair or poor health** was more than three times as high for persons living below the poverty level as for those with family income more than twice the poverty level (21 percent and 6 percent, age adjusted) (table 57).

New **pediatric AIDS cases** have been declining steadily since 1994 when U.S. Public Health Service guidelines recommended testing and treatment of pregnant women and neonates to reduce perinatal HIV transmission. The vast majority of pediatric AIDS cases occur through perinatal exposure. In 2001 fewer than 200 new AIDS cases were reported among children under the age of 13 years, compared with 745 in 1995 (table 53).

In 2001 **tuberculosis** incidence declined for the 9th consecutive year to 5.7 cases per 100,000 population, but the rate of decline slowed in 2001 compared with the previous 5 years (table 52).

Untreated **chlamydial infections** can lead to pelvic inflammatory disease (PID) with potentially serious complications including infertility, chronic pelvic pain, and life-threatening tubal pregnancy. In 2001 the reported rate for chlamydial infection was 278 cases per 100,000 persons. Rates of reported chlamydial infection have been increasing annually since the late 1980s when public programs for screening and treatment of women were first established to avert pelvic inflammatory disease and related complications (table 52).

Incidence rates for **all cancers combined** declined in the 1990s for males. Between 1990 and 1999 age-adjusted cancer incidence rates declined on average nearly 2 percent per year for Hispanic males, non-Hispanic white males, and black males. Although there was no significant change in cancer incidence for females overall, among Hispanic females rates decreased on average 1 percent per year, and among Asian or Pacific Islander females rates increased 1 percent per year (table 54).

The most frequently diagnosed **cancer sites in males** are prostate, followed by lung and bronchus, and colon and rectum. Cancer incidence at these sites is higher for black males than for males of other racial and ethnic groups. In 1999 age-adjusted cancer incidence rates for black males exceeded those for white males by 58 percent for prostate, 48 percent for lung and bronchus, and 10 percent for colon and rectum (table 54).

Breast cancer is the most frequently diagnosed cancer among females. Breast cancer incidence is higher for non-Hispanic white females than for females in other racial and ethnic groups. In 1999 age-adjusted breast cancer incidence rates for non-Hispanic white females exceeded those for black females by 24 percent, for Asian or Pacific Islander females by 48 percent, and for Hispanic females by 80 percent (table 54).

Injuries accounted for 37 percent of all visits to emergency departments (ED) in 1999–2000. The proportion of ED visits that were injury-related declined with age from 41 percent for children and adults under 45 years of age to 33 percent for persons 45–64 years and 26 percent for those 65 years and over. In 1999–2000 falls was the most often cited reason for injury-related ED visits among persons 45 years of age and older (tables 82 and 83).

Between 1993 and 2001, the percent of high school students who reported attempting suicide (8–9 percent) and whose **suicide attempts** required medical attention (about 3 percent) remained fairly constant. Girls were more likely than boys to consider or attempt suicide and were also more likely to make an attempt that required medical attention. However in 2000 adolescent boys (15–19 years of age) were nearly five times as likely to die from suicide as were adolescent girls, in part reflecting their choice of more lethal methods, such as firearms (tables 46 and 58).

Mortality Trends

Life expectancy and infant mortality are measures often used to gauge the overall health of a population. Life expectancy shows a long term upward trend and infant mortality attained a record low in 2000 and remained unchanged in 2001.

In 2001 **life expectancy** at birth for the total population reached a record high of 77.2 years, based on preliminary data, up from 75.4 years in 1990 (table 27).

In 2001 the **infant mortality** rate did not change from its 2000 record low of 6.9 infant deaths per 1,000 live births, based on preliminary data (figure 22 and table 22).

Since 1950 **mortality among teens and young adults age 15–24 years** has declined by 38 percent to 80 deaths per 100,000 population in 2000. Overall mortality at ages 15–24 years has declined, in part, due to decreases in death rates for unintentional injuries, cancer, heart disease, and infectious diseases. Homicide and suicide rates generally increased over this period, but have declined since the mid-1990s (figures 24 and 25).

Between 1950 and 2000 **mortality among adults age 25–44 years** declined by 44 percent overall, to 155 deaths per 100,000 population. Death rates for unintentional injuries, cancer, heart disease, and tuberculosis decreased substantially during this period. Suicide rates rose through 1980 and have since declined slightly. HIV disease was the leading cause of death in this age group in the mid-1990s; with decreasing HIV disease death rates, it dropped to the fifth leading cause of death between 1997 and 2000 (figures 26 and 27).

Since 1950 **mortality among adults age 45–64 years** has decreased by 49 percent overall, to 648 deaths per 100,000 population in 2000. During this period death rates for heart disease, stroke, and unintentional injury decreased while cancer mortality rose slowly through the 1980s and then declined. Cancer was the leading cause of death for 45–64 year olds in 2000, accounting for more than one-third of deaths in this age group (figures 28 and 29).

During the past 50 years **mortality among persons 65 years of age and over** has dropped by 35 percent to 5,169 deaths per 100,000 population in 2000. During this period death rates for heart disease and stroke have declined sharply while the death rate for cancer rose until 1995 and has since decreased slightly (figures 30 and 31).

Disparities in Mortality

Despite overall declines in mortality, racial and ethnic disparities in mortality, as well as gender disparities, persist. The gap in life expectancy between the sexes and between the black and white populations has been narrowing. As a result of revised death rates that incorporate information from the 2000 Census, some of the racial disparities in mortality are not as large as previously reported, while others are wider.

Infant mortality rates have declined for all **racial and ethnic groups**, but large disparities remain. In 2000 the infant mortality rate was highest for infants of non-Hispanic black mothers (13.6 deaths per 1,000 live births) and lowest for infants of mothers of Chinese origin (3.5 per 1,000 live births) (table 19).

Infant mortality increases as **mother's level of education** decreases. In 2000 the mortality rate for infants of mothers with less than 12 years of education was 58 percent higher than for infants of mothers with 13 or more years of education. This disparity was more marked among non-Hispanic white infants, for whom mortality among infants of mothers with less than a high school education was more than twice that for infants of mothers with more than a high school education (table 20).

Between 1990 and 2001 **life expectancy at birth** increased by more than 2 years for **males** and by 1 year for **females**. The difference in life expectancy between males and females narrowed from 7 years in 1990 to 5.4 years in 2001 (based on preliminary data) (figure 21 and table 27).

Between 1990 and 2001 **mortality from lung cancer** declined for **men** and increased for **women.** Although these trends reduced the sex differential for this cause of death, the age-adjusted death rate for lung cancer was still 86 percent higher for men than for women in 2000 and 83 percent higher in 2001 (preliminary data) (table 39).

Since 1990 mortality from **chronic lower respiratory diseases** remained relatively stable for **men** while it increased for **women**. These trends reduced the gap between the sexes for this cause of death. In 1990 the age-adjusted death rate for males was more than 100 percent higher than for females. In 2000 the difference between the rates had been reduced to 49 percent, and in 2001, to 44 percent (preliminary data) (table 41).

Between 1990 and 2001 **life expectancy at birth** increased more for the **black** than for the **white population**, thereby narrowing the gap in life expectancy between these two racial groups. In 1990 life expectancy at birth was 7 years longer for the white than for the black population. By 2000 the difference had narrowed to 5.7 years, and by 2001, to 5.5 years (preliminary data) (table 27).

Overall mortality was 31 percent higher for **black Americans** than for white Americans in 2001 compared with 37 percent higher in 1990. In 2001 age-adjusted death rates for the black population exceeded those for the white population by 40 percent for **stroke**, 29 percent for **heart disease**, 25 percent for **cancer**, and nearly 800 percent for **HIV disease** (based on preliminary data) (table 29).

The **5-year survival rate** for black females diagnosed in 1992–98 with breast cancer was 15 percentage points lower than the 5-year survival rate for white females (table 55).

In 2000 **breast cancer mortality** for black females was 31 percent higher than for white females, and in 2001, 34 percent higher, based on preliminary data, compared with 15 percent higher in 1990 (tables 40).

Homicide rates among young black males 15–24 years of age and among **young Hispanic males** were about 50 percent lower in 2000 than in the early 1990s when homicide rates peaked for these groups. In spite of these downward trends, homicide was still the leading cause of death for young black males and the second leading cause for young Hispanic males in 2000, and homicide rates for young black and Hispanic males remained substantially higher than for young non-Hispanic white males (table 45).

Since 1995 death rates for **HIV disease** declined sharply for **Hispanic males and black males** 25–44 years of age. In spite of these declines, HIV disease was still the second leading cause of death for Hispanic males 25–44 years of age and the third leading cause for black males 25–44 years of age in 2000, and HIV death rates remained much higher for Hispanic and black males than for non-Hispanic white males in this age group (table 42).

In 2000 death rates for **motor vehicle-related injury and suicide for young American Indian males** 15–24 years of age were about 45 percent higher than the rates for those causes for young white males. Death rates for the American Indian population are known to be underestimated (tables 44 and 46).

Overall mortality was almost 40 percent lower for **Asian males** than for white males throughout most of the 1990s. In 2000 age-adjusted death rates for **cancer and heart disease** for Asian males were 38–41 percent lower than corresponding rates for white males, whereas the death rate for **stroke** was only 3 percent lower. Death rates for the Asian population are known to be underestimated (tables 35–38).

Death rates vary by **educational attainment**. In 2000 the age-adjusted death rate for persons 25–64 years of age with fewer than 12 years of education was nearly three times the rate for persons with 13 or more years of education (table 34).

Occupational Health

Improvements in workplace safety constitute a major public health achievement in the twentieth century. Despite important accomplishments, preventable injuries and deaths continue to occur.

In 2001 the **occupational injuries with lost workdays** rate, 2.6 per 100 full-time equivalents (FTEs) in the private sector, was at its lowest level in three decades. The industries reporting the highest injury rates in 2001 were transportation, communication, and public utilities (4.2) and construction (3.9) (table 50).

Of the total 8,786 fatal work injuries in 2001, one-third resulted from the September 11th terrorist attacks. Excluding the September 11 fatalities, the **occupational injury death rate** in 2001 was the same as in 2000, 4.3 deaths per 100,000 employed workers. Mining (including oil and gas extraction), the industry with the highest death rate in 2001 (30.0 per 100,000), accounted for 3 percent of occupational injury deaths, excluding deaths from the September 11th attacks. The industry accounting for the largest percentage of occupational injury deaths, construction (21 percent), had a death rate of 13.3 per 100,000 (table 49).

A total of 2,859 **pneumoconiosis deaths**, for which pneumoconiosis was either the underlying or nonunderlying cause of death, occurred in 2000, compared with 4,151 deaths in 1980. Pneumoconiosis deaths are primarily associated with occupational exposures and can be prevented through effective control of worker exposure to occupational dusts (table 48).

Health Care Utilization and Health Care Resources

Major changes continue to occur in the delivery of health care in the United States, driven in part by changes in payment policies intended to rein in rising costs and by advances in technology that have allowed more complex treatments to be performed on an ambulatory basis. Use of hospital inpatient services has decreased while use of services such as outpatient surgery, home health care, and hospice care, has increased.

Between 1980 and 2000 the percent of all **office visits** to primary care physicians declined, while the percent of visits to specialty physicians increased. In 2000, 49 percent of all visits to physicians' offices were made to specialists, up from 43 percent in 1980 (table 84).

In 2001, 63 percent of all **surgical operations** in community hospitals were performed on outpatients, up from 51 percent in 1990 and 16 percent in 1980 (table 95).

Between 1985 and 2001 the **hospital discharge rate** declined 24 percent, from 151 to 115 discharges per 1,000 population, while **average length of stay** declined 1.7 days, from 6.6 to 4.9 days (data are age adjusted) (table 90).

Between 1995 and 2001, total **registered nurse graduates** per year declined from 97,000 to 69,000, **allopathic medicine graduates** remained stable at 16,000 per year, and **osteopathic medicine graduates** increased from 1,800 to 2,600 per year (table 103).

Between 1990 and 2001 the number of **community hospital beds** declined from about 927,000 to about 826,000. Community hospital occupancy, estimated at 64.5 percent in 2001, increased slightly from 62.5 percent in 1998, after declining from about 67 percent in 1990 (table 106).

Between 1996 and 2000 use of **home health care** by persons 65 years of age and over declined from 547 to 277 per 10,000 population, after increasing steadily between 1992 and 1996. The recent decline resulted in part from the Balanced Budget Act of 1997, which imposed stricter limits on the use of home health services funded by Medicare and interim limits on Medicare payments to home health agencies from October 1997 until a prospective payment system was implemented for Medicare home health agencies in October 2000 (data are age adjusted) (table 87).

Between 1994 and 2000 use of **hospice care** by persons 65 years of age and over increased by 83 percent to 25 patients per 10,000 population. Among persons age 65 and over, use of hospice services is slightly higher for males than for females (27 compared with 23 patients per 10,000 in 2000). Cancer is the most common diagnosis among hospice patients (data are age adjusted) (table 88).

In 1999 there were 1.5 million **nursing home residents** 65 years of age and over. More than one-half of the residents 65 years and over were at least 85 years of age and three-fourths were female. Between the mid-1970s and 1999, nursing home utilization rates increased for the black population and decreased for the white population (table 96).

In 2001 there were 1.8 million **nursing home beds** in facilities certified for use by Medicare and Medicaid beneficiaries. Between 1995 and 2001 nursing home bed occupancy in those facilities was relatively stable, estimated at 83 percent in 2001 (table 110).

Preventive Health Care

Use of preventive health services helps reduce morbidity and mortality from disease. Use of several different types of preventive services has been increasing. However disparities in use of preventive health care by race and ethnicity, and family income, remain.

The percent of mothers receiving **prenatal care** in the first trimester of pregnancy has continued to edge upward from 76 percent in 1990 to 83 percent in 2001. Although increases occurred for all racial and ethnic groups, in 2001 the percent of mothers with early prenatal care still varied substantially, from 69 percent for American Indian mothers to 90–92 percent for mothers of Japanese and Cuban origin (figures 8 and 9 and table 6).

In 2001, 77 percent of children 19–35 months of age received the combined **vaccination** series of four doses of DTaP (diphtheria-tetanus-acellular pertussis) vaccine, three doses of polio vaccine, one dose of MMR (measles-mumps-rubella vaccine), and three doses of Hib (Haemophilus influenzae type b) vaccine. Children living below the poverty threshold were less likely to have received the combined vaccination series than were children living at or above poverty (72 percent compared with 79 percent) (table 71).

Annual **influenza vaccination** can prevent influenza and its severe complications and one dose of **pneumococcal**

vaccine can reduce the risk of invasive pneumococcal disease. Between 1989 and 1999 the percent of noninstitutionalized 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. Between 1989 and 2001 the percent of older adults ever having received a pneumococcal vaccine increased sharply from 14 percent to 54 percent (figure 10).

Between 1987 and 2000 the age-adjusted percent of women 18 years and over who reported a **Pap smear** in the past 3 years increased from 74 percent to 81 percent. In 2000 Pap smear use was lower among women living below the poverty level compared with women with family incomes at or above the poverty level (72 percent and 84 percent). Pap smear use was lower among women 65 years and over than among younger women (table 81).

Access to Care

Access to care is important for preventive care and for prompt treatment of illness and injuries. Indicators of access to health services include having a usual source of health care and having a recent health care contact. Health insurance coverage, and the generosity of coverage, are major determinants of access to care.

The percent of the **population under 65 years of age with no health insurance coverage** (either public or private) fluctuated around 16–17 percent between 1994 and 2001. Among the under 65 population, poor and near poor persons whose family incomes were less than 200 percent of poverty were much more likely than others to be uninsured (figures 6 and 7 and table 129).

The likelihood of being uninsured varies substantially among the **States**. In 2001 the percent of the population under 65 years of age with **no health insurance coverage** varied from less than 10 percent in Massachusetts, Rhode Island, Wisconsin, Iowa, and Minnesota to 20 percent or more in Florida, Louisiana, Oklahoma, Texas, Arizona, New Mexico, and California (table 151).

In 2001, 11 percent of **children** under 18 years of age had **no health insurance coverage**. Between 2000 and 2001 among children with family income just above the poverty level (1–1.5 times poverty), the percent uninsured dropped from 26 to 19 percent. However children with low family income remain substantially more likely than higher-income children to lack coverage (table 129).

Persons of Hispanic origin and American Indians who are under 65 years of age are more likely to have **no health insurance coverage** than are those in other racial and ethnic groups. In 2001 among the Hispanic-origin population, persons of Mexican origin were the most likely to lack health insurance coverage (39 percent). Non-Hispanic white persons were the least likely to lack coverage (12 percent) (figure 7 and table 129).

Six percent of **children** under 18 years of age had **no usual source of health care** in 2000–01. Hispanic and non-Hispanic black children were more likely to be without a usual source of care than non-Hispanic white children (14 percent and 7 percent compared with 4 percent) (table 74).

Thirteen percent of **children** under 18 years of age had **no health care visit** to a doctor or clinic within the past 12 months in 2000–01. Hispanic and non-Hispanic black children were more likely to be without a recent visit than non-Hispanic white children (20 percent and 15 percent compared with 10 percent) (table 73).

One in 5 **children** under 18 years of age had an **emergency department (ED) visit** within the past 12 months in 2001. Children with Medicaid coverage were more likely than those with private coverage or the uninsured to have had an ED visit within the past 12 months (29 percent compared with 19 percent and 17 percent) (table 75).

In 2001 nearly three-quarters of **children** 2–17 years of age had a **dental visit** in the past year. Use of dental care was lower among Hispanic children and non-Hispanic black children than among non-Hispanic white children (61 percent and 68 percent compared with 78 percent) (table 78).

Young adults 18–24 years of age are more likely than adults of other ages to have **no usual source of health care**. Twenty-six percent of young adults were without a usual source of health care in 2000–01 (table 76).

Working age-adults 18–64 years of age living below the poverty level were more than twice as likely as those with family income above twice the poverty level to have **no usual source of health care** in 2000–01 (27 percent and 12 percent). Among working-age adults living in poverty Hispanic persons were twice as likely as non-Hispanic white and black persons to be without a usual source of health care (44 percent compared with 22 percent and 21 percent) (percents are age adjusted) (table 76).

Use of hospital inpatient care is greater among the **poor** than among the nonpoor whose family income is at least twice the poverty level. In 2001 among persons under 65 years of age, the hospital discharge rate for the poor was almost twice the rate for nonpoor (168 and 87 per 1,000 population). Among those under 65 years of age, average length of stay was 1.4 days longer for poor than for nonpoor persons (5.1 and 3.7 days) (data are age adjusted) (table 89).

In 2001 among noninstitutionalized persons 65 years of age and over, those with Medicare fee-for-service coverage only were more likely to have had **no health care visits** within the past 12 months than were those with Medicare HMO, Medicaid, or private coverage (14 percent compared with 5–6 percent, data are age adjusted) (table 70).

In 2001 among noninstitutionalized persons 65 years of age and over, those with Medicaid coverage were twice as likely to be high volume users of the health care system with **10 or more visits within the past 12 months** than were those with Medicare HMO, private, or Medicare fee-for-service coverage only (44 percent compared to 21–25 percent, data are age adjusted) (table 70).

Health Care Expenditures

After 25 years of double-digit annual growth in national health expenditures, the rate of growth slowed during the 1990s. At the end of the decade the rate of growth started edging up again. Since the millennium, the rate has accelerated. This high rate of growth combined with a sluggish economy has resulted in health care expenditures claiming a larger share of the gross domestic product (GDP). The United States continues to spend more on health than any other industrialized country.

In 2001 **national health care expenditures** in the United States totaled $1.4 trillion, increasing 8.7 percent from the previous year compared with a 7.4 percent increase in 2000. In the mid-1990s annual growth had slowed somewhat, following an average annual growth rate of 11 percent during the 1980s (table 112).

The United States spends a larger **share of the GDP on health** than does any other major industrialized country. In 2000 the United States devoted 13.3 percent of the GDP to health compared with 10.6–10.7 percent each in Germany and Switzerland and 9.1–9.5 percent in Canada and France, countries with the next highest shares (table 111).

In 2001 **health expenditures as a percent of the gross domestic product (GDP)** increased to 14.1 percent, up from 13.3 percent the previous year (table 112).

The rate of increase in the medical care component of the **Consumer Price Index** (CPI) was 4.7 percent in 2002 and 4.6 percent in 2001, compared with 3.4 percent per year during 1995–2000. During the last 3 years, the CPI for hospital services showed the greatest price increases (6–7 percent in 2000 and 2001 and 9 percent in 2002), compared with other components of medical care (table 113).

Expenditures by Type of Care and Source of Funds

During the last few years expenditures for prescription drugs have grown at a faster rate than any other type of health expenditure. The sources of funds for medical care differ substantially according to the type of medical care being provided.

Expenditures for hospital care accounted for 32 percent of all national health expenditures in 2001. Physician services accounted for 22 percent of the total in 2001, prescription drugs for 10 percent, and nursing home care for 7 percent (table 115).

Since 1995 the **average annual rate of increase for prescription drug expenditures** (on average 15 percent per year between 1995 and 2001) was higher than for any other type of health expenditure. During the first half of the decade expenditures for home health care increased more rapidly (19 percent per year between 1990 and 1995) than other types of expenditures (table 115).

In 2001 **prescription drug expenditures** increased 16 percent, and prescription drugs posted a 5-percent rate of price increase in the Consumer Price Index in both 2001 and 2002 (tables 113 and 115).

In 2001, 47 percent of **prescription drug expenditures** were paid by private health **insurance** (up from one-quarter at the beginning of the decade), 31 percent by out-of-pocket payments (down from 59 percent in 1990), and 17 percent by Medicaid. Although Medicare is the federal program that funds health care for persons age 65 years and over, and older persons are the highest per capita consumers of prescription drugs, Medicare paid only 2 percent of prescription drug expenses in 2001 (table 116).

In 1999, 88 percent of persons age 65 years and over in the civilian noninstitutionalized population had a **prescribed medicine expense**. The average annual out-of-pocket prescribed medicine expense per older person with expense was $614, an increase of 16 percent over the previous year (table 117).

In 1999, 95 percent of **persons age 65 years and over** in the civilian noninstitutionalized population reported **medical expenses** averaging about $6,300 per person with expense. Sixteen percent of expenses were paid out-of-pocket, 14 percent by private insurance, and two-thirds by public programs (mainly Medicare and Medicaid) (tables 117 and 118).

The burden of **out-of-pocket expenses** for health care varies considerably by age. In 1999 one-third of persons 75 years of age and over with expenses paid $1,000 or more in out-of-pocket expenses compared with 18 percent of those 45–64 years of age. Eight percent of those 18–44 years of age incurred out-of-pocket expenses of $1,000 or more in 1999, compared with only 1 percent of children under 6 years of age (table 119).

In 2001, 33 percent of **personal health care expenditures** were paid by the Federal Government and 11 percent by State and local government; private health insurance paid 35 percent and consumers paid 17 percent out-of-pocket (table 116).

In 2001 the major **sources of funds for hospital care** were Medicare (30 percent) and private health insurance (34 percent). **Physician services** were also primarily funded by private health insurance (48 percent) and Medicare (20 percent). In contrast, **nursing home care** was financed primarily by Medicaid (48 percent) and out-of-pocket payments (27 percent) (table 116).

In 1999 the average monthly charge per **nursing home** resident was $3,891. Residents for whom the primary source of payment was private insurance, family support, or their own income paid close to the average charge, compared with an average monthly charge of $5,800 when Medicare was the primary payor and $3,500 when Medicaid was the primary source of payment (table 124).

In 1998 less than one-fifth of **mental health expenditures** incurred by mental health organizations was for State and county psychiatric hospitals. In 1975 this share was nearly one-half of expenditures. The decline in the proportion of mental health expenditures for State and county psychiatric hospitals reflects the shift from inpatient to outpatient mental health care (table 125).

Publicly Funded Health Programs

The two major publicly funded health programs are Medicare and Medicaid. Medicare is funded through the Federal Government and covers persons 65 years of age and over and disabled persons for their health care. Medicaid is jointly funded by the Federal and State Governments to provide health care for certain groups of low-income persons. Medicaid benefits and eligibility vary by State.

In 2001 the **Medicare** program had 40 million enrollees and expenditures of $245 billion (table 134).

In 2001 **hospital insurance** (HI) accounted for 59 percent of **Medicare** expenditures. Expenditures for home health agency care decreased to 3 percent of HI expenditures in 2001, down from 13 percent in 1997 (table 134).

In 2001 **supplementary medical insurance** (SMI) accounted for 41 percent of **Medicare** expenditures. Seventeen percent of SMI expenditures in 2001 were payments to managed care organizations, compared with 20–22 percent in the previous 3 years. One-half of the $84 billion SMI paid for fee-for-service utilization in 2001 went to physicians under the physician fee schedule (table 134).

Of the 33 million **Medicare enrollees in the fee-for-service program** in 2000, 11 percent were 85 years of age and over and 15 percent were under 65 years of age. Among fee-for-service Medicare enrollees age 65 years and over, payments in 2000 increased with age from an average of $4,000 per year per enrollee for those age 65–74 years to $7,700 for those 85 years and over. Average payments per fee-for-service enrollee increased in 2000 after declining the previous 2 years (table 135).

In 1999, 81 percent of **Medicare beneficiaries** were non-Hispanic white, 9 percent were non-Hispanic black, and 7 percent were Hispanic. Some 20–24 percent of Hispanic and non-Hispanic black beneficiaries were persons under 65 entitled to **Medicare through disability**, compared with 11 percent of non-Hispanic white beneficiaries (table 136).

In 2000 **Medicare payments per fee-for-service enrollee** varied by State, ranging from less than $4,000 in Hawaii and New Mexico to more than $6,300 in New York, New Jersey, Maryland, the District of Columbia, and Louisiana (table 148).

In 2000 **Medicaid** vendor payments totaled $168 billion for 43 million recipients (table 137).

In 2000 children under the age of 21 years accounted for 46 percent of **Medicaid recipients** but only 16 percent of expenditures. Aged, blind, and disabled persons accounted for one-quarter of recipients and 70 percent of expenditures (table 137).

In 2000, 21 percent of **Medicaid payments** went to nursing facilities, 14 percent to inpatient general hospitals, 15 percent to capitated payment services, and 12 percent to prescribed drugs (table 138).

In 2000, **Medicaid payments per recipient varied by State** from less than $2,300 in California and Tennessee to $7,600 in New York. On average payments per recipient were lower in the Southeast, Southwest, and Far West States than in the New England and Mideast States (table 149).

In 2002 spending on health care by the **Department of Veterans Affairs** was $23 billion. Forty-one percent of inpatients and 34 percent of outpatients were low-income veterans without a service-connected disability (table 139).

Private Health Insurance

More than 70 percent of the population under 65 years of age has private health insurance, most of which is obtained through the workplace. In private industry, the share of employees' total compensation devoted to health insurance decreased in 2002.

Between 1995 and 2001 the age-adjusted proportion of the population under 65 years of age with **private health insurance** fluctuated between 71 and 73 percent after declining from 77 percent in 1984. More than 90 percent of private coverage was obtained through the workplace (a current or former employer or union) in 2001 (figure 6 and table 127).

In 2002 **private employers' health insurance costs** per employee-hour worked were $1.29, largely unchanged from $1.28 in 2001, and an increase from $1.09 in 2000. Among private employers the share of total compensation devoted to health insurance was 5.9 percent in 2002, down from 6.2 percent in 2001 but higher than the 2000 share, 5.5 percent (table 121).

Health Maintenance Organizations (HMOs)

An HMO is a prepaid health plan delivering comprehensive care to members through designated providers. More than one-quarter of all persons in the United States were enrolled in HMO in 2002. HMO enrollment peaked in 1999 and has declined slowly since then.

Enrollment in HMOs totaled 76 million persons or 26 percent of the U.S. population in 2002. HMO enrollment varied from 20–21 percent in the Midwest and South to 33 percent in the Northeast and 38 percent in the West. HMO enrollment increased steadily through 1999 but declined by more than 5 million between 1999 and 2002. The number of HMO plans decreased by 22 percent to 500 plans during these 3 years (table 132).

In 2002 the percent of the population enrolled in **HMOs** varied among the **States**, from 0 in Alaska to 51 percent in California. States with the next highest HMO enrollment were Massachusetts with 42 percent and Connecticut, Rhode Island, and Maryland, each with at least 35 percent (table 150).

In 2001, 27–29 percent of **children** under 18 years of age and **adults** age 18–44 and 45–64 years had health insurance coverage through a **private HMO**. Nine percent of children had coverage through a **Medicaid HMO** while less than 3 percent of adults under 65 years of age had this coverage (table 131).

State Health Expenditures

Total personal health care per capita expenditures and its components vary substantially among the States. State expenditures are affected by factors such as population age structure and health, payment rates, and supply of services.

Personal health care per capita expenditures averaged $3,800 in 1998, but varied among the States from $2,700 in Utah to $4,800 in Massachusetts. Higher expenditures were clustered in the New England and Mideast States, with lower per capita expenditures in the Rocky Mountain, Southwest, and Far West States (table 140).

The components of personal health care expenditures vary significantly by State. **Hospital care** per capita expenditures in 1998 ranged from $1,016 in Utah to $1,807 in Massachusetts. **Physician** and other professional services per capita expenditures varied from $763 in Utah to $1,347 in Minnesota. Per capita expenditures for **nursing home care** ranged from $90 in Alaska to $860 in Connecticut (tables 141–143).

Twenty-one percent of all personal health care expenditures were paid by **Medicare** in 1998, up from 17 percent in 1991. The Medicare share of State health expenditures in 1998 varied from 9 percent in Alaska to 25–26 percent in Mississippi, Louisiana, and Pennsylvania and 28 percent in Florida (table 145).

The share of personal health care expenditures paid by **Medicaid** increased from 13 percent in 1991 to 16 percent in 1995 through 1998. The Medicaid share of personal health care expenditures in 1998 ranged from less than 10 percent in Nevada and Virginia, to 21 percent in the District of Columbia, Rhode Island, and Maine, and 32 percent in New York (table 146).

Special Feature: Diabetes

Diabetes is characterized by high levels of blood glucose resulting from defects in insulin secretion, insulin action, or both. Diabetes can be associated with serious complications and premature death, especially if it is not well controlled. Complications can include disorders of the kidneys, nerves, blood vessels, and eye. Diabetes is a major contributing factor to blindness, end-stage renal disease, and lower extremity amputations. Complications, morbidity, and mortality associated with diabetes can be reduced through medical management of the disease. In addition, a healthy lifestyle—weight control, exercise, and healthy diet—can reduce or delay both incidence and complications.

The **age-adjusted prevalence of diagnosed diabetes** increased from 5.3 percent of the adult population in 1997 to 6.5 percent in 2002. Prevalence rises rapidly with age. Adults 65 years and over are more than twice as likely to have diabetes as are persons 45–54 years of age (figure 32).

Diabetes is a group of diseases characterized by high levels of blood glucose (sugar). Type 1 diabetes usually strikes children and young adults and accounts for 5–10 percent of all diagnosed cases. Type 2 diabetes accounts for about 90–95 percent of diagnosed cases. **Risk factors** for developing **type 2 diabetes** include obesity, being physically inactive, older age, and a family history of diabetes. The rise in diabetes prevalence is likely related, in part, to the rise in obesity among adults and overweight among children and adolescents (figures 15 and 32).

Most people with diabetes visit medical practitioners to become better educated about their condition, to discuss behavioral changes, to receive prescriptions for medications to control their blood sugar levels, or to be monitored and treated for complications of the disease. The rate of **visits to physician's offices or hospital outpatient departments** with any diagnosis of **diabetes** has increased for persons age 45 years and over. Between 1995–96 and 1999–2000, the number of physician visits with any diagnosis of diabetes per 1,000 population increased 35 percent among persons 45–54 and increased 43 percent among persons 55–64 years of age (figure 33).

Persons with diabetes are at increased risk of health complications and hospitalization. Among persons 45 years of age and over **hospital discharges** with any mention of **diabetes** accounted for 22 percent of discharges in 2000–01. Between 1990–91 and 2000–01 the rate of hospital discharges with any mention of diabetes increased for all age groups (figure 34).

Diabetes is a major cause of mortality. In 2000 **diabetes** was the fifth **leading cause of death** among women and the sixth leading cause among men. Diabetes was the underlying cause of death for nearly 70,000 deaths in 2000 and mentioned on the death certificates of at least twice as many additional deaths, contributing to deaths due to such underlying causes as heart disease, stroke, and kidney disease (figures 28 and 30 and table 31).

Chartbook on Trends in the Health of Americans

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.

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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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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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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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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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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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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).

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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).

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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).

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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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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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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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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.

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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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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.

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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.

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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).

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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).

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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.

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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).

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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.

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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.

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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

	Health insurance coverage					
	Private		*Medicaid*		*Uninsured*	
Year	*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

	Influenza vaccination during past 12 months		*Pneumococcal vaccination ever*	
Year	*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

	Influenza vaccination during past 12 months		*Pneumococcal vaccination ever*	
Race and Hispanic origin	*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

	Men		*Women*		*High school students*		*Mothers during pregnancy*
Year	*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	30.4	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

	Any limitation of activity		*Limitation of activity indicated by participation in special education or early intervention services only*		*All other limitation of activity*	
Sex and age	*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

	Any limitation of activity	
Characteristic	*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

	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*	
Type of chronic health condition	*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

	All beneficiaries		*Noninstitutionalized beneficiaries*	
Year	*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 Male	At birth Female	At 65 years Male	At 65 years 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/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*
	Deaths per 100,000 population				
1950	276.9	45.7	43.3	55.9	11.9
1960	229.8	41.9	41.4	47.8	12.3
1970	243.1	49.7	39.9	41.6	15.6
1980	185.9	41.1	32.7	28.1	15.7
1985	169.8	34.3	31.0	24.6	14.9
1990	185.0	33.6	29.3	20.6	15.3
1995	193.0	32.4	27.1	21.1	15.1
1996	175.9	31.5	26.6	20.2	14.8
1997	160.3	31.4	26.2	19.9	14.5
1998	155.7	31.5	25.6	20.2	14.3
1998 (Comparability-modified)	155.7	32.5	25.8	19.9	14.2
1999	154.4	31.9	24.8	19.9	13.6
2000	154.6	32.0	24.4	19.3	13.4

Year	*Human immunodeficiency virus (HIV) disease*
	Deaths per 100,000 population
1987	13.0
1988	16.0
1989	21.0
1990	23.9
1991	27.0
1992	30.4
1993	33.3
1994	36.9
1995	37.0
1996	25.8
1997	13.1
1998	10.2
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/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/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/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

	All adults, age adjusted		*All adults, crude*		*18–44 years*		*45–54 years*		*55–64 years*		*65 years and over*	
Year	*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

	18–44 years		*45–54 years*		*55–64 years*		*65 years and over*	
Year	*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

	Age									
	45 years and over, age adjusted		*45–54 years*		*55–64 years*		*65–74 years*		*75 years and over*	
Year	*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.

Appendixes

Appendix Contents

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Appendix I

Data Sources

This report consolidates the most current data on the health of the population of the United States, the availability and use of health resources, and health care expenditures. The information was obtained from the data files and/or published reports of many Federal Government and private and global agencies and organizations. In each case, the sponsoring agency or organization collected data using its own methods and procedures. Therefore, the data in this report vary considerably with respect to source, method of collection, definitions, and reference period.

Although a detailed description and comprehensive evaluation of each data source are beyond the scope of this appendix, users should be aware of the general strengths and weaknesses of the different data collection systems. For example, population-based surveys obtain socioeconomic data, data on family characteristics, and information on the impact of an illness, such as days lost from work or limitation of activity. These data are limited by the amount of information a respondent remembers or is willing to report. A respondent may not know detailed medical information, such as precise diagnoses or the types of operations performed, and therefore cannot report it. Health care providers, such as physicians and hospitals, usually have good diagnostic information but little or no information about the socioeconomic characteristics of individuals or the impact of illnesses on individuals.

The populations covered by different data collection systems may not be the same, and understanding the differences is critical to interpreting the data. Data on vital statistics and national expenditures cover the entire population. Most data on morbidity and utilization of health resources cover only the civilian noninstitutionalized population. Such statistics do not include data for military personnel who are usually young, for institutionalized people who may be any age, or for nursing home residents who are usually old.

All data collection systems are subject to error, and records may be incomplete or contain inaccurate information. People may not remember essential information, a question may not mean the same thing to different respondents, and some institutions or individuals may not respond at all. It is not always possible to measure the magnitude of these errors or their impact on the data. Where possible, table notes describe the universe and method of data collection, to enable the user to place his or her own evaluation on the data quality.

Some information is collected in more than one survey and estimates of the same statistic may vary among surveys because of different survey methodologies, sampling frames, questionnaires, definitions, and tabulation categories. For example, cigarette use is measured by the National Health Interview Survey, the National Household Survey on Drug Abuse, the Monitoring the Future Survey, and the Youth Risk Behavior Survey using slightly different questions of persons of differing ages, interviewed in different settings (at school versus at home), so estimates will differ.

Overall estimates generally have relatively small sampling errors, but estimates for certain population subgroups may be based on small numbers and have relatively large sampling errors. Numbers of births and deaths from the vital statistics system represent complete counts (except for births in those States where data are based on a 50-percent sample for certain years). Therefore, they are not subject to sampling error. However, when the figures are used for analytical purposes, such as the comparison of rates over a period, the number of events that actually occurred may be considered as one of a large series of possible results that could have arisen under the same circumstances. When the number of events is small and the probability of such an event is rare, considerable caution must be observed in interpreting the conditions described by the figures. Estimates that are unreliable because of large sampling errors or small numbers of events are noted with asterisks in selected tables. The criteria used to designate unreliable estimates are indicated in notes to the applicable tables.

Descriptive summaries of the data sets that follow provide a general overview of study design, methods of data collection, and reliability and validity of the data. The agency or organization that sponsored the data collection is specified. More complete and detailed discussions are in the publications and Web sites listed at the end of each summary. The entries are listed alphabetically by dataset name.

