Health, United States, 2007

With Chartbook on Trends in the Health of Americans

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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, 2007 is the 31st 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 the 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. Each report includes an executive summary, highlights, a chartbook, trend tables, extensive appendixes, and an index.

Chartbook

The *Chartbook on Trends in the Health of Americans* updates and expands information from previous chartbooks and introduces this year's special feature on access to care. The chartbook assesses the Nation's health by presenting trends and current information on selected determinants and measures of health status and utilization of health care. Many measures are shown separately for persons of different ages because of the strong effect of age on health. Selected figures also highlight differences in determinants and measures of health status and utilization of health care by such characteristics as sex, race, Hispanic origin, education, and poverty level.

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 present 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* website. 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 presented in the greatest detail possible after taking into account the quality of data, the amount of missing data, and the number of observations. Standards for classification of federal data on race and ethnicity are described in Appendix II, Race.

Education and Income Data

Many tables in *Health, United States* present data according to socioeconomic status, using education and family income as proxy measures. Education and income data are generally obtained directly from survey respondents and are not generally available from records-based data collection systems. State vital statistics systems currently report mother's education on the birth certificate and, based on an informant, decedent's education on the death certificate. See Appendix II, Education; Family income; and Poverty.

Disability Data

Disability is a complex concept and can include presence of physical or mental impairments that limit a person's ability to perform an important activity and affect the use of or need for accommodations or interventions required to improve functioning. Information on disability in the U.S. population is critical to health planning and policy. Although some information is currently available from federal data collection systems, the information is limited by lack of standard definitions and survey questions on disability. Several current initiatives are underway to coordinate and standardize measurement of disability across federal data systems. Until such standardized information is available, *Health, United States* includes the following disability-related information for the civilian noninstitutionalized population: prevalence of limitations of activity due to chronic conditions (Table 58), vision and hearing limitations for adults (Table 59), and limitations in Activities of Daily Living (ADL) and Instrumental Activities of Daily Living (IADL) for the population age 65 and over (Table 58). In addition, disability-related information is provided for Medicare enrollees (Table 143), Medicaid

recipients (Table 144), and veterans with service-connected disabilities (Table 146).

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 (1) adding new tables each year to reflect emerging topics in public health and (2) improving the content of ongoing tables. *Health, United States, 2007* includes five new trend tables on the following: estimates of the prevalence of selected health conditions (Table 69), based on data from the National Health and Nutrition Examination Survey; reduced access to medical care due to cost in selected states (Table 80), based on data from the National Health Interview Survey; international comparisons of magnetic resonance imaging (MRI) and computed tomography (CT) scanners (Table 119), based on data from the Organisation for Economic Co-operation and Development and the CT and MRI Census; and mental health and substance abuse treatment expenditures (Tables 126 and 127), based on data from the Substance Abuse and Mental Health Services Administration.

The *Health, United States, 2007* Chartbook section includes new charts on the foreign-born population (Figure 2), expenditures for mental health services and substance abuse treatment (Figures 7 and 8), blood cotinine levels among children (Figure 10), emergency department visits among adolescents for alcohol-related reasons (Figure 11), and restaurant meal consumption (Figure 12). The Special Feature includes 16 charts on access to care (Figures 21–36).

Appendixes

Appendix I describes each data source used in the report and provides references for further information about the sources. Data sources are listed alphabetically within two broad categories: (1) Government Sources and (2) 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, X, and XI); effects on health insurance rates of adding probe questions for Medicare and Medicaid coverage in the National Health Interview Survey (Table VIII); industry codes according to the 2002 North American Industry Classification System (Table IX); National Drug Code (NDC) Therapeutic Class recodes of generic analgesic drugs (Table XII); and sample tabulations of NHIS data comparing the 1977 and 1997 Standards for the Classification of Federal Data on Race and Ethnicity (Tables XIII and XIV).

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

Index

The Index to Trend Tables and Chartbook Figures is a useful tool for locating data by topic. Tables are cross-referenced by such topics as Child and adolescent health; Older population age 65 years and over; Women's health; Men's health; state data; American Indian, Asian, Black, and Hispanic origin populations; Education; Injury; Disability; and Metropolitan and nonmetropolitan data.

Electronic Access

Health, United States may be accessed in its entirety on the World Wide Web at www.cdc.gov/nchs/hus.htm. From the *Health, United States* website, 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, 2007, the chartbook, and each of the trend tables are available as Acrobat PDF files on the website. Chartbook figures are available as downloadable PowerPoint® slides. Trend tables and chartbook data tables are available as downloadable Excel spreadsheet files. Trend tables listed in Appendix III include additional years of data not shown in the printed report or PDF files. Both PDF and spreadsheet files for selected tables will be updated on the website if more current data become available near the time

when the printed report is released. Readers who register with 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* website.

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, 2007*, and the CD-ROM can be purchased from the Government Printing Office (GPO) through links to GPO on the National Center for Health Statistics website, Publications and Information Products page.

Questions?

For answers to questions about this report, contact:

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Contents

Executive Summary and Highlights

Chartbook on Trends in the Health of Americans

Trend Tables

Appendixes

List of Chartbook Figures

Population

Health Care Expenditures

Health Risk Factors

Morbidity and Limitation of Activity

Mortality

Special Feature: Access to Health Care

Summary List of Trend Tables by Topic

All Topics (Tables 1–151)

Population (Tables 1–3)

Resident population
Persons in poverty
and more . . .

Fertility and Natality (Tables 4–18)

Births
Low birthweight
Breastfeeding
and more . . .

Mortality (Tables 19–49)

Infant mortality
Life expectancy
Death rates, by cause
and more . . .

Determinants and Measures of Health (Tables 50–76)

Health status
Cigarette smoking
Alcohol consumption
High blood pressure
Overweight and obese
and more . . .

Ambulatory Care (Tables 77–97)

Visits: health care, dentists, emergency departments, and more . . .

Prevention: mammograms, pap smears, vaccinations

Inpatient Care (Tables 98–104)

Hospital stays and procedures
Nursing homes
and more . . .

Personnel (Tables 105–112)

Physicians
Dentists
Nurses
Health professions school enrollment
and more . . .

Facilities (Tables 113–119)

Hospitals
Nursing homes
and more . . .

National Health Expenditures (Tables 120–135)

Personal health expenditures
Out-of-pocket costs
Prescription drugs
Nursing home costs
and more . . .

Health Care Coverage and Major Federal Programs (Tables 136–146)

Insurance coverage:
Medicare
Medicaid
Private coverage
Uninsured
HMOs
and more . . .

State Health Expenditures and Health Insurance (Tables 147–151)

Medicare, Medicaid, HMO expenditures/enrollees
Uninsured persons
and more . . .

List of Trend Tables

Health Status and Determinants

Population

Fertility and Natality

Mortality

Determinants and Measures of Health

Utilization of Health Resources

Ambulatory Care

Inpatient Care

Health Care Resources

Personnel

Facilities

Health Care Expenditures and Payors

National Health Expenditures

Health Care Coverage and Major Federal Programs

State Health Expenditures and Health Insurance

Executive Summary and Highlights

Executive Summary

Health, United States, 2007, is the 31st annual report on the health status of the Nation prepared by the Secretary of the Department of Health and Human Services for the President and Congress. In a chartbook and 151 detailed tables, it provides an annual picture of the health of the entire Nation. Trends are presented on health status and health care utilization, resources, and expenditures. This year's report includes a focus on access to needed or recommended health care services.

For those entrusted with safeguarding the Nation's health, monitoring the health of the American people is an essential step in making sound health policy and setting research and program priorities. Health measures provide essential information for assessing how the Nation's resources should be directed to improve the population's health. Examination of emerging trends identifies diseases, conditions, and risk factors that warrant study and intervention. *Health, United States* presents trends and current information on measures and determinants of the Nation's health. It also identifies variation in health and health care among people by race and ethnicity, gender, education and income level, and geographic location. Given the increasing diversity of the Nation and the continuing changes in the health care infrastructure, this is a challenging and critically important task.

Overall Health of the Nation

Life expectancy in the United States continues to increase. In 2004, American men could expect to live more than 3 years longer, and women more than 1 year longer, than they did in 1990 (Figure 18 and Table 27). Mortality from heart disease, stroke, and cancer has continued to decline in recent years (Figure 20 and Table 29). Infant mortality, one major determinant of overall life expectancy, declined (Figure 19 and Table 22) through 2001 and has changed little since then.

Yet, even as progress is made in improving life expectancy, increased longevity is accompanied by increased prevalence of chronic conditions and their associated pain and disability. In recent years, progress in some areas has not been as rapid as in earlier years, or trends have been moving in the wrong direction. Moreover, improvements have not been equally distributed by income, race, ethnicity, education, and geography.

Of concern for all Americans is the high prevalence of people with unhealthy lifestyles and behaviors, such as insufficient exercise and overweight, which are risk factors for many chronic diseases and disabilities including heart disease, diabetes, hypertension, and back pain. The rising number of overweight children and adults and the large percentage of those who are physically inactive (Figures 12–13 and Tables 72–75) raise additional concerns about Americans' future health (1).

Prevalence of risky behaviors among children and young adults remains at unacceptable levels. About 20% of adolescents age 16–17 years, and more than 40% of young adults age 18–25 years, reported binge alcohol use in 2005, and 20% of young adults age 18–25 years reported using illicit drugs in the past month (Table 66). The percentage of high school students who seriously considered suicide has declined since 1991, but the percentage who attempted suicide has remained stable (7%–9%) (Table 62).