Government Sources

Abortion Surveillance

Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion

In 1969 CDC's National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) began abortion surveillance to document the number and characteristics of women obtaining legal induced abortions, monitor unintended pregnancy, and assist efforts to identify and reduce preventable causes of morbidity and mortality associated with abortions. For each year from 1973–97 abortion data from central health agencies have been available from 52 reporting areas: 50 States, the District of Columbia, and New York City. Beginning in 1998, abortion data are available from only 46 States (excluding Alaska, California, New Hampshire, and Oklahoma), the District of Columbia, and New York City. While the total number of legal induced abortions is available for those 48 reporting areas, not all areas collect information on the characteristics of women who obtain abortions. Furthermore the number of areas reporting each characteristic and the number of areas with complete data for each characteristic varies from year to year. For example, in 1999, the number of areas reporting different characteristics ranged from 26 areas reporting Hispanic ethnicity and 37 areas reporting race and marital status to 47 areas reporting age. Reporting area data with more than 15 percent unknown for a given characteristic are excluded from the analysis of that characteristic.

For 48 reporting areas, data concerning the number and characteristics of women who obtain legal induced abortions are provided by central health agencies such as State health departments and the health departments of New York City and the District of Columbia. In general the procedures are reported by the State in which the procedure is performed. However, two reporting areas (the District of Columbia and Wisconsin) report characteristics of abortions only for area/State residents; characteristics for out-of-area/State residents are unavailable.

Between 1989 and 1997, the total number of abortions reported to CDC was about 10 percent less than the total estimated independently by the Alan Guttmacher Institute (AGI), a not-for-profit organization for reproductive health research, policy analysis, and public education. Beginning in 1998, the total number of abortions reported to CDC was about 33 percent less than the total estimated by AGI. The four reporting areas (the largest of which was California) that did not report abortions to CDC in 1998 accounted for 18 percent of all abortions tallied by AGI's 1995–96 survey. See *Alan Guttmacher Institute Abortion Survey*.

For more information, see Centers for Disease Control and Prevention, CDC Surveillance Summaries, November 2002. *Morbidity and Mortality Weekly Report* 2002;51 (NoSS-9), Abortion Surveillance—United States, 1999; or contact: Director, Division of Reproductive Health, NCCDPHP, CDC, Atlanta, GA 30341; or visit the NCCDPHP surveillance and research Web site at www.cdc.gov/nccdphp/drh/surveil.htm.

Aerometric Information Retrieval System (AIRS)

Environmental Protection Agency

The Environmental Protection Agency's Aerometric Information Retrieval System (AIRS) compiles data on ambient air levels of particulate matter smaller than 10 microns (PM-10), lead, carbon monoxide, sulphur dioxide, nitrogen dioxide, and tropospheric ozone. These pollutants were identified in the Clean Air Act of 1970 and in its 1977 and 1990 amendments because they pose significant threats to public health. The National Ambient Air Quality Standards (NAAQS) define for each pollutant the maximum concentration level (micrograms per cubic meter) that cannot be exceeded during specific time intervals. Data shown in this publication reflect percent of the population living in areas that exceed the NAAQS for a pollutant in a calendar year (such areas are called nonattainment areas) and population data from the U.S. Bureau of the Census. For 1996 and later years, estimates of the population in the year 2000 are used for this calculation.

Nonattainment areas may include single counties, multiple counties, parts of counties, municipalities, or combinations of the preceding jurisdictions. When an area is designated as "nonattainment," it retains this status for 3 years, regardless of annual changes in air quality. Nonattainment areas may also include jurisdictions in which the source of the pollutants is located, even if that jurisdiction meets all NAAQS. The areas monitored may change over time to reflect changes in air quality or the pollutants being monitored.

The EPA's ambient air quality monitoring program is carried out by State and local agencies and consists of three major categories of monitoring stations, State and Local Air Monitoring Stations (SLAMS), National Air Monitoring Stations (NAMS), and Special Purpose Monitoring Stations (SPMS), that measure the criteria pollutants. Additionally, a fourth category of a monitoring station, the Photochemical Assessment Monitoring Stations (PAMS), which measures ozone precursors (approximately 60 volatile hydrocarbons and carbonyl), has been required by the 1990 Amendments to the Clean Air Act.

The SLAMS consist of a network of about 4,000 monitoring stations whose size and distribution is largely determined by the needs of State and local air pollution control agencies to meet their respective State implementation plan requirements. The NAMS (1,080 stations) are a subset of the SLAMS network with emphasis being given to urban and multi-source areas. In effect they are key sites under SLAMS, with emphasis on areas of maximum concentrations and high population density. The SPMS provide for special studies needed by the State and local agencies to support State implementation plans and other air program activities. The SPMS are not permanently established and can be adjusted easily to accommodate changing needs and priorities. The SPMS are used to supplement the fixed monitoring network as circumstances require and resources permit.

For more information, write: Office of Air Quality Planning and Standards, Environmental Protection Agency, Research Triangle Park, NC 27711; or visit the EPA Office of Air Quality Planning and Standards Web site at www.epa.gov/oar/oaqps.

AIDS Surveillance

Centers for Disease Control and Prevention

National Center for HIV, STD, and TB Prevention

Acquired immunodeficiency syndrome (AIDS) surveillance is conducted by health departments in each State, territory, and the District of Columbia. Although surveillance activities range from passive to active, most areas employ multifaceted active surveillance programs, which include four major reporting sources of AIDS information: hospitals and hospital-based physicians, physicians in nonhospital practice, public and private clinics, and medical record systems (death certificates, tumor registries, hospital discharge abstracts, and communicable disease reports). Using a standard confidential case report form, the health departments collect information that is then transmitted electronically to CDC without personal identifiers.

AIDS surveillance data are used to detect epidemiologic trends, to identify unusual cases requiring followup, and for semiannual publication in the *HIV/AIDS Surveillance Report*. Studies to determine the completeness of reporting of AIDS cases meeting the national surveillance definition suggest reporting at greater than or equal to 90 percent.

Decreases in AIDS incidence and in the number of AIDS deaths, first noted in 1996, have been ascribed to the effect of new treatments, which prevent or delay the onset of AIDS and premature death among HIV-infected persons, and result in an increase in the number of persons living with HIV and AIDS. A growing number of States require confidential reporting of persons with HIV infection and participate in CDC's integrated HIV/AIDS surveillance system that compiles information on the population of persons newly diagnosed and living with HIV infection.

For more information on AIDS surveillance, see: Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report*, published semiannually; or contact: Chief, Surveillance Branch, Division of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), Centers for Disease Control and Prevention, Atlanta, GA 30333; or visit the NCHSTP Web site at www.cdc.gov/nchstp/od/nchstp.html.

Census of Fatal Occupational Injuries (CFOI)

Bureau of Labor Statistics

The Census of Fatal Occupational Injuries (CFOI), administered by the Bureau of Labor Statistics (BLS) in conjunction with participating State agencies, has compiled comprehensive and timely information on fatal work injuries occurring in the 50 States and the District of Columbia since 1992. To compile counts that are as complete as possible, the BLS census uses diverse sources to identify, verify, and profile fatal work injuries. Key information about each workplace fatality (occupation and other worker characteristics, equipment or machinery involved, and circumstances of the event) is obtained by cross-referencing the source records. For a fatality to be included in the census, the decedent must have been employed (that is, working for pay, compensation, or profit) at the time of the event, engaged in a legal work activity, or present at the site of the incident as a requirement of his or her job. These criteria are generally broader than those used by Federal and State agencies administering specific laws and regulations. Fatalities that occur during a person's commute to or from work are excluded from the census counts.

Data for the CFOI are compiled from various Federal, State, and local administrative sources—including death certificates, workers' compensation reports and claims, reports to various regulatory agencies, medical examiner reports, and police reports—as well as news reports. Diverse sources are used because studies have shown that no single source captures all job-related fatalities. Source documents are matched so that each fatality is counted only once. To ensure that a fatality occurred while the decedent was at work, information is verified from two or more independent source documents or from a source document and a followup questionnaire.

The number of occupational fatalities and fatality rates shown in this report are revised, except for the most recent year, and may differ from original data published by CFOI. States have up to 1 year to update their initial published State counts. States may identify additional fatal work injuries after data collection closeout for a reference year. In addition, other fatalities excluded from the published count because of insufficient information to determine work relationship may subsequently be verified as work related. Increases in the published counts based on additional information have averaged less than 100 fatalities per year, or less than 1.5 percent of the total.

For more information, see: Bureau of Labor Statistics, *National Census of Fatal Occupational Injuries, 2001*. Washington, DC. U.S. Department of Labor. August 2002; or visit the CFOI Web site at www.bls.gov/iif/oshcfoi1.htm.

Consumer Price Index (CPI)

Bureau of Labor Statistics

The Consumer Price Index (CPI) is a monthly measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The all-urban index (CPI-U) introduced in 1978 covers residents of metropolitan areas as well as residents of urban parts of nonmetropolitan areas (about 87 percent of the U.S. population in 2000).

In calculating the index, price changes for the various items in each location were averaged together with weights that represent their importance in the spending of all urban consumers. Local data were then combined to obtain a U.S. city average.

The index measures price changes from a designated reference date, 1982–84, which equals 100. An increase of 22 percent, for example, is shown as 122. Change can also be expressed in dollars as follows: the price of a base period "market basket" of goods and services bought by all urban consumers has risen from $100 in 1982–84 to $179.9 in 2002.

The current revision of the CPI, completed in 2000, reflects spending patterns based on the Survey of Consumer Expenditures from 1993 to 1995, the 1990 Census of Population, and the ongoing Point-of-Purchase Survey. Using an improved sample design, prices for the goods and services required to calculate the index are collected in urban areas throughout the country and from retail and service establishments. Data on rents are collected from tenants of rented housing and residents of owner-occupied housing units. Food, fuels, and other goods and services are priced monthly in urban locations. Price information is obtained through visits or calls by trained BLS field representatives using computer-assisted telephone interviews.

The earlier 1987 revision changed the treatment of health insurance in the cost-weight definitions for medical care items. This change has no effect on the final index result but provides a clearer picture of the role of health insurance in the CPI. As part of the revision, three new indexes have been created by separating previously combined items, for example, eye care from other professional services and inpatient and outpatient treatment from other hospital and medical care services.

Effective January 1997 the hospital index was restructured by combining the three categories—room, inpatient services, and outpatient services—into one category, hospital services. Differentiation between inpatient and outpatient and among service types are all combined under this broad category. In addition new procedures for hospital data collection identify a payor, diagnosis, and the payor's reimbursement arrangement from selected hospital bills.

A new geographic sample and item structure were introduced in January 1998 and expenditure weights were updated to 1993–95. Pricing of a new housing sample using computer-assisted data collection started in June 1998. In January 1999 the index was rebased from the 1982–84 time period to 1993–95.

For more information, see: Bureau of Labor Statistics, *Handbook of Methods*, BLS Bulletin 2490, U.S. Department of Labor, Washington, DC. April 1997; Revising the Consumer Price Index, *Monthly Labor Review*, Dec 1996. U.S. Department of Labor, Bureau of Labor Statistics, Washington, DC; IK Ford and D Ginsburg, Medical Care and the Consumer Price Index, National Bureau of Economic Research, Research Studies in Income and Wealth vol. 62; or visit the BLS/CPI Web site at www.bls.gov/cpi/home.htm.

Current Population Survey (CPS)

Bureau of the Census

Bureau of Labor Statistics

The Current Population Survey (CPS) is a household sample survey of the civilian noninstitutionalized population conducted monthly by the U.S. Bureau of the Census for the Department of Labor, Bureau of Labor Statistics (BLS). CPS provides estimates of employment, unemployment, and other characteristics of the general labor force, the population as a whole, and various other population subgroups. Estimates of health insurance coverage are derived from the Annual Demographic Supplement (ADS), which includes a series of questions asked each March in addition to regular CPS questions. The ADS is also known as the "March Supplement."

The CPS sample is located in 754 sample areas, with coverage in every State and the District of Columbia. Beginning with 2001 estimates are based on interviews of an expanded sample of 60,000 households per month. Prior to 2001 estimates were based on 50,000 households per month. Also starting in 2001 the State Children's Health Insurance Program (SCHIP) sample expansion was introduced, which increased the March sample to approximately 72,000 households in order to produce statistically reliable State data on the number of low income children who do not have health insurance coverage. The expanded sample for the March Supplement also improved reliability of other national estimates. In an average month the nonresponse rate is about 6–7 percent. In 1994 major changes were introduced, which included a complete redesign of the questionnaire including new health insurance questions, and the introduction of computer-assisted interviewing for the entire survey. In addition, there were revisions to some of the labor force concepts and definitions. Prior to the redesign, CPS data were primarily collected using a paper-and-pencil form.

The estimation procedure used involves inflation by the reciprocal of the probability of selection, adjustment for nonresponse, and ratio adjustment. Beginning in 1994 new population controls that were based on the 1990 census adjusted for the estimated population undercount were used. Starting with *Health, United States, 2003*, poverty estimates for 2000 were recalculated based on the expanded SCHIP sample, and beginning with 2000 data census 2000-based population controls were implemented.

For more information, visit the CPS Web site at www.bls.census.gov/cps/cpsmain.htm.

Department of Veterans Affairs Databases

Department of Veterans Affairs

The Department of Veterans Affairs (VA) maintains the *National Patient Care Database* (NPCD) and the *National Enrollment Database* (NED). Data are collected locally at each VA medical center and are transmitted electronically to the VA Austin Automation Center for use in providing nationwide statistics, reports, and comparisons.

The NPCD is a nationwide system that contains a statistical record for each episode of care provided under VA auspices in VA and non-VA hospitals, nursing homes, and domiciliaries, and in VA outpatient clinics. Three major extracts from the NPCD are the patient treatment file (PTF), the patient census file, and the outpatient clinic file (OPC).

The *Patient Treatment File (PTF)* collects data at the time of the patient's discharge on each episode of inpatient care provided to patients at VA hospitals, VA nursing homes, VA domiciliaries, community nursing homes, and other non-VA facilities. The PTF record contains the scrambled social security number, dates of inpatient treatment, date of birth, State and county of residence, type of disposition, place of disposition after discharge, as well as the ICD-9-CM diagnostic and procedure or operative codes for each episode of care.

The *Patient Census File* collects data on each patient remaining in a VA medical facility at midnight at the end of each quarter of the fiscal year. The census record includes information similar to that reported in the patient treatment file record.

The *Outpatient Clinic File (OPC)* collects data on each instance of medical treatment provided to a veteran in an outpatient setting. The OPC record includes the age, scrambled social security number, State and county of residence, VA eligibility code, clinic(s) visited, purpose of visit, and the date of visit for each episode of care.

The VA also maintains the *National Enrollment Database* (NED) as the official repository of enrollment information for each veteran enrolled in the VA health care system. In addition, an extract containing selected information from the NPCD, the NED, and the cost distribution system is also produced by the Austin Automation Center.

For more information, write: Department of Veterans Affairs, Office of Policy, Planning, and Preparedness, Policy Analysis Service, 810 Vermont Ave., NW, Washington, DC 20420; or visit the National Patient Care Database at www.virec.research.med.va.gov/DATABASES/NPCD/NPCD.HTM.

Drug Abuse Warning Network (DAWN)

Substance Abuse and Mental Health Services Administration

The Drug Abuse Warning Network (DAWN) is a large-scale, ongoing drug abuse data collection system based on information from hospital emergency departments (EDs) and medical examiner jurisdictions. The major objectives of the DAWN data system include monitoring of drug-abuse patterns and trends, identification of substances associated with drug-abuse episodes, and assessment of drug-related consequences and other health hazards. Estimates reported in this publication are from the hospital ED component of DAWN.

Hospitals eligible for DAWN are non-Federal, short-stay general hospitals that have a 24-hour emergency department. Since 1988 the DAWN emergency department data have been collected from a representative sample of eligible hospitals located throughout the coterminous United States, including 21 oversampled metropolitan areas. Within each facility, a designated DAWN reporter is responsible for identifying eligible drug-abuse episodes by reviewing emergency department records and abstracting and submitting data on each reportable case. To be included in DAWN, the patient presenting to the ED must meet all of the following four criteria: (a) patient was between ages 6 and 97 years and was treated in the hospital's ED; (b) patient's presenting problem(s) for the ED visit was induced by or related to drug use, regardless of when drug use occurred; (c) episode involved use of an illegal drug or use of a legal drug or other chemical substance contrary to directions; (d) patient's reason for using the substance(s) was dependence, suicide attempt or gesture, and/or psychic effect.

The data from the DAWN sample are used to generate estimates of the total number of emergency department drug-abuse episodes and drug mentions in all eligible hospitals in the coterminous United States and in the 21 metropolitan areas. Overall, a response rate of 81 percent of sample hospitals was obtained in the 2001 survey.

For further information, see Substance Abuse and Mental Health Services Administration, Office of Applied Studies. Emergency Department Trends from the Drug Abuse Warning Network, Preliminary Estimates January–June 2001 with Revised Estimates 1994 to 2001, DAWN Series D-21, DHHS Publication No. (SMA) 02-3635, Rockville, MD. 2002; or write: Office of Applied Studies, Substance Abuse and Mental Health Services Administration, Room 16-105, 5600 Fishers Lane, Rockville, MD 20857; or visit the SAMHSA Web site at www.drugabusestatistics.samhsa.gov.

Employee Benefits Survey—See *National Compensation Survey.*

Inventory of Mental Health Organizations (IMHO)

Substance Abuse and Mental Health Services Administration (SAMHSA)

The Survey and Analysis Branch of SAMHSA's Center for Mental Health Services conducted a biennial Inventory of Mental Health Organizations and General Hospital Mental Health Services (IMHO/GHMHS) from 1986 until 1994. The core questionnaire included versions designed for specialty mental health organizations and another for non-Federal general hospitals with separate psychiatric services.

IMHO/GHMHS has been the primary source for Center for Mental Health Services data included in *Health, United States*. The data system was based on questionnaires mailed every other year to mental health organizations in the United States, including psychiatric hospitals, non-Federal general hospitals with psychiatric services, Department of Veterans Affairs psychiatric services, residential treatment centers for emotionally disturbed children, freestanding outpatient psychiatric clinics, partial care organizations, freestanding day-night organizations, and multiservice mental health organizations, not elsewhere classified.

IMHO/GHMHS was a redesign of three previous inventory systems with more complicated data collection procedures. In 1998 the IMHO/GHMHS was replaced by the Survey of Mental Health Organizations, General Hospital Mental Health Services, and Managed Behavioral Health Care Organizations (SMHO). A brief 100 percent inventory of organizations was conducted by postcard and used to provide basic information on all organizations and as a sampling frame from which to draw a sample for a more in-depth sample survey. The sample survey questionnaire differed from the previous core questionnaires mainly by inclusion of questions relating to managed behavioral health care organizations.

For more information, write: Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services, Room 15C-04, 5600 Fishers Lane, Rockville, MD 20857. For further information on mental health and data from the 1997 Client/Patient Sample Survey, see: Center for Mental Health Services, *Mental Health, United States, 2000*. Manderscheid R, Henderson MJ, eds. DHHS Pub. No. (SMA) 01-3537. Washington, DC; or visit the Center for Mental Health Services Web site at www.samhsa.gov/centers/cmhs/cmhs.html.

Medicaid Data System

Centers for Medicare & Medicaid Services

The primary data sources for Medicaid statistical data are the Medicaid Statistical Information System (MSIS) and the CMS-64 reports.

MSIS is the basic source of State-reported eligibility and claims data on the Medicaid population, their characteristics, utilization, and payments. Beginning in FY1999, as a result of legislation enacted from the Balanced Budget Act of 1997, States are required to submit individual eligibility and claims data tapes to CMS quarterly through the Medicaid Statistical Information System (MSIS). Prior to FY1999, States were required to submit an annual HCFA-2082 report, designed to collect aggregated statistical data on eligibles, recipients, services, and expenditures during a Federal fiscal year (October 1 through September 30). The data reported for each year represented people on the Medicaid rolls, recipients of Medicaid services and payments for claims adjudicated during the year. The data reflected bills adjudicated or processed during the year, rather than services used during the year. States summarized and reported the data processed through their own Medicaid claims processing and payment operations, unless they opted to participate in MSIS, in which case the 2082 report was produced by HCFA (Health Care Financing Administration, the predecessor to CMS).

The CMS-64 is a product of the financial budget and grant system. The CMS-64 is a statement of expenditures for the Medicaid program that States submit to CMS 30 days after each quarter. The report is an accounting statement of actual expenditures made by the States for which they are entitled to receive Federal reimbursement under title XIX for that quarter. The amount claimed on the CMS-64 is a summary of expenditures derived from source documents such as invoices, cost reports and eligibility records.

The CMS-64 shows the disposition of Medicaid grant funds for the quarter being reported and previous years, the recoupments made or refunds received, and income earned on grant funds. The data on the CMS-64 are used to reconcile the monetary advance made on the basis of States' funding estimates filed prior to the beginning of the quarter on the CMS-37. As such, the CMS-64 is the primary source for making adjustments for any identified overpayments and underpayments to the States. Also incorporated into this process are disallowance actions forwarded from other Federal financial adjustments. Finally, the CMS-64 provides information that forms the basis for a series of Medicaid financial reports and budget analyses. Additionally included are third party liability (TPL) collections tables. Third party liability refers to the legal obligation of certain health care sources to pay the medical claims of Medicaid recipients before Medicaid pays these claims. Medicaid pays only after the TPL sources have met their legal obligation to pay.

Users of Medicaid data may note apparent inconsistencies that are primarily due to the difference in the information captured in MSIS versus CMS-64 reports. The most substantive difference is due to payments made to "disproportionate share hospitals." Payments to disproportionate share hospitals do not appear in MSIS since States directly reimburse these hospitals and there is no fee-for-service billing. Other less significant differences between MSIS and the CMS-64 occur because adjudicated claims data are used in MSIS versus the reporting of actual payments reflected in the CMS-64. Differences also may occur because of internal State practices for capturing and reporting these data through two separate systems. Finally, national totals for the CMS-64 are different because they include other jurisdictions, such as the Northern Mariana Islands and American Samoa.

For further information on Medicaid data, visit the CMS Web site at www.cms.gov/medicaid/datasources.asp or the Research Data Center (ResDAC) Web site at www.resdac.umn.edu/medicaid/data_available.asp. Also see Appendix II, *Medicaid*.

Medical Expenditure Panel Survey (MEPS)

Agency for Healthcare Research and Quality

The Medical Expenditure Panel Survey (MEPS) is a national probability survey conducted on an annual basis since 1996. The survey is designed to produce nationally representative estimates of healthcare use, expenditures, sources of payment, insurance coverage, and quality of care for the U.S. civilian noninstitutionalized population. The panel design of the survey features several rounds of interviewing covering 2 full calendar years. The MEPS consists of three components.

The Household Component (HC) is a nationally representative survey of the civilian noninstitutionalized population drawn from a subsample of households that participated in the prior year's National Health Interview Survey conducted by the National Center for Health Statistics. The sample sizes for the HC are approximately 10,000 families in 1996 and 1998–2000, 13,500 families in 1997 and 2001, and 15,000 families annually beginning in 2002. The full-year response rate has generally been about 66 percent. Missing expenditure data were imputed using data collected in the Medical Provider Component whenever possible.

Data are collected in the Medical Provider Component (MPC) to improve the accuracy of expenditure estimates derived solely from the Household Component (HC). The MPC is particularly useful in obtaining expenditure information for persons enrolled in managed care plans and Medicaid recipients. The MPC collects data from hospitals, physicians, and home health providers that were reported in the HC as providing care to MEPS sample persons. Sample sizes for the MPC vary from year to year depending on the HC sample size and the MPC sampling rates for providers.

The Insurance Component (IC) consists of two subcomponent samples, a household sample and list sample. The household sample collects detailed information from employers on the health insurance held by and offered to respondents to the MEPS HC. The list sample collects data on the types and costs of workplace health insurance from a total of about 40,000 business establishments and governments each year.

The Medical Expenditure Panel Surveys (MEPS) update the 1987 National Medical Expenditure Survey (NMES). The Household Survey (HS) and the Medical Provider Survey (MPS) components of the 1987 NMES were designed to provide nationally representative estimates of the health status, health insurance coverage, and health care use and expenditures for the U.S. civilian noninstitutionalized population for the calendar year 1987. The HS consisted of four rounds of household interviews. Income was collected in a special supplement administered early in 1988. Events under the scope of the MPS included medical services provided by or under the direction of a physician, all hospital events, and home health care. The sample of events included in the MPS was all events for persons covered by Medicaid and for a 25 percent sample of HS respondents. For the first core household interview, 17,500 households were selected. The 12-month joint core questionnaire/health questionnaire/access supplement response rate for the household component of the NMES was 80 percent. Missing expenditure data were imputed.

For further information about the National Medical Expenditure Survey, see: Hahn B and Lefkowitz D. Annual expenses and sources of payment for health care services (AHRQ Pub. No. 93-0007). National Medical Expenditure Survey Research Findings 14, Agency for Healthcare Research and Quality. Rockville, MD. Public Health Service. Nov. 1992. For further information on the MEPS, visit the MEPS Web site at www.meps.ahrq.gov.

Medicare Administrative Data

Centers for Medicare & Medicaid Services

CMS collects and synthesizes a broad range of quantitative information on its programs, from estimates of future Medicare spending to enrollment, spending, and claims data. The Claims and Utilization Data files contain extensive utilization information at various levels of summarization for a variety of providers and services. There are many types and levels of these files, including but not limited to the National Claims History (NCH) files, the Standard Analytic Files (SAF), Stay Records files, Part B Medicare files, and various other files.

The National Claims History 100 Percent Nearline File contains all institutional and noninstitutional claims, and provides records of every Medicare claim submitted, including adjustment claims. The Standard Analytical Files (SAFs) contain final action claims data in which all adjustments have been resolved. These files contain information collected by Medicare to pay for health care services provided to a Medicare beneficiary. SAFs are available for each institutional (inpatient, outpatient, skilled nursing facility, hospice, or home health agency) and noninstitutional (physician and durable medical equipment providers) claim type. The record unit of SAFs is the claim (some episodes of care may have more than one claim). SAF files include the Inpatient SAF, the Skilled Nursing Facility SAF, the Outpatient SAF, the Home Health Agency SAF, the Hospice SAF, the Clinical Laboratory SAF, the Durable Medical Equipment SAF, and a 5-Percent Beneficiary File SAF.

Medicare Provider and Analysis Review (MedPAR) files contain inpatient hospital and skilled nursing facility (SNF) final action stay records. Each MedPAR record represents a stay in an inpatient hospital or SNF. An inpatient “stay” record summarizes all services rendered to a beneficiary from the time of admission to a facility through discharge. Each MedPAR record may represent one claim or multiple claims, depending on the length of a beneficiary’s stay and the amount of inpatient services used throughout the stay.

The Denominator File contains demographic and enrollment information about each beneficiary enrolled in Medicare during a calendar year. The information in the Denominator File is ‘frozen’ in March of the following calendar year. Some of the information contained in this file includes the beneficiary unique identifier, State and county codes, ZIP Code, date of birth, date of death, sex, race, age, monthly entitlement indicators (for Medicare Part A, Medicare Part B, or Part A and Part B), reasons for entitlement, State buy-in indicators, and monthly managed care indicators (yes/no). The Denominator File is used to determine beneficiary demographic characteristics, entitlement, and beneficiary participation in Medicare Managed Care Organizations.

The Vital Status File contains demographic information about each beneficiary ever entitled to Medicare. Some of the information contained in this file includes the beneficiary unique identifier, State and county codes, ZIP Code, date of birth, date of death, sex, race, and age. Often the Vital Status File is used to obtain recent death information for a cohort of Medicare beneficiaries.

The Group Health Plan (GHP) Master File contains data on beneficiaries who are currently enrolled or have ever been enrolled in a Managed Care Organization (MCO) under contract with CMS. Each record represents one beneficiary and each beneficiary has one record. Some of the information contained in this file includes the Beneficiary Unique Identifier number, date of birth, date of death, State and county, and managed care enrollment information such as dates of membership and MCO contract number. The GHP Master File is used to identify the exact MCO in which beneficiaries were enrolled.

Medicare claims are linked to survey-reported events to produce the Cost and Use file that provides complete expenditure and source of payment data on all health care services, including those not covered by Medicare. Data are also combined to produce estimates of expenditures, per-beneficiary utilization, and other statistics.

For more information about Medicare data files, see CMS’ Research Data Center (ResDAC) Web site at www.resdac.umn.edu/medicare/data_available.asp or the CMS Web site at http://cms.hhs.gov/data/default.asp. Also see Appendix II, *Medicare*.

Medicare Current Beneficiary Survey (MCBS)

Centers for Medicare & Medicaid Services

The Medicare Current Beneficiary Survey (MCBS) is a continuous survey of a nationally representative sample of about 18,000 aged and disabled Medicare beneficiaries enrolled in Medicare Part A (hospital insurance), or Part B (medical insurance), or both, and residing in households or long-term care facilities. The survey provides comprehensive time-series data on utilization of health services, health and functional status, health care expenditures, and health insurance and beneficiary information (such as income, assets, living arrangement, family assistance, and quality of life). The longitudinal design of the survey allows each sample person to be interviewed three times a year for 4 years, whether he or she resides in the community or a facility or moves between the two settings, using the version of the questionnaire appropriate to the setting. Sample persons in the community are interviewed using computer-assisted personal interviewing (CAPI) survey instruments. Because long-term care facility residents often are in poor health, information about institutionalized patients is collected from proxy respondents such as nurses and other primary care givers affiliated with the facility. The sample is selected from the Medicare enrollment files with oversampling among disabled persons under age 65 and among persons 80 years of age and over.

Medicare claims are linked to survey-reported events to produce the Cost and Use file that provides complete expenditure and source of payment data on all health care services, including those not covered by Medicare. The Access to Care file contains information on beneficiaries' access to health care, satisfaction with care, and usual source of care. The sample for this file represents the "always enrolled" population, those who participated in the Medicare program for the entire year. In contrast, the Cost and Use file represents the "ever enrolled" population, including the experience of those who enter Medicare during the year and those who died.

For more information about the MCBS, see: A profile of the Medicare Current Beneficiary Survey, by GS Adler. Health Care Financing Review, vol 15 no 4. Health Care Financing Administration. Washington, DC. Public Health Service. 1994. For further information on the MCBS, visit the MCBS Web site at www.cms.hhs.gov/mcbs/default.asp.

Monitoring the Future Study (MTF)

National Institute on Drug Abuse

Monitoring the Future Study (MTF) is a large-scale epidemiological survey of drug use and related attitudes. It has been conducted annually since 1975 under a series of investigator-initiated research grants from the National Institute on Drug Abuse to the University of Michigan's Institute for Social Research. MTF is composed of three substudies: (a) annual survey of high school seniors initiated in 1975; (b) ongoing panel studies of representative samples from each graduating class that have been conducted by mail since 1976; and (c) annual surveys of 8th and 10th graders initiated in 1991.

The survey design is a multistage random sample with stage one being selection of particular geographic areas, stage two selection of one or more schools in each area, and stage three selection of students within each school. Data are collected using self-administered questionnaires conducted in the classroom by representatives of the Institute for Social Research. Dropouts and students who are absent on the day of the survey are excluded (about 18 percent of high school seniors, about 12 percent of 10th graders, and about 10 percent of 8th graders in 2001). Recognizing that the dropout population is at higher risk for drug use, this survey was expanded to include similar nationally representative samples of 8th and 10th graders in 1991. Statistics that are published in the *Dropout Rates in the United States: 2000* (published by the National Center for Educational Statistics, Pub. No. NCES 2002-114) stated that among persons 15–16 years of age, 2.9 percent have dropped out of school while the dropout rate increases to 3.5 percent for persons 17 years of age, 6.1 percent for persons 18 years of age, and 9.6 percent for persons 19 years of age. Therefore, surveying eighth graders (where dropout rates are much lower than for high school seniors) should be effective for picking up students at higher risk for drug use. Although the prevalence of drug use is slightly underestimated due to the exclusion of dropouts and absentees, the methodology is consistent over time and trend estimates are little affected.

Approximately 44,300 8th, 10th, and 12th graders in 394 schools were surveyed in 2002. In 2002 the annual senior samples comprised roughly 13,500 seniors in 120 public and private high schools nationwide, selected to be representative of all seniors in the continental United States. The 10th-grade samples involved about 14,700 students in 133 schools in 2002, and the 2002 8th-grade samples had approximately 15,500 students in 141 schools. Response rates of 83 percent, 85 percent, and 91 percent for 12th, 10th, and 8th graders in 2002 have been relatively constant across time. Absentees constitute virtually all of the nonrespondents.

Estimates of substance use for youth based on the National Household Survey on Drug Abuse (NHSDA) are generally lower than estimates based on the MTF and the Youth Risk Behavior Surveillance System (YRBSS). In addition to the fact that the MTF excludes dropouts and absentees, rates are not directly comparable across these surveys due to differences in populations covered, sample design, questionnaires, interview setting, and statistical approaches to make the survey estimates generalizable to the entire population. The NHSDA survey collects data in homes, whereas the MTF and YRBSS collect data in school classrooms. The NHSDA estimates are tabulated by age, while the MTF and YRBSS estimates are tabulated by grade, representing different ages as well as different populations. See Cowan CD. Coverage, Sample Design, and Weighting in Three Federal Surveys. Journal of Drug Issues 31(3), 595–614, 2001.

For further information on Monitoring the Future Study, see: National Institute on Drug Abuse, Monitoring the Future National Survey Results on Drug Use, 1975–2001. Volume I, Secondary School Students, NIH Pub. No. 02-5106. Bethesda, MD: Public Health Service, August 2002; or visit the NIDA Web site at www.nida.nih.gov or the Monitoring the Future Web site at www.monitoringthefuture.org/.

National Ambulatory Medical Care Survey (NAMCS)

Centers for Disease Control and Prevention

National Center for Health Statistics

The National Ambulatory Medical Care Survey (NAMCS), initiated in 1973, is a continuing national probability sample of ambulatory medical encounters. The scope of the survey covers patient encounters in the offices of non-Federally employed physicians classified by the American Medical Association or American Osteopathic Association as ''office-based, patient care'' physicians. Patient encounters with physicians engaged in prepaid practices—health maintenance organizations (HMOs), independent practice organizations (IPAs), and other prepaid practices—are included in NAMCS. Excluded are visits to hospital-based physicians, visits to specialists in anesthesiology, pathology, and radiology, and visits to physicians who are principally engaged in teaching, research, or administration. Telephone contacts and nonoffice visits are also excluded.

A multistage probability design is employed. The first-stage sample consists of 84 primary sampling units (PSUs) in 1985 and 112 PSUs in 1992 selected from about 1,900 such units into which the United States has been divided. In each sample PSU, a sample of practicing non-Federal office-based physicians is selected from master files maintained by the American Medical Association and the American Osteopathic Association. The final stage involves systematic random samples of office visits during randomly assigned 7-day reporting periods. In 1985 the survey excluded Alaska and Hawaii. Starting in 1989 the survey included all 50 States.

In 1999 a sample of 2,499 physicians was selected, 1,728 were in scope, and 1,087 participated in the survey for a response rate of 63 percent. Data were provided on 20,760 records. In the 2000 survey a sample of 3,000 physicians was selected, 2,049 were in scope, and 1,388 participated for a response rate of 68 percent. Data were provided on 27,369 records. Data are collected on providers seen; reason for the visit; diagnoses; waiting time; drugs ordered, provided, or continued; and selected procedures and tests performed during the visit.

The estimation procedure used in NAMCS has three basic components: inflation by the reciprocal of the probability of selection, adjustment for nonresponse, and ratio adjustment to fixed totals.

For more detailed information on NAMCS, see: Cherry DK. National Ambulatory Medical Care Survey: 2000 summary. Advance data from vital and health statistics; no. 328. Hyattsville, MD: National Center for Health Statistics. 2002; or visit the NHCS section of the NCHS Web site at www.cdc.gov/nchs/nhcs.htm.

National Compensation Survey

Bureau of Labor Statistics

The National Compensation Survey (NCS) is conducted quarterly by The Bureau of Labor Statistics' Office of Compensation and Working Conditions and provides comprehensive measures of occupational earnings, compensation cost trends, benefit incidence, and detailed plan provisions. Detailed occupational earnings are available for metropolitan and nonmetropolitan areas, broad geographic regions, and on a national basis. The Employment Cost Index (ECI) and Employer Costs for Employee Compensation (ECEC) are compensation measures derived from the National Compensation Survey (NCS). ECI measures changes in labor costs. Average hourly employer cost for employee compensation is presented in the ECEC. Data from the March survey are presented in *Health, United States*.

In separate surveys the National Compensation Survey covers the incidence and detailed provisions of selected employee benefit plans in small private establishments (in even years), medium and large private establishments (in odd years), and State and local governments (in even years). National benefits data are presented for three broad occupational groupings: professional, technical, and related; clerical and sales; and blue-collar and service employees. Broad incidence data were also available by goods- and service-producing, union affiliation, and full- and part-time status.

The Employment Cost Index (ECI) is a quarterly measure of changes in labor costs. It is one of the principal economic indicators used by the Federal Reserve Bank. ECI data show changes in wages, salaries, benefit costs, and total compensation for all workers and separately for private industry and State and local government workers; report compensation changes by industry, occupational group, union and nonunion status, region, and metropolitan/nonmetropolitan status; provide seasonally adjusted and unadjusted data; and present historical data on changes in labor costs.

The Employer Costs for Employee Compensation (ECEC) product is produced quarterly and shows the employers' average hourly cost for total compensation and its components. The key features of ECEC include:

- Compensation costs for wages and salaries and benefits
- Cost data in dollar amounts and as percentages of compensation
- Data on Civilian workers and State and local government workers
- Compensation costs by major occupation, industry, region, union and nonunion status, establishment size, and full- or part-time status
- Reflects today's labor force composition

The sample for the NCS is selected using a three-stage design. The first stage involves the selection of areas. The NCS sample consists of 154 metropolitan and nonmetropolitan areas that represent the Nation's 326 metropolitan statistical areas and the remaining portions of the 50 States. In the second stage, establishments are systematically selected with probability of selection proportionate to their relative employment size within the industry. Use of this technique means that the larger an establishment's employment, the greater its chance of selection.