Health Status by Sociodemographic Characteristics

Efforts to improve Americans' health in the 21st century will be influenced by important changes in demographics. Ours is a nation growing older and becoming more racially and ethnically diverse. The percentage of the population 75 years of age and over was 6% in 2005 and is projected to increase to 12% by 2050 (Figure 1). With an aging population and longer life expectancy comes increasing total prevalence of chronic diseases and conditions associated with aging, such as disability and limitation of activity. In 2005, 44% of those age 75 years and over living in the community reported having a limitation in their usual activity due to a chronic condition, compared with 12% of people 45–54 years of age (Table 58). Many of the diseases associated with aging, including diabetes and hypertension, produce cumulative damage if not properly treated. Others, such as emphysema and some cancers, develop slowly or after long periods of environmental exposure. Almost 70% of men and more than 80% of women age 75 years and over had either high blood pressure or were taking antihypertension medication in 2001–2004, compared with about 35% of adults age 45–54 years (Table 70). The proportion of the population with high serum cholesterol rates has been dropping, in large part due to increased use of

cholesterol-lowering drugs (Table 71). In 2001–2004, 17% of adults had either diagnosed or undiagnosed high serum cholesterol, and older women (age 55 and over) were substantially more likely to have high cholesterol than older men (Table 71). Vision and hearing also decline with age (Table 59) and many types of pain, particularly those associated with the musculoskeletal system such as joint pain, are more common at older ages (Table 57).

Socioeconomic and cultural differences among racial and ethnic groups in the United States will likely also influence future patterns of disease, disability, and health care use. *Health, United States, 2007,* identifies major disparities in health and health care by socioeconomic status, race, ethnicity, and insurance status. In 2006, 15% of Americans were of Hispanic origin, 12% were African American, 4% were Asian, and about 1% were American Indian or Alaska Native or were of more than one race (Figure 3). Significant racial and ethnic disparities exist across a wide range of health measures. The gap in life expectancy between the black and white populations has narrowed, but persists (Figure 18 and Table 27). Disparities in risk factors and morbidity also exist. Obesity, a major risk factor for many chronic diseases, varies by race and ethnicity—51% of non-Hispanic black women age 20 years and over were obese in 2001–2004, compared with 39% of women of Mexican origin and 31% of non-Hispanic white women (Table 74, age-adjusted). The 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 limited resources, environmental exposures, discrimination, and access to health care, the focus of this year's Special Feature (2,3).

In 2004, the number of noncitizen foreign-born persons reached 21.1 million, representing 7.3% of the U.S. civilian noninstitutionalized population (Figure 2). Noncitizen foreign-born persons may be either legal or illegal U.S. residents. They are disproportionately low-income and uninsured (4,5). They are also more likely to face other barriers to accessing health care including ineligibility for many government-sponsored programs and difficulty in finding providers who speak their language and provide culturally-sensitive care (5).

Health Care Resources

Health care technologies, facilities, equipment, and provider specialties have changed over recent decades. Sophisticated imaging equipment is more available in the United States, compared with almost all other countries (Table 119). Until the mid-20th century, hospitals and primary care physicians were the major providers of health care, with few specialized facilities. There are now more physician subspecialties and specialized health care facilities including imaging centers, outpatient surgical centers, and dialysis centers (Tables 107, 118). More procedures are being furnished on an outpatient basis and the length of inpatient hospital stays has shortened (Tables 99, 103). The supply of assisted living facilities is increasing rapidly, whereas the number of nursing home beds has declined (Table 117) (6). The number of physicians per capita has been increasing, but they are not distributed equally across the Nation (Figures 22, 23, and Table 106). The supply of allied health professionals is shifting. The numbers of dental hygienists and dental assistants, pharmacy technicians, diagnostic medical sonographers, massage therapists, medical assistants, and medical equipment preparers have increased by 5% or more per year since 1999, whereas the numbers of respiratory therapy technicians and occupational therapist aides have declined by 5% or more per year (Table 109). Projections indicate that there may be an increasing shortage of nurses and pharmacists as well as other health professionals needed to care for our aging population (7,8).

Expenditures and Payors

The United States spends more on health per capita than any other country, and health spending continues to increase (Table 120). In 2005, national health care expenditures in the United States totaled $2 trillion, a 7% increase from 2004 (Table 121). Hospital spending, which accounts for 31% of national health expenditures (Table 124), increased by 8% in 2005 (Table 125). Spending for prescription drugs accounted for 10% of national health expenditures in 2005. This spending increased 6% in 2005, down from an average annual growth of 12% from 2000 to 2004 (Table 124).