The third stage of sampling is a probability sample of occupations within a sampled establishment. This step is performed by the BLS field economist during an interview with the respondent establishment in which selection of an occupation is based on probability of selection proportionate to employment in the establishment. Each occupation is classified under its corresponding major occupational group using the Occupational Classification System Manual (OCSM) and the Census Occupation Index, which are based on the 1990 U.S. Census.

Data collection is conducted by BLS field economists. Data are gathered from each establishment on the primary business activity of the establishment, types of occupations, number of employees, wages and salaries and benefits, hours of work, and duties and responsibilities. Wage data obtained by occupation and work level allows NCS to publish occupational wage statistics for localities, census divisions, and the Nation.

The methodology and procedures used to make estimates vary by product line. For the wage series, individual wage rates are weighted by number of workers; sample weight, adjusted for nonresponding establishments and other factors; and the occupation work schedule (hourly, weekly, or annual). The benefit series has three weight-adjustment factors applied to the data to account for establishment nonresponse, occupational nonresponse, and to adjust the estimated employment totals to actual counts of employment by industry for the survey reference date.

To measure compensation costs free from the influence of employment shifts among occupations and industries, the ECI is calculated with fixed employment weights unlike the method with which wage series and benefit series are calculated. Since December 1994, 1990 employment counts from the Bureau's Occupational Employment Survey have been used. The ECI is a standard Laspeyres fixed-weighted index.

The ECEC estimates are based on data collected for the ECI. Unlike the ECI, ECEC estimates are weighted by the most recently available industry and occupational employment mix derived from data produced by the BLS Current Employment Statistics (CES) program.

For more information, see: U.S. Department of Labor, Bureau of Labor Statistics, *Employment Cost Indexes 1975–99*, Bulletin 2532, Oct. 2000; and visit the BLS Web site at www.bls.gov/ncs/home.htm.

National Health Accounts

Centers for Medicare & Medicaid Services

Estimates of expenditures for health based on National Health Accounts are compiled annually by type of expenditure and source of funds by the Office of the Actuary. The American Hospital Association (AHA) data on hospital finances are the primary source for estimates relating to hospital care. The salaries of physicians and dentists on the staffs of hospitals, hospital outpatient clinics, hospital-based home health agencies, and nursing home care provided in the hospital setting are considered to be components of hospital care. Expenditures for home health care and for services of health professionals (for example, doctors, chiropractors, private duty nurses, therapists, and podiatrists) are estimated primarily using a combination of data from the U.S. Bureau of the Census Services Annual Survey and the quinquennial Census of Service Industries.

The estimates of retail spending for prescription drugs are based on household and industry data on prescription drug transactions. Expenditures for other medical nondurables and vision products and other medical durables purchased in retail outlets are based on estimates of personal consumption expenditures prepared by the U.S. Department of Commerce's Bureau of Economic Analysis, U.S. Bureau of Labor Statistics/Consumer Expenditure Survey; the 1987 National Medical Expenditure Survey and the 1996 Medical Expenditure Panel Survey conducted by the Agency for Healthcare Research and Quality; and spending by Medicare and Medicaid. Those durable and nondurable products provided to inpatients in hospitals or nursing homes, and those provided by licensed professionals or through home health agencies are excluded here, but are included with the expenditure estimates of the provider service category.

Nursing home expenditures cover care rendered in establishments providing inpatient nursing and health-related personal care through active treatment programs for medical and health-related conditions. These establishments cover skilled nursing and intermediate care facilities, including those for the mentally retarded. Spending estimates are primarily based upon data from the U.S. Bureau of the Census Services Annual Survey and the quinquennial Census of Service Industries.

Expenditures for construction include those spent on the erection or renovation of hospitals, nursing homes, medical clinics, and medical research facilities, but not for private office buildings providing office space for private practitioners. Expenditures for noncommercial research (the cost of commercial research by drug companies is assumed to be imbedded in the price charged for the product; to include this item again would result in double counting) are developed from information gathered by the National Institutes of Health and the National Science Foundation.

Source of funding estimates likewise come from a multiplicity of sources. Data on the Federal health programs are taken from administrative records maintained by the servicing agencies. Among the sources used to estimate State and local government spending for health are the U.S. Bureau of the Census' Government Finances, and the National Academy of Social Insurance reports on State-operated Workers' Compensation programs. Federal and State-local expenditures for education and training of medical personnel are excluded from these measures where they are separable. For the private financing of health care, data on the financial experience of health insurance organizations come from special Centers for Medicare & Medicaid Services analyses of private health insurers, and from the Bureau of Labor Statistics' survey on the cost of employer-sponsored health insurance and on consumer expenditures. Information on out-of-pocket spending from the U.S. Bureau of the Census Services Annual Survey; U.S. Bureau of Labor Statistics Consumer Expenditure Survey; the 1987 National Medical Expenditure Survey and the Medical Expenditure Panel Surveys conducted by the Agency for Healthcare Research and Quality; and from private surveys conducted by the American Hospital Association, American Medical Association, American Dental Association, and IMS Health, an organization that collects data from the pharmaceutical industry, is used to develop estimates of direct spending by customers.

For more specific information on definitions, sources, and methods used in the National Health Accounts contact: Office of the Actuary, Centers for Medicare & Medicaid Services, 7500 Security Blvd., Baltimore, MD 21244-1850; or visit the Centers for Medicare & Medicaid Services National Health Accounts Web site at http://cms.hhs.gov/statistics/nhe.

State Health Expenditures

Estimates of personal health care spending by State are created using the same definitions of health care sectors used in producing the National Health Expenditures (NHE). The same data sources used in creating NHE are also used to create State estimates whenever possible. Additional sources are employed when surveys used to create valid national estimates lack sufficient sample size to create valid State-level estimates. State-level data are used to estimate the State-by-State distribution of health spending, and the NHE national totals for the specific type of service or source of funds are used to control the level of State-by-State distributions. This procedure implicitly assumes that national spending estimates can be created more accurately than State-specific expenditures.

The NHE data that were used as national totals for these State estimates were published in *Health, United States, 2001*, and differ from the sum of State estimates because national totals included expenditures for persons living in U.S. territories and for military and Federal civilian employees and their families stationed overseas. The sum of the State-level expenditures exclude health spending for those groups. Starting with *Health, United States, 2002,* NHE reflect new data and benchmark revisions incorporated after completion of the State estimates, and incorporate a conceptual revision to exclude spending for persons living in U.S. territories and military and Federal civilian employees and their families living overseas.

Starting in *Health, United States, 2002*, State estimates are based on the location of the beneficiary's residence. This differs from previous estimates published in *Health, United States*, which presented spending based on the health care provider's location. State estimates were first constructed based on the provider's location because data available to estimate spending by State primarily comes from providers and represents the State-of-provider location. However, the most useful unit for analyzing spending trends and differences are per capita units, which are based on spending estimates for the State in which people reside. Therefore, State-of-provider-based expenditures are adjusted to a State-of-residence basis using interstate border-crossing flow patterns that represent travel patterns across State borders for health care.

Data for the interstate border-crossing flow patterns are based on Medicare claims. Medicare is the only comprehensive source upon which to base interstate flows of spending between State-of-provider and State-of-beneficiary residence. Data for non-Medicare payers (excluding Medicaid) are also based on Medicare flow patterns, but are further adjusted for age-specific service mix variation in hospital and physician services. Medicaid services are not adjusted because it is assumed that care provided to eligible State residents is most often provided by in-State providers and further assumed that spending by Medicaid is identical on a residence and provider basis.

In addition to differences noted earlier, national totals for residence-based State health expenditures may differ slightly from national totals for provider-based expenditures due to inflows and outflows of health care spending to the U.S. territories. Because flow patterns are based on Medicare data, we are able to adjust for services that Medicare beneficiaries receive outside of the United States, and for services received by Medicare beneficiaries in the United States who either live in the U.S. territories or in other countries. Similar adjustments for the non-Medicare, non-Medicaid population are not possible.

For more information contact: Office of the Actuary, Centers for Medicare & Medicaid Services, 7500 Security Blvd., Baltimore, MD 21244-1850; or visit the Centers for Medicare & Medicaid Services National Health Expenditures Web site at http://cms.hhs.gov/statistics/nhe/#state.

National Health Care Survey (NHCS)

Centers for Disease Control and Prevention

National Center for Health Statistics

The National Health Care Survey is a family of surveys that collect data from health care providers and establishments about the utilization of health services and characteristics of providers and their patients. The components of the NHCS represent the major sectors of the U.S. health care system providing data on ambulatory, inpatient, and long-term care settings. Each survey in the family is based on a multistage sampling design that includes the health care facilities or providers and their records. Data are collected through abstraction of medical records, completion of encounter forms, compilation of data from State and professional associations, purchase of data from commercial abstraction services, and surveys of providers. Data from all survey components are collected from the establishment, and in no case is information received directly from the person receiving care. This family of surveys includes the following components:

- National Ambulatory Medical Care Survey (NAMCS)
- National Hospital Ambulatory Medical Care Survey (NHAMCS)
- National Hospital Discharge Survey (NHDS)
- National Survey of Ambulatory Surgery (NSAS)
- National Home and Hospice Care Survey (NHHCS)
- National Nursing Home Survey (NHHS)

National Health and Nutrition Examination Survey (NHANES)

Centers for Disease Control and Prevention

National Center for Health Statistics

The NHANES program of the National Center for Health Statistics includes a series of cross-sectional nationally representative health examination surveys beginning in 1960. Each cross-sectional survey provides a national estimate for the U.S. population at the time of the survey, enabling examination of trends over time in the U.S. population. In each survey a nationally representative sample of the U.S. population was selected using a complex, stratified, multistage probability cluster sampling design.

For the first program or cycle of the National Health Examination Survey (NHES I), 1960–62, data were collected on the total prevalence of certain chronic diseases as well as the distributions of various physical and physiological measures, including blood pressure and serum cholesterol levels. For that program, a highly stratified, multistage probability sample of 7,710 adults, of whom 86.5 percent were examined, was selected to represent the 111 million civilian noninstitutionalized adults 18–79 years of age in the United States at that time. The sample areas consisted of 42 primary sampling units (PSUs) from the 1,900 geographic units.

NHES II (1963–65) and NHES III (1966–70) examined probability samples of the Nation's noninstitutionalized children ages 6–11 years (NHES II) and 12–17 years (NHES III) focusing on factors related to growth and development. Both cycles were multistage, stratified probability samples of clusters of households in land-based segments and used the same 40 PSUs. NHES II sampled 7,417 children with a response rate of 96 percent. NHES III sampled 7,514 youth with a response rate of 90 percent.

For more information on NHES I, see: Gordon T, Miller HW. Cycle I of the Health Examination Survey: Sample and response, United States, 1960–62. National Center for Health Statistics. Vital Health Stat 11(1). 1974. For more information on NHES II, see: Plan, operation, and response results of a program of children's examinations. National Center for Health Statistics. Vital Health Stat 1(5). 1967. For more information on NHES III, see: Schaible WL. Quality control in a National Health Examination Survey. National Center for Health Statistics. Vital Health Stat 2(44). 1972.

In 1971 a nutrition surveillance component was added and the survey name was changed to the National Health and Nutrition Examination Survey (NHANES). In NHANES I, conducted from 1971 to 1974, a major purpose was to measure and monitor indicators of the nutrition and health status of the American people through dietary intake data, biochemical tests, physical measurements, and clinical assessments for evidence of nutritional deficiency. Detailed examinations were given by dentists, ophthalmologists, and dermatologists with an assessment of need for treatment. In addition, data were obtained for a subsample of adults on overall health care needs and behavior, and more detailed examination data were collected on cardiovascular, respiratory, arthritic, and hearing conditions.

The NHANES I target population was the civilian noninstitutionalized population 1–74 years of age residing in the coterminous United States, except for people residing on any of the reservation lands set aside for the use of American Indians. The sample design was a multistage, stratified probability sample of clusters of persons in land-based segments. The sample areas consisted of 65 PSUs selected from the 1,900 PSUs in the coterminous United States. A subsample of persons 25–74 years of age was selected to receive the more detailed health examination. Groups at high risk of malnutrition were oversampled at known rates throughout the process. Household interviews were completed for more than 96 percent of the 28,043 persons selected for the NHANES I sample, and about 75 percent (20,749) were examined.

For NHANES II, conducted from 1976 to 1980, the nutrition component was expanded. In the medical area primary emphasis was placed on diabetes, kidney and liver functions, allergy, and speech pathology. The NHANES II target population was the civilian noninstitutionalized population 6 months–74 years of age residing in the United States, including Alaska and Hawaii.

NHANES II used a multistage probability design that involved selection of PSUs, segments (clusters of households) within PSUs, households, eligible persons, and finally, sample persons. The sample design provided for oversampling among persons 6 months–5 years of age, 60–74 years of age, and those living in poverty areas. A sample of 27,801 persons was selected for NHANES II. Of this sample 20,322 (73.1 percent) were examined. Race information for NHANES I and NHANES II was determined primarily by interviewer observation.

The estimation procedure used to produce national statistics for NHANES I and NHANES II involved inflation by the reciprocal of the probability of selection, adjustment for nonresponse, and poststratified ratio adjustment to population totals. Sampling errors also were estimated to measure the reliability of the statistics.

For more information on NHANES I, see: Miller HW. Plan and operation of the Health and Nutrition Examination Survey, United States, 1971–73. National Center for Health Statistics. Vital Health Stat 1(10a) and 1(10b). 1977 and 1978; and Engel A, Murphy RS, Maurer K, Collins E. Plan and operation of the NHANES I Augmentation Survey of Adults 25–74 years, United States, 1974–75. National Center for Health Statistics. Vital Health Stat 1(14). 1978.

For more information on NHANES II, see: McDowell A, Engel A, Massey JT, Maurer K. Plan and operation of the second National Health and Nutrition Examination Survey, 1976–80. National Center for Health Statistics. Vital Health Stat 1(15). 1981. For information on nutritional applications of these surveys, see: Yetley E, Johnson C. Nutritional applications of the Health and Nutrition Examination Surveys (HANES). Ann Rev Nutr 7:441–63. 1987.

The Hispanic Health and Nutrition Examination Survey (HHANES), conducted during 1982–84, was similar in content and design to the previous National Health and Nutrition Examination Surveys. The major difference between HHANES and the previous national surveys is that HHANES used a probability sample of three special subgroups of the population living in selected areas of the United States rather than a national probability sample. The three HHANES universes included approximately 84, 57, and 59 percent of the respective 1980 Mexican-, Cuban-, and Puerto Rican-origin populations in the continental United States. Hispanic ethnicity of these populations was determined by self-report.

In the HHANES three geographically and ethnically distinct populations were studied: Mexican Americans living in Texas, New Mexico, Arizona, Colorado, and California; Cuban Americans living in Dade County, Florida; and Puerto Ricans living in parts of New York, New Jersey, and Connecticut. In the Southwest 9,894 persons were selected (75 percent or 7,462 were examined), in Dade County 2,244 persons were selected (60 percent or 1,357 were examined), and in the Northeast 3,786 persons were selected (75 percent or 2,834 were examined).

For more information on HHANES, see: Maurer KR. Plan and operation of the Hispanic Health and Nutrition Examination Survey, 1982–84. National Center for Health Statistics. Vital Health Stat 1(19). 1985.

The third National Health and Nutrition Examination Survey (NHANES III) was a 6-year survey covering the years 1988–94. Over the 6-year period, 39,695 persons were selected for the survey of which 30,818 (77.6 percent) were examined in the mobile examination center. The NHANES III target population was the civilian noninstitutionalized population 2 months of age and over. The sample design provided for oversampling among children 2–35 months of age, persons 70 years of age and over, black Americans, and Mexican Americans. Race was reported for the household by the respondent.

For more information on NHANES III, see: Ezzati TM, Massey JT, Waksberg J, et al. Sample design: Third National Health and Nutrition Examination Survey. National Center for Health Statistics. Vital Health Stat 2(113). 1992; Plan and operation of the Third National Health and Nutrition Examination Survey, 1988–94. National Center for Health Statistics. Vital Health Stat 1(32). 1994; or visit the NCHS Web site at www.cdc.gov/nchs/nhanes.htm.

Beginning in 1999, NHANES became a continuous, annual survey that can be linked to related Federal Government surveys of the general U.S. population, specifically, the National Health Interview Survey (NHIS) and, in the future, the U.S. Department of Agriculture's (USDA) Continuing Survey of Food Intakes by Individuals (CSFII). The new design also allows increased flexibility in survey content. Since April 1999, NHANES collects data every year from a representative sample of the U.S. population, newborns and older, by in-home personal interviews and physical examinations in the mobile examination center.

The major objectives of continuous NHANES are to:

- estimate the national prevalence of selected diseases and risk factors
- monitor trends in the prevalence, awareness, treatment, and control of selected diseases
- monitor trends in risk behaviors and environmental exposures
- analyze risk factors for selected diseases
- study the relationship between diet, nutrition, and health
- explore emerging public health issues and new technologies
- establish a national probability sample of genetic material for future genetic testing

The sample frame for continuous NHANES is the list of PSUs selected for the current design of the National Health Interview Survey (NHIS). For the current NHIS design, there are 358 PSUs in the annual sample, divided into four panels with each of the four panels comprising a nationally representative sample. Two of the four panels are available for use by the NHANES. Of the approximately 200 PSUs available in the two national panels for the first stage-sampling frame for the NHANES, 120 NHIS PSUs were selected to comprise six annual national samples, and 20 PSUs were randomly assigned to each year in 1999–2004. For each year, a subset of 15 PSUs was selected with the remaining five PSUs held in reserve. With 15 PSUs per year, approximately 5,000 sample persons can be examined.

For 1999, due to a delay in the start of data collection, there were only 12 distinct PSUs. For the purpose of variance estimation, the 1999–2000 survey is considered to have 26 PSUs. In the sample selection for NHANES 1999–2000, there were 22,839 households screened. Of these, 6,005 households had at least one eligible sample person identified for interviewing. There were a total of 12,160 eligible sample persons identified. Of these 9,965 were interviewed and 9,282 were examined. The overall response rate for those interviewed was 81.9 percent (9,965 out of 12,160) and the response rate for those examined was 76.3 percent (9,282 out of 12,160).

With only 2 years of data in NHANES 1999–2000, instead of the 6 years for NHANES III, sample size is smaller and number of geographic units in the sample is more limited. Due to smaller sample sizes, standard errors for a variable in NHANES 1999–2000 will be approximately 70 percent greater than for the corresponding variable in NHANES III.

NHANES 1999–2000 includes oversampling of low-income persons, adolescents 12–19 years, persons 60 years of age and over, African Americans, and Mexican Americans. The sample is not specifically designed to give a nationally representative sample for the total population of Hispanics residing in the United States.

For more information on NHANES 1999–2000, visit the NHANES Web site at www.cdc.gov/nchs/about/major/nhanes/nhanes99–02.htm.

National Health Interview Survey (NHIS)

Centers for Disease Control and Prevention

National Center for Health Statistics

The National Health Interview Survey (NHIS), initiated in 1957, is a continuing nationwide sample survey of the civilian noninstitutionalized population. Data are collected through household interviews. Information is obtained on personal and demographic characteristics including race and ethnicity by self-report or as reported by an informant. Information is also obtained on illnesses, injuries, impairments, chronic conditions, utilization of health resources, and other health topics.

The sample design plan of NHIS follows a multistage probability design that permits a continuous sampling of the civilian noninstitutionalized population residing in the United States. The survey is designed in such a way that the sample scheduled for each week is representative of the target population, and the weekly samples are additive over time.

In 1985 NHIS adopted several new sample design features although, conceptually, the sampling plan remained the same as the previous design. Two major changes included reducing the number of primary sampling locations from 376 to 198 for sampling efficiency and oversampling the black population to improve the precision of the statistics. The sample was designed so that a typical NHIS sample for the data collection years 1985–94 consisted of approximately 7,500 segments containing about 59,000 assigned households. Of these households, an expected 10,000 were vacant, demolished, or occupied by persons not in the target population of the survey. The expected sample of 49,000 occupied households yielded a probability sample of about 127,000 persons. In 1994 the sample numbered 116,179 persons.

In 1995 the NHIS sample was redesigned again. Major design changes included increasing the number of primary sampling units from 198 to 358 and oversampling the black and Hispanic populations to improve the precision of the statistics. The sample was designed so that a typical NHIS sample for the data collection years 1995–2004 would consist of approximately 7,000 segments. The expected sample of 44,000 occupied respondent households will yield a probability sample of about 106,000 persons. In 1997 the sample numbered 103,477 persons; 98,785 persons in 1998, 97,059 persons in 1999, 100,618 persons in 2000, and 100,760 persons in 2001.

The NHIS questionnaire fielded from 1982 to 1996 consisted of two parts: a set of basic health and demographic items known as the Core questionnaire and one or more sets of questions on current health topics (supplements). Information was collected from responsible family members residing in the household. Proxy responses were acceptable for Core and Supplement questionnaires when family members were not present at the time of interview. Data for children were collected from proxy respondents.

In 1997 the NHIS questionnaire was redesigned and from 1997 through the present consists of three parts: a basic module, a periodic module, and a topical module. The basic module functions as the new Core questionnaire and comprises three components (Family Core, Sample Adult Core, Sample Child Core). For the Family Core, information is obtained about all members of the family by interviewing any adult members of the household who are present and who may respond for themselves and as proxies for other members of the family. Information is obtained by asking respondents or proxy respondents a series of questions in an unfolding family style. For example, questions on activity limitation are asked as follows: “Are you/any family members limited in activities?” If so, “Who is this?” For the Sample Adult Core, one adult in the household is randomly selected to participate; proxy respondents are not used in this component. For families with children under 18 years of age, one child in the household is randomly selected for participation in the Sample Child Core. Data for this component are collected from a knowledgeable adult in the household. Starting with 1998 periodic and topical modules are incorporated into selected years of the NHIS.

In the 1997 NHIS questionnaire redesign the measurement of some basic concepts was changed and some concepts were measured in different ways. While some questions remain the same over time, they may be preceded by different questions or topics. For some questions, there was a change in the reference period for reporting an event or condition.

Also in 1997 the collection methodology changed from paper and pencil questionnaires to computer-assisted personal interviewing (CAPI). Because of the extensive redesign of the questionnaire in 1997 and introduction of the CAPI method of data collection, data from 1997 and later years may not be comparable with data from earlier years.

The household response rate for the ongoing portion of the survey (core) has been between 94 and 98 percent over the years. In recent years the total household response rate was 92 percent in 1997, 90 percent in 1998, 88 percent in 1999, and 89 percent in 2000 and 2001. Response rates for special health topics (supplements) have generally been lower. For example, the response rate was 80 percent for the 1994 Year 2000 Supplement, which included questions about cigarette smoking and use of such preventive services as mammography. In 1997 the final response rate for the sample adult supplement was 80 percent, 74 percent in 1998, 70 percent in 1999, 72 percent in 2000, and 74 percent in

2001. In 1997 the final response rate for the sample child supplement was 84 percent, 82 percent in 1998, 78 percent in 1999, 79 percent in 2000, and 81 percent in 2001.

For more information about the survey design, methods used in estimation, and general qualifications of the data obtained from the survey, see: Botman SL, Moore TF, Moriarity CL, and Parsons VL. Design and estimation for the National Health Interview Survey, 1995–2004. National Center for Health Statistics. Vital Health Stat 2(130). 2000; Massey JT, Moore TF, Parsons VL, Tadros W. Design and estimation for the National Health Interview Survey, 1985–94. National Center for Health Statistics. Vital Health Stat 2(110). 1989; Kovar MG, Poe GS. The National Health Interview Survey design, 1973–84, and procedures, 1975–83. National Center for Health Statistics. Vital Health Stat 1(18). 1985; Blackwell DL, Tonthat L. Summary Health Statistics for U.S. Children: National Health Interview Survey, 1998. National Center for Health Statistics. Vital Health Stat 10(208). 2002; Blackwell DL, Tonthat L. Summary Health Statistics for the U.S. Population: National Health Interview Survey, 1998. National Center for Health Statistics. Vital Health Stat 10(207). 2002; Pleis JR, Coles R. Summary Health Statistics for U.S. Adults: National Health Interview Survey, 1998. National Center for Health Statistics. Vital Health Stat 10(209). 2002; or visit the NHIS section of the NCHS Web site at www.cdc.gov/nchs/nhis.htm.

National Health Provider Inventory (NHPI)

Centers for Disease Control and Prevention

National Center for Health Statistics

The National Master Facility Inventories (NMFIs), forerunners of the National Health Provider Inventory (NHPI), were a series of inventories of inpatient health facilities in the United States conducted by NCHS. The inventories included hospitals, nursing and related-care homes, and other custodial care facilities. The last NMFI was conducted in 1982. In 1986 the inventory was changed to the Inventory of Long-Term Care Places (ILTCP) and included nursing and related-care homes and facilities for the mentally retarded. In 1991 the inventory was again changed to NHPI and included nursing homes, board and care homes, home health agencies, and hospices. The NHPI has not been repeated since 1991. The NMFI, ILTCP, and NHPI served as sampling frames for the NCHS National Nursing Home Survey and National Home and Hospice Care Survey.

National Home and Hospice Care Survey (NHHCS)

Centers for Disease Control and Prevention

National Center for Health Statistics

The National Home and Hospice Care Survey (NHHCS) is a sample survey of health agencies and hospices. Initiated in 1992, it was also conducted in 1993, 1994, 1996, 1998, and 2000. The original sampling frame consisted of all home health care agencies and hospices identified in the 1991 National Health Provider Inventory (NHPI). The 1992 sample contained 1,500 agencies. These agencies were revisited during the 1993 survey (excluding agencies that had been found to be out of scope for the survey). In 1994 in-scope agencies identified in the 1993 survey were revisited, along with 100 newly identified agencies added to the sample. In 1996 the universe was again updated and a new sample of 1,200 agencies was drawn. In 1998 a sample of 1,350 agencies was selected. In 2000, 1,800 agencies were sampled and the response rate was 96.4 percent.

The sample design for the 1992–94 NHHCS was a stratified three-stage probability design. Primary sampling units were selected at the first stage, agencies were selected at the second stage, and current patients and discharges were selected at the third stage. The sample design for the 1996, 1998, and 2000 NHHCS was a two-stage probability design, in which agencies were selected at the first stage and current patients and discharges were selected at the second stage. Current patients were those on the rolls of the agency as of midnight the day before the survey. Discharges were selected to estimate the number of discharges from the agency during the year before the survey. After the samples were selected, a patient questionnaire was completed for each current patient and discharge by interviewing the staff member most familiar with the care provided to the patient. The respondent was requested to refer to the medical records for each patient.

For additional information see: Haupt BJ. Development of the National Home and Hospice Care Survey. National Center for

Health Statistics. Vital Health Stat 1(33). 1994; and visit the National Health Care Survey (NHCS) Web site at www.cdc.gov/nchs/nhcs.htm.

National Hospital Ambulatory Medical Care Survey (NHAMCS)

Centers for Disease Control and Prevention

National Center for Health Statistics

The National Hospital Ambulatory Medical Care Survey (NHAMCS), initiated in 1992, is a continuing annual national probability sample of visits by patients to emergency departments (EDs) and outpatient departments (OPDs) of non-Federal, short-stay, or general hospitals. Telephone contacts are excluded.

A four-stage probability sample design is used in NHAMCS, involving samples of primary sampling units (PSUs), hospitals with EDs and/or OPDs within PSUs, EDs within hospitals and/or clinics within OPDs, and patient visits within EDs and/or clinics. In 1999 the hospital response rate for NHAMCS was 93 percent for EDs and 86 percent for OPDs. In 2000 the hospital response rate was 94 percent for EDs and 88 percent for OPDs. Hospital staff were asked to complete Patient Record Forms (PRF) for a systematic random sample of patient visits occurring during a randomly assigned 4-week reporting period. On the PRF, up to three physicians' diagnoses were collected and coded by NCHS to the *International Classification of Diseases, Clinical Modification* (ICD-9-CM). Additionally, if the cause-of-injury check box was marked on the PRF, up to three external causes of injury were coded by NCHS to the ICD-9-CM Supplementary Classification of External Causes of Injury and Poisoning. In 1999 the number of PRFs completed for EDs was 21,103 and for OPDs 29,487. In 2000 the number of PRFs completed for EDs was 25,622 and for OPDs 27,510.

For more detailed information on NHAMCS, see: McCaig LF, McLemore T. Plan and operation of the National Hospital Ambulatory Medical Care Survey. National Center for Health Statistics. Vital Health Stat 1(34). 1994; and visit the National Health Care Survey (NHCS) section of the NCHS Web site at www.cdc.gov/nchs/nhcs.htm.

National Hospital Discharge Survey (NHDS)

Centers for Disease Control and Prevention

National Center for Health Statistics

The National Hospital Discharge Survey (NHDS), which has been conducted annually since 1965, is a national probability survey designed to meet the need for information on characteristics of inpatients discharged from non-Federal short-stay hospitals in the United States. The survey is conducted in all 50 States and the District of Columbia. Only hospitals with an average length of stay of fewer than 30 days for all patients, general hospitals, or children's general hospitals are included in the survey. Federal, military, and Department of Veterans Affairs hospitals, as well as hospital units of institutions (such as prison hospitals), and hospitals with fewer than six beds staffed for patient use, are excluded. All discharged patients from in-scope hospitals are included in the survey; however, discharged newborn infants are not included in *Health, United States*.

The original sample was selected in 1964 from a frame of short-stay hospitals listed in the National Master Facility Inventory. A two-stage stratified sample design was used, with hospitals stratified according to bed size and geographic region. Sample hospitals were selected with probabilities ranging from certainty for the largest hospitals to 1 in 40 for the smallest hospitals. Within each sample hospital, a systematic random sample of discharges was selected from the daily listing sheet. Initially, the within-hospital sampling rates for selecting discharges varied inversely with the probability of hospital selection, so that the overall probability of selecting a discharge was approximately the same across the sample. Those rates were adjusted for individual hospitals in subsequent years to control the reporting burden of those hospitals.

In 1985, for the first time, two data-collection procedures were used for the survey. The first was the traditional manual system of sample selection and data abstraction. In the manual system, sample selection and transcription of information from the hospital records to abstract forms were performed by either the hospital staff or representatives of NCHS or both. The second was an automated method, used in approximately 17 percent of the sample hospitals in 1985, involving the purchase of data tapes from commercial abstracting services. These tapes were then subjected to the NCHS sampling, editing, and weighting procedures.

In 1988 NHDS was redesigned. The hospitals with the most beds and/or discharges annually were selected with certainty, but the remaining sample was selected using a three-stage stratified design. The first stage is a sample of PSUs used by the National Health Interview Survey. Within PSUs, hospitals were stratified or arrayed by abstracting status (whether subscribing to a commercial abstracting service) and within abstracting status arrayed by type of service and bed size. Within these strata and arrays, a systematic sampling scheme with probability proportional to the annual number of discharges was used to select hospitals. The rates for systematic sampling of discharges within hospitals varied inversely with probability of hospital selection within the PSU. Discharge records from hospitals submitting data via commercial abstracting services and selected State data systems (approximately 40 percent of sample hospitals) were arrayed by primary diagnoses, patient sex and age group, and date of discharge before sampling. Otherwise, the procedures for sampling discharges within hospitals were the same as those used in the prior design.

In 2000 the hospital sample was updated by continuing the sampling process among hospitals that were NHDS-eligible for the sampling frame in 2000 but not in 1997. The additional hospitals were added at the end of the list for the strata where they belonged, and the systematic sampling was continued as if the additional hospitals had been present during the initial sample selection. Hospitals that were no longer NHDS-eligible were deleted. A similar updating process occurred in 1991, 1994, and 1997.

The basic unit of estimation for NHDS is the sample patient abstract. The estimation procedure involves inflation by the reciprocal of the probability of selection, adjustment for nonresponding hospitals and missing abstracts, and ratio adjustments to fixed totals. In 2000, 509 hospitals were selected, 481 were within scope, 434 participated (90 percent), and 313,259 medical records were abstracted. In 2001, the sample consisted of 504 hospitals, of which 477 were within scope and 448 of those participated, providing data for approximately 330,000 discharges.

Hospital utilization rates per 1,000 population were computed using estimates of the civilian population of the United States as of July 1 of each year. Rates for 1990 through 1999 use postcensal estimates of the civilian population based on the 1990 census adjusted for net underenumeration using the 1990 National Population Adjustment Matrix from the U.S. Bureau of the Census. These estimates will differ from estimates that calculate discharge rates for 1990–1999 based on estimates of the civilian population that incorporate information from the census 2000 (intercensal estimates—not currently available) thereby adjusting for the “error of closure.” The estimates for 2000 that appeared in *Health, United States, 2002* were computed using postcensal civilian population estimates based on the 1990 Census adjusted for net underenumeration. The estimates for 2000 and 2001 that appear in *Health, United States, 2003* were calculated using estimates of the civilian population based on census 2000, and therefore are not directly comparable with rates calculated for the 1990s. See related *Population Census and Population Estimates*.

For more detailed information on the design of NHDS and the magnitude of sampling errors associated with NHDS estimates, see: Hall MJ, DeFrances CJ. 2001 National Hospital Discharge Summary Advance data from vital and health statistics; no 332. Hyattsville, MD: National Center for Health Statistics. 2003; Dennison C, Pokras R. Design and operation of the National Hospital Discharge Survey: 1988 redesign. National Center for Health Statistics. Vital Health Stat 1(39). 2000; and visit the National Health Care Survey Web site at www.cdc.gov/nchs/nhcs.htm.

National Household Survey on Drug Abuse (NHSDA)

Substance Abuse and Mental Health Services Administration

The National Household Survey on Drug Abuse (NHSDA), sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA), collects data on use of tobacco, alcohol, and illicit drugs among persons 12 years of age and over in the civilian noninstitutionalized population in the United States. This includes civilians living on military bases and persons living in noninstitutionalized group quarters, such as college dormitories, rooming houses, and shelters. Persons excluded from the survey include homeless people who do not use shelters, active military personnel, and residents of institutional group quarters, such as jails and hospitals.

The NHSDA survey has been conducted since 1971. In 1999 the NHSDA underwent a major redesign affecting the method of data collection, sample design, sample size, and oversampling. Because of the differences in methodology and impact of the new design on data collection, comparisons should not be made between data from the redesigned surveys (1999 onward) and data obtained from surveys prior to 1999. Beginning in 1999 the survey used a combination of computer-assisted personal interview (CAPI) conducted by the interviewer and a computer-assisted self-interview (ACASI). Use of ACASI is designed to provide the respondent with a highly private and confidential means of responding to questions and to increase the level of honest reporting of illicit drug use and other sensitive behaviors.

A 5-year sample design provides State estimates for years 1999 through 2003. The sample employs a 50-State design with an independent, multistage area probability sample for each of the 50 States and the District of Columbia. The eight States with the largest population (which together account for 48 percent of the total U.S. population age 12 years and over) were designated as large sample States (California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas). For these States the design provided a sample large enough to support direct State estimates. For the remaining 42 States and the District of Columbia, smaller, but adequate, samples were selected to support State estimates using small-area estimation techniques. The design also oversamples youths and young adults so that each State's sample is approximately equally distributed among three major age groups: 12–17 years, 18–25 years, and 26 years and over.

Each State was stratified into regions (48 regions in each of 8 large States, 12 regions in each of 42 small States and the District of Columbia). At the first stage of sampling, 8 area segments were selected in each region, for a total of 7,200 sample units nationally. In these segments, 171,519 addresses were screened and 89,745 persons were interviewed within the screened addresses in 2001. Weighted response rates for household screening and for interviewing were 91.9 percent and 73.3 percent, respectively, for an overall weighted response rate of 67.3 percent. A description of the methodology can be found in Summary of Findings from the 2001 National Household Survey on Drug Abuse, available from SAMHSA's Web site.

Direct survey estimates considered to be unreliable due to unacceptably large sampling errors are not shown in table 62 in this report, and are noted by asterisks (*). The criterion used for suppressing all direct survey estimates was based on the relative standard error (*RSE*), which is defined as the ratio of the standard error (*se*) over the estimate. Proportion estimates (p) within the range $[0<p<1]$, rates, and corresponding estimated number of users were suppressed if:

$$[se(p)/p]/[-ln(p)] > 0.175 \text{ when } p<0.5$$

or

$$[se(p)/(1-p)]/[-ln(1-p)] > 0.175 \text{ when } p \geq 0.5$$

The separate formulae for $p<0.5$ and $p \leq 0.5$ produces a symmetric suppression rule; that is, if p is suppressed, then so will $1-p$. This is an ad hoc rule that requires an effective sample size in excess of 50. When $0.05<p<0.95$, the symmetric properties of the rule produce a local maximum effective sample size of 68 at $p=0.5$. Thus, estimates with these values of p along with effective sample sizes falling below 68 are suppressed. A local minimum effective sample size of 50 occurs at $p=0.2$ and again at $p=0.8$ within this same interval; so, estimates are suppressed for values of p with effective sample sizes below 50. A minimum effective sample size of 68 was added to the suppression criteria in the 2000 NHSDA. As p approaches 0.00 or 1.00 outside the interval (0.05, 0.95), the suppression criteria will still require increasingly larger effective sample sizes. Also new to the 2000 survey is a minimum nominal sample size suppression criteria ($n=100$) that protects against unreliable estimates caused by small design effects and small nominal sample sizes. Prevalence estimates are also suppressed if they are close to zero or 100 percent (i.e., if $p<.00005$ or if $p>.99995$).

Estimates of substance use for youth based on the NHSDA are generally lower than estimates based on Monitoring the Future (MTF) and Youth Risk Behavior Surveillance System (YRBSS). In addition to the fact that the MTF excludes dropouts and absentees, rates are not directly comparable across these surveys, due to differences in populations covered, sample design, questionnaires, interview setting, and statistical approaches to make the survey estimates generalizable to the entire population. The NHSDA survey collects data in homes, whereas the MTF and YRBSS collect data in school classrooms. The NHSDA estimates are tabulated by age, while the MTF and YRBSS estimates are tabulated by grade, representing different ages as well as different populations. See Cowan CD. Coverage, Sample

Design, and Weighting in Three Federal Surveys. Journal of Drug Issues 31(3), 595–614, 2001.