Overall, private health insurance paid 36% of total personal health care expenditures in 2005, the federal government 34%, state and local governments 11%, and out-of-pocket payments 15% (Figure 6). Expenditures on mental health services and substance abuse treatment constituted 7.5% of national health expenditures in 2003 and have grown at a slower rate than that of overall health expenditures since 1993 despite an increase in the number of people treated (Figures 7, 8 and Tables 126, 127) (9). The distribution of funding sources for mental health services differs from that for substance abuse treatment, with Medicaid and private health insurance paying the largest shares of mental health expenditures, whereas other state and local government funds account for the largest share of substance abuse expenditures.

Access to Health Care and Utilization of Health Services

The health care delivery system is evolving, and with its evolution, the types of services that are available are changing. New technological advances can prevent, treat, or ameliorate conditions and diseases that were once thought untreatable. Yet, some Americans have difficulty accessing these services because they may be unavailable, difficult to obtain, or too expensive to purchase. In its 1993 report, Access to Health Care in America, the Institute of Medicine defined access as "the timely use of personal health services to achieve the best possible health outcomes" (3). Tracking which Americans do not receive the increasing number of potentially beneficial services or who do not receive them in a timely manner, and the reasons underlying suboptimal use of services, is essential to identifying solutions that can improve access to health care and improve the health of our population.

In 2005, more than 40 million adults (about 19%) did not receive "needed services" because they could not afford them (Figure 21). Nearly 15 million adults did not obtain eyeglasses, 25 million did not get dental care, 19 million did not get needed prescribed medicine, and 15 million did not get needed medical care due to cost. In 2004–2005, reported access problems varied among the 25 most populous states: 3%–9% of people in these states did not get needed medical care, 5%–11% delayed medical care, and 4%–14% did not get prescription drugs because they could not afford them (Table 80).

Health care resources are not distributed equally throughout the country (Figures 22, 23). Many rural areas experience a shortage of physicians and other providers (10). People living in rural areas, or areas without specific services, may have to travel long distances to obtain some health care services. They may experience long waiting times for appointments or be unable to obtain timely urgent or emergency care. Supply shortages of some health care services may affect all population groups, regardless of geography. For example, the supply of donated kidneys falls far short of the demand from people with end-stage renal disease (Figures 24, 25).

In addition to geographic distribution and supply of health care services, there are other obstacles to receiving needed health care. Lack of health insurance coverage has been well documented as a major barrier to receiving health care and has often been used as a proxy for overall access to health care (3). The percentage of the population under 65 years of age with no health insurance coverage fluctuated around 16%–17% between 1999 and 2005 (Figure 28 and Table 139). Uninsured people are substantially less likely to receive health care than their insured counterparts (Figures 33, 35, and Tables 81, 82, 87, 88, 98). Hispanic and American Indian or Alaska Native persons under 65 years are more likely to be uninsured than those in other racial and ethnic groups, and lower insurance rates in these populations is reflected in large part by lower utilization of most health care services (Tables 81, 82, 139). More than 60% of the uninsured population is age 18–44 years and almost one-half are non-Hispanic white persons. More than 40% of the uninsured population had a family income of at least 200% of the poverty level (Figure 30).

Poverty can also be a barrier to receiving health care, particularly for people without health insurance or for certain types of services where insurance coverage is less generous or less common, such as dental and mental health care. In 2005, about one-half of adults with any natural teeth in families with income below 200% of the poverty level did not have a recent dental visit, compared with less than one-quarter of adults with family income more than 400% of poverty (Figure 34).

The burden of out-of-pocket medical-related expenses is greatest for poor and uninsured people. In 2004, more than one-quarter of persons under 65 years of age living below the poverty level reported spending more than 10% of their disposable income on out-of-pocket medical care

costs and health insurance premiums (Figure 31). For families with income between 100%–400% of poverty, the out-of-pocket cost of health insurance premiums may impose a substantial burden relative to their income, even with employer subsidies for their workers' health insurance. Higher-income families with health insurance who have catastrophic illnesses also may devote a substantial portion of their income to medical care, health insurance premiums, or both (11). Those lacking insurance through the workplace face individual insurance policy premiums that can cost substantially more than employer-sponsored plans—particularly for people with pre-existing conditions (12).

For both uninsured and insured populations, there may be nonfinancial barriers to health care. These barriers include, but are not limited to, transportation problems, lack of knowledge of where to obtain care or when to seek care, communication difficulties with the provider due to language or cultural barriers, and covert or overt discrimination. In 2004–2005, about 6% of adults living in poverty reported delaying needed medical care because they did not have transportation (Figure 27). Data from 2004–2005 also show that about 11% of adults 45–64 years of age—a time in life when chronic illnesses become more common—did not have a usual source of health care, and about 5%–6% of adults 45–64 years of age with hypertension, serious heart disease, or diabetes did not report a usual source of care (Figure 26 and Table 78).