For more information on the National Household Survey on Drug Abuse (NHSDA), see: NHSDA Series: H-13 Summary of Findings from the 2000 National Household Survey on Drug Abuse, DHHS Pub No (SMA) 01-3549; or write: Office of Applied Studies, Substance Abuse and Mental Health Services Administration, Room 16C-06, 5600 Fishers Lane, Rockville, MD 20857; for the 2001 NHSDA Summary of National Findings, visit the SAMHSA Web site at www.drugabusestatistics.samhsa.gov.

National Immunization Survey (NIS)

Centers for Disease Control and Prevention

National Center for Health Statistics and National Immunization Program

The National Immunization Survey (NIS) is a continuing nationwide telephone sample survey to gather data on children 15–35 months of age. Estimates of vaccine-specific coverage are available for national, State, and 28 urban areas considered to be high risk for undervaccination.

NIS uses a two-phase sample design. First, a random-digit-dialing (RDD) sample of telephone numbers is drawn. When households with age-eligible children are contacted, the interviewer collects information on the vaccinations received by all age-eligible children. In 2001 the overall response rate was 70 percent, yielding data for 33,437 children aged 15–35 months. The interviewer also collects information on the vaccination providers. In the second phase, all vaccination providers are contacted by mail. The vaccination information from providers was obtained for 72 percent of all children who were eligible for provider followup in 2001. Providers' responses are combined with information obtained from the households to provide a more accurate estimate of vaccination coverage levels. Final estimates are adjusted for households without telephones.

For more information about the survey design and methods used in estimation, see: Zell ER, Ezzati-Rice TM, Battaglia PM, Wright RA. National Immunization Survey: The Methodology of a Vaccination Surveillance System. Public Health Reports 115:65–77. 2000; or visit the NCHS Web site at www.cdc.gov/nchs/nis.

National Medical Expenditure Survey (NMES)—See *Medical Expenditure Panel Survey*.

National Notifiable Diseases Surveillance System (NNDSS)

Centers for Disease Control and Prevention

Epidemiology Program Office

The Epidemiology Program Office (EPO) of CDC, in partnership with the Council of State and Territorial Epidemiologists (CSTE), operates the National Notifiable Diseases Surveillance System. The primary purpose of this system is to provide weekly provisional information on the occurrence of diseases defined as notifiable by CSTE. The system also provides annual summaries of the data. State epidemiologists report cases of notifiable diseases to EPO who tabulates and publishes these data in the *Morbidity and Mortality Weekly Report (MMWR)* and the *Summary of Notifiable Diseases, United States* (entitled *Annual Summary* before 1985). Notifiable disease surveillance is conducted by public health practitioners at local, State, and national levels to support disease prevention and control activities.

Notifiable disease reports are received from health departments in the 50 States, 5 territories, New York City, and the District of Columbia. Policies for reporting notifiable disease cases can vary by disease or reporting jurisdiction, depending on case status classification (i.e., confirmed, probable, or suspect). CSTE and CDC annually review the status of national infectious disease surveillance and recommend additions or deletions to the list of nationally notifiable diseases based on the need to respond to emerging priorities. For example, Q fever and tularemia became nationally notifiable in 2000. However, reporting nationally notifiable diseases to CDC is voluntary. Reporting is currently mandated by law or regulation only at the local and State level. Therefore, the list of diseases that are considered notifiable varies slightly by State. For example, reporting of cyclosporiasis to CDC is not done by some States in which this disease is not notifiable to local or State authorities. More information regarding notifiable diseases, including case definitions for these conditions, is available on the Web at www.cdc.gov/epo/dphsi/phs.htm.

Notifiable disease data are useful for analyzing disease trends and determining relative disease burdens. However, these data must be interpreted in light of reporting practices. Some diseases that cause severe clinical illness (for example, plague and rabies) are most likely reported accurately if diagnosed by a clinician. However, persons who have diseases that are clinically mild and infrequently associated with serious consequences (for example, salmonellosis) might not seek medical care from a health care provider. Even if these less severe diseases are diagnosed, they are less likely to be reported.

The degree of completeness of data reporting also is influenced by the diagnostic facilities available; the control measures in effect; public awareness of a specific disease; and the interests, resources, and priorities of State and local officials responsible for disease control and public health surveillance. Finally, factors such as changes in case definitions for public health surveillance, introduction of new diagnostic tests, or discovery of new disease entities can cause changes in disease reporting that are independent of the true incidence of disease.

For more information, see: Centers for Disease Control and Prevention, Summary of Notifiable Diseases, United States, 2001 *Morbidity and Mortality Weekly Report* 50(53) Public Health Service, DHHS, Atlanta, GA, 2003; or write: Chief, Surveillance Systems Branch, Division of Public Health Surveillance and Informatics. Epidemiology Program Office, Centers for Disease Control and Prevention, 4770 Buford Highway, MS K74, Atlanta, GA 30341-3717; or visit the EPO Web site at www.cdc.gov/epo/.

National Nursing Home Survey (NNHS)

Centers for Disease Control and Prevention

National Center for Health Statistics

NCHS conducted six National Nursing Home Surveys (NNHS), the first survey from August 1973–April 1974; the second from May–December 1977; the third from August 1985–January 1986; the fourth from July–December 1995; the fifth from July–December 1997; and the sixth from July–December 1999. The next NNHS, which has undergone a major redesign, is scheduled to be conducted during calendar year 2004.

For the initial NNHS conducted in 1973–74, the universe included nursing homes that provided some level of nursing care and excluded homes providing only personal or domiciliary care. The sample of 2,118 homes was selected from the 17,685 homes listed in the 1971 National Master Facility Inventory (NMFI) or those that opened for business in 1972. Data were obtained from about 20,600 staff and 19,000 residents. Response rates were 97 percent for facilities, 88 percent for expenses, 82 percent for staff, and 98 percent for residents.

The 1977 NNHS encompassed all types of nursing homes, including personal care and domiciliary care homes. The sample of about 1,700 facilities was selected from 23,105 nursing homes in the sampling frame, which consisted of all homes listed in the 1973 NMFI and those opening for business between 1973 and December 1976. Data were obtained from about 13,600 staff, 7,000 residents, and 5,100 discharged residents. Response rates were 95 percent for facilities, 85 percent for expenses, 81 percent for staff, 99 percent for residents, and 97 percent for discharges.

The 1985 NNHS was similar to the 1973–74 survey in that it excluded personal or domiciliary care homes. The sample of 1,220 homes was selected from a sampling frame of 20,479 nursing and related-care homes. The frame consisted of all homes in the 1982 NMFI; homes identified in the 1982 Complement Survey of NMFI “missing” from the 1982 NMFI; facilities that opened for business between 1982 and June 1984; and hospital-based nursing homes obtained from the Centers for Medicare & Medicaid Services. Information on the facility was collected through a personal interview with the administrator. Accountants were asked to complete a questionnaire on expenses or provide a financial statement. Resident data were provided by a nurse familiar with the care provided to the resident. The nurse relied on the medical record and personal knowledge of the resident. In addition to employee data that were collected during the interview with the administrator, a sample of registered nurses completed a self-administered questionnaire. Discharge data were based on information recorded in the medical record. Additional data about current and discharged residents were obtained in telephone interviews with next of kin. Data were obtained from 1,079 facilities, 2,763 registered nurses, 5,243 current residents, and 6,023 discharges. Response rates were 93 percent for facilities, 68 percent for expenses, 80 percent for registered nurses, 97 percent for residents, 95 percent for discharges, and 90 percent for next of kin.

The 1995, 1997, and 1999 NNHS also included only nursing homes that provided some level of nursing care, and excluded homes providing only personal or domiciliary care, similar to the 1985 and 1973–74 surveys. The 1995 sample of 1,500 homes was selected from a sampling frame of 17,500 nursing homes. The frame consisted of an updated version of the 1991 National Health Provider Inventory (NHPI). Data were obtained from about 1,400 nursing homes and 8,000 current residents. Data on current residents were provided by a staff member familiar with the care received by residents and from information contained in residents' medical records.

The 1997 sample of 1,488 nursing homes was the same basic sample used in 1995. Excluded were out-of-scope and out-of-business places identified in the 1995 survey. Included were a small number of additions to the sample from a supplemental frame of places not in the 1995 frame. The 1997 NNHS included the discharge component not available in the 1995 survey.

The 1999 sample of 1,423 nursing homes was selected from a sampling frame of 18,419 possible facilities from the most current National Health Provider Inventory. A supplemental frame was used to add facilities not in the 1997 frame. Like the 1995 and 1997 surveys, the 1999 survey excluded out-of-scope and out-of-business nursing homes identified in 1997. The 1999 NNHS also included a discharge resident component.

Statistics for the National Nursing Home Surveys are derived by a multistage estimation procedure that provides essentially unbiased national estimates and has three major components: (a) inflation by the reciprocals of the probabilities of sample selection, (b) adjustment for nonresponse, and (c) ratio adjustment to fixed totals. The surveys are adjusted for three types of nonresponse: (1) when an eligible nursing facility did not respond; (2) when the facility failed to complete the sampling lists; and (3) when the facility did not complete the facility questionnaire but did complete the questionnaire for residents in the facility.

For more information on the 1973–74 NNHS, see: Meiners MR. Selected operating and financial characteristics of nursing homes, United States, 1973–74 National Nursing Home Survey. National Center for Health Statistics. Vital Health Stat 13(22). 1975. For more information on the 1977 NNHS, see: Van Nostrand JF, Zappolo A, Hing E, et al. The National Nursing Home Survey, 1977 summary for the United States. National Center for Health Statistics. Vital Health Stat 13(43). 1979. For more information on the 1985 NNHS, see: Hing E, Sekscenski E, Strahan G. The National Nursing Home Survey: 1985 summary for the United States. National Center for Health Statistics. Vital Health Stat 13(97). 1989. For more information on the 1995 NNHS, see: Strahan G. An overview of nursing homes and their current residents: Data from the 1995 National Nursing Home Survey. Advance data from vital and health statistics; no 280. Hyattsville, MD: National Center for Health Statistics. 1997. For more information on the 1997 NNHS, see: The National Nursing Home Survey: 1997 summary. National Center for Health Statistics. Vital Health Stat 13(147). 2000. For more information on the 1999 NNHS, see: Jones A. The National Nursing Home Survey: 1999 summary. National Center for Health Statistics. Vital Health Stat 13(152). 2002. Information about the 1995, 1997, 1999, and 2001 NNHS is also available at the National Health Care Survey Web site at www.cdc.gov/nchs/nhcs.htm.

National Survey of Ambulatory Surgery (NSAS)

Centers for Disease Control and Prevention

National Center for Health Statistics

The National Survey of Ambulatory Surgery (NSAS) is a nationwide sample survey of ambulatory surgery patient discharges from short-stay non-Federal hospitals and freestanding surgery centers. NSAS was conducted in 1994, 1995, and 1996. The sample consisted of eligible hospitals listed in the 1993 SMG Hospital Market Database and the 1993 SMG Freestanding Outpatient Surgery Center Database or Medicare Provider-of-Service files. Facilities specializing in dentistry, podiatry, abortion, family planning, or birthing were excluded.

A three-stage stratified cluster design was used, and facilities were stratified according to primary sampling unit (PSU). The second stage consisted of the selection of facilities from sample PSUs, and the third stage consisted of a systematic random sample of cases from all locations within a facility where ambulatory surgery was performed. Locations within hospitals dedicated exclusively to dentistry, podiatry, pain block, abortion, or small procedures (sometimes referred to as "lump and bump" rooms) were not included. In 1996, of the 751 hospitals and freestanding ambulatory surgery centers selected for the survey, 601 were in-scope and 488 responded for an overall response rate of 81 percent. These facilities provided information for approximately 125,000 ambulatory surgery discharges. Up to six procedures were coded to the *International Classification of Diseases, 9th Revision, Clinical Modification*. Estimates were derived using a multistage estimation procedure: inflation by reciprocals of the probabilities of selection; adjustment for nonresponse; and population weighting ratio adjustments.

For more detailed information on the design of NSAS, see: McLemore T, Lawrence L. Plan and operation of the National Survey of Ambulatory Surgery. National Center for Health Statistics. Vital Health Stat 1(37). 1997; and visit the National Health Care Survey Web site at www.cdc.gov/nchs/nhcs.htm.

National Survey of Family Growth (NSFG)

Centers for Disease Control and Prevention

National Center for Health Statistics

Data from the National Survey of Family Growth (NSFG) are based on samples of women ages 15–44 years in the civilian noninstitutionalized population of the United States. The first and second cycles, conducted in 1973 and 1976, excluded most women who had never been married. The third, fourth, and fifth cycles, conducted in 1982, 1988, and 1995, included all women ages 15–44 years.

The purpose of the survey is to provide national data on factors affecting birth and pregnancy rates, adoption, and maternal and infant health. These factors include sexual activity, marriage, divorce and remarriage, unmarried cohabitation, contraception and sterilization, infertility, breastfeeding, pregnancy loss, low birthweight, and use of medical care for family planning and infertility.

Interviews are conducted in person by professional female interviewers using a standardized questionnaire. In 1973–88 the average interview length was about 1 hour. In 1995 the average interview lasted about 1 hour and 45 minutes. In all cycles black women were sampled at higher rates than white women, so that detailed statistics for black women could be produced.

Interviewing for Cycle 1 of NSFG was conducted from June 1973 to February 1974. Counties and independent cities of the United States were sampled to form a frame of primary sampling units (PSUs), and 101 PSUs were selected. From these 101 PSUs, 10,879 women 15–44 years of age were selected, 9,797 of these were interviewed. Most never-married women were excluded from the 1973 NSFG.

Interviewing for Cycle 2 of NSFG was conducted from January to September 1976. From 79 PSUs, 10,202 eligible women were identified; of these, 8,611 were interviewed. Again, most never-married women were excluded from the sample for the 1976 NSFG.

Interviewing for Cycle 3 of NSFG was conducted from August 1982 to February 1983. The sample design was similar to that in Cycle 2: 31,027 households were selected in 79 PSUs. Household screener interviews were completed in 29,511 households (95.1 percent). Of the 9,964 eligible women identified, 7,969 were interviewed. For the first time in NSFG, Cycle 3 included women of all marital statuses.

Interviewing for Cycle 4 was conducted between January and August 1988. The sample was obtained from households that had been interviewed in the National Health Interview Survey in the 18 months between October 1, 1985 and March 31, 1987. For the first time, women living in Alaska and Hawaii were included so that the survey covered women from the noninstitutionalized population of the entire United States. The sample was drawn from 156 PSUs; 10,566 eligible women ages 15–44 years were sampled. Interviews were completed with 8,450 women.

Between July and November 1990, 5,686 women were interviewed by telephone in the first NSFG telephone reinterview. The average length of interview in 1990 was 20 minutes. The response rate for the 1990 telephone reinterview was 68 percent of those responding to the 1988 survey and still eligible for the 1990 survey.

Interviewing for Cycle 5 of NSFG was conducted between January and October 1995. The sample was obtained from households that had been interviewed in 198 PSUs in the National Health Interview Survey in 1993. Of the 13,795 eligible women in the sample, 10,847 were interviewed. For the first time, Hispanic as well as black women were sampled at a higher rate than other women.

In order to make national estimates from the sample for the millions of women ages 15–44 years in the United States, data for the interviewed sample women were (a) inflated by the reciprocal of the probability of selection at each stage of sampling (for example, if there was a 1 in 5,000 chance that a woman would be selected for the sample, her sampling weight was 5,000), (b) adjusted for nonresponse, and (c) forced to agree with benchmark population values based on data from the Current Population Survey of the U.S. Bureau of the Census (this last step is called “poststratification”).

Quality control procedures for selecting and training interviewers, and coding, editing, and processing data were built into NSFG to minimize nonsampling error.

More information on the methodology of NSFG is available in the following reports: French DK. National Survey of Family Growth, Cycle I: Sample design, estimation procedures, and variance estimation. National Center for Health Statistics. Vital Health Stat 2(76). 1978; Grady WR. National Survey of Family Growth, Cycle II: Sample design, estimation procedures, and variance estimation. National Center for Health Statistics. Vital Health Stat 2(87). 198l; Bachrach CA, Horn MC, Mosher WD, Shimizu I. National Survey of Family Growth, Cycle III: Sample design, weighting, and variance estimation. National Center for Health Statistics. Vital Health Stat 2(98). 1985; Judkins DR, Mosher WD, Botman SL. National Survey of Family Growth: Design, estimation, and inference. National Center for Health Statistics. Vital Health Stat 2(109). 1991; Goksel H, Judkins DR, Mosher WD. Nonresponse adjustments for a telephone followup to a National In-Person Survey. Journal of Official Statistics 8(4):417–32. 1992; Kelly JE, Mosher WD, Duffer AP, Kinsey SH. Plan and operation of the 1995 National Survey of Family Growth. Vital Health Stat 1(36). 1997; Potter FJ, Iannacchione VG, Mosher WD, Mason RE, Kavee JD. Sampling weights, imputation, and variance estimation in the 1995 National Survey of Family Growth. Vital Health Stat 2(124). 1998; or visit the NCHS Web site at www.cdc.gov/nchs/nsfg.htm.

National Survey of Substance Abuse Treatment Services (N-SSATS)

Substance Abuse and Mental Health Services Administration

The National Survey of Substance Abuse Treatment Services (N-SSATS) is part of the Drug and Alcohol Services Information System (DASIS) maintained by the Substance Abuse and Mental Health Services Administration (SAMHSA). N-SSATS is a census of all known substance abuse treatment facilities. It seeks information from all specialized facilities that treat substance abuse. These include facilities that treat only substance abuse, as well as specialty substance abuse units operating within larger mental health facilities (for example, community mental health centers), general health (for example, hospitals), social service (for example, family assistance centers), and criminal justice (for example, probation departments) agencies. N-SSATS solicits data concerning facility and client characteristics for a specific reference day (October 1 in 1998 and 2000 and March 29 in 2002) including number of individuals in treatment, substance of abuse (alcohol, drugs, or both), and types of services. Public and private facilities are included.

Treatment facilities contacted through N-SSATS are identified from the Inventory of Substance Abuse Treatment Services (I-SATS) that lists all known substance abuse treatment facilities. Response rates to the surveys were 91, 94, and 95 percent in 1998, 2000, and 2002, respectively. The full survey was not conducted in 1999 or 2001.

For further information on N-SSATS, contact:
Office of Applied Studies, Substance Abuse and Mental Health Services Administration, Room 16-105,
5600 Fishers Lane, Rockville, MD 20857; or visit the OAS statistical information section of the SAMHSA Web site at www.drugabusestatistics.samhsa.gov.

National Vital Statistics System

Centers for Disease Control and Prevention

National Center for Health Statistics

Through the National Vital Statistics System, the National Center for Health Statistics (NCHS) collects and publishes data on births, deaths, marriages, and divorces in the United States. Fetal deaths are classified and tabulated separately from other deaths. The Division of Vital Statistics obtains information on births and deaths from the registration offices of all States, New York City, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam. Geographic coverage for births and deaths has been complete since 1933. Trend tables in this book show data for the aggregate of 50 States, New York City, and the District of Columbia, as well as for each individual State and the District of Columbia.

Until 1972 microfilm copies of all death certificates and a 50-percent sample of birth certificates were received from all registration areas and processed by NCHS. In 1972 some States began sending their data to NCHS through the Cooperative Health Statistics System (CHSS). States that participated in the CHSS program processed 100 percent of their death and birth records and sent the entire data file to NCHS on computer tapes. Currently, data are sent to NCHS through the Vital Statistics Cooperative Program (VSCP), following the same procedures as CHSS. The number of participating States grew from 6 in 1972 to 46 in 1984. Starting in 1985 all 50 States and the District of Columbia participated in VSCP.

U.S. Standard Certificates—U.S. Standard Live Birth and Death Certificates and Fetal Death Reports are revised periodically, allowing careful evaluation of each item and addition, modification, and deletion of items. Beginning with 1989 revised standard certificates replaced the 1978 versions. The 1989 revision of the birth certificate includes items to identify the Hispanic parentage of newborns and to expand information about maternal and infant health characteristics. The 1989 revision of the death certificate includes items on educational attainment and Hispanic origin of decedents, as well as changes to improve the medical certification of cause of death. Standard certificates recommended by NCHS are modified in each registration area to serve the area's needs. However, most certificates conform closely in content and arrangement to the standard certificate, and all certificates contain a minimum data set specified by NCHS.

Birth File

The birth file is comprised of demographic and medical information from birth certificates. Demographic information, such as race and ethnicity, is provided by the mother at the time of birth. Medical and health information is based on hospital records. The number of States reporting information on maternal education, Hispanic origin, marital status, and tobacco use during pregnancy has increased over the years spanned by this report. Interpretation of trend data should take into consideration expansion of reporting areas and immigration. See Appendix II for methodologic and reporting area changes for the following birth certificate items: *Age* (maternal age); *Education* (maternal education); *Hispanic origin; Marital status; Prenatal care; Race; Tobacco use*.

For more information, see: National Center for Health Statistics, *Vital Statistics of the United States*, Vol. I Natality, Technical Appendix, available at the NCHS Web site at www.cdc.gov/nchs/births.htm.

Mortality File

The mortality data file is comprised of demographic and medical information from death certificates. Demographic information is provided by the funeral director based on information supplied by an informant. Medical certification of cause of death is provided by a physician, medical examiner, or coroner. The mortality data file is a fundamental source of cause-of-death information by demographic characteristics and for geographic areas, such as States. The mortality file is one of the few sources of comparable health-related data for smaller geographic areas in the United States and over a long time period. Mortality data can be used not only to present the characteristics of those dying in the United States, but also to determine life expectancy and to compare mortality trends with other countries. Data for the entire United States refer to events occurring within the United States; data for geographic areas are by place of residence. See Appendix II for methodologic and reporting area changes for the following death certificate items: *Education; Hispanic origin; Race*.

For more information, see: Grove RD, Hetzel AM. *Vital statistics rates in the United States, 1940–60*. Washington: U.S. Government Printing Office, 1968; and National Center for Health Statistics, *Vital Statistics of the United States*, Vol. II Mortality Part A, Technical Appendix, available at the NCHS Web site at www.cdc.gov/nchs/datawh/statab/pubd/ta.htm.

Multiple Cause of Death File

The National Center for Health Statistics (NCHS) is responsible for compiling and publishing annual national statistics on causes of death. In carrying out this responsibility, NCHS adheres to the World Health Organization Nomenclature Regulations. These Regulations require that (1) cause of death be coded in accordance with the applicable revision of the *International Classification of Diseases* (ICD) (see Appendix II, table IV and ICD); and (2) underlying cause of death be selected in accordance with international rules. Traditionally, national mortality statistics have been based on a count of deaths with one underlying cause assigned for each death. National single-cause mortality statistics go back to the year 1900.

Starting with data year 1968, electronic files exist with multiple cause of death information. These files contain codes for all diagnostic terms and related codable information recorded on the death certificate. These codes comprise the entity axis, and are the input for a software program called TRANSAX. The TRANSAX program eliminates redundant entity axis codes and combines other entity axis codes to create the best set of ICD codes for a record. The output of the TRANSAX program is the record axis. Record axis data are generally used for research and analysis of multiple or nonunderlying cause of death. Because the function of the TRANSAX program is not to select a single underlying cause of death, record axis data may or may not include the underlying cause. Tabulations of underlying and nonunderlying cause of death in table 48 (selected occupational diseases) are compiled by searching both underlying cause of death and record axis data.

For more information, see www.cdc.gov/nchs/products/elec_prods/subject/mortmcd.htm.

Linked Birth/Infant Death Data Set

National linked files of live births and infant deaths are data sets for research on infant mortality. To create these data sets, death certificates are linked with corresponding birth certificates for infants who die in the United States before their first birthday. Linked data files include all variables on the national natality file, including the more accurate racial and ethnic information, as well as variables on the national mortality file, including cause of death and age at death. The linkage makes available for the analysis of infant mortality extensive information from the birth certificate about the pregnancy, maternal risk factors, and infant characteristics and health items at birth. Each year 97–98 percent of infant death records are linked to their corresponding birth records.

National linked files of live births and infant deaths were first produced for the 1983 birth cohort. Birth cohort linked file data are available for 1983–91 and period linked file data for 1995–2000. Period linked file data starting with 1995 are not strictly comparable with birth cohort data for 1983–91. While birth cohort linked files have methodological advantages, their production incurs substantial delays in data availability, since it is necessary to wait until the close of a second data year to include all infant deaths to the birth cohort.

Starting with data year 1995, more timely linked file data are produced in a period data format preceding the release of the corresponding birth cohort format. Other changes to the data set starting with 1995 data include addition of record weights to correct for the 2.2–2.5 percent of records that could not be linked and addition of an imputation for not stated birthweight. The 1995–2000 weighted mortality rates are less than 1 percent to 4.1 percent higher than unweighted rates for the same period. The 1995–2000 weighted mortality rates with imputed birthweight are less than 1 percent to 6.3 percent higher than unweighted rates with imputed birthweight for the same period.

For more information, see: Mathews TJ, Menacker F, MacDorman MF. Infant mortality statistics from the 2000 period linked birth/infant death data set. National vital statistics reports; vol 50 no 12. Hyattsville, MD: National Center for Health Statistics. 2002; or visit the NCHS Web site at www.cdc.gov/nchs/linked.htm.

Compressed Mortality File

The Compressed Mortality File (CMF) used to compute death rates by urbanization level is a county-level national mortality and population database. The mortality database of CMF is derived from the detailed mortality files of the National Vital Statistics System starting with 1968. The population database of CMF is derived from intercensal and postcensal population estimates and census counts of the resident population of each U.S. county by age, race, and sex. Counties are categorized according to level of urbanization based on an NCHS-modified version of the 1993 rural-urban continuum codes for metropolitan and nonmetropolitan counties developed by the Economic Research Service, U.S. Department of Agriculture. See Appendix II, *Urbanization*.

For more information about the CMF, contact: D. Ingram, Office of Analysis, Epidemiology, and Health Promotion, National Center for Health Statistics, 3311 Toledo Road, Mailstop 6226, Hyattsville, MD 20782.

Nurse Supply Estimates

Health Resources and Services Administration (HRSA)

Nurse supply estimates in this report are based on a model developed by HRSA's Bureau of Health Professions to meet the requirements of Section 951, P.L. 94-63. The model estimates for each State (a) population of nurses currently licensed to practice; (b) supply of full- and part-time practicing nurses (or available to practice); and (c) full-time equivalent supply of nurses practicing full time plus one-half of those practicing part time (or available on that basis). The three estimates are divided into three levels of highest educational preparation—associate degree or diploma, baccalaureate, and master's and doctorate. Among the factors considered are new graduates, changes in educational status, nursing employment rates, age, migration patterns, death rates, and licensure phenomena. The base data for the model are derived from the National Sample Surveys of Registered Nurses, conducted by the Division of Nursing, Bureau of Health Professions, HRSA. Other data sources include National League for Nursing for data on nursing education and National Council of State Boards of Nursing for data on licensure. For further information, visit HRSA's Division of Nursing Web site at www.bhpr.hrsa.gov/nursing/.

Online Survey Certification and Reporting Database (OSCAR)

Centers for Medicare & Medicaid Services

The Online Survey Certification and Reporting (OSCAR) database has been maintained by the Centers for Medicare & Medicaid Services (CMS), formerly the Health Care Financing Administration (HCFA), since 1992. OSCAR is an updated version of the Medicare and Medicaid Automated Certification System that has been in existence since 1972. OSCAR is an administrative database containing detailed information on all Medicare and Medicaid health care providers in addition to all currently certified Medicare and Medicaid nursing home facilities in the United States and Territories. (Data for the Territories are not shown in this report.) The purpose of the nursing home facility survey certification process is to ensure that nursing facilities meet the current CMS long-term care requirements and thus can participate in serving Medicare and Medicaid beneficiaries. Included in the OSCAR database are all certified nursing facilities, certified hospital-based nursing homes, and certified units for other types of nursing home facilities (for example, life-care communities or board and care homes). Facilities not included in OSCAR are all noncertified facilities (that is, facilities that are only licensed by the State and are limited to private payment sources) and nursing homes that are part of the Department of Veterans Affairs. Also excluded are nursing homes that are intermediate care facilities for the mentally retarded.

Information on the number of beds, residents, and resident characteristics is collected during an inspection of all certified facilities. The information in OSCAR is based on each facility's own administrative record system in addition to interviews with key administrative staff members.

All certified nursing homes are inspected by representatives of the State survey agency (generally the department of health) at least once every 15 months. Therefore a complete census must be based on a 15-month reporting cycle rather than a 12-month cycle. Some nursing homes are inspected twice or more often during any given reporting cycle. In order to avoid overcounting, the data must be edited and duplicates removed. Data editing and compilation were performed by Cowles Research Group and published in the group's *Nursing Home Statistical Yearbook* series

For more information, see: Cowles CM, 1995; 1996; 1997 Nursing Home Statistical Yearbook. Anacortes, WA: Cowles Research Group (CRG), 1995; 1997; 1998; Cowles CM, 1998; 1999; 2000; 2001 Nursing Home Statistical Yearbook. Washington, DC: American Association of Homes and Services for the Aging (AAHSA), 1999; 2000; 2001; 2002; HCFA: OSCAR Data Users Reference Guide, 1995, available from CMS, Health Standards and Quality Bureau, HCFA/HSQB S2 11-07, 7500 Security Boulevard, Baltimore, MD 21244; and visit the CMS Web site at www.cms.gov or the CRG Web site at www.longtermcareinfo.com/crg or the AAHSA Web site at www.aahsa.org.

Population Census and Population Estimates

Bureau of the Census

Decennial Census

The census of population (decennial census) has been held in the United States every 10 years since 1790. The decennial census has enumerated the resident population as of April 1 of the census year ever since 1930. Data on sex, race, age, and marital status are collected from 100 percent of the enumerated population. More detailed information such as income, education, housing, occupation, and industry are collected from a representative sample of the population.

Race Data on the 1990 Census

The question on race on the 1990 census was based on the Office of Management and Budget's (OMB) "1977 Statistical Policy Directive 15, Race and Ethnicity Standards for Federal Statistics and Administrative Reporting." This document specified rules for the collection, tabulation, and reporting of race and ethnicity data within the Federal statistical system. The 1977 standards required Federal agencies to report race-specific tabulations using four single-race categories: American Indian or Alaska Native, Asian or Pacific Islander, black, and white. Under the 1977 standards, race and ethnicity were considered to be two separate and distinct concepts. Thus, persons of Hispanic origin may be of any race.

Race Data on the 2000 Census

The question on race on the 2000 census was based on OMB's 1997 "Revisions of the Standards for the Classification of Federal Data on Race and Ethnicity" (see Appendix II, *Race*). The 1997 standards incorporated two major changes in the collection, tabulation, and presentation of race data. First, the 1997 standards increased from four to five the minimum set of categories to be used by Federal agencies for identification of race: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White. Second, the 1997 standards included the requirement that Federal data collection programs allow respondents to select one or more race categories when responding to a query on their racial identity. This provision means that there are potentially 31 race groups, depending on whether an individual selects one, two, three, four, or all five of the race categories. The 1997 standards continue to call for use, when possible, of a separate question on Hispanic or Latino ethnicity and specify that the ethnicity question should appear before the question on race. Thus under the 1997 standards, as under the 1977 standards, Hispanics may be of any race.

Modified Decennial Census Files

For several decades the Census Bureau has produced modified decennial census files. These modified files incorporate adjustments to the 100 percent April 1 count data for (1) errors in the census data discovered subsequent to publication, (2) misreported age data, and (3) nonspecified race.

For the 1990 census, the Census Bureau modified the age, race, and sex data on the census and produced the Modified Age Race Sex (MARS) file. The differences between the population counts on the original census file and the MARS file are primarily due to modification of the race data. Of the 248.7 million persons enumerated in 1990, 9.8 million persons did not specify their race (over 95 percent were of Hispanic origin). For the 1990 MARS file, these persons were assigned the race reported by a nearby person with an identical response to the Hispanic origin question.

For the 2000 census, the Census Bureau modified the race data on the census and produced the Modified Race Data Summary File. For this file, persons who reported "Some other race" as part of their race response were assigned to one of the 31 race groups, which are the single- and multiple-race combinations of the five race categories specified in the 1997 race and ethnicity standards. Persons who did not specify their race were assigned to one of the 31 race groups using imputation. Of the 18.5 million persons who reported "Some other race" as part of their race response or who did not specify their race, 16.8 million (90.4 percent) were of Hispanic origin.

Bridged-Race Population Estimates for Census 2000

Race data on the 2000 census are not comparable with race data on other data systems that are continuing to collect data using the 1977 standards on race and ethnicity during the transition to full implementation of the 1997 standards. For example, most of the States in the Vital Statistics Cooperative Program will revise their birth and death certificates to conform to the 1997 standards after 2000. Thus, population estimates for 2000 and beyond with race categories comparable to the 1977 categories are needed so that race-specific birth and death rates can be calculated. To meet this need, NCHS, in collaboration with the U.S. Census Bureau, developed methodology to bridge the 31 race groups in census 2000 to the four single-race categories specified under the 1977 standards.

The bridging methodology was developed using information from the 1997–2000 National Health Interview Survey (NHIS) (Ingram DD, Weed JA, Parker JD, et al. U.S. census 2000 population with bridged race categories. Vital Health Stat 2. Forthcoming, 2003.) The NHIS is an annual survey sponsored by NCHS and conducted by the Census Bureau (see *National Health Interview Survey*). The NHIS provides a unique opportunity to investigate multiple-race groups because since 1982, the NHIS has allowed respondents to choose more than one race but has also asked respondents reporting multiple races to choose a "primary" race. The bridging methodology developed by NCHS involved the application of regression models relating person-level and county-level covariates to the selection of a particular primary race by the multiple-race respondents. Bridging proportions derived from these models were applied by the U.S. Census Bureau to the Census 2000 Modified Race Data Summary File. This application resulted in bridged counts of the April 1, 2000 resident single-race populations for four racial groups, American Indian or Alaska Native, Asian or Pacific Islander, black, and white.

For more information about bridged-race population estimates, see www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm.

Postcensal Population Estimates

Postcensal population estimates are estimates made for the years following a census, before the next census has been taken. National postcensal population estimates are derived by updating the resident population enumerated in the decennial census using a components of population change approach. The following formula is used to update the decennial census counts:

(1) decennial census enumerated resident population

(2) + births to U.S. resident women,

(3) – deaths to U.S. residents,

(4) + net international migration,

(5) + net movement of U.S. Armed Forces and civilian citizens of the U.S.

State postcensal estimates are based on similar data and a variety of other data series, including school statistics from State departments of education and parochial school systems. The postcensal estimates are consistent with official decennial census figures and do not reflect estimated decennial census underenumeration.

The Census Bureau has produced a postcensal series of estimates of the July 1 resident population of the United States based on census 2000 by applying the components of change methodology to the Modified Race Data Summary File. These postcensal estimates have race data for 31 race groups, in accordance with the 1997 race and ethnicity standards. So that the race data for the 2000-based postcensal estimates would be comparable with race data on vital records, the Census Bureau applied the NHIS bridging methodology to the 31-race group postcensal population estimates to obtain postcensal estimates for the four single-race categories (American Indian or Alaska Native, Asian or Pacific Islander, black, and white). Bridged-race postcensal population estimates are available at www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm.

Note that before the bridged-race April 1, 2000 population counts and the bridged-race 2000-based postcensal estimates were available, the Census Bureau extended their postcensal series of estimates based on the 1990 census (with the four single-race categories needed to compute vital rates) to July 1, 2001. NCHS initially calculated vital rates for 2000 using 1990-based July 1, 2000 postcensal population estimates and vital rates for 2001 using 1990-based July 1, 2001 postcensal estimates. Vital rates for 2000 have been revised using the bridged-race April 1, 2000 population counts and vital rates for 2001 have been revised using the 2000-based bridged-race July 1, 2001 postcensal population estimates.

Intercensal Population Estimates

The further from the census year on which the postcensal estimates are based, the less accurate are the postcensal estimates. With the completion of the decennial census at the end of the decade, intercensal estimates for the preceding decade were prepared to replace the less accurate postcensal estimates. Intercensal population estimates take into account the census of population at the beginning and end of the decade. Thus intercensal estimates are more accurate than postcensal estimates as they correct for the “error of closure” or difference between the estimated population at the end of the decade and the census count for that date. The “error of closure” at the national level was quite small for the 1960s (379,000). However, for the 1970s it amounted to almost 5 million, for the 1980s, 1.5 million, and for the 1990s, about 6 million. The error of closure differentially affects age, race, sex, and Hispanic origin subgroup populations as well as the rates based on these populations. Vital rates that were calculated using postcensal population estimates are routinely revised when intercensal estimates become available because the intercensal estimates correct for the error of closure.

Intercensal estimates for the 1990s with race data comparable to the 1977 standards have been derived so that vital rates for the 1990s could be revised to reflect census 2000. Calculation of the intercensal population estimates for the 1990s was complicated by the incomparability of the race data on the 1990 and 2000 censuses. The Census Bureau, in collaboration with National Cancer Institute and NCHS, derived race-specific intercensal population estimates for the 1990s using the 1990 MARS file as the beginning population base and the bridged-race population estimates for April 1, 2000 as the ending population base. Bridged-race intercensal population estimates are available at www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm.

Revised bridged-race population estimates for women aged 15–17 and 18–19 years based on the 2000 census for computing teenage birth rates in table 3 were not available from the U.S. Census Bureau when this report was prepared. The 1991–99 population estimates for these teenage subgroups were prepared by the Division of Vital Statistics, National Center for Health Statistics (NCHS). The NCHS population estimates were prepared by applying proportions derived from the 1990-based population estimates (according to data year, race, and Hispanic origin for the teenage population) to the 2000-based population of women aged 15–19 years within each race/Hispanic origin group, and adjusting the sum of the population estimates to be consistent with the total population of women aged 15–19 years for each race/Hispanic origin group (2000 based). Rates based on these population estimates are intended as interim measures and caution should be used in interpreting the rates and trends. When the necessary intercensal population estimates based on the 2000 census become available from the U.S. Bureau of the Census, the rates for women aged 15–17 and 18–19 years in table 3 will be revised on the Web site at www.cdc.gov/nchs/hus.htm.

Special Population Estimates

Special population estimates are prepared for the education reporting area for mortality statistics because educational attainment of decedent is not reported by all 50 States. The Housing and Household Economics Statistics Division of the U.S. Bureau of the Census currently produces unpublished estimates of populations by age, race, sex, and educational attainment for NCHS. These population estimates are based on the Current Population Survey, adjusted to resident population controls. The control totals used for July 1, 1994–96 are 1990-based population estimates for 45 reporting States and the District of Columbia (DC); for July 1, 1997–2000, 1990-based population estimates for 46 reporting States and DC; and for July 1, 2001, 2000-based population estimates for 47 reporting States and DC. See Appendix II, *Education.*

For more information about the population census and population estimates, visit the U.S. Bureau of the Census Web site at www.census.gov/.

Sexually Transmitted Disease (STD) Surveillance

Centers for Disease Control and Prevention

National Center of HIV, STD, and TB Prevention

The Division of STD Prevention (DSTD) of the National Center of HIV, STD, and TB Prevention (NCHSTP), Centers for Disease Control and Prevention (CDC) compiles sexually transmitted disease (STD) surveillance information from the following sources of data: (1) case reports from STD project areas; (2) prevalence data from the Regional Infertility Prevention Program, the National Job Training Program (formerly the Job Corps), the Jail STD Prevalence Monitoring Projects, the adolescent Women Reproductive Health Monitoring Project, the Men Who Have Sex With Men (MSM) Prevalence Monitoring Project, and the Indian Health Service; (3) sentinel surveillance of gonococcal antimicrobial resistance from the Gonococcal Isolate Surveillance Project (GISP); and (4) national sample surveys implemented by federal and private organizations.

Case reports of STDs are reported to CDC by STD surveillance systems operated by State and local STD control programs and health departments in 50 States, the District of Columbia, selected cities, 3,139 U.S. counties, and outlying areas comprised of U.S. dependencies and possessions, and independent nations in free association with the United States. Case report data is the source of statistical data in table 52. Because of incomplete diagnosis and reporting, the number of STD cases reported to CDC is less than the actual number of cases occurring among the United States population. Data from outlying areas are not included in table 52.

STD data are submitted to CDC on a variety of hardcopy summary reporting forms (monthly, quarterly, and annually) and electronic summary or individual case-specific (line-listed) formats via the National Electronic Telecommunications System for Surveillance (NETSS). Reports and corrections sent to CDC on hardcopy forms and for NETSS electronic data through May 3, 2002, are included in table 52.

Crude incidence rates (new cases/population) were calculated on an annual basis per 100,000 civilian population. The 2001 rates for the United States were calculated by dividing the number of cases reported in 2001 by the post-1990 estimated 2000 population.

For more information, see: Centers for Disease Control and Prevention. *Sexually Transmitted Disease Surveillance, 2001*. Atlanta, GA: U.S. Department of Health and Human Services, September 2002; or visit the STD Prevention Web site at: www.cdc.gov/std/stats/.

Surveillance, Epidemiology, and End Results Program (SEER)

National Cancer Institute

In the Surveillance, Epidemiology, and End Results (SEER) Program, the National Cancer Institute (NCI) contracts with population-based registries throughout the United States to provide data on all residents diagnosed with cancer during the year and to provide current followup information on all previously diagnosed patients.

Analysis of cancer survival rates in this report covers residents at the time of the initial diagnosis of cancer in the following SEER 9 registries: Atlanta, Georgia; Connecticut; Detroit, Michigan; Hawaii; Iowa; New Mexico; San Francisco-Oakland; Seattle-Puget Sound; and Utah. Analysis of cancer incidence covers residents in the following SEER 12 registries: the SEER 9 registries plus Los Angeles and San Jose-Monterey, California and the Alaska Native Tumor Registry.

Population estimates (1990-based postcensal estimates) used to calculate incidence rates are obtained from the U.S. Bureau of the Census. NCI uses estimation procedures as needed to obtain estimates for years and races not included in data provided by the U.S. Bureau of the Census. Rates presented in this report may differ somewhat from previous reports due to revised population estimates and the addition and deletion of small numbers of incidence cases.

Life tables used to determine normal life expectancy when calculating relative survival rates were obtained from NCHS and in-house calculations. Separate life tables are used for each race-sex-specific group included in the SEER Program.

For further information, see: Ries LAG, Eisner MP, Kosary CL, et al. (eds). *SEER Cancer Statistics Review 1973–99*. National Cancer Institute. Bethesda, MD. 2002; or visit the SEER Web site at www.seer.cancer.gov.

Survey of Occupational Injuries and Illnesses (SOII)

Bureau of Labor Statistics

Since 1971 the Bureau of Labor Statistics (BLS) has conducted an annual survey of establishments in the private sector to collect statistics on occupational injuries and illnesses. The Survey of Occupational Injuries and Illnesses is a Federal/State program in which employer reports are collected from about 169,000 private industry establishments and processed by State agencies cooperating with BLS. Data for the mining industry and for railroad activities are provided by Department of Labor's Mine Safety and Health Administration and Department of Transportation's Federal Railroad Administration. Excluded from the survey are self-employed individuals; farmers with fewer than 11 employees; private households; Federal Government agencies; and employees in State and local government agencies. Establishments are classified in industry categories based on the 1987 Standard Industrial Classification (SIC) Manual, as defined by the Office of Management and Budget.

Survey estimates of occupational injuries and illnesses are based on a scientifically selected probability sample, rather than a census of the entire population. An independent sample is selected for each State and the District of Columbia that represents industries in that jurisdiction. BLS includes all the State samples in the national sample.

Establishments included in the survey are instructed in a mailed questionnaire to provide summary totals of all entries for the previous calendar year to its Log and Summary of Occupational Injuries and Illnesses (OSHA No. 200 form). Additionally, from the selected establishments, approximately 550,000 injuries and illnesses with days away from work are sampled to obtain demographic and detailed case characteristic information. An occupational injury is any injury such as a cut, fracture, sprain, or amputation that results from a work-related event or from a single instantaneous exposure in the work environment. An occupational illness is any abnormal condition or disorder other than one resulting from an occupational injury, caused by exposure to factors associated with employment. It includes acute and chronic illnesses or diseases that may be caused by inhalation, absorption, ingestion, or direct contact. Lost workday cases involve days away from work, days of restricted work activity, or both. The response rate is about 92 percent.

The number of injuries and illnesses reported in any given year can be influenced by the level of economic activity, working conditions and work practices, worker experience and training, and the number of hours worked. Long-term latent illnesses caused by exposure to carcinogens are believed to be understated in the survey's illness measures. In contrast, new illnesses such as contact dermatitis and carpal tunnel syndrome are easier to relate directly to workplace activity.

For more information, see: Bureau of Labor Statistics, Workplace Injuries and Illnesses in 2001, Washington, DC. U.S. Department of Labor, December 2002; or visit the BLS occupational safety and health Web site at www.bls.gov/iif/home.htm.

Youth Risk Behavior Survey (YRBS)

Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion

The national Youth Risk Behavior Survey (YRBS) is conducted by the Centers for Disease Control and Prevention's National Center for Chronic Disease Prevention and Health Promotion to monitor the prevalence of priority health risk behaviors among high school students in grades 5–12 that contribute to morbidity and mortality in both adolescence and adulthood.

The national YRBS of high school students was conducted in 1990, 1991, 1993, 1995, 1997, 1999, and 2001. The national YRBS school-based surveys employ a three-stage cluster sample design to produce a nationally representative sample of students in grades 5–12 attending public and private high schools. The first-stage sampling frame contains primary sampling units (PSUs) consisting of large counties or groups of smaller, adjacent counties. The PSUs are then stratified based on degree of urbanization and relative percent of black and Hispanic students in the PSU. The PSUs are selected from these strata with probability proportional to school enrollment size. At the second sampling stage, schools are selected with probability proportional to school enrollment size. To enable separate analysis of data for black and Hispanic students, schools with substantial numbers of black and Hispanic students are sampled at higher rates than all other schools. The third stage of sampling consists of randomly selecting one or two intact classes of a required subject from grades 5–12 at each chosen school. All students in the selected classes are eligible to participate in the survey. A weighting factor is applied to each student record to adjust for nonresponse and for the varying probabilities of selection, including those resulting from the oversampling of black and Hispanic students. The sample size for the 2001 YRBS was 13,601. The school response rate was 75 percent, and the student response rate was 83 percent, for an overall response rate of 63 percent.

National YRBS data are subject to at least two limitations. First, these data apply only to adolescents who attend regular high school. These students may not be representative of all persons in this age group because those who have dropped out of high school or attend an alternative high school are not surveyed. Second, the extent of underreporting or overreporting cannot be determined, although the survey questions demonstrate good test-retest reliability.

Estimates of substance use for youth based on the YRBS differ from the National Household Survey on Drug Abuse (NHSDA) and Monitoring the Future (MTF). Rates are not directly comparable across these surveys due to differences in populations covered, sample design, questionnaires, interview setting, and statistical approaches to make the survey estimates generalizable to the entire population. The NHSDA survey collects data in homes, whereas the MTF and YRBS collect data in school classrooms. The NHSDA estimates are tabulated by age, while the MTF and YRBS estimates are tabulated by grade, representing different ages as well as different populations. See Cowan CD. Coverage, Sample Design, and Weighting in Three Federal Surveys. Journal of Drug Issues 31(3), 595–614, 2001.

For further information on the YRBS, see: CDC. Youth risk behavior surveillance—United States, 1999. CDC surveillance summaries, June 9, 2000. MMWR 2000:49(SS-05); CDC. Youth risk behavior surveillance—United States, 2001. CDC surveillance summaries, June 21, 2002. MMWR 2002:51(SS-04); or write: Director, Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 4770 Buford Highway NE, Mail Stop K-32, Atlanta, GA 30341-3717; or visit the Division of Adolescent and School Health Web site at www.cdc.gov/nccdphp/dash/.

Private and Global Sources

Alan Guttmacher Institute Abortion Survey

The Alan Guttmacher Institute (AGI) conducts periodic surveys of abortion providers. Data are collected from clinics, physicians, and hospitals identified as potential providers of abortion services. For 1999 and 2000, 2,442 facilities were surveyed. In addition, State health statistics agencies were contacted, requesting all available data reported by providers to each State health agency on the number of abortions performed in 1999 and 2000. For States that provide data to AGI, the health agency figures were used for providers who did not respond to the survey. Of the 2,442 potential providers, 1,931 performed abortions between January 1999 and June 2001. Of the abortions reported for 2000, 77 percent were reported by the providers, 10 percent came from health department data, 11 percent were estimated by knowledgeable sources, and 2 percent were projections or other estimates.

The number of abortions estimated by AGI through the mid- to late-1980s was about 20 percent higher than the number reported to the Centers for Disease Control and Prevention (CDC). Between 1989 and 1997 the AGI estimates were about 12 percent higher than those reported by CDC. Beginning in 1998, health departments of four States did not report abortion data to CDC. The four reporting areas (the largest of which was California) that did not report abortions to CDC in 1998 accounted for 18 percent of all abortions tallied by AGI's 1995–96 survey.

For more information, write: The Alan Guttmacher Institute, 120 Wall Street, New York, NY 10005; or visit AGI's Web site at www.agi-usa.org.

American Association of Colleges of Osteopathic Medicine

The American Association of Colleges of Osteopathic Medicine (AACOM) compiles data on various aspects of osteopathic medical education for distribution to the profession, the government, and the public. Questionnaires are sent annually to schools of osteopathic medicine requesting information on characteristics of applicants and students, curricula, faculty, grants, contracts, revenues, and expenditures. The response rate is 100 percent.

For more information, see: *2001 Annual Report on Osteopathic Medical Education*, American Association of Colleges of Osteopathic Medicine: 5550 Friendship Blvd, Suite 310, Chevy Chase, Maryland 20815; or visit the AACOM Web site at www.aacom.org.

American Association of Colleges of Pharmacy

The American Association of Colleges of Pharmacy (AACP) compiles data on the Colleges of Pharmacy, including information on student enrollment and types of degrees conferred. Data are collected through an annual survey; the response rate is 100 percent.

For further information, see: *Profile of Pharmacy Students*. The American Association of Colleges of Pharmacy, 1426 Prince Street, Alexandria, VA; or visit the AACP Web site at www.aacp.org.

American Association of Colleges of Podiatric Medicine

The American Association of Colleges of Podiatric Medicine (AACPM) compiles data on the Colleges of Podiatric Medicine, including information on the schools and enrollment. Data are collected annually through written questionnaires. The response rate is 100 percent.

For further information, write: The American Association of Colleges of Podiatric Medicine, 1350 Piccard Drive, Suite 322, Rockville, MD 20850-4307; or visit the AACPM Web site at www.aacpm.org.

American Dental Association

The Division of Educational Measurement of the American Dental Association (ADA) conducts annual surveys of predoctoral dental educational institutions. The questionnaire, mailed to all dental schools, collects information on student characteristics, financial management, and curricula.

For more information, see: American Dental Association, *1999–2000 Survey of Predoctoral Dental Educational Institutions*. Chicago, IL. 2001; or visit the ADA Web site at www.ada.org.

American Hospital Association Annual Survey of Hospitals

Data from the American Hospital Association (AHA) annual survey are based on questionnaires sent to all AHA-registered and nonregistered hospitals in the United States and its associated areas. U.S. Government hospitals located outside the United States are excluded. Overall, the average response rate over the past 5 years has been approximately 83 percent. For nonreporting hospitals and for the survey questionnaires of reporting hospitals on which some information was missing, estimates are made for all data except those on beds, bassinets, and facilities. Data for beds and bassinets of nonreporting hospitals are based on the most recent information available from those hospitals. Data for facilities and services are based only on reporting hospitals.

Estimates of other types of missing data are based on data reported the previous year, if available. When unavailable, estimates are based on data furnished by reporting hospitals similar in size, control, major service provided, length of stay, and geographic and demographic characteristics.

For more information on the AHA Annual Survey of Hospitals, see: Health Forum, LLC, an American Hospital Association Company. Hospital Statistics, 2002. Chicago, IL. 2002; or visit the AHA Web site at www.aha.org.

American Medical Association Physician Masterfile

A masterfile of physicians has been maintained by the American Medical Association (AMA) since 1906. The Physician Masterfile contains data on almost every physician in the United States, members and nonmembers of the AMA, and on those graduates of American medical schools temporarily practicing overseas. The file also includes graduates of international medical schools who are in the United States and meet education standards for primary recognition as physicians.

A file is initiated on each individual upon entry into medical school or, in the case of international graduates, upon entry into the United States. Between 1965–85 a mail questionnaire survey was conducted every 4 years to update the file information on professional activities, self-designated area of specialization, and present employment status. Since 1985 approximately one-third of all physicians are surveyed each year.

For more information on the AMA Physician Masterfile, see: Division of Survey and Data Resources, American Medical Association, *Physician Characteristics and Distribution in the U.S., 2002–2003* ed. Chicago, IL. 2002; or visit the AMA Web site at www.ama-assn.org.

Association of American Medical Colleges

The Association of American Medical Colleges (AAMC) collects information on student enrollment in medical schools through the annual Liaison Committee on Medical Education questionnaire, the fall enrollment questionnaire, and the American Medical College Application Service (AMCAS) data system. Other data sources are the institutional profile system, the premedical students questionnaire, the minority student opportunities in medicine questionnaire, the faculty roster system, data from the Medical College Admission Test, and one-time surveys developed for special projects.

For more information, see: Association of American Medical Colleges, *Statistical Information Related to Medical Education*, Washington, DC. 2001; or visit the AAMC Web site at www.aamc.org.

Association of Schools and Colleges of Optometry

The Association of Schools and Colleges of Optometry (ASCO) compiles data on various aspects of optometric education including data on schools and enrollment. Questionnaires are sent annually to all schools and colleges of optometry. The response rate is 100 percent.

For further information, write: Annual Survey of Optometric Educational Institutions, Association of Schools and Colleges of Optometry, 6110 Executive Blvd., Suite 510, Rockville, MD 20852; or visit the ASCO Web site at www.opted.org.

Association of Schools of Public Health

The Association of Schools of Public Health (ASPH) compiles data on schools of public health in the United States and Puerto Rico. Questionnaires are sent annually to all member schools. The response rate is 100 percent.

Unlike health professional schools that emphasize specific clinical occupations, schools of public health offer study in specialty areas such as biostatistics, epidemiology, environmental health, occupational health, health administration, health planning, nutrition, maternal and child health, social and behavioral sciences, and other population-based sciences.

For further information, write: Association of Schools of Public Health, 1101 15th Street, NW, Suite 910, Washington, DC 20005; or visit the ASPH Web site at www.asph.org.

European Health for All Database

World Health Organization Regional Office for Europe

The WHO Regional Office for Europe (WHO/Europe) provides country-specific and topic-specific health information via the Internet for people who influence health policy in the WHO European Region and the media.

WHO/Europe collects statistics on health and makes them widely available through:

- The European health for all database (HFA-DB) that contains data on about 600 health indicators collected from national counterparts in 51 European countries, and data from other WHO technical programs and some international organizations.
- Highlights on health in countries in the WHO European Region that give an overview of the health situation in each country in comparison with other countries. Highlights complement the public health reports produced by a number of member States in the region.
- Health status overview for countries of central and eastern Europe that are candidates for accession to the European Union (Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia).

WHO/Europe helps countries strengthen their national health information systems, particularly by supporting:

- the development of national health indicator databases
- the exchange of experience on national public health reports between countries; a database of public health reports is maintained and available for consultation and networking
- implementation of international classifications and definitions in countries
- regional networks of health information professionals

For more information, visit the European health for all database at http://hfadb.who.dk/hfa/.

InterStudy National Health Maintenance Organization Census

From 1976 to 1980 the Office of Health Maintenance Organizations conducted a census of health maintenance organizations (HMOs). Since 1981 InterStudy has conducted the census. A questionnaire is sent to all HMOs in the United States asking for updated enrollment, profit status, and Federal qualification status. New HMOs are also asked to provide information on model type. When necessary, information is obtained, supplemented, or clarified by telephone. For nonresponding HMOs State-supplied information or the most current available data are used.

In 1985 a large increase in the number of HMOs and enrollment was partly attributable to a change in the categories of HMOs included in the census: Medicaid-only and Medicare-only HMOs have been added. Also component HMOs, which have their own discrete management, can be listed separately, whereas, previously the oldest HMO reported for all of its component or expansion sites, even when the components had different operational dates or were different model types.

For further information, see: *The InterStudy Competitive Edge*. InterStudy Publications, St. Paul, MN. 2002; or visit the InterStudy Web site at www.hmodata.com.

National League for Nursing

The division of research of the National League for Nursing (NLN) conducts The Annual Survey of Schools of Nursing in October of each year. Questionnaires are sent to all graduate nursing programs (master’s and doctoral), baccalaureate programs designed exclusively for registered nurses, basic registered nursing programs (baccalaureate, associate degree, and diploma), and licensed practical nursing programs. Data on enrollments, first-time admissions, and graduates are completed for all nursing education programs. Response rates of approximately 80 percent are achieved for other areas of inquiry.

For more information, see: National League for Nursing, *Nursing Data Review* 1997, New York, NY. 1997; or visit the NLN Web site at www.nln.org.

Organization for Economic Cooperation and Development Health Data

The Organization for Economic Cooperation and Development (OECD) provides annual data on statistical indicators on health and economic policies collected from 30 member countries since the 1960s. The international comparability of health expenditure estimates depends on the quality of national health accounts in OECD member countries. In recent years the OECD health accounts have become an informal standard for reporting on health care systems. Additional limitations in international comparisons include differing boundaries between health care and other social care particularly for the disabled and elderly, and underestimation of private expenditures on health.

The OECD was established in 1961 with a mandate to promote policies to achieve the highest sustainable economic growth and a rising standard of living among member countries. The Organization now comprises 30 member countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

As part of its mission, the OECD has developed a number of activities in relation to health and health care systems. The main aim of OECD work on health policy is to conduct cross-national studies of the performance of OECD health systems and to facilitate exchanges between member countries of their experiences of financing, delivering, and managing health services. To support this work, each year the OECD compiles cross-country data in OECD Health Data, one of the most comprehensive sources of comparable health-related statistics. OECD Health Data is an essential tool to carry out comparative analyses and draw lessons from international comparisons of diverse health care systems. This international database now incorporates the first results arising from the implementation of the OECD manual, A System of Health Accounts (2000), which provide a standard framework for producing a set of comprehensive, consistent, and internationally comparable data on health spending. The OECD collaborates with other international organizations such as the WHO.

For further information, see www.oecd.org/health.

United Nations Demographic Yearbook

The Statistical Office of the United Nations prepares the *Demographic Yearbook*, a comprehensive collection of international demographic statistics.

Questionnaires are sent annually and monthly to more than 220 national statistical services and other appropriate government offices. Data forwarded on these questionnaires are supplemented, to the extent possible, by data taken from official national publications and by correspondence with the national statistical services. To ensure comparability, rates, ratios, and percents have been calculated in the statistical office of the United Nations.

Lack of international comparability among estimates arises from differences in concepts, definitions, and time of data collection. The comparability of population data is affected by several factors, including (a) definitions of the total population, (b) definitions used to classify the population into its urban and rural components, (c) difficulties relating to age reporting, (d) extent of over- or underenumeration, and (e) quality of population estimates. The completeness and accuracy of vital statistics data also vary from one country to another. Differences in statistical definitions of vital events may also influence comparability.

International demographic trend data are available on a CD-ROM entitled United Nations, 2000. Demographic Yearbook—Historical Supplement 1948–97. CD-ROM Special Issue. United Nations publication sales number E/F.99.XIII.12.

For more information, see: United Nations, *Demographic Yearbook 2000*, United Nations, New York, 2002; or visit the United Nations Web site at www.un.org or their Web site locator at www.unsystem.org.

World Health Statistics Annual

World Health Organization

The World Health Organization (WHO) prepares the *World Health Statistics Annual*, an annual volume of information on vital statistics and causes of death designed for use by the medical and public health professions. Each volume is the result of a joint effort by the national health and statistical administrations of many countries, the United Nations, and WHO. United Nations estimates of vital rates and population size and composition, where available, are reprinted directly in the *Statistics Annual*. For those countries for which the United Nations does not prepare demographic estimates, primarily smaller populations, the latest available data reported to the United Nations and based on reasonably complete coverage of events are used.

Information published on infant mortality is based entirely on official national data either reported directly or made available to WHO.

Selected life table functions are calculated from the application of a uniform methodology to national mortality data provided to WHO, in order to enhance their value for international comparisons. The life table procedure used by WHO may often lead to discrepancies with national figures published by countries, due to differences in methodology or degree of age detail maintained in calculations.

The international comparability of estimates published in the *World Health Statistics Annual* is affected by the same problems as is the United Nations *Demographic Yearbook*. Cross-national differences in statistical definitions of vital events, in the completeness and accuracy of vital statistics data, and in the comparability of population data are the primary factors affecting comparability.

For more information, see: World Health Organization, *World Health Statistics Annual 2000*, World Health Organization, Geneva, 2002; World Health Statistics 1997–99 at www.who.int/whosis; or visit the WHO Web site at www.who.int.

Appendix II

Definitions and Methods

Appendix II is an alphabetical listing of terms used in *Health, United States*. It includes cross-references to related terms and synonyms. It also describes the methods used for calculating age-adjusted rates, average annual rate of change, relative standard error, birth rates, death rates, and years of potential life lost. Appendix II includes standard populations used for age adjustment (tables I, II, and III); *International Classification of Diseases* (ICD) codes for cause of death from the Sixth through Tenth Revisions and the years when the Revisions were in effect (tables IV and V); comparability ratios between ICD–9 and ICD–10 for selected causes (table VI); ICD-9-CM codes for external cause-of-injury, diagnostic, and procedure categories (tables VII, IX, and X); and industry codes from the Standard Industrial Classification Manual (table VIII). New standards for presenting Federal data on race and ethnicity are described under *Race* and sample tabulations of National Health Interview Survey (NHIS) data comparing the 1977 and 1997 Standards for Federal data on race and Hispanic origin are presented in tables XI and XII.

Abortion—The Centers for Disease Control and Prevention's (CDC) surveillance system counts legal induced abortions only. For surveillance purposes, legal abortion is defined as a procedure performed by a licensed physician or someone acting under the supervision of a licensed physician to voluntarily terminate a pregnancy.

Acquired immunodeficiency syndrome (AIDS)—All 50 States and the District of Columbia report AIDS cases to CDC using a uniform surveillance case definition and case report form. The case reporting definitions were expanded in 1985 *(MMWR* 1985; 34:373–5); 1987 *(MMWR* 1987; 36 (supp. no. 1S): 1S–15S); 1993 for adults and adolescents *(MMWR* 1992; 41 (no. RR-17): 1–19); and 1994 for pediatric cases *(MMWR* 1994; 43 (no. RR-12): 1–19). The revisions incorporated a broader range of AIDS-indicator diseases and conditions and used HIV diagnostic tests to improve the sensitivity and specificity of the definition. The 1993 expansion of the case definition caused a temporary distortion of AIDS incidence trends. In 1995 new treatments for HIV and AIDS (protease inhibitors) were approved. These therapies have prevented or delayed the onset of AIDS and premature death among many HIV-infected persons, which should be considered when interpreting trend data. AIDS surveillance data are published annually by CDC in the HIV/AIDS Surveillance Report at www.cdc.gov/hiv/stats/hasrlink.htm. See related *Human immunodeficiency virus (HIV) infection*.

Active physician—See *Physician*.

Activities of daily living (ADL)—Activities of daily living are activities related to personal care and include bathing or showering, dressing, getting in or out of bed or a chair, using the toilet, and eating. In the National Health Interview Survey respondents were asked about needing the help of another person with personal care because of a physical, mental, or emotional problem. Respondents are considered to have an ADL limitation if any condition causing the respondent to need help with the specific activities was chronic.

In the Medicare Current Beneficiary Survey (table 136), if a sample person had any difficulty performing an activity by him or herself and without special equipment, or did not perform the activity at all because of health problems, the person was categorized as having a limitation in that activity. The limitation may have been temporary or chronic at the time of the interview. In the *Chartbook on Trends in Health of Americans, 2003*, a sample person was categorized as having a limitation in their activities of daily living if, in addition to having any difficulty performing an activity or not performing the activity because of health problems, the sample person also received 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. Sample persons who were administered a community interview answered health status and functioning questions themselves, if able to do so. A proxy such as a nurse answered questions about the sample person's health status and functioning for those in a long-term care facility. Beginning in 1997, interview questions for persons in long-term care facilities were changed slightly from those administered to persons in the community in order to differentiate residents who were independent from those who received supervision or assistance with transferring, locomotion on unit, dressing, eating, toilet use, and bathing. See related *Condition*; *Instrumental activities of daily living (IADL)*; *Limitation of activity*.

Addition—An addition to a mental health organization is defined by the Substance Abuse and Mental Health Services Administration's Center for Mental Health Services as a new admission, a readmission, a return from long-term leave, or a transfer from another service of the same organization or another organization. See related *Mental health organization; Mental health service type*.

Admission—The American Hospital Association defines admissions as persons, excluding newborns, accepted for inpatient services during the survey reporting period. See related *Days of care; Discharge; Inpatient*.

Age—Age is reported as age at last birthday, that is, age in completed years, often calculated by subtracting date of birth from the reference date, with the reference date being the date of the examination, interview, or other contact with an individual.

Mother's (maternal) age is reported on the birth certificate by all States. Birth statistics are presented for mother's age 10–49 years through 1996 and 10–54 years starting in 1997, based on mother's date of birth or age as reported on the birth certificate. The age of mother is edited for upper and lower limits. When the age of the mother is computed to be under 10 years or 55 years or over (50 years or over in 1964–96), it is considered not stated and imputed according to the age of the mother from the previous birth record of the same race and total birth order (total of fetal deaths and live births). Before 1963 not stated ages were distributed in proportion to the known ages for each racial group. Beginning in 1997 the birth rate for the maternal age group 45–49 years includes data for mother's age 50–54 years in the numerator and is based on the population of women 45–49 years in the denominator.

Age adjustment—Age adjustment is used to compare risks of two or more populations at one point in time or one population at two or more points in time. Age-adjusted rates should be viewed as relative indexes rather than actual measures of risk. Age-adjusted rates are computed by the direct method by applying age-specific rates in a population of interest to a standardized age distribution, in order to eliminate differences in observed rates that result from age differences in population composition.

Age-adjusted rates are calculated by the direct method as follows:

$$\sum_{i=1}^{n} r_i \times (p_i / P)$$

where r_i = rate in age group i in the population of interest

p_i = standard population in age group i

$P = \sum_{i=1}^{n} p_i$

n = total number of age groups over the age range of the age-adjusted rate

Age adjustment by the direct method requires use of a standard age distribution. The standard for age adjusting death rates and estimates from surveys in *Health, United States* is the projected year 2000 U.S. resident population. Starting with *Health, United States, 2001*, the year 2000 U.S. standard population replaces the 1940 U.S. population for age adjusting mortality statistics. The U.S. standard population also replaces the 1970 civilian noninstitutionalized population and 1980 U.S. resident population, which previously had been used as standard age distributions for age adjusting estimates from NCHS surveys.

Changing the standard population has implications for racial and ethnic differentials in mortality. For example, the mortality ratio for the black to white populations is reduced from 1.6 using the 1940 standard to 1.4 using the 2000 standard, reflecting the greater weight that the 2000 standard gives to the older population where race differentials in mortality are smaller.

For more information on implementing the new population standard for age adjusting death rates, see Anderson RN, Rosenberg HM. Age Standardization of Death Rates: Implementation of the Year 2000 Standard. National vital statistics reports; vol 47 no 3. Hyattsville, Maryland: National Center for Health Statistics. 1998. For more information on the derivation of age adjustment weights for use with NCHS survey data, see Klein RJ, Schoenborn CA. Age Adjustment Using the 2000 Projected U.S. Population. Healthy People Statistical Notes no 20. Hyattsville, Maryland: National Center for Health Statistics. 2001. Both reports are available through the NCHS home page at www.cdc.gov/nchs. The United States standard population is available through the Bureau of the Census home page at www.census.gov/prod/1/pop/p25-1130/, table 2.

Mortality data—Death rates are age adjusted to the year 2000 U.S. standard population (table I). Age-adjusted rates are calculated using age-specific death rates per 100,000 population rounded to 1 decimal place. Adjustment is based on 11 age groups with two exceptions. First, age-adjusted death rates for black males and black females in 1950 are based on nine age groups, with under 1 year and 1–4 years of age combined as one group and 75–84 years and 85 years of age combined as one group. Second, age-adjusted death rates by educational attainment for the age group 25–64 years are based on four 10-year age groups (25–34 years, 35–44 years, 45–54 years, and 55–64 years).

Age-adjusted rates for years of potential life lost (YPLL) before age 75 years also use the year 2000 standard population and are based on eight age groups (under 1 year, 1–14 years, 15–24 years, and 10-year age groups through 65–74 years).

Maternal mortality rates for pregnancy, childbirth, and the puerperium are calculated as the number of deaths per 100,000 live births. These rates are age adjusted to the 1970 distribution of live births by mother's age in the United States as shown in table II. See related *Rate: Death and related rates; Years of potential life lost*.

National Health and Nutrition Examination Survey—Estimates based on the National Health Examination Survey (NHES) and the National Health and Nutrition Examination Survey (NHANES) are age adjusted to the year 2000 U.S. standard population using five age groups: 20–34 years, 35–44 years, 45–54 years, 55–64 years, and 65–74 years. Beginning in 1999–2000 estimates are age adjusted using three age groups (20–39 years, 40–59 years, and 60–74 years or 60 years and over) due to a smaller sample size; however, use of three rather than five groups had virtually no effect on age-adjusted estimates (see table III). Prior to the 2000 edition of *Health, United States*, these estimates were age adjusted to the 1980 U.S. resident population.

National Health Care Surveys—Estimates based on the National Hospital Discharge Survey (NHDS), the National Survey of Ambulatory Surgery (NSAS), the National Ambulatory Medical Care Survey (NAMCS), the National Hospital Ambulatory Medical Care Survey (NHAMCS), the National Nursing Home Survey (NNHS) (resident rates table), and the National Home and Hospice Care Survey (NHHCS) are age adjusted to the year 2000 U.S. standard population (table III). Information on the age groups used in the age adjustment procedure is contained in the footnotes to the relevant tables.

National Health Interview Survey—Estimates based on the National Health Interview Survey (NHIS) are age adjusted to the year 2000 U.S. standard population (table III). Information on the age groups used in the age adjustment procedure is contained in the footnotes on the relevant tables. Prior to the 2000 edition of *Health, United States* these estimates were age adjusted to the 1970 civilian noninstitutionalized population.

AIDS—See *Acquired immunodeficiency syndrome*.

Alcohol abuse treatment clients—See *Substance abuse treatment clients*.

Alcohol consumption—Alcohol consumption is measured differently in various data systems.

Monitoring the Future Study—This school-based survey of secondary school students collects information on alcohol use using self-completed questionnaires. Information on consumption of alcoholic beverages, defined as beer, wine, wine coolers, and liquor, is based on the following question: "On how many occasions (if any) have you had alcohol to drink- more than just a few sips- in the last 30 days?" Students responding affirmatively are then asked "How many times have you had five or more drinks in a row in the last two weeks?" For this question, a "drink" means a 12-ounce can (or bottle) of beer, a 4-ounce glass of wine, a 12-ounce bottle (or can) of wine cooler, or a mixed drink or shot of liquor.

National Health Interview Survey (NHIS)—Starting with the 1997 NHIS, information on alcohol consumption is collected in the sample adult questionnaire. Adult respondents are asked two screening questions about lifetime alcohol consumption: "In any one year, have you had at least 12 drinks of any type of alcoholic beverage? In your entire life, have you had at least 12 drinks of any type of alcoholic beverage?" Persons who report at least 12 drinks in a lifetime are then asked a series of questions about alcohol consumption in the past year: "In the past year, how often did you drink any type of alcoholic beverage? In the past year, on those days that you drank alcoholic beverages, on the average, how many drinks did you have? In the past year, on how many days did you have 5 or more drinks of any alcoholic beverage?"

National Household Survey on Drug Abuse (NHSDA)—Starting in 1999 NHSDA information about the frequency of the consumption of alcoholic beverages in the past 30 days has been obtained for all persons surveyed who are 12 years of age and over. An extensive list of examples of the kinds of beverages covered was given to respondents prior to the question administration. A "drink" is defined as a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it. Those times when the respondent had only a sip or two from a drink are not considered consumption. Alcohol use is based on the following questions: "During the past 30 days, on how many days did you drink one or more drinks of an alcoholic beverage?", "On the days that you drank during the past 30 days, how many drinks did you usually have?", and "During the past 30 days, on how many days did you have 5 or more drinks on the same occasion?"

Ambulatory care—In the National Ambulatory Medical Care Survey and National Hospital Ambulatory Medical Care Survey, ambulatory care is health care provided to persons in physician offices, hospital outpatient departments, and hospital emergency departments without their admission to a health facility. See related *Emergency department; Office visit; Outpatient department*.

Ambulatory surgery—According to the National Survey of Ambulatory Surgery (NSAS), ambulatory surgery refers to previously scheduled surgical and nonsurgical procedures performed on an outpatient basis in a hospital or freestanding ambulatory surgery center's general or main operating rooms, satellite operating rooms, cystoscopy rooms, endoscopy rooms, cardiac catheterization labs, and laser procedure rooms. Procedures performed in locations dedicated exclusively to dentistry, podiatry, abortion, pain block, or minor procedures are not included. In NSAS, data on up to six surgical and nonsurgical procedures are collected and coded. See related *Outpatient surgery; Procedure*.

Average annual rate of change (percent change)—In *Health, United States* average annual rates of change or growth rates are calculated as follows:

$$[(P_n / P_o)^{1/N} - 1] \times 100$$

where P_n = later time period

P_o = earlier time period

N = number of years in interval.

This geometric rate of change assumes that a variable increases or decreases at the same rate during each year between the two time periods.

Average length of stay—In the National Health Interview Survey, average length of stay per discharged inpatient is computed by dividing the total number of hospital days for a specified group by the total number of discharges for that group. Similarly, in the National Hospital Discharge Survey, average length of stay is computed by dividing the total number of days of care, counting the date of admission but not the date of discharge, by the number of patients discharged. The American Hospital Association computes average length of stay by dividing the number of inpatient days by the number of admissions. See related *Days of care; Discharge; Inpatient*.

Bed—For the American Hospital Association the bed count is the number of beds, cribs, and pediatric bassinets that are set up and staffed for use by inpatients on the last day of the reporting period. In the Center for Medicare & Medicaid Service's Online Survey Certification and Reporting (OSCAR) database, all beds in certified facilities are counted on the day of certification inspection. The World Health Organization defines a hospital bed as one regularly maintained and staffed for the accommodation and full-time care of a succession of inpatients and situated in a part of the hospital where continuous medical care for inpatients is provided. The Center for Mental Health Services counts the number of beds set up and staffed for use in inpatient and residential treatment services on the last day of the survey reporting period. See related *Hospital; Mental health organization; Mental health service type; Occupancy rate*.

Birth cohort—A birth cohort consists of all persons born within a given period of time, such as a calendar year.

Birth rate—See *Rate: Birth and related rates*.

Birthweight—The first weight of the newborn obtained after birth. Low birthweight is defined as less than 2,500 grams or 5 pounds 8 ounces. Very low birthweight is defined as less than 1,500 grams or 3 pounds 4 ounces. Before 1979 low birthweight was defined as 2,500 grams or less and very low birthweight as 1,500 grams or less.