The relationship between insurance coverage, low-income, and other barriers to access is complex because people who cannot pay for uncovered services may try to limit their health care utilization (13). It is possible that because access to needed health care is in part a function of the perception of need, people with less contact with physicians and other health care providers may not be aware of their undiagnosed conditions or recommended screening and preventive services. However, uninsured people are not significantly less likely than insured people to have undiagnosed elevated blood pressure and high cholesterol (Figure 32).

Differences in utilization among socioeconomic groups also may indicate access issues. Educational or cultural barriers to care may prevent people from knowing when to seek care, or prevent them from seeking or receiving care. If one racial, ethnic, or other population has a lower use rate even among insured members of the group, it could be that other barriers to access including availability, overt or covert discrimination, care-seeking behaviors, or barriers that are difficult to measure, may be obstacles to care. For example, colorectal screening is recommended for all adults age 50 and over, yet rates of scope procedures remain lower for insured black and Hispanic adults than for insured non-Hispanic white adults (Figure 35). Recent use of mammography remains lower for Asian women than for non-Hispanic black or white women, although differences in recent use of these tests between non-Hispanic black and white women have disappeared over time (Table 87). These screening differences may be explained by the propensity to seek care or comply with treatment recommendations. They also may be due in part to barriers in accessing these services, such as the inability to communicate with the provider due to language or cultural barriers or the lack of effective education of these populations about the importance of the procedures. Although differences in use of mammography and colorectal scope procedures may not necessarily indicate a barrier to health care access, highlighting these differences may spur more in-depth investigations that determine the source of these differences. If barriers to receiving these services are uncovered, programs or solutions to eliminate these barriers may be developed.

To improve the health of all Americans and enable policymakers to chart future trends, target resources most effectively, and set program priorities, it is critical that the Nation keep collecting and disseminating reliable and accurate information about all components of health, including current health status, the determinants of health, resources, and outcomes. Equally important is documenting trends in access to and utilization of health care services that improve the health of our population. The trends may identify barriers in access to needed or recommended services. The following highlights from *Health, United States, 2007 With Chartbook on Trends in the Health of Americans* summarize the latest findings gathered from the public and private health care sectors to help the Department of Health and Human Services, the President, and the Congress in carrying out their mission of monitoring and improving the health of the Nation.

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Highlights

Health, United States, 2007, is the 31st report on the health status of the Nation. In a chartbook and 151 trend tables, it presents current and historic information on the health of the U.S. population. The trend tables are organized around four major subject areas: health status and determinants, health care utilization, health care resources, and health care expenditures and payors. The 2007 Chartbook on Trends in the Health of Americans focuses on selected determinants and measures of health and includes a special feature on access to health care .

Life Expectancy and Mortality

Life expectancy and infant mortality rates are often used to gauge the overall health of a population. Life expectancy shows a long-term upward trend and infant mortality shows a long-term downward trend. As overall death rates have declined, racial and ethnic disparities in mortality have persisted, but the gap in life expectancy between the black and white populations has narrowed.

In 2004, **life expectancy** at birth for the total population reached a record high of 77.8 years, up from 75.4 years in 1990 (Table 27).

Between 1990 and 2004, **life expectancy at birth** increased 3.4 years for **males** and 1.6 years for **females**. The gap in life expectancy between males and females narrowed from 7.0 years in 1990 to 5.2 years in 2004 (Table 27).

Between 1990 and 2004, **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 for the white population was 7.0 years longer than for the black population. By 2004, the difference had narrowed to 5.2 years (Figure 18 and Table 27).

Overall mortality was 31% higher for **black Americans** than for white Americans in 2004 compared with 37% higher in 1990. In 2004, age-adjusted death rates for the black population exceeded those for the white population by 46% for **stroke** (cerebrovascular disease), 32% for **heart disease**, 23% for **cancer** (malignant neoplasms), and 787% for **HIV disease** (Table 29).

In 2004, the **infant mortality** rate decreased to 6.8 infant deaths per 1,000 live births (Figure 19 and Table 22).

Large disparities in **infant mortality** rates among **racial and ethnic groups** continue to exist. In 2004, infant mortality rates were highest for infants of non-Hispanic black mothers (13.6 deaths per 1,000 live births), American Indian mothers (8.4 per 1,000), and Puerto Rican mothers (7.8 per 1,000); and lowest for infants of Cuban mothers (4.6 per 1,000 live births) and Asian or Pacific Islander mothers (4.7 per 1,000) (Table 19).

The **leading cause of death** differs by age group. In 2004, the leading cause of death was congenital malformations for infants, unintentional injuries for people age 1–44 years, cancer for middle-age adults age 45–64 years, and heart disease for adults age 65 years and over (Table 32).

Age-adjusted mortality from **heart disease**, the leading cause of death overall, declined 33% between 1990 and 2004, continuing a long-term downward trend (Figure 20 and Table 36).

Age-adjusted mortality from **cancer** (malignant neoplasms), the second leading cause of death overall, decreased 14% between 1990 and 2004 (Figure 20 and Table 38).