Body mass index (BMI)—BMI is a measure that adjusts bodyweight for height. It is calculated as weight in kilograms divided by height in meters squared. Overweight for children and adolescents is defined as BMI at or above the sex- and age-specific 95th percentile BMI cut points from the 2000 CDC Growth Charts (www.cdc.gov/growthcharts/). Healthy weight for adults is defined as a BMI of 18.5 to less than 25; overweight, as greater than or equal to a BMI of 25; and obesity, as greater than or equal to a BMI of 30. BMI cut points are defined in the Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2000. U.S. Department of Agriculture, Agricultural Research Service, Dietary Guidelines Advisory Committee, p.23, or access on the Internet at www.health.gov/dietaryguidelines/dgac/; NHLBI Obesity Education Initiative Expert Panel on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults. Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults—The Evidence Report. Obes Res 1998;6:51S-209S or access on the Internet at www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.htm; and in U.S. Department of Health and Human Services. *Tracking Healthy People 2010*. Washington, DC: U.S. Government Printing Office, November 2000. Objectives 19.1, 19.2, and 19.3, or access on the Internet at www.health.gov/healthypeople/document/html/volume2/19nutrition.htm.

Cause of death—For the purpose of national mortality statistics, every death is attributed to one underlying condition, based on information reported on the death certificate and using the international rules for selecting the underlying cause of death from the conditions stated on the death certificate. The underlying cause is defined by the World Health Organization (WHO) as the disease or injury that initiated the train of events leading directly to death, or the circumstances of the accident or violence, which produced the fatal injury. Generally more medical information is reported on death certificates than is directly reflected in the underlying cause of death. The conditions that are not selected as underlying cause of death constitute the nonunderlying cause of death, also known as multiple cause of death.

Cause of death is coded according to the appropriate revision of the *International Classification of Diseases* (ICD) (see table IV). Effective with deaths occurring in 1999, the United States began using the Tenth Revision of the ICD (ICD-10); during the period 1979–98, causes of death were coded and classified according to the Ninth Revision (ICD-9). Table V lists ICD codes for the Sixth through Tenth Revisions for causes of death shown in *Health, United States*.

Each of these revisions has produced discontinuities in cause-of-death trends. These discontinuities are measured using comparability ratios. These measures of discontinuity are essential to the interpretation of mortality trends. For further discussion, see the Mortality Technical Appendix available on the NCHS web site at www.cdc.gov/nchs/about/major/dvs/mortdata.htm. See related *Comparability ratio; International Classification of Diseases; Appendix I, National Vital Statistics System, Multiple Cause of Death File.*

Cause-of-death ranking—Selected causes of death of public health and medical importance comprise tabulation lists and are ranked according to the number of deaths assigned to these causes. The top-ranking causes determine the leading causes of death. Certain causes on the tabulation lists are not ranked if, for example, the category title represents a group title (such as Major cardiovascular diseases and Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified); or the category title begins with the words “Other” and “All other.” In addition when one of the titles that represents a subtotal (such as Malignant neoplasms) is ranked, its component parts are not ranked. The tabulation lists used for ranking in the *Tenth Revision of the International Classification of Diseases* (ICD) include the List of 113 Selected Causes of Death, which replaces the ICD-9 List of 72 Selected Causes, HIV infection and Alzheimer’s disease; and the ICD-10 List of 130 Selected Causes of Infant Death, which replaces the ICD-9 List of 60 Selected Causes of Infant Death and HIV infection. Causes that are tied receive the same rank; the next cause is assigned the rank it would have received had the lower-ranked causes not been tied, i.e., skip a rank. See related *International Classification of Diseases*.

Chronic condition—See *Condition*.

Cigarette smoking—Cigarette smoking and related tobacco use are measured in several different data systems.

> *Birth File*—Information on cigarette smoking of the mother during pregnancy is based on Yes No responses to the birth certificate item “Other risk factors for this

pregnancy: Tobacco use during pregnancy.'' See related *Tobacco use*.

Monitoring the Future Survey—Information on current cigarette smoking is obtained for high school seniors (starting in 1975) and eighth and tenth graders (starting in 1991) based on the following question: ''How frequently have you smoked cigarettes during the past 30 days?''

National Health Interview Survey (NHIS)—Information about cigarette smoking is obtained for adults 18 years of age and over. Starting in 1993 current smokers are identified based on the following two questions: ''Have you smoked at least 100 cigarettes in your entire life?'' and ''Do you now smoke cigarettes every day, some days, or not at all?'' Persons who smoked 100 cigarettes and who now smoke every day or some days are defined as current smokers. Before 1992 current smokers were identified based on positive responses to the following two questions: ''Have you smoked 100 cigarettes in your entire life?'' and ''Do you smoke now?'' (traditional definition). In 1992 the definition of current smoker in the NHIS was modified to specifically include persons who smoked on ''some days.'' (revised definition). In 1992 cigarette smoking data were collected for a half-sample with half the respondents (one-quarter sample) using the traditional smoking questions and the other half of respondents (one-quarter sample) using the revised smoking question (''Do you smoke every day, some days, or not at all?''). An unpublished analysis of the 1992 traditional smoking measure revealed that the crude percent of current smokers 18 years of age and over remained the same as 1991. The statistics for 1992 combine data collected using the traditional and the revised questions.

In 1993–95 estimates of cigarette smoking prevalence were based on a half-sample. Smoking data were not collected in 1996. Starting in 1997 smoking data were collected in the sample adult questionnaire. For further information on survey methodology and sample sizes pertaining to the NHIS cigarette smoking data for data years 1965–92 and other sources of cigarette smoking data available from the National Center for Health Statistics, see: National Center for Health Statistics, *Bibliographies and Data Sources, Smoking Data Guide,* no. 1, DHHS pub. no. (PHS) 91-1308-1, Public Health Service. Washington, DC: U.S. Government Printing Office. 1991.

National Household Survey on Drug Abuse—Information on current cigarette smoking is obtained for all persons surveyed who are 12 years of age and over based on the following question: ''During the past 30 days, have you smoked part or all of a cigarette?''

Youth Risk Behavior Survey—Information on current cigarette smoking is obtained from high school students (starting in 1991) based on the following question: ''During the past 30 days, on how many days did you smoke cigarettes?''

Civilian noninstitutionalized population; Civilian population—See *Population*.

Cocaine-related emergency department episodes—The Drug Abuse Warning Network monitors selected adverse medical consequences of cocaine and other drug abuse episodes by measuring contacts with hospital emergency departments. Contacts may be for drug overdose, unexpected drug reactions, chronic abuse, detoxification, or other reasons in which drug use is known to have occurred.

Cohort fertility—Cohort fertility refers to the fertility of the same women at successive ages. Women born during a 12-month period constitute a birth cohort. Cohort fertility for birth cohorts of women is measured by central birth rates, which represent the number of births occurring to women of an exact age divided by the number of women of that exact age. Cumulative birth rates by a given exact age represent the total childbearing experience of women in a cohort up to that age. Cumulative birth rates are sums of central birth rates for specified cohorts and show the number of children ever born up to the indicated age. For example, the cumulative birth rate for women exactly 30 years of age as of January 1, 1960, is the sum of the central birth rates for the 1930 birth cohort for the years 1944 (when its members were age 14) through 1959 (when they were age 29). Cumulative birth rates are also calculated for specific birth orders at each exact age of woman. The percent of women who have not had at least one live birth by a certain age is found by subtracting the cumulative first birth rate for women of that age from 1,000 and dividing by 10. For method of calculation, see Heuser RL. *Fertility tables for birth cohorts by color:*

United States, 1917–73. Rockville, Maryland: NCHS. 1976. See related *Rate: Birth and related rates*.

Community hospitals—See *Hospital*.

Comparability ratio—About every 10–20 years the *International Classification of Diseases* (ICD) is revised to stay abreast of advances in medical science and changes in medical terminology. Each of these revisions produces breaks in the continuity of cause-of-death statistics. Discontinuities across revisions are due to changes in classification and rules for selecting underlying cause of death. Classification and rule changes impact cause-of-death trend data by shifting deaths away from some cause-of-death categories and into others. Comparability ratios measure the effect of changes in classification and coding rules. For causes shown in table VI, comparability ratios range between 0.9754 and 1.0588, except for influenza and pneumonia, with a comparability ratio of 0.6982, indicating that influenza and pneumonia is about 30 percent less likely to be selected as the underlying cause of death in ICD-10 than in ICD-9; and HIV disease with a comparability ratio of 1.1448, indicating that HIV disease is more than 14 percent more likely to be selected as the underlying cause using ICD-10 coding.

Another factor also contributes to discontinuities in death rates across revisions. For selected causes of death, the ICD-9 codes used to calculate death rates for 1980 through 1998 differ from the ICD-9 codes most nearly comparable with the corresponding ICD-10 cause-of-death category. Examples of these causes are ischemic heart disease, cerebrovascular diseases, trachea, bronchus and lung cancer, unintentional injuries, and homicide. To address this source of discontinuity, mortality trends for 1980–98 were recalculated using ICD-9 codes that are more comparable with codes for corresponding ICD-10 categories. Table V shows the ICD-9 codes used for these causes. While this modification may lessen the discontinuity between the Ninth and Tenth Revisions, the effect on the discontinuity between the Eighth and Ninth Revisions is not measured.

Preliminary comparability ratios shown in table VI are based on a comparability study in which the same deaths were coded by both the Ninth and Tenth Revisions. The comparability ratio was calculated by dividing the number of deaths classified by ICD-10 by the number of deaths classified by ICD-9. The resulting ratios represent the net effect of the Tenth Revision on cause-of-death statistics and can be used to adjust mortality statistics for causes of death classified by the Ninth Revision to be comparable with cause-specific mortality statistics classified by the Tenth Revision.

The application of comparability ratios to mortality statistics helps to make the analysis of change between 1998 and 1999 more accurate and complete. The 1998 comparability-modified death rate is calculated by multiplying the comparability ratio by the 1998 death rate. Comparability-modified rates should be used to estimate mortality change between 1998 and 1999.

Caution should be taken when applying the comparability ratios presented in table VI to age-, race-, and sex-specific mortality data. Demographic subgroups may sometimes differ with regard to their cause-of-death distribution, and this would result in demographic variation in cause-specific comparability ratios.

For more information, see Anderson RN, Minino AM, Hoyert DL, Rosenberg HM. Comparability of cause of death between ICD-9 and ICD-10: Preliminary estimates; and Kochanek KD, Smith BL, Anderson RN. Deaths: Preliminary data for 1999. National vital statistics reports. vol 49 no 2 and vol 49 no 3. Hyattsville, MD: National Center for Health Statistics. 2001. See related *Cause of death; International Classification of Diseases; tables IV* and *V.*

Compensation—See *Employer costs for employee compensation*.

Condition—A health condition is a departure from a state of physical or mental well-being. In the National Health Interview Survey, each condition reported as a cause of an individual's activity limitation has been classified as "chronic," "not chronic," or "unknown if chronic," based on the nature of the condition and/or the duration of the condition. Conditions that are not cured once acquired (such as heart disease, diabetes, and birth defects in the original response categories, and amputee and "old age" in the ad hoc categories) are considered chronic, while conditions related to pregnancy are always considered not chronic. Additionally, other conditions must have been present 3 months or longer to be considered chronic. An exception is made for children less than 1 year of age who have had a condition "since birth," as these conditions are always considered chronic. The National Nursing Home Survey uses a specific list of chronic conditions, disregarding time of onset.

Consumer Price Index (CPI)—The CPI is prepared by the U.S. Bureau of Labor Statistics. It is a monthly measure of the average change in the prices paid by urban consumers for a fixed market basket of goods and services. The medical care component of CPI shows trends in medical care prices based on specific indicators of hospital, medical, dental, and drug prices. A revision of the definition of CPI has been in use since January 1988. See related *Gross domestic product; Health expenditures, national; Appendix I, Consumer Price Index*.

Crude birth rate; Crude death rate—See *Rate: Birth and related rates; Rate: Death and related rates*.

Days of care—Days of care is defined similarly in different data systems. See related *Admission; Average length of stay; Discharge; Hospital; Hospital Utilization; Inpatient*.

American Hospital Association—Days, hospital days, or inpatient days are the number of adult and pediatric days of care rendered during the entire reporting period. Days of care for newborns are excluded.

National Health Interview Survey (NHIS)—Hospital days during the year refer to the total number of hospital days occurring in the 12-month period before the interview week. A hospital day is a night spent in the hospital for persons admitted as inpatients. Starting in 1997 hospitalization data from NHIS are for all inpatient stays, whereas estimates for prior years published in *Health, United States* excluded hospitalizations for deliveries and newborns.

National Hospital Discharge Survey—Days of care refers to the total number of patient days accumulated by inpatients at the time of discharge from non-Federal short-stay hospitals during a reporting period. All days from and including the date of admission but not including the date of discharge are counted.

Death rate—See *Rate: Death and related rates*.

Dental visit—Starting in 1997 National Health Interview Survey respondents were asked “About how long has it been since you last saw or talked to a dentist? Include all types of dentists, such as orthodontists, oral surgeons, and all other dental specialists as well as hygienists.” Starting in 2001 the question was modified slightly to ask respondents how long has it been since they last saw a dentist. Questions about dental visits were not asked for children under 2 years of age for years 1997–99 and under 1 year of age for 2000 and beyond. Estimates are presented for persons with a dental visit in the past year. Prior to 1997 dental visit estimates were based on a 2-week recall period.

Diagnosis—See *First-listed diagnosis*.

Diagnostic and other nonsurgical procedures—See *Procedure*.

Discharge—The National Health Interview Survey defines a hospital discharge as the completion of any continuous period of stay of 1 night or more in a hospital as an inpatient. According to the National Hospital Discharge Survey, a discharge is a completed inpatient hospitalization. A hospitalization may be completed by death or by releasing the patient to the customary place of residence, a nursing home, another hospital, or other locations. See related *Admission; Average length of stay; Days of care; Inpatient*.

Domiciliary care homes—See *Nursing home*.

Drug abuse—See *Illicit drug use*.

Drug abuse treatment clients—See *Substance abuse treatment clients*.

Education—Several approaches to defining educational categories are used in this report. In survey data educational categories are based on information about educational credentials, such as diplomas and degrees. In vital statistics educational attainment is based on years of school completed.

Birth File—Information on educational attainment of mother is based on number of years of school completed, as reported by the mother on the birth certificate. Between 1970 and 1992 the reporting area for maternal education expanded.

Mother's education was reported on the birth certificate by 38 States in 1970. Data were not available from Alabama, Arkansas, California, Connecticut, Delaware, District of Columbia, Georgia, Idaho, Maryland, New Mexico, Pennsylvania, Texas, and Washington. In 1975 these data became available from four additional States, Connecticut, Delaware, Georgia, Maryland, and the District of Columbia, increasing the number of States reporting mother's education to 42 and the District of Columbia. Between 1980 and 1988 only three States, California, Texas, and Washington, did not report mother's education. In 1988 mother's education was also missing from New York State outside New York City. In 1989–91 mother's education was missing only from Washington and New York State outside New York City. Starting in 1992 mother's education was reported by all 50 States and the District of Columbia.

Mortality File—Information on educational attainment of decedent became available for the first time in 1989 due to revision of the U.S. Standard Certificate of Death. Decedent's educational attainment is reported on the death certificate by the funeral director based on information provided by an informant such as next of kin. Mortality data by educational attainment for 1989 were based on data from 20 States and by 1994–96 increased to 45 States and the District of Columbia. In 1994–96 the following States either did not report educational attainment on the death certificate or the information was more than 20 percent incomplete: Georgia, Kentucky, Oklahoma, Rhode Island, and South Dakota. In 1997–2000 information on decedent's education was available from Oklahoma, increasing the reporting area to 46 States and the District of Columbia (DC). With the addition of Kentucky in 2001, the reporting area increased to 47 States and DC.

Calculation of unbiased death rates by educational attainment based on the National Vital Statistics System requires that the reporting of education on the death certificate be complete and consistent with the reporting of education on the Current Population Survey, the source of population estimates for denominators for death rates. Death records that are missing information about decedent's education are not included in the calculation of rates. Therefore the levels of death rates by educational attainment shown in this report are underestimated by approximately the percent with not stated education, which ranges from 3 to 9 percent.

The validity of information about the decedent's education was evaluated by comparing self-reported education obtained in the Current Population Survey with education on the death certificate for decedents in the National Longitudinal Mortality Survey (NLMS). (Sorlie PD, Johnson NJ: Validity of education information on the death certificate, Epidemiology 7(4):437–9, 1996.) Another analysis compared self-reported education collected in the first National Health and Nutrition Examination Survey (NHANES I) with education on the death certificate for decedents in the NHANES I Epidemiologic Followup Study. (Makuc DM, Feldman JJ, Mussolino ME: Validity of education and age as reported on death certificates, American Statistical Association. 1996 Proceedings of the Social Statistics Section, 102–6, 1997.) Results of both studies indicated that there is a tendency for some people who did not graduate from high school to be reported as high school graduates on the death certificate. This tendency results in overstating the death rate for high school graduates and understating the death rate for the group with less than 12 years of education. The bias was greater among older than younger decedents and somewhat greater among black than white decedents.

In addition, educational gradients in death rates based on the National Vital Statistics System were compared with those based on the NLMS, a prospective study of persons in the Current Population Survey. Results of these comparisons indicate that educational gradients in death rates based on the National Vital Statistics System were reasonably similar to those based on NLMS for white persons 25–64 years of age and black persons 25–44 years of age. The number of deaths for persons of Hispanic origin in NLMS was too small to permit comparison for this ethnic group. For further information on measurement of education, see: Kominski R and Siegel PM. Measuring education in the Current Population Survey. *Monthly Labor Review*, September 1993: 34–38.

National Health Interview Survey (NHIS)—Beginning in 1997 the NHIS questionnaire was changed to ask “What is the highest level of school ___ has completed or the highest degree received?” Responses were used to categorize individuals according to educational credentials (for example, no high school diploma or general educational development (GED) high school equivalency diploma; high school diploma or GED; some college, no bachelor’s degree; bachelor’s degree or higher).

Prior to 1997 the education variable in NHIS was measured by asking, “What is the highest grade or year of regular school ___ has ever attended?” and “Did ___ finish the grade/year?” Responses were used to categorize individuals according to years of education completed (for example, less than 12 years, 12 years, 13–15 years, and 16 or more years).

Data from the 1996 and 1997 NHIS were used to compare distributions of educational attainment for adults 25 years of age and over using categories based on educational credentials (1997) with categories based on years of education completed (1996). A larger percent of persons reported “some college” than “13–15 years” of education and a correspondingly smaller percent reported ”high school diploma or GED” than “12 years of education.” In 1997, 19 percent of adults reported no high school diploma, 31 percent a high school diploma or GED, 26 percent some college, and 24 percent a bachelor’s degree or higher. In 1996, 18 percent of adults reported less than 12 years of education, 37 percent 12 years of education, 20 percent 13–15 years, and 25 percent 16 or more years of education.

Emergency department—According to the National Hospital Ambulatory Medical Care Survey (NHAMCS), an emergency department is a hospital facility that provides unscheduled outpatient services to patients whose conditions require immediate care and is staffed 24 hours a day. Off-site emergency departments open less than 24 hours are included if staffed by the hospital’s emergency department. See related *Emergency department visit; Outpatient department*.

Emergency department visit—Starting with the 1997 National Health Interview Survey, respondents to the sample adult and sample child questionnaires are asked about the number of visits to hospital emergency rooms during the past 12 months, including visits that resulted in hospitalization. In the National Hospital Ambulatory Medical Care Survey an emergency department visit is a direct personal exchange between a patient and a physician or other health care providers working under the physician’s supervision, for the purpose of seeking care and receiving personal health services. See related *Emergency department; Injury-related visit*.

Employer costs for employee compensation—This is a measure of the average cost per employee hour worked to employers for wages and salaries and benefits. Wages and salaries are defined as the hourly straight-time wage rate, or for workers not paid on an hourly basis, straight-time earnings divided by the corresponding hours. Straight-time wage and salary rates are total earnings before payroll deductions, excluding premium pay for overtime and for work on weekends and holidays, shift differentials, nonproduction bonuses, and lump-sum payments provided in lieu of wage increases. Production bonuses, incentive earnings, commission payments, and cost-of-living adjustments are included in straight-time wage and salary rates. Benefits covered are paid leave—paid vacations, holidays, sick leave, and other leave; supplemental pay—premium pay for overtime and work on weekends and holidays, shift differentials, nonproduction bonuses, and lump-sum payments provided in lieu of wage increases; insurance benefits—life, health, and sickness and accident insurance; retirement and savings benefits—pension and other retirement plans and savings and thrift plans; legally required benefits—social security, railroad retirement and supplemental retirement, railroad unemployment insurance, Federal and State unemployment insurance, workers' compensation, and other benefits required by law, such as State temporary disability insurance; and other benefits—severance pay and supplemental unemployment plans. See related *Appendix I, National Compensation Survey*.

Environmental Protection Agency Standards—The Federal Clean Air Act of 1970, amended in 1977 and 1990, requires the Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards. EPA has set specific standards for each of six major pollutants: carbon monoxide, lead, nitrogen dioxide, ozone, sulfur dioxide, and particulate matter whose aerodynamic size is equal to or less than 10 microns (PM-10). Each pollutant standard represents a maximum concentration level (micrograms per cubic meter) that cannot be exceeded during a specified time interval. For more information, see www.epa.gov/oar/oaqps.

Ethnicity—See *Hispanic origin*.

Expenditures—See *Health expenditures, national; Appendix I, National Health Accounts.*

Family income—For purposes of the National Health Interview Survey (NHIS) and National Health and Nutrition Examination Survey (NHANES), all people within a household related to each other by blood, marriage, or adoption constitute a family. Each member of a family is classified according to the total income of the family. Unrelated individuals are classified according to their own income. In the NHIS (in years prior to 1997) and NHANES, family income was the total income received by members of a family (or by an unrelated individual) in the 12 months before the interview. Starting in 1997 the NHIS collected family income data for the calendar year prior to the interview (for example, 1997 family income data were based on 1996 calendar year information). Family income includes wages, salaries, rents from property, interest, dividends, profits and fees from their own businesses, pensions, and help from relatives. Family income data are used in the computation of poverty level. For data years 1990–96, about 16–18 percent of persons had missing data on poverty level. Missing values were imputed for family income using a sequential hot deck within matrix cells imputation approach. A detailed description of the imputation procedure as well as data files with imputed annual family income for 1990–96 are available from NCHS on CD-ROM NHIS Imputed Annual Family Income 1990–96, series 10, no 9A. See related *Poverty level*.

Federal hospitals—See *Hospital*.

Federal physicians—See *Physician*.

Fee-for-service health insurance—This is private (commercial) health insurance that reimburses health care providers on the basis of a fee for each health service provided to the insured person. It is also known as indemnity health insurance. Medicare Parts A and B are sometimes referred to as "Medicare fee-for-service." See related *Health insurance coverage; Medicare*.

Fertility rate—See *Rate: Birth and related rates*.

Fetal death—A fetal death is death before the complete expulsion or extraction from its mother, irrespective of the duration of pregnancy; the death is indicated by the fact that after such separation, the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. For statistical purposes, fetal deaths are classified according to gestational age. In this report tabulations are shown for fetal deaths with stated or presumed gestation of 20 weeks or more and of 28 weeks or more, the latter gestational age group also known as late fetal deaths. See related *Gestation; Live birth; Rate: Death and related rates*.

First-listed diagnosis—In the National Hospital Discharge Survey, this is the first recorded diagnosis on the medical record face sheet (summary sheet).

First-listed external cause of injury—In the National Hospital Ambulatory Medical Care Survey, this is the first-listed external cause of injury coded from the Patient Record Form (PRF). Up to three causes of injury can be reported on the PRF. Injuries are coded by NCHS to the *International Classification of Diseases, Ninth Revision, Clinical Modification* Supplementary Classification of External Causes of Injury and Poisoning. See table VII for a listing of injury categories and codes. See related *Injury-related visit*.

General hospitals—See *Hospital*.

General hospital psychiatric services—See *Mental health organization*.

Geographic region and division—The U.S. Bureau of the Census groups the 50 States and the District of Columbia for statistical purposes into four geographic regions—Northeast, Midwest, South, and West—and nine divisions, based on geographic proximity. See figure I.

The Department of Commerce's Bureau of Economic Analysis (BEA) groups States into eight regions based on their homogeneity with respect to income characteristics, industrial composition of the employed labor force, and such noneconomic factors as demographic, social, and cultural characteristics. See figure II.

Three Census Bureau divisions—West North Central, East North Central, and New England—and three BEA regions—Plains, Great Lakes, and New England—are composed of the same States. The States composing the remaining Census Bureau divisions differ from those composing the corresponding BEA regions.

Gestation—For the National Vital Statistics System and the Centers for Disease Control and Prevention's Abortion Surveillance, the period of gestation is defined as beginning with the first day of the last normal menstrual period and ending with the day of birth or day of termination of pregnancy. See related *Abortion; Fetal death; Live birth*.

Gross domestic product (GDP)—GDP is the market value of the goods and services produced by labor and property located in the United States. As long as the labor and property are located in the United States, the suppliers (that is, the workers and, for property, the owners) may be U.S. residents or residents of other countries. See related *Consumer Price Index; Health expenditures, national*.

Health care contact—Starting in 1997 the National Health Interview Survey has been collecting information on health care contacts with doctors and other health care professionals using the following questions: "During the past 12 months, how many times have you gone to a hospital emergency room about your own health?"; "During the past 12 months, did you receive care at home from a nurse or other health care professional? What was the total number of home visits received?" "During the past 12 months, how many times have you seen a doctor or other health care professional about your own health at a doctor's office, a clinic, or some other place? Do not include times you were hospitalized overnight, visits to hospital emergency rooms, home visits, or telephone calls." Beginning in 2000 this question was amended to also exclude dental visits. For each question respondents were shown a flashcard with response categories of 0, 1, 2–3, 4–9, 10–12, or 13 or more visits in 1997–99. Starting in 2000 response categories were expanded to: 0, 1, 2–3, 4–5, 6–7, 8–9, 10–12, 13–15, 16 or more. Analyses of the percent of persons with health care visits were tabulated as follows: For tabulation of the 1997–99 data, responses of 2–3 were recoded to 2 and responses of 4–9 were recoded to 6. Starting in 2000 tabulation of responses of 2–3 were recoded to 2 and other responses were recoded to the midpoint of the range. A summary measure of health care visits was constructed by adding recoded responses for these questions and categorizing the sum as: none, 1–3, 4–9, or 10 or more health care visits in the past 12 months.

Analyses of the percent of children without a health care visit are based upon the following question: "During the past 12 months, how many times has ___ seen a doctor or other health care professional about (his/her) health at a doctor's office, a clinic, or some other place? Do not include times ____was hospitalized overnight, visits to hospital emergency rooms, home visits, or telephone calls." See related *Emergency department visit; Home visit*.

Health expenditures, national—See related *Consumer price index; Gross domestic product*.

Health services and supplies expenditures—These are outlays for goods and services relating directly to patient care plus expenses for administering health insurance programs and government public health activities. This category is equivalent to total national health expenditures minus expenditures for research and construction.

National health expenditures—This measure estimates the amount spent for all health services and supplies and health-related research and construction activities consumed in the United States during the calendar year. Detailed estimates are available by source of expenditures (for example, out-of-pocket payments, private health insurance, and government programs), and by type of expenditures (for example, hospital care, physician services, and drugs), and are in current dollars for the year of report. Data are compiled from a variety of sources.

Nursing home expenditures—These cover care rendered in establishments primarily engaged in providing inpatient nursing and rehabilitative services and continuous personal care services to persons requiring nursing care (skilled nursing and intermediate care facilities, including those for the mentally retarded) and continuing care retirement communities with on-site nursing care facilities. The costs of long-term care provided by hospitals are excluded.

Personal health care expenditures—These are outlays for goods and services relating directly to patient care. The expenditures in this category are total national health expenditures minus expenditures for research and construction, expenses for administering health insurance programs, and government public health activities.

Private expenditures—These are outlays for services provided or paid for by nongovernmental sources—consumers, insurance companies, private industry, philanthropic, and other nonpatient care sources.

Public expenditures—These are outlays for services provided or paid for by Federal, State, and local government agencies or expenditures required by governmental mandate (such as workmen's compensation insurance payments).

Health insurance coverage—The term "health insurance" is broadly defined to include both public and private payors who cover medical expenditures incurred by a defined population in a variety of settings.

National Health Interview Survey (NHIS)—NHIS respondents were asked about their health insurance coverage in the previous month in 1993–96 and at the time of the interview in other years. Questions on health insurance coverage were expanded starting in 1993 compared with previous years. In 1997 the entire questionnaire was redesigned and data were collected using a computer-assisted personal interview (CAPI).

Respondents are covered by private health insurance if they indicate private health insurance or if they are covered by a single-service hospital plan, except in 1997 and 1998 when no information on single-service plans was obtained. Private health insurance includes managed care such as health maintenance organizations (HMOs).

Until 1996 persons were defined as having Medicaid or other public assistance coverage if they indicated that they had either Medicaid or other public assistance, or if they reported receiving Aid to Families with Dependent Children (AFDC) or Supplemental Security Income (SSI). After welfare reform in late 1996, Medicaid was delinked from AFDC and SSI. Starting in 1997 persons have been considered covered by Medicaid if they report Medicaid or a State-sponsored health program. Starting in 1998 persons are considered covered by Medicaid if they report being covered by the State Children's Health Insurance Program (SCHIP). Medicare or military health plan coverage is also determined in the interview and, starting in 1997, other government-sponsored program coverage is determined as well.

If respondents do not report coverage under one of the above types of plans and they have unknown coverage under either private health insurance or Medicaid, they are considered to have unknown coverage.

The remaining respondents are considered uninsured. The uninsured are persons who do not have coverage under private health insurance, Medicare, Medicaid, public assistance, a State-sponsored health plan, other government-sponsored programs, or a military health plan. Persons with only Indian Health Service coverage are considered uninsured. Estimates of the percent of persons who are uninsured based on the NHIS (table 129) may differ slightly from those based on the March Current Population Survey (CPS) (table 151) due to differences in survey questions, recall period, and other aspects of survey methodology.

In 2001 in the NHIS 1.3 percent of persons age 65 years and over had no health insurance but the small sample size precludes the presentation of separate estimates for this population. Therefore the term "uninsured" refers only to the population under age 65.

See related *Fee-for-service health insurance; Health maintenance organization; Managed care; Medicaid; Medicare; State Children's Health Insurance Program (SCHIP); Uninsured*.

Health maintenance organization (HMO)—An HMO is a health care system that assumes or shares both the financial risks and the delivery risks associated with providing comprehensive medical services to a voluntarily enrolled population in a particular geographic area, usually in return for a fixed, prepaid fee. Pure HMO enrollees use only the prepaid capitated health services of the HMO panel of medical care providers. Open-ended HMO enrollees use the prepaid HMO health services but, in addition may receive medical care from providers who are not part of the HMO panel. There is usually a substantial deductible, copayment, or coinsurance associated with use of nonpanel providers.

HMO model types are:

Group model HMO—An HMO that contracts with a single multi-specialty medical group to provide care to the HMO's membership. The group practice may work exclusively with the HMO, or it may provide services to non-HMO patients as well. The HMO pays the medical group a negotiated per capita rate, which the group distributes among its physicians, usually on a salaried basis.

Staff model HMO—A type of closed-panel HMO (where patients can receive services only through a limited number of providers) in which physicians are employees of the HMO. The providers see members in the HMO's own facilities.

Network model HMO—An HMO model that contracts with multiple physician groups to provide services to HMO members; may involve large single and multi-specialty groups.

Individual practice association (IPA)—A type of healthcare provider organization composed of a group of independent practicing physicians who maintain their own offices and band together for the purpose of contracting their services to HMOs, PPOs (preferred provider organizations), and insurance companies. An IPA may contract with and provide services to both HMO and non-HMO plan participants.

Mixed model HMO—An HMO that combines features of more than one HMO model.

See related *Managed care; Point-of-service plan; Preferred provider organization*.

Health services and supplies expenditures—See *Health expenditures, national*.

Health status, respondent-assessed—Health status was measured in the National Health Interview Survey by asking the respondent "Would you say _____'s health is excellent, very good, good, fair, or poor?"

Healthy People 2010—Healthy People 2010 is the prevention agenda for the Nation. It is a statement of national health objectives designed to identify the most significant preventable threats to health and to establish national goals to reduce these threats. Healthy People 2010 is a set of health objectives for the Nation to achieve over the first decade of the new century. More information on Healthy People 2010 is available at www.health.gov/healthypeople. See related *Leading Health Indicators*.

Hispanic origin—Hispanic or Latino origin includes persons of Mexican, Puerto Rican, Cuban, Central and South American, and other or unknown Latin American or Spanish origins. Persons of Hispanic origin may be of any race. In the National Health Interview Survey questionnaire, questions on Hispanic origin are self-reported and precede questions on race.

Birth File—The reporting area for an Hispanic-origin item on the birth certificate expanded between 1980 and 1993. Trend data on births of Hispanic and non-Hispanic parentage in this report are affected by expansion of the reporting area and by immigration. These two factors affect numbers of events, composition of the Hispanic population, and maternal and infant health characteristics.

In 1980 and 1981 information on births of Hispanic parentage was reported on the birth certificate by the following 22 States: Arizona, Arkansas, California, Colorado, Florida, Georgia, Hawaii, Illinois, Indiana, Kansas, Maine, Mississippi, Nebraska, Nevada, New Jersey, New Mexico, New York, North Dakota, Ohio, Texas, Utah, and Wyoming. In 1982 Tennessee, and in 1983 the District of Columbia began reporting this information. Between 1983 and 1987 information on births of Hispanic parentage was available for 23 States and the District of Columbia. In 1988 this information became available for Alabama, Connecticut, Kentucky, Massachusetts, Montana, North Carolina, and Washington, increasing the number of States reporting information on births of Hispanic parentage to 30 States and the District of Columbia. In 1989 this information became available from an additional 17 States, increasing the number of Hispanic-reporting States to 47 and the District of Columbia. In 1989 only Louisiana, New Hampshire, and Oklahoma did not report Hispanic parentage on the birth certificate. With the inclusion of Oklahoma in 1989 and Louisiana in 1990 as Hispanic-reporting States, 99 percent of birth records included information on mother's origin. Hispanic origin of the mother was reported on the birth certificates of 49 States and the District of Columbia in 1991 and 1992; only New Hampshire did not provide this information. Starting in 1993 Hispanic origin of mother was reported by all 50 States and the District of Columbia.

Mortality File—The reporting area for an Hispanic-origin item on the death certificate expanded between 1985 and 1997. In 1985 mortality data by Hispanic origin of decedent were based on deaths to residents of the following 17 States and the District of Columbia whose data on the death certificate were at least 90 percent complete on a place-of-occurrence basis and of comparable format: Arizona, Arkansas, California, Colorado, Georgia, Hawaii, Illinois, Indiana, Kansas, Mississippi, Nebraska, New York, North Dakota, Ohio, Texas, Utah, and Wyoming. In 1986 New Jersey began reporting Hispanic origin of decedent, increasing the number of reporting States to 18 and the District of Columbia in 1986 and 1987. In 1988 Alabama, Kentucky, Maine, Montana, North Carolina, Oregon, Rhode Island, and Washington were added to the reporting area, increasing the number of States to 26 and the District of Columbia. In 1989 an additional 18 States were added, increasing the Hispanic reporting area to 44 States and the District of Columbia. In 1989 only Connecticut, Louisiana, Maryland, New Hampshire, Oklahoma, and Virginia were not included in the reporting area. Starting with 1990 data in this book, the criterion was changed to include States whose data were at least 80 percent complete. In 1990 Maryland, Virginia, and Connecticut, in 1991 Louisiana, and in 1993 New Hampshire were added, increasing the reporting area for Hispanic origin of decedent to 47 States and the District of Columbia in 1990, 48 States and the District of Columbia in 1991 and 1992, and 49 States and the District of Columbia in 1993–96. Only Oklahoma did not provide this information in 1993–96. Starting in 1997 Hispanic origin of decedent was reported by all 50 States and the District of Columbia. Based on data from the U.S. Bureau of the Census, the 1990 reporting area encompassed 99.6 percent of the U.S. Hispanic population. In 1990 more than 96 percent of death records included information on Hispanic origin of decedent.

See related *Race*.

HIV—See *Human immunodeficiency virus (HIV) disease.*

Home health care—Home health care as defined by the National Home and Hospice Care Survey is care provided by a home health care agency to individuals and families in their place of residence for promoting, maintaining, or restoring health; or for minimizing the effects of disability and illness including terminal illness.

Home visit—Starting in 1997 the National Health Interview Survey has been collecting information on home visits received during the past 12 months. Respondents are asked "During the past 12 months, did you receive care at home from a nurse or other health care professional? What was the total number of home visits received?" These data are combined with data on visits to doctors' offices, clinics, and emergency departments to provide a summary measure of health care visits. See related *Emergency department visit; Health care contact*.

Hospice care—Hospice care as defined by the National Home and Hospice Care Survey is a program of palliative and supportive care services providing physical, psychological, social, and spiritual care for dying persons, their families, and other loved ones by a hospice program or agency. Hospice services are available in home and inpatient settings.

Hospital—According to the American Hospital Association, hospitals are licensed institutions with at least six beds whose primary function is to provide diagnostic and therapeutic patient services for medical conditions by an organized physician staff, and have continuous nursing services under the supervision of registered nurses. The World Health Organization considers an establishment to be a hospital if it is permanently staffed by at least one physician, can offer inpatient accommodation, and can provide active medical and nursing care. Hospitals may be classified by type of service, ownership, size in terms of number of beds, and length of stay. In the National Hospital Ambulatory Medical Care Survey, hospitals include all those with an average length of stay for all patients of less than 30 days (short-stay) or hospitals whose specialty is general (medical or surgical) or children's general. Federal hospitals and hospital units of institutions and hospitals with fewer than six beds staffed for patient use are excluded. See related *Average length of stay; Bed; Days of care; Emergency department; Inpatient; Outpatient department*.