The age-adjusted death rate for **motor vehicle-related injuries** has remained stable since the early 1990s following a period of decline. Death rates for motor vehicle-related injuries are higher at age 15–24 years and 75 years and over than at other ages (Table 44).

The age-adjusted death rate for **HIV disease** has declined slowly since 1998, after a sharp decrease between 1995 and 1998. The death rate for HIV disease is higher at age 35–54 years than at other ages (Table 42).

The **homicide** rate for **black males 15–24 years of age** decreased sharply from the early to the late 1990s and has remained relatively stable since then (Table 45). Homicide continues to be the leading cause of death for young black males 15–24 years of age.

In 2004, young **American Indian males 15–24 years of age** continued to have substantially higher death rates for motor vehicle-related injuries and for suicide than young males in other race or ethnicity groups. Death rates for the American Indian population are known to be underestimated (Tables 44 and 46).

The **suicide rate for non-Hispanic white men 65 years of age and over** is higher than in other groups. In 2004, the suicide rate for older non-Hispanic white men was about two to three times the rate for older men in other race or ethnicity groups and nearly 8 times the rate for older non-Hispanic white women (Table 46).

Health Behaviors and Risk Factors

Health behaviors have a significant effect on health status. Pregnant teenagers are less likely to receive early prenatal care and more likely to drop out of school and to live in poverty, than are other parents. Heavy and chronic use of alcohol and use of illicit drugs increase the risk of disease and injuries. Cigarette smoking increases the risk of lung cancer, heart disease, emphysema, and other diseases. Obesity increases the risk of heart disease, diabetes, and stroke. Regular physical activity reduces the risk of disease and enhances mental and physical functioning.

The **birth rate for teenagers** declined in 2005 (preliminary data) for the 14th consecutive year, to 40.4 births per 1,000 women age 15–19 years, 2% lower than in 2004. Rates declined 3% for teenagers age 15–17 years and remained unchanged for teenagers age 10–14 years and 18–19 years (Table 4).

In 2005 (preliminary data), the **birth rate for unmarried women** reached a record high of 47.6 births per 1,000 unmarried women age 15–44 years, up 3% from 2004. In 2005, 37% of all births were to unmarried women and the percentages generally increased for all age, race, and Hispanic origin subgroups (Table 10).

Low birthweight is associated with elevated risk of death and disability in infants. In 2005 (preliminary data), the low birthweight rate (less than 2,500 grams, or 5.5 pounds, at birth) increased to 8.2%, up from 7.0% in 1990 (Table 13).

Between 1988–1994 and 2003–2004, the prevalence of **overweight among preschool-age children** 2–5 years of age almost doubled, from about 7% to 14% (Figure 13 and Table 69).

The prevalence of **overweight among school-age children** increased more than 60% between 1988–1994 and 2003–2004. Among children 6–11 years of age, overweight increased from 11% to 19%. The prevalence of overweight among adolescents 12–19 years of age grew from 11% to 17% (Figure 13 and Tables 69 and 75).

Between 1993 and 2005, the percentage of **high school students** who reported attempting suicide (8%–9%) and whose **suicide attempts** required medical attention (2%–3%) remained fairly constant. Girls were more likely than boys to consider or attempt suicide. However, in 2004, adolescent boys (15–19 years of age) were almost 4 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 62).

In 2005, among current drinkers 18 years of age and over, about one-third reported consuming **five or more alcoholic drinks in one day** during the past year, with the highest proportion among young adults 18–24 years of age (55%). In 2005, among current drinkers 18–24 years of age, 67% of men and 41% of women reported consuming five or more alcoholic drinks on at least one day in the past year (Table 68).

Between 2003 and 2005, the percentage of **high school students who reported smoking cigarettes** in the past month remained stable at 22%–23% after declining from 36% in 1997 (Figure 9).

In 2005, 21% of U.S. adults were current **cigarette smokers,** the same percentage as in 2004, suggesting that the decline in cigarette smoking prevalence might be stalling (Figure 9 and Table 63).

Children with low family income are more likely to have high **blood cotinine** levels (a marker for exposure to secondhand smoke) than children living in higher income families. In 2001–2004, children living in families with income below 200% of the poverty level were at least twice as likely to have had a high blood cotinine level as children living in higher income families (22%–28% compared with 10%) (Figure 10).

Among **adults** 20–74 years of age, **overweight and obesity** rates have increased since 1960–1962. These increases were driven largely by increases in the percentage of adults who were obese. From 1960–1962 through 2003–2004, the percentage of adults who were overweight but not obese remained steady at 32%–34% (age-adjusted). During that time period, the percentage of adults who were obese increased from 13% to 34% (age-adjusted) (Figure 13 and Table 74).

In 1999–2004, **weekly restaurant meal** consumption varied by age. Eating four or more weekly restaurant meals ranged from 9% among children 1–12 years to 32% among adults 18–44 years of age. Adults 65 years and over had the lowest likelihood of eating at least one weekly restaurant meal (Figure 12).

In 2005, almost one-third of **adults** 18 years of age and over engaged in **regular leisure-time physical activity**. Adults in families with income above twice the poverty level were more likely to engage in regular leisure-time physical activity (34%) than adults in lower income families (20%–22%) (age-adjusted) (Table 73).

Health Status and Health Conditions

Measures of health status include respondent-assessed health status, limitation in activity caused by chronic conditions, and serious psychological distress. Measures of morbidity presented in this report include the incidence and prevalence of selected specific diseases and conditions.

In 2005, the percentage of noninstitutionalized **adults** reporting their **health as fair or poor** ranged from 6% of those age 18–44 years to 30% of those age 75 years and over. The proportion of adults with fair or poor health was higher among non-Hispanic black and Hispanic persons compared with non-Hispanic white persons (Table 60).

In 2005, **activity limitation** caused by chronic health conditions was reported for 7% of **children** under the age of 18 years. Among school-age children (5–17 years of age), learning disabilities and Attention Deficit/Hyperactivity Disorder (ADHD or ADD) were frequently reported as a cause of activity limitation (Figure 14 and Table 58).

Arthritis and other musculoskeletal conditions were the **leading causes of activity limitation** among working-age **adults 18–64 years** of age in 2004–2005. Mental illness was the second most frequently mentioned condition causing activity limitation among adults 18–44 years of age and the third most frequently mentioned among adults 45–54 years of age (Figure 15).

In 2004–2005, 3% of the noninstitutionalized population reported having **serious psychological distress**. Adults living below the poverty level were more than five times as likely to report serious psychological distress as adults in families with income of at least twice the poverty level (8.6% compared with 1.7%) (Table 61).

The prevalence of **hypertension**, defined as elevated blood pressure or taking antihypertensive medication, increases with age. In 2001–2004, 36% of men and 35% of women age 45–54 years had hypertension, compared with 67% of men and 82% of women age 75 years and over (Table 70).

Between 1988–1994 and 2001–2004, the percentage of both men and women 55 years and over with **high total serum cholesterol levels** (greater than 240 mg/dL) declined substantially. However, older women were more likely to have high serum cholesterol than older men. In 2001–2004, 26% of women age 65–74 years had high serum cholesterol, compared with 11% of men age 65–74 years (Table 71).

In 2001–2004, the prevalence of **diabetes** (including both diagnosed and undiagnosed) increased with age from 11% among adults 40–59 years of age to 23% among adults 60 years of age and over. The percentage of adults with undiagnosed diabetes was 3% among those 40–59 years of age and 6% among those 60 years of age and over (Table 55).

Between 1988–1994 and 2001–2004, approximately one-quarter of **adults 20–64** years of age had **untreated dental caries**, down from nearly one-half in 1971–1974 (Table 76).

In 2005, 28% of adults 18 years of age and over had any **low back pain** in the past 3 months and 15% reported having a **severe headache or migraine** in the past 3 months (age-adjusted) (Table 56).

In 2005, approximately 2.2 million **workplace injuries and illnesses** in the private sector involved days away from work, job transfer, or restricted duties at work for a rate of 2.4 cases per 100 full-time workers (FTW). The transportation and warehousing industry reported the highest injury and illness rate, with 4.6 cases per 100 FTW. The next highest rates were reported by the manufacturing industry (3.5 per 100 FTW) and the construction industry (3.4 per 100 FTW) (Table 50).

Health Care Expenditures and Payors

The United States spends more on health per capita than any other country, and U.S. health spending continues to increase, though the rate of increase has slowed for the third consecutive year. Spending increases are due to increased intensity and cost of services and a higher volume of services needed to treat an aging population. Major payors for health care include private health insurers and public programs such as Medicare and Medicaid. Medicaid is jointly funded by the federal and state governments to provide health care for certain groups of low-income persons. Medicare is funded by the federal government and covers the health care of most persons 65 years of age and over and disabled persons.

The United States spends a larger **share of its gross domestic product (GDP) on health** than does any other major industrialized country. In 2004, the United States devoted 15% of its GDP to health compared with 12% in Switzerland and more than 10% in France, Germany, Iceland, and Portugal, the countries with the next highest shares (Table 120).

In 2005, **national health care expenditures** in the United States totaled $2 trillion, a 6.9% increase from 2004. The rate of increase slowed for the third consecutive year, though it was still higher than the growth in the gross domestic product (GDP) (Tables 121).

Prescription drug expenditures increased almost 6% in 2005, a much slower rate than in previous years. The price of prescription drugs and medical supplies increased 4% in the Consumer Price Index in 2005 and 2006 (Tables 122 and 124).