Community hospital, based on the American Hospital Association definition, includes all non-Federal short-term general and special hospitals whose facilities and services are available to the public. Special hospitals include obstetrics and gynecology; eye, ear, nose, and throat; rehabilitation; orthopedic; and other specialty services. Short-term general and special childrens hospitals are also considered to be community hospitals. A hospital may include a nursing-home-type unit and still be classified as short-term, provided that the majority of its patients are admitted to units where the average length of stay is less than 30 days. Hospital units of institutions such as prisons and college infirmaries that are not open to the public and are contained within a nonhospital facility are not included in the category of community hospitals. Traditionally the definition included all non-Federal short-stay hospitals except facilities for the mentally retarded. In a revised definition the following additional sites were excluded: hospital units of institutions, and alcoholism and chemical dependency facilities.

Federal hospitals are operated by the Federal Government.

For profit hospitals are operated for profit by individuals, partnerships, or corporations.

General hospitals provide diagnostic, treatment, and surgical services for patients with a variety of medical conditions. According to the World Health Organization, these hospitals provide medical and nursing care for more than one category of medical discipline (for example, general medicine, specialized medicine, general surgery, specialized surgery, and obstetrics). Excluded are hospitals, usually in rural areas, that provide a more limited range of care.

Nonprofit hospitals are controlled by nonprofit organizations, including religious organizations, fraternal societies, and others.

Psychiatric hospitals are ones whose major type of service is psychiatric care. See related *Mental health organization*.

Registered hospitals are hospitals registered with the American Hospital Association. About 98 percent of hospitals are registered.

Short-stay hospitals in the National Hospital Discharge Survey are those in which the average length of stay is less than 30 days. The National Health Interview Survey defines short-stay hospitals as any hospital or hospital department in which the type of service provided is general; maternity; eye, ear, nose, and throat; childrens; or osteopathic.

Specialty hospitals, such as psychiatric, tuberculosis, chronic disease, rehabilitation, maternity, and alcoholic or narcotic, provide a particular type of service to the majority of their patients.

Hospital-based physician—See *Physician*.

Hospital days—See *Days of care*.

Hospital utilization—Estimates of hospital utilization (such as hospital discharge rate, days of care rate, and average length of stay) presented in *Health, United States* are based on data from two different sources—the National Health Interview Survey (NHIS) and the National Hospital Discharge Survey (NHDS). Estimates of hospital utilization from these two surveys may differ because NHIS data are based on household interviews of the civilian noninstitutionalized population whereas NHDS data are based on hospital discharge records of all persons. Starting in 1997 hospital utilization data from the NHIS are for all hospital discharges whereas estimates for prior years excluded hospitalizations for delivery and newborns. NHDS includes hospital discharge records for all persons discharged alive or deceased and institutionalized persons, and excludes data for newborn infants. Differences in hospital utilization estimated by the two surveys are particularly evident for children and the elderly. For children NHIS estimates are higher than NHDS estimates due to inclusion of data for newborns. For the elderly NHDS estimates are higher than NHIS estimates because of inclusion of data for institutionalized persons and persons who died while hospitalized. See related *Average length of stay; Days of care; Discharge; Appendix I, National Health Interview Survey, National Hospital Discharge Survey*.

Human immunodeficiency virus (HIV) disease—Mortality and morbidity coding for HIV disease are similar and have evolved over time.

> *Mortality coding*—Starting with data year 1999 and the introduction of the Tenth Revision of the *International Classification of Diseases* (ICD-10), the title for this cause of death was changed to “HIV disease” from “HIV infection” and the ICD codes changed to B20-B24. Beginning with data for 1987, NCHS introduced category numbers *042-*044 for classifying and coding HIV infection as a cause of death in ICD-9. The asterisk before the category numbers indicates that these codes were not part of the original ICD-9. HIV infection was formerly referred to as human T-cell lymphotropic virus-III/lymphadenopathy-associated virus (HTLV-III/LAV) infection. Before 1987 deaths involving HIV infection were classified to Deficiency of cell-mediated immunity (ICD-9 279.1) contained in the title All other diseases; to Pneumocystosis (ICD-9 136.3) contained in the title All other infectious and parasitic diseases; to Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues; and to a number of other causes. Therefore, before 1987, death statistics for HIV infection are not strictly comparable with data for 1987 and later years, and are not shown in this report.
>
> *Morbidity coding*—The National Hospital Discharge Survey codes diagnosis data using the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM). Discharges with diagnosis of HIV as shown in *Health, United States* have at least one HIV diagnosis listed on the face sheet of the medical record and are not limited to the first-listed diagnosis. During 1984 and 1985 only data for AIDS (ICD-9-CM 279.19) were included. In 1986–94 discharges with the following diagnoses were included: acquired immunodeficiency syndrome (AIDS), human immunodeficiency virus (HIV) infection and associated conditions, and positive serological or viral culture findings for HIV (ICD-9-CM 042–044, 279.19, and 795.8). Beginning in 1995 discharges with the following diagnoses were included: human immunodeficiency virus (HIV) disease and asymptomatic human immunodeficiency virus (HIV) infection status (ICD-9-CM 042 and V08).

See related *Acquired immunodeficiency syndrome; Cause of death; International Classification of Diseases; International Classification of Diseases, Ninth Revision, Clinical Modification*.

ICD; ICD codes—See *Cause of death; International Classification of Diseases*.

Illicit drug use—Illicit drug use refers to use and misuse of illegal and controlled drugs.

> *Monitoring the Future Study*—In this school-based survey of secondary school students, information on marijuana use is collected using self-completed questionnaires. The information is based on the following questions: “On how many occasions (if any) have you used marijuana in the last 30 days?” and “On how many occasions (if any) have you used hashish in the last 30 days?” Questions on cocaine use include the following: “On how many occasions (if any) have you taken “crack” (cocaine in chunk or rock form) during the last 30 days?” and “On how many occasions (if any) have you taken cocaine in any other form during the last 30 days.

National Household Survey on Drug Abuse—Information on illicit drug use is collected for all persons 12 years of age and over. Information on any illicit drug use, including marijuana or hashish, cocaine, heroin, hallucinogens, and nonmedical use of prescription drugs is based on the following question: "During the past 30 days, on how many days did you use (specific illicit drug)?" See related *Substance use*.

Incidence—Incidence is the number of cases of disease having their onset during a prescribed period of time. It is often expressed as a rate (for example, the incidence of measles per 1,000 children 5–15 years of age during a specified year). Incidence is a measure of morbidity or other events that occur within a specified period of time. See related *Prevalence*.

Income—See *Family Income.*

Individual practice association (IPA)—See *Health maintenance organization (HMO).*

Industry of employment—Industries are classified according to the *Standard Industrial Classification (SIC) Manual* of the Office of Management and Budget. Two editions of the SIC are used for coding industry data in *Health, United States*: the 1977 supplement to the 1972 edition and the 1987 edition. The changes between versions include a few detailed titles created to correct or clarify industries or to recognize changes within the industry. Codes for major industry divisions (table VIII) were not changed between versions.

Health data by industry shown in *Health, United States* are from two different surveys conducted by the Bureau of Labor Statistics, the Census of Fatal Occupational Injuries (CFOI) and the Survey of Occupational Injuries and Illnesses (SOII). Establishments engaged in the same kind of economic activity are classified by the same industry code, regardless of whether ownership is by corporations or sole proprietorships in the private sector, or government agencies. The category "private sector" includes all industry divisions except public administration and military, which are in the public sector. The category "not classified" is used when there is insufficient information to determine a specific industry classification. Data from CFOI are presented separately for private sector and government. Data from SOII are presented for the private sector only and exclude the self-employed.

Infant death—An infant death is the death of a live-born child before his or her first birthday. Age at death may be further classified according to neonatal and postneonatal. Neonatal deaths are those that occur before the 28th day of life; postneonatal deaths are those that occur between 28 and 365 days of age. See related *Live birth; Rate: Death and related rates*.

Injury—See *First-listed external cause of injury*.

Injury-related visit—In the National Hospital Ambulatory Medical Care Survey an emergency department visit was considered injury related if, on the Patient Record Form (PRF), the checkbox for injury was indicated. In addition, injury visits were identified if the physician's diagnosis was injury related (ICD-9-CM code of 800–999), an external cause-of-injury code was present (ICD-9-CM E800–E999), or the patient's reason for visit code was injury related. See related *Emergency department visit; First-listed external cause of injury*.

Inpatient—An inpatient is a person who is formally admitted to the inpatient service of a hospital for observation, care, diagnosis, or treatment. See related *Admission; Average length of stay; Days of care; Discharge; Hospital*.

Inpatient care—See *Mental health service type*.

Inpatient days—See *Days of care*.

Instrumental activities of daily living (IADL)—Instrumental activities of daily living are activities related to independent living and include preparing meals, managing money, shopping for groceries or personal items, performing light or heavy housework, and using a telephone. In the Medicare Current Beneficiary Survey if a sample person had any difficulty performing an activity by him or herself and without special equipment, or did not perform the activity at all because of health problems, the person was categorized as having a limitation in that activity. The limitation may have been temporary or chronic at the time of the interview. Sample persons in the community answered health status and functioning questions themselves, if able to do so. For sample persons in a long-term care facility, a proxy such as a nurse answered questions about the sample person's health status and functioning.

In the National Health Interview Survey (NHIS) respondents are asked about needing the help of another person for handling routine IADL needs due to a physical, mental, or emotional problem. Persons are considered to have an IADL limitation in the NHIS if any causal condition is chronic.

See related *Activities of daily living (ADL); Limitation of activity*.

Insured—See *Health insurance coverage*.

Intermediate care facilities—See *Nursing home*.

International Classification of Diseases—The ICD provides the ground rules for coding and classifying cause-of-death data. The ICD is developed collaboratively between the World Health Organization (WHO) and 10 international centers, one of which is housed at NCHS. The purpose of the ICD is to promote international comparability in the collection, classification, processing, and presentation of health statistics. Since the beginning of the century, the ICD has been modified about once every 10 years, except for the 20-year interval between ICD-9 and ICD-10 (see table IV). The purpose of the revisions is to stay abreast with advances in medical science. New revisions usually introduce major disruptions in time series of mortality statistics (see tables V and VI). For more information, see www.cdc.gov/nchs/about/major/dvs/icd10des.htm. See related *Cause of death; Comparability ratio; International Classification of Diseases, Ninth Revision, Clinical Modification*.

International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM)—The ICD-9-CM is based on and is compatible with the World Health Organization's *International Classification of Diseases, Ninth Revision* (ICD-9). The United States currently uses ICD-9-CM to code morbidity diagnoses and inpatient procedures. ICD-9-CM consists of three volumes. Volumes 1 and 2 contain the diagnosis tabular list and index. Volume 3 contains the procedure classification (tabular and index combined).

ICD-9-CM is divided into 17 chapters and 2 supplemental classifications. The chapters are arranged primarily by body system. In addition there are chapters for infectious and parasitic diseases; neoplasms; endocrine, nutritional, and metabolic diseases; mental disorders; complications of pregnancy, childbirth and puerperium; certain conditions originating in the perinatal period; congenital anomalies; and symptoms, signs and ill-defined conditions. The two supplemental classifications are for factors influencing health status and contact with health service and external causes of injury and poisoning. For additional information about ICD-9-CM, see www.cdc.gov/nchs/icd9.htm. See related *International Classification of Diseases*.

In *Health, United States* morbidity data are classified using ICD-9-CM. Diagnostic categories and codes for ICD-9-CM are shown in table IX; ICD-9-CM procedure categories and codes are shown in table X. Starting with data year 1999 the United States began using ICD-10 to code mortality data.

Late fetal death rate—See *Rate: Death and related rates*.

Leading causes of death—See *Cause-of-death ranking*.

Leading Health Indicators—Leading Health Indicators (LHIs) are used to measure important determinants of the Nation's health during the first decade of the twenty-first century. Five of the indicators relate primarily to individual behaviors including physical activity, overweight and obesity, tobacco use, substance abuse, and responsible sexual behavior. The other five address mental health, injury and violence, environmental quality, immunization, and access to health care. More information on the LHIs is available at www.health.gov/healthypeople/LHI/. See related *Healthy People 2010*.

Length of stay—See *Average length of stay*.

Life expectancy—Life expectancy is the average number of years of life remaining to a person at a particular age and is based on a given set of age-specific death rates, generally the mortality conditions existing in the period mentioned. Life expectancy may be determined by race, sex, or other characteristics using age-specific death rates for the population with that characteristic. See related *Rate: Death and related rates*.

Limitation of activity—In the National Health Interview Survey limitation of activity refers to a long-term reduction in a person's capacity to perform the usual kind or amount of activities associated with his or her age group due to a chronic condition. 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, play, school, work, difficulty walking or remembering, and any other activity limitations. For reported limitations, the causal health conditions are determined and respondents are considered limited if one or more of these conditions is chronic. See related *Activities of daily living; Condition; Instrumental activities of daily living*.

Live birth—A live birth is the complete expulsion or extraction of the neonate from its mother, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life such as heartbeat, umbilical cord pulsation, or definite movement of voluntary muscles, whether the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born. See related *Gestation; Rate: Birth and related rates*.

Live-birth order—In the National Vital Statistics System this item from the birth certificate refers to the total number of live births the mother has had, including the present birth as recorded on the birth certificate. Fetal deaths are excluded. See related *Live birth*.

Long term care facility—See *Nursing home*.

Low birthweight—See *Birthweight*.

Mammography—Mammography is an x-ray image of the breast used to detect irregularities in breast tissue. In the National Health Interview Survey questions concerning use of mammography differed slightly across the years for which data are shown. In 1987 and 1990 women were asked to report when they had their last mammogram. In 1991 women were asked whether they had a mammogram in the past 2 years. In 1993 and 1994 women were asked whether they had a mammogram within the past year, between 1 and 2 years ago, or over 2 years ago. In 1998 women were asked whether they had a mammogram a year ago or less, more than 1 year but not more than 2 years, or more than 2 years ago. In 1999 women were asked when they had their most recent mammogram in days, weeks, months, or years. In 1999, 10 percent of women in the sample responded "2 years ago" and in this analysis these women were coded as "within the past 2 years" although a response of "2 years ago" may include women whose last mammogram was more than 2 but less than 3 years ago. Thus estimates for 1999 are overestimated to some degree in comparison with estimates in previous years. In 2000 women were asked when they had their most recent mammogram (give month and year). Women who did not respond were given a followup question that used the 1999 wording and women who did not answer the followup question were asked a second followup question that used the 1998 wording. In 2000, 2 percent of women in the sample answered "2 years ago" using the 1999 wording and they were coded as "within the past 2 years." Thus estimates for 2000 may be slightly overestimated in comparison with estimates for years prior to 1999.

Managed care—A term originally used to refer to the prepaid health care sector (e.g., health maintenance organizations or HMOs) where care is provided under a fixed budget and costs are therein capable of being "managed." Increasingly, the term is being used to include preferred provider organizations (PPOs) and even forms of indemnity insurance coverage (or fee-for-service insurance) that incorporate preadmission certification and other utilization controls. See related *Health maintenance organization; Preferred provider organization*.

Marital status—-Marital status is classified through self-reporting into the categories married and unmarried. The term married encompasses all married people including those separated from their spouses. Unmarried includes those who are single (never married), divorced, or widowed. The abortion surveillance program classified separated people as unmarried before 1978.

Birth File—In 1970, 39 States and the District of Columbia (DC) and in 1975, 38 States and DC included a direct question about mother's marital status on the birth certificate. Since 1980 national estimates of births to unmarried women have been based on two methods for determining marital status, a direct question in the birth registration process and inferential procedures. In 1980–96 marital status was reported on the birth certificates of 41–45 States and DC; with the addition of California in 1997, 46 States and DC; and in 1998–2001, 48 States and DC. In 1997, all but four States (Connecticut, Michigan, Nevada, and New York) and, in 1998, all but two States (Michigan and New York) included a direct question about mother's marital status on their birth certificates. In 1998–2001 marital status was imputed as "married" on those 0.03–0.05 percent of birth records with missing information in the 48 States and DC where this information was obtained by a direct question.

For States lacking a direct question, marital status was inferred. Before 1980 the incidence of births to unmarried women in States with no direct question on marital status was assumed to be the same as the incidence in reporting States in the same geographic division. Starting in 1980 for States without a direct question, marital status was inferred by comparing the parents' and child's surnames. Inferential procedures in current use depend on the presence of a paternity acknowledgment or missing information on the father. Changes in reporting procedures by some States in 1995 and 1997 had little effect on national totals, but did affect trends for age groups and some State trends. Details of the changes in reporting procedures are described in Ventura SJ, Bachrach CA. Nonmarital Childbearing in the United States, 1940–99. National vital statistics reports; vol 48 no 16. Hyattsville, Maryland: National Center for Health Statistics. 2000, available at www.cdc.gov/nchs/births.htm.

Maternal age—See *Age*.

Maternal death—Maternal death is defined by the World Health Organization as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes. A maternal death is one for which the certifying physician has designated a maternal condition as the underlying cause of death. Maternal conditions are those assigned to pregnancy, childbirth, and the puerperium, ICD-10 codes A34, O00-O95, O98-O99 (see table V). Changes have been made in the classification and coding of maternal deaths between ICD-9 and ICD-10, effective with mortality data for 1999. ICD-10 changes pertain to indirect maternal causes and timing of death relative to pregnancy. If only indirect maternal causes of death (i.e., a previously existing disease or a disease that developed during pregnancy which was not due to direct obstetric causes but was aggravated by physiologic effects of pregnancy) are reported in Part I of the death certificate and pregnancy is reported in either Part I or Part II, ICD-10 classifies this as a maternal death. ICD-9 only classified the death as maternal if pregnancy was reported in Part I. Some State death certificates include a separate question regarding pregnancy status. A positive response to the question is interpreted as "pregnant" being reported in Part II of the cause-of-death section of the death certificate. If the medical certifier did not specify when death occurred relative to the pregnancy, it is assumed that the pregnancy terminated 42 days or less prior to death. Under ICD-10 a new category has been added for deaths from maternal causes that occurred more than 42 days after delivery or termination of pregnancy (O96-O97). In 1999 there were 15 such deaths and in 2000, there were 8. See related *Rate: Death and related rates*.

Maternal education—See *Education*.

Maternal mortality rate—See *Rate: Death and related rates*.

Medicaid—Medicaid was authorized by Title XIX of the Social Security Act in 1965 as a jointly funded cooperative venture between the Federal and State governments to assist States in the provision of adequate medical care to eligible needy persons. Within broad Federal guidelines, each of the States establishes its own eligibility standards; determines the type, amount, duration, and scope of services; sets the rate of payment for services; and administers its own program.

Medicaid is the largest program providing medical and health-related services to America's poorest people. However, Medicaid does not provide medical assistance for all poor persons. Under the broadest provisions of the Federal statute, Medicaid does not provide health care services even for very poor persons unless they are in a designated group, which include:

- Individuals who meet the requirements for the Aid to Families with Dependent Children (AFDC) program that were in effect in their State on July 16, 1996, or, at State option, more liberal criteria (with some exceptions).
- Children under age 6 whose family income is at or below 133 percent of the Federal poverty level.
- Pregnant women whose family income is below 133 percent of the Federal poverty level (services to these women are limited to those related to pregnancy, complications of pregnancy, delivery, and postpartum care).

- Supplemental Security Income (SSI) recipients in most States (some States use more restrictive Medicaid eligibility requirements that predate SSI).
- Recipients of adoption or foster care assistance under Title IV of the Social Security Act.
- Special protected groups (typically individuals who lose their cash assistance due to earnings from work or from increased Social Security benefits, but who may keep Medicaid for a period of time).
- All children born after September 30, 1983, who are under age 19 and in families with incomes at or below the Federal poverty level (this process phases in coverage).
- Certain Medicare beneficiaries (low income is only one test for Medicaid eligibility for those within these groups; their resources also are tested against threshold levels, as determined by each State within Federal guidelines).

States also have the option of providing Medicaid coverage for other "categorically related" groups.

Medicaid operates as a vendor payment program. States may pay health care providers directly on a fee-for-service basis, or States may pay for Medicaid services through various prepayment arrangements, such as health maintenance organizations (HMOs) or other forms of managed care. Within Federally imposed upper limits and specific restrictions, each State for the most part has broad discretion in determining the payment methodology and payment rate for services. Thus, the Medicaid program varies considerably from State to State, as well as within each State over time. See related *Health expenditures, national; Health insurance coverage; Health maintenance organization; Managed care; Appendix I, Medicaid Data System.*

Medical specialties—See *Physician specialty.*

Medical vendor payments—Under the Medicaid program, medical vendor payments are payments (expenditures) to medical vendors from the State through a fiscal agent or to a health insurance plan. Adjustments are made for Indian Health Service payments to Medicaid, cost settlements, third party recoupments, refunds, voided checks, and other financial settlements that cannot be related to specific provided claims. Excluded are payments made for medical care under the emergency assistance provisions, payments made from State medical assistance funds that are not federally matchable, disproportionate share hospital payments, cost sharing or enrollment fees collected from recipients or a third party, and administration and training costs.

Medicare—This is a nationwide health insurance program providing health insurance protection to people 65 years of age and over, people entitled to social security disability payments for 2 years or more, and people with end-stage renal disease, regardless of income. The program was enacted July 30, 1965, as Title XVIII, *Health Insurance for the Aged of the Social Security Act*, and became effective on July 1, 1966. From its inception, it has included two separate but coordinated programs, hospital insurance (Part A) and supplementary medical insurance (Part B). In 1999, additional choices were allowed for delivering Medicare Part A and Part B benefits. Medicare+Choice (Part C) is an expanded set of options for the delivery of health care under Medicare, created in the Balanced Budget Act passed by Congress in 1997. The term Medicare+Choice refers to options other than original Medicare. While all Medicare beneficiaries can receive their benefits through the original fee-for-service (FFS) program, most beneficiaries enrolled in both Part A and Part B can choose to participate in a Medicare+Choice plan instead. Organizations that seek to contract as Medicare+Choice plans must meet specific organizational, financial, and other requirements. Most Medicare+Choice plans are coordinated care plans, which include health maintenance organizations (HMOs), provider-sponsored organizations (PSOs), preferred provider organizations (PPOs), and other certified coordinated care plans and entities that meet the standards set forth in the law. The Medicare+Choice program also includes Medical savings account (MSA) plans, which provide benefits after a single high deductible is met, and private, unrestricted FFS plans, which allow beneficiaries to select certain private providers. These programs are available in only a limited number of States. For those providers who agree to accept the plan's payment terms and conditions, this option does not place the providers at risk, nor does it vary payment rates based on utilization. Only the coordinated care plans are considered "managed care" plans. Except for MSA plans, all Medicare+Choice plans are required to provide at least the current Medicare benefit package, excluding hospice services. Plans may offer additional covered services and are required to do so (or return excess payments) if plan costs are lower than the Medicare payments received by the plan.

In the National Health Interview Survey (NHIS), the category "Medicare HMO" is defined as persons who are age 65 years or over and who responded "yes" when asked if they were under a Medicare managed care arrangement such as an HMO. This is a subset of Medicare Part C. Respondents who stated they had Medicare coverage but did not answer yes to the "managed care arrangement such as an HMO" are included in the Medicare fee-for-service category. "Medicare fee-for-service" is defined as Medicare Part A and/or Part B.

See related *Fee-for-service health insurance; Health insurance coverage; Health maintenance organization; Managed care; Appendix I, Medicare Administrative Data*.

Mental health organization—The Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration defines a mental health organization as an administratively distinct public or private agency or institution whose primary concern is provision of direct mental health services to the mentally ill or emotionally disturbed. Excluded are private office-based practices of psychiatrists, psychologists, and other mental health providers; psychiatric services of all types of hospitals or outpatient clinics operated by Federal agencies other than the Department of Veterans Affairs (for example, Public Health Service, Indian Health Service, Department of Defense, and Bureau of Prisons); general hospitals that have no separate psychiatric services but admit psychiatric patients to nonpsychiatric units; and psychiatric services of schools, colleges, halfway houses, community residential organizations, local and county jails, State prisons, and other human service providers. The major types of mental health organizations are described below.

> *Freestanding psychiatric outpatient clinics* provide only outpatient mental health services on either a regular or emergency basis. A psychiatrist generally assumes the medical responsibility for services.
>
> *Psychiatric hospitals* (public or private) primarily provide 24-hour inpatient care and treatment in a hospital setting to persons with mental illnesses. Psychiatric hospitals may be under State, county, private for profit, or private nonprofit auspices.
>
> *General hospital psychiatric services* provide psychiatric services with assigned staff for 24-hour inpatient or residential care and/or less than 24-hour outpatient care in a separate ward, unit, floor, or wing of the hospital.
>
> *Department of Veterans Affairs medical centers* are hospitals operated by the Department of Veterans Affairs (formerly Veterans Administration) and include Department of Veterans Affairs general hospital psychiatric services (including large neuropsychiatric units) and Department of Veterans Affairs psychiatric outpatient clinics.
>
> *Residential treatment centers for emotionally disturbed children* must meet all of the following criteria: (a) Provide 24-hour residential services; (b) Are not licensed as a psychiatric hospital and have the primary purpose of providing individually planned mental health treatment services in conjunction with residential care; (c) Include a clinical program directed by a psychiatrist, psychologist, social worker, or psychiatric nurse with a graduate degree; (d) Serve children and youth primarily under the age of 18; and (e) Have the primary diagnosis as mental illness, classified as other than mental retardation, developmental disability, or substance-related disorders, according to DSM-II/ICDA-8 or DSM-IIIR/ICD-9-CM codes, for the majority of admissions.
>
> *Multiservice mental health organizations* provide services in both 24-hour and less than 24-hour settings and are not classifiable as a psychiatric hospital, general hospital, or residential treatment center for emotionally disturbed children. (The classification of a psychiatric or general hospital or residential treatment center for emotionally disturbed children takes precedence over a multiservice classification, even if two or more services are offered.)
>
> *Partial care organizations* provide a program of ambulatory mental health services, or rehabilitation, habitation, or education programs.

See related *Addition; Mental health service type*.

Mental health service type—This term refers to the following types of mental health services:

> *24-hour mental health care*, formerly called inpatient care, provides care in a mental health hospital setting.

Less than 24-hour care, formerly called outpatient or partial care treatment, provides mental health services on an ambulatory basis.

Residential treatment care provides overnight mental health care in conjunction with an intensive treatment program in a setting other than a hospital. Facilities may offer care to emotionally disturbed children or mentally ill adults.

See related *Addition; Mental health organization*.

Metropolitan statistical area (MSA)—The Office of Management and Budget (OMB) defines metropolitan areas according to published standards that are applied to Census Bureau data. The collective term “metropolitan area” includes metropolitan statistical areas (MSAs), consolidated metropolitan statistical areas (CMSAs), and primary metropolitan statistical areas (PMSAs). An MSA is a county or group of contiguous counties that contains at least one city with a population of 50,000 or more or a Census Bureau-defined urbanized area of at least 50,000 with a metropolitan population of at least 100,000. In addition to the county or counties that contain all or part of the main city or urbanized area, an MSA may contain other counties that are metropolitan in character and are economically and socially integrated with the main city. If an MSA has a population of 1 million or more and meets requirements specified in the standards, it is termed a CMSA, consisting of two or more major components, each of which is recognized as a PMSA. In New England, cities and towns, rather than counties, are used to define MSAs. Counties that are not within an MSA are considered to be nonmetropolitan.

For National Health Interview Survey (NHIS) data before 1995, metropolitan population is based on MSAs as defined by OMB in 1983 using the 1980 Census. Starting with the 1995 NHIS, metropolitan population is based on MSAs as defined by OMB in 1993 using the 1990 Census. For further information on metropolitan areas, see U.S. Department of Commerce, Bureau of the Census, *State and Metropolitan Area Data Book*. See related *Urbanization*.

Multiservice mental health organizations—See *Mental health organization*.

National ambient air quality standards—See *Environmental Protection Agency Standards*.

Neonatal mortality rate—See *Rate: Death and related rates*.

Non-Federal physicians—See *Physician*.

Nonpatient revenues—Nonpatient revenues are those revenues received for which no direct patient care services are rendered. The most widely recognized source of nonpatient revenues is philanthropy. Philanthropic support may be direct from individuals or may be obtained through philanthropic fund-raising organizations such as the United Way. Support may also be obtained from foundations or corporations. Philanthropic revenues may be designated for direct patient care use or may be contained in an endowment fund where only the current income may be tapped.

Nonprofit hospitals—See *Hospital*.

Notifiable disease—A notifiable disease is one that, when diagnosed, health providers are required, usually by law, to report to State or local public health officials. Notifiable diseases are those of public interest by reason of their contagiousness, severity, or frequency.

Nursing care—The following definition of nursing care applies to data collected in National Nursing Home Surveys through 1977. Nursing care is provision of any of the following services: application of dressings or bandages; bowel and bladder retraining; catheterization; enema; full bed bath; hypodermic, intramuscular, or intravenous injection; irrigation; nasal feeding; oxygen therapy; and temperature-pulse-respiration or blood pressure measurement. See related *Nursing home*.

Nursing care homes—See *Nursing home*.

Nursing home—In the Online Survey Certification and Reporting database, a nursing home is a facility that is certified and meets the Center for Medicare & Medicaid Services’ long-term care requirements for Medicare and Medicaid eligibility.

In the National Master Facility Inventory (NMFI), which provided the sampling frame for 1973–74, 1977, and 1985 National Nursing Home Surveys, a nursing home was an establishment with three or more beds that provided nursing or personal care services to the aged, infirm, or chronically ill. The following definitions of nursing home types applied to facilities listed in the NFMI. The 1977 National Nursing Home Survey included personal care homes and domiciliary care homes while the National Nursing Home Surveys of 1973–74, 1985, 1995, 1997, and 1999 excluded them.

Nursing care homes employ one or more full-time registered or licensed practical nurses and provide nursing care to at least one-half the residents.

Personal care homes with nursing have fewer than one-half the residents receiving nursing care. In addition, such homes employ one or more registered or licensed practical nurses or provided administration of medications and treatments in accordance with physicians' orders, supervision of self-administered medications, or three or more personal services.

Personal care homes without nursing have no residents who receive nursing care. These homes provide administration of medications and treatments in accordance with physicians' orders, supervise self-administered medications, or provide three or more personal services.

Domiciliary care homes primarily provide supervisory care but also provided one or two personal services.

The following definitions of certification levels apply to data collected in National Nursing Home Surveys of 1973–74, 1977, and 1985:

Skilled nursing facilities provide the most intensive nursing care available outside a hospital. Facilities certified by Medicare provide posthospital care to eligible Medicare enrollees. Facilities certified by Medicaid as skilled nursing facilities provide skilled nursing services on a daily basis to individuals eligible for Medicaid benefits.

Intermediate care facilities are certified by the Medicaid program to provide health-related services on a regular basis to Medicaid eligibles who do not require hospital or skilled nursing facility care but do require institutional care above the level of room and board.

Not certified facilities are not certified as providers of care by Medicare or Medicaid.

Beginning with the 1995 through 1999 National Nursing Home Surveys, nursing homes have been defined as facilities that routinely provide nursing care services and have three or more beds set up for residents. Facilities may be certified by Medicare or Medicaid or not certified but licensed by the State as a nursing home. The facilities may be freestanding or a distinct unit of a larger facility.

After October 1, 1990, long-term care facilities which met the Omnibus Budget Reconciliation Act of 1987 (OBRA 87) nursing home reform requirements that were formerly certified under the Medicaid program as skilled nursing, nursing home, or intermediate care facilities were reclassified as "nursing facilities." The Medicare program continues to certify skilled nursing facilities, but not intermediate care facilities. State Medicaid programs can certify intermediate care facilities for the mentally retarded or developmentally disabled. Nursing facilities must also be certified to participate in the Medicare program in order to be certified for participation in Medicaid, with the exception of those facilities that have obtained waivers. Thus most nursing home care is now provided in skilled care facilities.

See related *Nursing care; Resident*.

Nursing home expenditures—See *Health expenditures, national*.

Obesity—See *Body mass index (BMI)*.

Occupancy rate—In American Hospital Association statistics, hospital occupancy rate is calculated as the average daily census divided by the number of hospital beds, cribs, and pediatric bassinets set up and staffed on the last day of the reporting period, expressed as a percent. Average daily census is calculated by dividing the total annual number of inpatients, excluding newborns, by 365 days to derive the number of inpatients receiving care on an average day during the annual reporting period. The occupancy rate for facilities other than hospitals is calculated as the number of residents at the facility reported on the day of the interview divided by the number of reported beds. In the Online Survey Certification and Reporting database, occupancy is determined as of the day of certification inspection as the total number of residents on that day divided by the total number of beds on that day.

Office—In the National Ambulatory Medical Care Survey, a physician's ambulatory practice (office) can be in any location other than in a hospital, nursing home, other extended care facility, patients' home, industrial clinic, college clinic, or family planning clinic. Offices in health maintenance organizations and private offices in hospitals are included. See related *Office visit; Outpatient visit; Physician*.

Office-based physician—See *Physician*.

Office visit—In the National Ambulatory Medical Care Survey, an office visit is any direct personal exchange between an ambulatory patient and a physician or members of his or her staff for the purposes of seeking care and rendering health services. See related *Outpatient visit*.

Operations—See *Procedure*.

Outpatient department—According to the National Hospital Ambulatory Medical Care Survey (NHAMCS), an outpatient department (OPD) is a hospital facility where nonurgent ambulatory medical care is provided. The following types of OPDs are excluded from the NHAMCS: ambulatory surgical centers, chemotherapy, employee health services, renal dialysis, methadone maintenance, and radiology. See related *Emergency department; Outpatient visit*.

Outpatient surgery—According to the American Hospital Association, outpatient surgery is a surgical operation, whether major or minor, performed on patients who do not remain in the hospital overnight. Outpatient surgery may be performed in inpatient operating suites, outpatient surgery suites, or procedure rooms within an outpatient care facility. A surgical operation involving more than one surgical procedure is considered one surgical operation. See related *Ambulatory surgery; Procedure*.

Outpatient visit—The American Hospital Association defines outpatient visits as visits for receipt of medical, dental, or other services at a hospital by patients who are not lodged in the hospital. Each appearance by an outpatient to each unit of the hospital is counted individually as an outpatient visit, including all clinic visits, referred visits, observation services, outpatient surgeries, and emergency department visits. In the National Hospital Ambulatory Medical Care Survey an outpatient department visit is a direct personal exchange between a patient and a physician or other health care provider working under the physician's supervision for the purpose of seeking care and receiving personal health services. See related *Emergency department visit; Outpatient department*.

Overweight—See *Body mass index (BMI)*.

Ozone—See *Environmental Protection Agency Standards*.

Pap smear—A Pap smear (also known as a Papanicolaou smear or Pap test) is a microscopic examination of cells scraped from the cervix that is used to detect cancerous or precancerous conditions of the cervix or other medical conditions. In the National Health Interview Survey questions concerning use of Pap smear differed slightly across the years for which data are shown. In 1987 women were asked to report when they had their most recent Pap smear in days, weeks, months, or years. Women who did not respond were asked a followup question, "Was it 3 years ago or less, between 3 and 5 years, or 5 years or more ago?" In 1993 and 1994 women were asked whether they had a Pap smear within the past year, between 1 and 3 years ago, or more than 3 years ago. In 1998 women were asked whether they had a Pap smear 1 year ago or less, more than 1 year but not more than 2 years, more than 2 years but not more than 3 years, more than 3 years but not more than 5 years, or more than 5 years ago. In 1999 women were asked when they had their most recent Pap smear in days, weeks, months, or years. In 1999, 4 percent of women in the sample responded "3 years ago." In this analysis these women were coded as "within the past 3 years," although a response of "3 years ago" may include women whose last Pap smear was more than 3 but less than 4 years ago. Thus estimates for 1999 are overestimated to some degree in comparison with estimates for previous years. In 2000 women were asked when they had their most recent Pap smear (give month and year). Women who did not respond were given a followup question that used the 1999 wording and women who did not answer the followup question were asked a second followup question that used the 1998 wording. In 2000 less than 1 percent of women in the sample answered "3 years ago" using the 1999 wording and they were coded as "within the past 3 years." Thus estimates for 2000 may be slightly overestimated in comparison with estimates for years prior to 1999.

Partial care organization—See *Mental health organization*.

Partial care treatment—See *Mental health service type*.

Patient—See *Ambulatory care; Home health care; Hospice care; Inpatient; Office visit; Outpatient visit*.

Percent change—See *Average annual rate of change*.

Perinatal mortality rate; ratio—See *Rate: Death and related rates*.

Personal care homes with or without nursing—See *Nursing home*.

Personal health care expenditures—See *Health expenditures, national*.

Physician—Data on physician characteristics are obtained through physician self-report for the American Medical Association's Physician Masterfile. The AMA tabulates data only for doctors of medicine (MDs), but some tables in *Health, United States* include data for both MDs and doctors of osteopathy (DOs).

> *Active (or professionally active) physicians* are currently engaged in patient care or other professional activity for a minimum of 20 hours per week. Other professional activity includes administration, medical teaching, research, and other activities, such as employment with insurance carriers, pharmaceutical companies, corporations, voluntary organizations, medical societies, and the like. Physicians who are retired, semi-retired, working part-time, or not practicing are classified as inactive and are excluded. Also excluded are physicians with address unknown and physicians who did not provide information on type of practice or present employment (not classified).
>
> *Federal physicians* are those employed full time by the Federal Government, including the Army, Navy, Air Force, Veterans' Administration, Public Health Service, and other federally-funded agencies. The majority of U.S. physicians are employed outside the Federal Government (97.4 percent).
>
> *Hospital-based physicians* are employed under contract with hospitals to provide direct patient care and include physicians in residency training (including clinical fellows) and full-time members of the hospital staff.
>
> *Office-based physicians* are engaged in seeing patients in solo practice, group practice, two-physician practice, other patient care employment, or inpatient services such as those provided by pathologists and radiologists.

Data for physicians are presented by type of education (doctors of medicine and doctors of osteopathy); place of education (U.S. medical graduates and international medical graduates); activity status (professionally active and inactive); employment setting (Federal and non-Federal); area of specialty; and geographic area. See related *Office; Physician specialty*.

Physician specialty—A physician specialty is any specific branch of medicine in which a physician may concentrate. Data are based on physician self-reports of their primary area of specialty. Physician data are broadly categorized into two areas of practice: generalists and specialists.

> *Primary care generalists* practice in the general fields of family and general practice, general internal medicine, and general pediatrics. They specifically exclude primary care specialists.
>
> *Primary care specialists* practice in the subspecialties of general and family practice, internal medicine, and pediatrics. Family practice subspecialties include geriatric medicine and sports medicine. Internal medicine subspecialties include diabetes, endocrinology and metabolism, hematology, hepatology, cardiac electrophysiology, infectious diseases, diagnostic laboratory immunology, geriatric medicine, sports medicine, nephrology, nutrition, medical oncology, and rheumatology. Pediatric subspecialties include adolescent medicine, critical care pediatrics, neonatal-perinatal medicine, pediatric allergy, pediatric cardiology, pediatric endocrinology, pediatric pulmonology, pediatric emergency medicine, pediatric gastroenterology, pediatric hematology/oncology, diagnostic laboratory immunology, pediatric nephrology, pediatric rheumatology, and sports medicine.
>
> *Specialist physicians* practice in the primary care specialties, in addition to all other specialist fields not included in the generalist definition. Specialist fields include allergy and immunology, aerospace medicine, anesthesiology, cardiovascular diseases, child and adolescent psychiatry, colon and rectal surgery, dermatology, diagnostic radiology, forensic pathology, gastroenterology, general surgery, medical genetics, neurology, nuclear medicine, neurological surgery, obstetrics and gynecology, occupational medicine, ophthalmology, orthopedic surgery, otolaryngology, psychiatry, public health and general preventive medicine, physical medicine and rehabilitation, plastic

surgery, anatomic and clinical pathology, pulmonary diseases, radiation oncology, thoracic surgery, urology, addiction medicine, critical care medicine, legal medicine, and clinical pharmacology.

See related *Physician*.

Point-of-service (POS) plan—A health plan that allows members to choose to receive services from a participating or non-participating network provider, usually with a financial disincentive for going outside the network. More of a product than an organization, POS plans can be offered by HMOs, PPOs, or self-insured employers. See related *Health maintenance organization; Managed care; Preferred provider organization*.

Population—The U.S. Bureau of the Census collects and publishes data on populations in the United States according to several different definitions. Various statistical systems then use the appropriate population for calculating rates. See also *Appendix I, Population Census and Population Estimates*.

Total population is the population of the United States, including all members of the Armed Forces living in foreign countries, Puerto Rico, Guam, and the U.S. Virgin Islands. Other Americans abroad (for example, civilian Federal employees and dependents of members of the Armed Forces or other Federal employees) are not included.

Resident population includes persons whose usual place of residence (that is, the place where one usually lives and sleeps) is in one of the 50 States or the District of Columbia. It includes members of the Armed Forces stationed in the United States and their families. It excludes international military, naval, and diplomatic personnel and their families located in this country and residing in embassies or similar quarters. Also excluded are international workers and international students in this country and Americans living abroad. The resident population is the denominator for calculating birth and death rates and incidence of disease.

Civilian population is the resident population excluding members of the Armed Forces. However, families of members of the Armed Forces are included. This population is the denominator in rates calculated for the National Hospital Discharge Survey, the National Home and Hospice Care Survey, the National Nursing Home Survey, and the National Survey of Ambulatory Surgery.

Civilian noninstitutionalized population is the civilian population not residing in institutions such as correctional institutions, detention homes, and training schools for juvenile delinquents; homes for aged and dependent persons (for example, nursing homes and convalescent homes); homes for dependent and neglected children; homes and schools for mentally or physically handicapped persons; homes for unwed mothers; psychiatric, tuberculosis, and chronic disease hospitals; and residential treatment centers. Census Bureau estimates of the civilian noninstitutionalized population are used to calculate sample weights for the National Health Interview Survey, National Health and Nutrition Examination Survey, and National Survey of Family Growth, and as denominators in rates calculated for the National Ambulatory Medical Care Survey and the National Hospital Ambulatory Medical Care Survey.

Introduction of census 2000 population estimates—Health United States, 2003 marks the transition to the use of year 2000 resident population estimates based on the 2000 census for calculation of rates. Previously 1991–2000 rates were based on post-1990 population estimates. Birth rates and death rates for 1991–99 were revised using intercensal population estimates based on the 2000 census. Rates for 2000 were revised using census 2000 counts. Data systems and surveys that use civilian and civilian noninstitutionalized population estimates as denominators for computation of rates for the period 1991–99 may be updated in future Health, U.S. reports, but have not been updated in the 2003 report. See *Appendix I, Population Census and Population Estimates*.

Postneonatal mortality rate—See *Rate: Death and related rates*.

Poverty level—Poverty statistics are based on definitions originally developed by the Social Security Administration. These include a set of money income thresholds that vary by family size and composition. Families or individuals with income below their appropriate thresholds are classified as below the poverty level. These thresholds are updated annually by the U.S. Bureau of the Census to reflect changes in the Consumer Price Index for all urban consumers (CPI-U). For example, the average poverty threshold for a family of four was $17,603 in 2000 and $13,359 in 1990. For more information, see U.S. Bureau of the Census: *Consumer Income and Poverty 2001.* Series P-60. Washington, DC: U.S. Government Printing Office. Also see www.census.gov/hhes/www/poverty.html.

> *National Health Interview Survey*—Poverty level, for years prior to 1997, was based on family income and family size using Bureau of the Census poverty thresholds. Beginning in 1997 poverty status is based on family income, family size, number of children in the family, and for families with two or fewer adults, the age of the adults in the family. See related *Consumer Price Index; Family income; Appendix I, Current Population Survey; National Health Interview Survey*.

Preferred provider organization (PPO)—A PPO is a type of medical plan where coverage is provided to participants through a network of selected health care providers (such as hospitals and physicians). The enrollees may go outside the network, but they would pay a greater percentage of the cost of coverage than within the network. See related *Health maintenance organization; Managed care; Point-of-service plan*.

Prenatal Care—Information on when pregnancy care began is recorded on the birth certificate. Between 1970 and 1980 the reporting area for prenatal care expanded. In 1970, 39 States and the District of Columbia reported prenatal care on the birth certificate. Data were not available from Alabama, Alaska, Arkansas, Connecticut, Delaware, Georgia, Idaho, Massachusetts, New Mexico, Pennsylvania, and Virginia. In 1975 these data were available from three additional States, Connecticut, Delaware, and Georgia, increasing the number of States reporting prenatal care to 42 and the District of Columbia. Starting in 1980 prenatal care information was available for the entire United States.

Prevalence—Prevalence is the number of cases of a disease, infected persons, or persons with some other attribute present during a particular interval of time. It is often expressed as a rate (for example, the prevalence of diabetes per 1,000 persons during a year). See related *Incidence*.

Primary admission diagnosis—In the National Home and Hospice Care Survey the primary admission diagnosis is the first-listed diagnosis at admission on the patient's medical record as provided by the agency staff member most familiar with the care provided to the patient.

Primary care specialties—See *Physician specialty*.

Private expenditures—See *Health expenditures, national*.

Procedure—The National Hospital Discharge Survey (NHDS) and the National Survey of Ambulatory Surgery (NSAS) define a procedure as a surgical or nonsurgical operation, diagnostic procedure, or therapeutic procedure (such as respiratory therapy) recorded on the medical record of discharged patients. A maximum of four procedures per discharge is recorded in NHDS and up to six procedures per discharge in NSAS. Procedures are coded according to the *International Classification of Diseases, Ninth Revision, Clinical Modification* (see table X). In *Health, United States, 1998* and earlier editions, procedures were categorized as surgical operations and diagnostic and other nonsurgical procedures. The distinction between surgical and diagnostic procedures has become less meaningful due to development of noninvasive and minimally invasive surgery. Thus the practice of classifying procedures as surgical or diagnostic has been discontinued. See related *Ambulatory surgery; Outpatient surgery*.

Proprietary hospitals—See *Hospital*.

Psychiatric hospitals—See *Hospital; Mental health organization*.

Public expenditures—See *Health expenditures, national*.

Public health activities—Public health activities may include any of the following essential services of public health—surveillance, investigations, education, community mobilization, workforce training, research, and personal care services delivered or funded by governmental agencies.

Race—In 1977 the Office of Management and Budget (OMB) issued Race and Ethnicity Standards for Federal Statistics and Administrative Reporting in order to promote comparability of data among Federal data systems. The 1977 Standards called for the Federal Government's data systems to classify individuals into the following four racial groups: American Indian or Alaska Native, Asian or Pacific Islander, black, and white. Depending on the data source, the classification by race was based on self-classification or on observation by an interviewer or other person filling out the questionnaire.

In 1997 new standards were announced for classification of individuals by race within the Federal Government's data systems (*Federal Register*, 62FR58781–58790). The 1997 Standards have five racial groups: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White. These five categories are the minimum set for data on race in Federal statistics. The 1997 Standards also offer an opportunity for respondents to select more than one of the five groups, leading to many possible multiple race categories. As with the single race groups, data for the multiple race groups are to be reported when estimates meet agency requirements for reliability and confidentiality. The 1997 Standards allow for observer or proxy identification of race but clearly state a preference for self-classification. The Federal Government considers race and Hispanic origin to be two separate and distinct concepts. Thus Hispanics may be of any race. Federal data systems are required to comply with the 1997 Standards by 2003.

National Health Interview Survey (NHIS)—Starting with *Health, United States, 2002* and data year 1999, race-specific estimates based on the NHIS are tabulated using the 1997 Standards and are not strictly comparable with estimates for earlier years. The 1997 Standards specify five single race categories plus multiple race categories. Estimates for specific race groups are shown when they meet requirements for statistical reliability and confidentiality. The race categories "White only," "Black or African American only," "American Indian and Alaska Native only," "Asian only," and "Native Hawaiian and Other Pacific Islander only" include persons who reported only one racial group; the category "2 or more races" includes persons who reported more than one of the five racial groups in the 1997 Standards or one of the five racial groups and "Some other race." Prior to data year 1999, data were tabulated according to the 1977 Standards with four racial groups and the category "Asian only" included Native Hawaiian and Other Pacific Islander. Estimates for single race categories prior to 1999 included persons who reported one race or, if they reported more than one race, identified one race as best representing their race. Differences between estimates tabulated using the two Standards for data year 1999 are discussed in the footnotes for each NHIS table.

Tables XI and XII illustrate NHIS data tabulated by race and Hispanic origin according to the 1997 and 1977 Standards for two health statistics (cigarette smoking and private health insurance coverage). In these illustrations, three separate tabulations using the 1997 Standards are shown: (1) Race: mutually exclusive race groups, including several multiple race combinations; (2) Race, any mention: race groups that are not mutually exclusive because each race category includes all persons who mention that race; and (3) Hispanic origin and race: detailed race and Hispanic origin with a multiple race total category. Where applicable, comparison tabulations by race and Hispanic origin are shown based on the 1977 Standards. Because there are more race groups with the 1997 Standards, the sample size of each race group under the 1997 Standards is slightly smaller than the sample size under the 1977 Standards. Only those few multiple race groups with sufficient numbers of observations to meet standards of statistical reliability are shown. Tables XI and XII also illustrate changes in labels and group categories in the 1997 Standards. The race designation of Black was changed to Black or African American and the ethnicity designation of Hispanic was changed to Hispanic or Latino.

Data systems included in *Health, United States,* other than the National Health Interview Survey (NHIS), the National Health and Examination Survey (NHANES), and the National Household Survey of Drug Abuse (NHSDA), generally do not permit tabulation of estimates for the detailed race and ethnicity categories shown in tables XI and XII, either because race data based on the 1997 standard categories are not yet available, or because there are insufficient numbers of observations to meet statistical reliability or confidentiality requirements.

National Health and Nutrition Examination Survey (NHANES)—Starting with *Health, United States, 2003* race-specific estimates based on NHANES are tabulated using the 1997 Standards for data years 1999 and beyond. Prior to data year 1999, the 1977 Standards were used. Because of the differences between the two Standards, the race-specific estimates shown in trend tables based on the NHANES for 1999–2000 are not strictly comparable with estimates for earlier years. Each trend table based on the NHANES includes a footnote that discusses differences between estimates tabulated using the two Standards for survey years 1999–2000.

The NHANES sample was designed to provide estimates specifically for persons of Mexican origin and not for all Hispanic-origin persons in the United States. Persons of Hispanic-origin other than Mexicans were entered into the sample with different selection probabilities that are not nationally representative of the total U.S. Hispanic population. Estimates are shown for non-Hispanic white, non-Hispanic black, and Mexican. Although data were collected according to the 1997 Standards, there are insufficient numbers of observations to meet statistical reliability or confidentiality requirements for reporting estimates for additional race categories.

National Household Survey of Drug Abuse (NHSDA)—Race-specific estimates based on NHSDA are tabulated using the 1997 Standards. Estimates in the NHSDA trend table begin with the data year 1999. Estimates for specific race groups are shown when they meet requirements for statistical reliability and confidentiality. The race categories "White only," "Black or African American only," "American Indian and Alaska Native only," "Asian only," and "Native Hawaiian and Other Pacific Islander only" include persons who reported only one racial group; and the category "2 or more races" includes persons who reported more than one of the five racial groups in the 1997 Standards or one of the five racial groups and "Some other race."

National Vital Statistics System—Most of the States in the Vital Statistics Cooperative Program are still revising their birth and death records to conform to the 1997 standards on race and ethnicity. During the transition to full implementation of the 1997 standards, vital statistics data will continue to be presented for the four major race groups, white, black or African American, American Indian or Alaska Native, and Asian or Pacific Islander, in accordance with 1977 standards.

Birth File—Information about the race and Hispanic ethnicity of the mother and father are provided by the mother at the time of birth and recorded on the birth certificate and fetal death record. Since 1980, birth rates, birth characteristics, and fetal death rates for live born infants and fetal deaths are presented in this report according to race of mother. Before 1980 data were tabulated by race of newborn and fetus, taking into account the race of both parents. If the parents were of different races and one parent was white, the child was classified according to the race of the other parent. When neither parent was white, the child was classified according to father's race, with one exception: if either parent was Hawaiian, the child was classified Hawaiian. Before 1964, if race was unknown, the birth was classified as white. Beginning in 1964 unknown race was classified according to information on the previous record.

Mortality File—Information about the race and Hispanic ethnicity of the decedent is reported by the funeral director as provided by an informant, often the surviving next of kin, or, in the absence of an informant, on the basis of observation. Death rates by race and Hispanic origin are based on information from death certificates (numerators of the rates) and on population estimates from the Census Bureau (denominators). Race and ethnicity information from the census is by self-report. To the extent that race and Hispanic origin are inconsistent between these two data sources, death rates will be biased. Studies have shown that persons self-reported as American Indian, Asian, or Hispanic on census and survey records may sometimes be reported as white or non-Hispanic on the death certificate, resulting in an underestimation of deaths and death rates for the American Indian, Asian, and Hispanic groups. Bias also results from undercounts of some population groups in the census, particularly young black and young white males and elderly persons, resulting in an overestimation of death rates. The net effects of misclassification and undercoverage result in overstated death rates for the white population and black population estimated to be 1 percent and 5 percent, respectively; and understated death rates for other population groups estimated as follows: American Indians, 21 percent; Asian or Pacific Islanders, 11 percent; and Hispanics, 2 percent. For more information, see Rosenberg HM, Maurer JD, Sorlie PD, Johnson NJ, et al. Quality of death rates by race and Hispanic origin: A summary of current research, 1999. National Center for Health Statistics. Vital Health Stat 2(128). 1999.

Denominators for infant and maternal mortality rates are based on number of live births rather than population estimates. Race information for the denominator is supplied from the birth certificate. Before 1980, child's race took into account the races of both parents. Starting in 1980, race was based solely on race of mother. Race information for the numerator is the race of the deceased child or mother, as recorded on the death certificate.

Vital event rates for the American Indian or Alaska Native population shown in this book are based on the total U.S. resident population of American Indians and Alaska Natives, as enumerated by the U.S. Bureau of Census. In contrast the Indian Health Service calculates vital event rates for this population based on U.S. Bureau of Census county data for American Indians and Alaska Natives who reside on or near reservations. Interpretation of trends for the American Indian and Alaska Native population should take into account that population estimates for these groups increased by 45 percent between 1980 and 1990, partly due to better enumeration techniques in the 1990 decennial census and to the increased tendency for people to identify themselves as American Indian in 1990.

Interpretation of trends for the Asian population in the United States should take into account that this population more than doubled between 1980 and 1990, primarily due to immigration.

For more information on coding race using vital statistics, see: National Center for Health Statistics, Technical Appendix, *Vital Statistics of the United States*, Vol. I, Natality, and Vol. II, Mortality, Part A available on the NCHS home page at www.cdc.gov/nchs/nvss.htm. See related *Hispanic origin; Appendix I, Population Census and Population Estimates*.

Rate—A rate is a measure of some event, disease, or condition in relation to a unit of population, along with some specification of time. See related *Age adjustment; Population*.

- *Birth and related rates*

Birth rate is calculated by dividing the number of live births in a population in a year by the midyear resident population. For census years, rates are based on unrounded census counts of the resident population, as of April 1. For the noncensus years 1981–89, rates were based on national estimates of the resident population, as of July 1, rounded to 1,000s. Rounded population estimates for 5-year age groups were calculated by summing unrounded population estimates before rounding to 1,000s. Starting in 1991 rates were based on unrounded national population estimates. Beginning in 1997 the birth rate for the maternal age group 45–49 years includes data for mother's age 50–54 years in the numerator and is based on the population of women 45–49 years in the denominator. Birth rates are expressed as the number of live births per 1,000 population. The rate may be restricted to births to women of specific age, race, marital status, or geographic location (specific rate), or it may be related to the entire population (crude rate). See related *Cohort fertility; Live birth*.

Fertility rate is the total number of live births, regardless of age of mother, per 1,000 women of reproductive age, 15–44 years.

- *Death and related rates*

Death rate is calculated by dividing the number of deaths in a population in a year by the midyear resident population. For census years, rates are based on unrounded census counts of the resident population, as of April 1. For the noncensus years 1981–89, rates were based on national estimates of the resident population, as of July 1, rounded to 1,000s. Rounded population estimates for 10-year age groups were calculated by summing unrounded population estimates before rounding to 1,000s. Starting in 1991 rates were based on unrounded national population estimates. Rates for the Hispanic and non-Hispanic white populations in each year are based on unrounded State population estimates for States in the Hispanic reporting area. Death rates are expressed as the number of deaths per 100,000 population. The rate may be restricted to deaths in specific age, race, sex, or geographic groups or from specific causes of death (specific rate) or it may be related to the entire population (crude rate).

Fetal death rate is the number of fetal deaths with stated or presumed gestation of 20 weeks or more divided by the sum of live births plus fetal deaths, per 1,000 live births plus fetal deaths. *Late fetal death rate* is the number of fetal deaths with stated or presumed gestation of 28 weeks or more divided by the sum of live births plus late fetal deaths, per 1,000 live births plus late fetal deaths. See related *Fetal death; Gestation*.

Infant mortality rate based on period files is calculated by dividing the number of infant deaths during a calendar year by the number of live births reported in the same year. It is expressed as the number of infant deaths per 1,000 live births. *Neonatal mortality rate* is the number of deaths of children under 28 days of age, per 1,000 live births. *Postneonatal mortality rate* is the number of deaths of children that occur between 28 days and 365 days after birth, per 1,000 live births. See related *Infant death*.

Birth cohort infant mortality rates are based on linked birth and infant death files. In contrast to period rates in which the births and infant deaths occur in the same period or calendar year, infant deaths constituting the numerator of a birth cohort rate may have occurred in the same year as, or in the year following, the year of birth. The birth cohort infant mortality rate is expressed as the number of infant deaths per 1,000 live births. See related *Birth cohort*.

Perinatal relates to the period surrounding the birth event. Rates and ratios are based on events reported in a calendar year. *Perinatal mortality rate* is the sum of late fetal deaths plus infant deaths within 7 days of birth divided by the sum of live births plus late fetal deaths, per 1,000 live births plus late fetal deaths. *Perinatal mortality ratio* is the sum of late fetal deaths plus infant deaths within 7 days of birth divided by the number of live births, per 1,000 live births.

Maternal mortality rate is defined as the number of maternal deaths per 100,000 live births. The maternal mortality rate is a measure of the likelihood that a pregnant woman will die from maternal causes. The number of live births used in the denominator is a proxy for the population of pregnant women who are at risk of a maternal death. See related *Maternal death*.

Region—See *Geographic region and division*.

Registered hospitals—See *Hospital*.

Registered nursing education—Registered nursing data are shown by level of educational preparation. Baccalaureate education requires at least 4 years of college or university; associate degree programs are based in community colleges and are usually 2 years in length; and diploma programs are based in hospitals and are usually 3 years in length.

Registration area—The United States has separate registration areas for birth, death, marriage, and divorce statistics. In general, registration areas correspond to States and include two separate registration areas for the District of Columbia and New York City. All States have adopted laws that require registration of births and deaths and reporting of fetal deaths. It is believed that more than 99 percent of births and deaths occurring in this country are registered.

The *death registration area* was established in 1900 with 10 States and the District of Columbia, and the *birth registration area* was established in 1915, also with 10 States and the District of Columbia. Beginning with 1933, all States were included in the birth and death registration areas. The specific States added year by year are shown in “History and Organization of the Vital Statistics System,” reprinted from *Vital Statistics of the United States Vol I, 1950*, chapter 1, National Center for Health Statistics, 1978. Currently, Puerto Rico, U.S. Virgin Islands, and Guam each constitutes a separate registration area, although their data are not included in statistical tabulations of U.S. resident data. See related *Reporting area*.

Relative standard error—The relative standard error (RSE) is a measure of an estimate’s reliability. The RSE of an estimate is obtained by dividing the standard error of the estimate ($SE(r)$) by the estimate itself (r). This quantity is expressed as a percent of the estimate and is calculated as follows: RSE=100 x ($SE(r)/r$). Estimates with large RSEs are considered unreliable. In *Health, United States* most statistics with large RSEs are preceded by an asterisk or not presented.

Relative survival rate—The relative survival rate is the ratio of the observed survival rate for the patient group to the expected survival rate for persons in the general population similar to the patient group with respect to age, sex, race, and calendar year of observation. The 5-year relative survival rate is used to estimate the proportion of cancer patients potentially curable. Because over one-half of all cancers occur in persons 65 years of age and over, many of these individuals die of other causes with no evidence of recurrence of their cancer. Thus, because it is obtained by adjusting observed survival for the normal life expectancy of the general population of the same age, the relative survival rate is an estimate of the chance of surviving the effects of cancer.

Reporting area—In the National Vital Statistics System, the reporting area for such basic items on the birth and death certificates as age, race, and sex, is based on data from residents of all 50 States in the United States and the District of Columbia (DC). The reporting area for selected items such as Hispanic origin, educational attainment, and marital status, is based on data from those States that require the item to be reported, whose data meet a minimum level of completeness (such as 80 or 90 percent), and are considered to be sufficiently comparable to be used for analysis. In 1993–96 the reporting area for Hispanic origin of decedent on the death certificate included 49 States and DC. Starting in 1997 the Hispanic reporting area includes all 50 States and DC. See related *Registration area; Appendix I, National Vital Statistics System*.

Resident—In the Online Survey Certification and Reporting database, all residents in certified facilities are counted on the day of certification inspection. In the National Nursing Home Survey, a resident is a person on the roster of the nursing home as of the night before the survey. Included are all residents for whom beds are maintained even though they may be on overnight leave or in a hospital. See related *Nursing home*.

Resident population—See *Population*.

Residential treatment care—See *Mental health service type*.

Residential treatment centers for emotionally disturbed children—See *Mental health organization*.

Rural—See *Urbanization*.

Self-assessment of health—See *Health status, respondent-assessed*.

Short-stay hospital—See *Hospital*.

Skilled nursing facility—See *Nursing home*.

Smoker—See *Cigarette smoking; Tobacco use*.

Specialty hospital—See *Hospital*.

State health agency—The agency or department within State government headed by the State or territorial health official. Generally, the State health agency is responsible for setting statewide public health priorities, carrying out national and State mandates, responding to public health hazards, and assuring access to health care for underserved State residents.

State Children’s Health Insurance Program (SCHIP)—Title XXI of the Social Security Act, known as the State Children’s Health Insurance Program (SCHIP), is a program initiated by the Balanced Budget Act of 1997 (BBA). In addition to allowing States to craft or expand an existing State insurance program, SCHIP provides more Federal funds for States to expand Medicaid eligibility to include a greater number of children who are currently uninsured. With certain exceptions, these are low-income children who would not qualify for Medicaid based on the plan that was in effect on April 15, 1997. Funds from SCHIP also may be used to provide medical assistance to children during a presumptive eligibility period for Medicaid. This is one of several options from which States may select to provide health care coverage for more children, as prescribed within the BBA's Title XXI program. See related *Health insurance coverage; Medicaid*.

Substance use—refers to the use of selected substances including alcohol, tobacco products, drugs, inhalants, and other substances that can be consumed, inhaled, injected, or otherwise absorbed into the body with possible detrimental effects.

> *The Monitoring the Future Study (MTF)*—The MTF collects information on use of selected substances using self-completed questionnaires to a school-based survey of secondary school students. MTF has tracked 12th graders' illicit drug use and attitudes towards drugs since 1975. In 1991, 8th and 10th graders were added to the study. The survey includes questions on abuse of substances including (but not limited to) marijuana, inhalants, illegal drugs, alcohol, cigarettes, and other tobacco products. A standard set of three questions is used to assess use of the substances in the past month. "Past month" refers to an individual's use of a substance at least once during the month preceding their response to the survey. See related *Appendix I, Monitoring the Future Study*.
>
> *National Household Survey of Drug Abuse (NHSDA)*—The NHSDA conducts in-person interviews of a sample of individuals 12 years of age and older at their place of residence. For illicit drug use, alcohol use, and tobacco use, information is collected about use in past month. For information on illicit drug use, respondents in the NHSDA are asked about use of marijuana/hashish, cocaine (including crack), inhalants, hallucinogens, heroin, and prescription-type drugs used nonmedically (pain relievers, tranquilizers, stimulants, and sedatives). A series of questions is asked about each substance: "Have you ever, even once, used [e.g., Ecstasy, also known as MDMA/substance]?" "Think specifically about the past 30 days, from [date] up to and including today. During the past 30 days, on how many days did you use [substance]?" Numerous probes and checks are included in the computer-assisted interview system. Nonprescription medications and legitimate uses under a doctor's supervision are not included in the survey. Summary measures such as "any illicit drug use" are produced. See related *Appendix I, National Household Survey of Drug Abuse*.

See related *Alcohol consumption; Cigarette smoking; Illicit drug use.*

Substance abuse treatment clients—In the Substance Abuse and Mental Health Services Administration's National Survey of Substance Abuse Treatment Services, substance abuse treatment clients have been admitted to treatment and have been seen on a scheduled appointment basis at least once in the month before the survey reference date or were inpatients on the survey reference date. Types of treatment include 24-hour detoxification, 24-hour rehabilitation or residential care, and outpatient care.

Suicidal ideation—Suicidal ideation is having thoughts of suicide or of taking action to end one's own life. Suicidal ideation includes all thoughts of suicide, both when the thoughts include a plan to commit suicide and when they do not include a plan. Suicidal ideation is measured in the Youth Risk Behavior Survey by the question "During the past 12 months, did you ever seriously consider attempting suicide?"

Surgical operation—See *Procedure*.

Surgical specialty—See *Physician specialty*.

Tobacco use—Information on tobacco use during pregnancy became available on birth certificates for the first time in 1989 with revision of the U.S. Standard Birth Certificate. In 1989, 43 States and the District of Columbia collected data on tobacco use. The following States did not require the reporting of tobacco use in the standard format on the birth certificate: California, Indiana, Louisiana, Nebraska, New York, Oklahoma, and South Dakota. In 1990 information on tobacco use became available from Louisiana and Nebraska, increasing the number of reporting States to 45 and the District of Columbia. In 1991–93, with the addition of Oklahoma to the reporting area, information on tobacco use was available for 46 States and the District of Columbia; in 1994–98, 46 States, the District of Columbia, and New York City reported tobacco use; in 1999 information on tobacco use became available from Indiana and New York, increasing the number of reporting States to 48 and the District of Columbia; and in 2000–01, with the addition of South Dakota, the reporting area included 49 States and the District of Columbia. During 1989–2001 California did not require the reporting of tobacco use in the standard format on the birth certificate. The areas reporting tobacco use comprised 87 percent of the U.S. births in 1999–2001. See related *Cigarette smoking*.

Uninsured—In the Current Population Survey (CPS) persons are considered uninsured if they do not have coverage through private health insurance, Medicare, Medicaid, State Children's Health Insurance Program, military or Veterans coverage, another government program, a plan of someone outside the household, or other insurance. In addition, if the respondent has missing Medicaid information but has income from certain low income public programs, then Medicaid coverage is imputed. The questions on health insurance are administered in March and refer to the previous calendar year.

In the National Health Interview Survey (NHIS), the uninsured are persons who do not have coverage under private health insurance, Medicare, Medicaid, public assistance, a State-sponsored health plan, other government-sponsored programs, or a military health plan. Persons with only Indian Health Service coverage are considered uninsured. Estimates of the percent of persons who are uninsured based on the NHIS (table 129) may differ slightly from those based on the March CPS (table 151) due to differences in survey questions, recall period, and other aspects of survey methodology. In 2001 in the NHIS, 1.3 percent of persons age 65 years and over had no health insurance but the small sample size precludes the presentation of separate estimates for this population. Therefore the term "uninsured" refers only to the population under age 65.

See related *Health insurance coverage; Appendix I, Current Population Survey*.

Urbanization—In this report death rates are presented according to the urbanization level of the decedent's county of residence. Counties and county equivalents were assigned to one of five urbanization levels based on their classification in the Urban Influence code system (December 1996 Revision) developed by the Economic Research Service, U.S. Department of Agriculture. There are three levels for metropolitan counties and two levels for nonmetropolitan counties. The categorization of counties as metropolitan or nonmetropolitan in the Urban Influence code system is based on the June 1993 OMB definition of metropolitan areas (the application of the 1990 metropolitan area standards to the 1990 decennial census data). Metropolitan areas include metropolitan statistical areas (MSAs), consolidated metropolitan statistical areas (CMSAs), and primary metropolitan statistical areas (PMSAs). See *Metropolitan statistical area* for definitions of metropolitan and nonmetropolitan counties.

The Urban Influence code system classifies metropolitan counties as either large metro (counties in MSA/PMSAs of 1 million or more population) or small metro (counties in MSA/PMSAs of less than 1 million population). For this report, the large metro category of the Urban Influence code system was divided into two urbanization levels: large central metro and large fringe metro. Thus, metropolitan counties were assigned to one of three metropolitan urbanization levels: (a) *large central*—counties in large (1 million or more population) MSA/PMSAs that contain all or part of the largest central city of the MSA/PMSA; (b) *large fringe*—counties in large (1 million or more population) MSA/PMSAs that do not contain any part of the largest central city of the MSA/PMSA (counties in a few PMSAs with less than 1 million population were assigned to the large fringe urbanization level because the PMSA in which they are located is adjacent to a large central county of the CMSA); and (c) *small*—counties in small (less than 1 million population) MSA/PMSAs.

The Urban Influence code system divides nonmetropolitan counties into seven categories based on adjacency to a metropolitan area and size of the largest city. A county is considered to have a city with a specified size if it includes all or part of the city. The seven categories were collapsed into two categories: (d) *nonmetro counties with a city of 10,000 or more population* and (e) *nonmetro counties without a city of 10,000 or more population*.

Usual source of care—Usual source of care was measured in the National Health Interview Survey (NHIS) in 1993 and 1994 by asking the respondent "Is there a particular person or place that ____ usually goes to when ____ is sick or needs advice about ___ health?" In the 1995 and 1996 NHIS, the respondent was asked “Is there one doctor, person, or place that ____ usually goes to when ____ is sick or needs advice about ____ health?” Starting in 1997 the respondent was asked “Is there a place that ____ usually goes when he/she is sick or you need advice about (his/her) health?” Persons who report the emergency department as their usual source of care are defined as having no usual source of care in this report.

Wages and salaries—See *Employer costs for employee compensation*.

Years of potential life lost—Years of potential life lost (YPLL) is a measure of premature mortality. Starting with *Health, United States, 1996–97*, YPLL is presented for persons under 75 years of age because the average life expectancy in the United States is over 75 years. YPLL-75 is calculated using the following eight age groups: under 1 year, 1–14 years, 15–24 years, 25–34 years, 35–44 years, 45–54 years, 55–64 years, 65–74 years. The number of deaths for each age group is multiplied by years of life lost, calculated as the difference between age 75 years and the midpoint of the age group. For the eight age groups, the midpoints are 0.5, 7.5, 19.5, 29.5, 39.5, 49.5, 59.5, and 69.5. For example, the death of a person 15–24 years of age counts as 55.5 years of life lost. Years of potential life lost is derived by summing years of life lost over all age groups. In *Health, United States, 1995* and earlier editions, YPLL was presented for persons under 65 years of age. For more information, see Centers for Disease Control. *MMWR*. Vol 35 no 25S, suppl. 1986.

Appendix III

Additional Data Years Available

For trend tables spanning long periods, only selected data years are shown to highlight major trends. Additional years of data are available for some of the tables in electronic spreadsheets available through the Internet and on CD-ROM.

To access the files on the Internet, go to the *Health, United States* Web site at www.cdc.gov/nchs/hus.htm and scroll down to "Spreadsheet files."

Downloadable spreadsheet files for trend tables, many of which include more data years than are shown in the printed report, are available in Excel. Spreadsheet files for selected trend tables with National Health Interview Survey data also include standard errors.

Spreadsheet files in Excel are also available on a CD-ROM. A limited supply of CD-ROMs are available from the National Center for Health Statistics upon request, while supplies last, or CD-ROMs may be purchased from the Government Printing Office.

Table number	Table topic	Additional data years available
1	Resident population	1981–89, 1991–99
2	Poverty	1986–89, 1991–93, 1996
3	Fertility rates and birth rates	1981–84, 1986–89, 1991–94
5	Live births	1971–74, 1976–79, 1981–84, 1986–89, 1991–94, 1996–98
6	Prenatal care	1981–84, 1986–89, 1991–94
8	Teenage childbearing	1981–84, 1986–89, 1991–94
9	Nonmarital childbearing	1981–84, 1986–89, 1991–94
10	Maternal education	1981–84, 1986–89, 1991–94
11	Maternal smoking	1991–94
12	Low birthweight	1981–84, 1986–89, 1991–94
13	Low birthweight	1991–94
16	Abortions	1981–84, 1986–89, 1991–93
19	Infant mortality rates	1984, 1986–89, 1991
20	Infant mortality rates	1984, 1985–89, 1991, 1996–97
21	Infant mortality rates	1984, 1986–88
22	Infant mortality rates	1981–84, 1986–89, 1991–94
27	Life expectancy	1975, 1981–84, 1986–89
29	Age-adjusted death rates for selected causes	1981–89, 1991–94, 1996
30	Years of potential life lost	1991–94, 1996–97; Crude 1999
35	Death rates for all causes	1981–89, 1991–94, 1996
36	Diseases of heart	1981–89, 1991–94, 1996–98
37	Cerebrovascular diseases	1981–89, 1991–94, 1996–98
38	Malignant neoplasms	1981–89, 1991–94, 1996–98
39	Malignant neoplasms of trachea, bronchus, and lung	1981–89, 1991–94, 1996–98
40	Malignant neoplasm of breast	1981–89, 1991–94, 1996–98
41	Chronic lower respiratory diseases	1981–89, 1991–94, 1996
42	Human immunodeficiency virus (HIV) disease	1988–89, 1991–94, 1996
43	Maternal mortality	1981–89, 1991–94, 1996
44	Motor vehicle–related injuries	1981–89, 1991–94, 1996–98
45	Homicide	1981–89, 1991–94, 1996–98
46	Suicide	1981–89, 1991–94, 1996–98
47	Firearm-related injuries	1981–89, 1991–94, 1996–98

48	Occupational diseases	1981–84, 1986–89, 1991–94, 1996
49	Occupational injury deaths	1983
50	Occupational injuries	1981–84, 1986–89, 1991–94, 1996
51	Leading Health Indicators	1991–94, 1996–97
52	Notifiable diseases	1985, 1988–89, 1991–94, 1996–97
59	Cigarette smoking	1987–88, 1991–94
60	Cigarette smoking	1987–88, 1991–94
61	Cigarette smoking	1993–95, 1994–97
63	Use of selected substances	1981–89, 1992–94, 1996–97
64	Cocaine-related emergency department episodes	1992–94
65	Alcohol consumption	1998–99
70	Health care visits	1998, 2000
73	No health care visits	1999–2000
74	No usual source of health care	1995–96 and 1999–2000
75	Emergency department visits	1998, 2000
76	No usual source of health care	1997–98
77	Emergency department visits	1998
78	Dental visits	1998, 2000
82	Ambulatory care visits	1997
83	Injury-related visits	1998–99
84	Ambulatory care visits	1997–99
89	Discharges	1998, 2000
90	Discharges	1991–96, 2000
91	Discharges	1988–89, 1991–94, 1996, 1998, 2000
92	Rates of discharges	1995–2000
93	Discharges	1995–99
94	Ambulatory and inpatient procedures	Total 1994–96; Inpatient 1997, 1999–2000
95	Hospital admissions	1985, 1991–94, 1996–98
96	Nursing home residents	1997
97	Nursing home residents	1997
98	Persons employed	1975, 1983–89, 1991–94, 1996
100	Physicians	1970, 1980, 1987, 1989, 1990, 1992–94, 1996
101	Primary care doctors of medicine	1994, 1996
103	Health professions schools	1998
106	Hospitals	1985, 1991–94, 1996–97
108	Community hospital beds	1985, 1988–89, 1995–99
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