Expenditures for hospital care accounted for 31% of all national health expenditures in 2005. Physician and clinical services accounted for 21% of the total in 2005, prescription drugs for 10%, and nursing home care for 6% (Table 124).

In 2005, 34% of **personal health care expenditures** were paid by the federal government and 11% by state and local government; private health insurance paid 36% and consumers paid 15% out-of-pocket (Figure 6 and Table 125).

In 2003, Medicaid (26%) and private health insurance (24%) funded the largest shares of mental health services expenditures (Figure 7). In contrast, other state and local government expenditures (excluding Medicaid) funded the largest share (40%) of **substance abuse treatment expenditures** (Figures 7 and 8).

In 2003, national health **expenditures for mental health services** were about $100 billion. Almost one-quarter of these expenditures were for retail prescription drugs ($23 billion) (Table 126).

National health **expenditures for substance abuse treatment** increased by about 50% from 1986 to 2003 (inflation-adjusted). In 2003, national health expenditures for substance abuse treatment exceeded $20 billion (unadjusted dollars) (Table 127).

In 2004, 97% of persons 65 years of age and over in the civilian noninstitutionalized population had **medical expenses** that averaged about $8,900 per person with expenses. Almost one-fifth of expenses was paid out-of-pocket, 16% by private insurance, and 64% by public programs (primarily Medicare) (Tables 128 and 129).

In 2006, the **Medicare** program had about 43 million **enrollees and expenditures** of $408 billion, up from $336 billion the previous year. Expenditures for the first year of the new Medicare drug program (Part D), introduced in 2006, were $47 billion (Table 141).

Of the 33 million **Medicare enrollees in the fee-for-service program** in 2004, 12% were 85 years of age and over and 16% were under 65 years of age (Table 142).

In 2004, children under 21 years of age accounted for 48% of **Medicaid recipients** but only 17% of expenditures. Aged, blind, and disabled persons accounted for 22% of recipients and 66% of expenditures (Table 144).

Health Care System Influences, Personnel, and 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 outpatient basis. Hospital inpatient utilization has been stable in recent years. The ratio of physicians per population continues to increase slowly, but supply is not equally distributed across the country. The supply of other practitioners, including pharmacists and nurses, may not be

increasing as rapidly as needed to keep pace with our aging population.

In 2005, 41% of doctor visits were to **specialty care physicians**, up from 34% in 1980. During this period, the proportion of office-based doctor visits to **general and family practice physicians** decreased from 34% to 22% (Table 93).

Physician supply varied greatly by geographic area in 2004 with only 11% of **counties having a patient care physician to population ratio** above the overall national ratio of 24 physicians per 10,000 population. Similarly, 14% of counties had a ratio of obstetricians or gynecologists greater than the national ratio of 3 obstetricians or gynecologists per 10,000 females 15 years of age and over. In 2004, almost 50% of counties had no practicing obstetricians or gynecologists (Figures 22 and 23).

Between 1999 and 2005, the **number** of dental hygienists and assistants, massage therapists, diagnostic medical sonographers, medical equipment preparers, medical assistants, and pharmacy technicians increased by 5%–10% annually. During this period, the **hourly wages** of radiation therapists, nuclear medicine technologists, massage therapists, pharmacists, and physician assistants rose the most, at 6%–7% annually (Table 109).

In 2004, the United States had among the highest number of **Magnetic Resonance Imaging (MRI) units and Computed Tomography (CT) scanners** per population among OECD countries reporting 2004 data. The U.S. had 27 MRI units and 32 CT scanners per one million population. Other countries with high numbers of MRI units included Austria (15 MRI units per one million population), Iceland (17), and Switzerland (14). Countries with high numbers of CT scanners included Austria (29 CT scanners per one million population), Italy (21), and South Korea (32) (Table 119).

In 2005, 63% of **surgeries** were performed on an **outpatient** basis compared with 51% in 1990 and 16% in 1980 (Table 103).

Between 1990 and 2005, the number of **community hospital beds** declined 13%, from about 927,000 to 802,000. Since 1990, the community hospital occupancy rate has remained steady at 62%–67% (Table 113).

Between 1990 and 2004, the overall rate of **inpatient mental health beds** per 100,000 civilian population in the United States declined by 45%. In state and county mental hospitals, the number of mental health beds per population declined by 53%, in private psychiatric hospitals the decline was 48%, and in nonfederal general hospital psychiatric services the decline was 34% (Table 114).

In 2006, there were about 1.7 million **nursing home beds** in about 16,000 nursing homes certified for use by Medicare and Medicaid beneficiaries. Between 1995 and 2006, nursing home bed occupancy was relatively stable, estimated at 84% in 2006. **Occupancy rates** were 90% or higher in 14 states and the District of Columbia in 2006 (Table 117).

Special Feature: Access to Health Care

Identifying which Americans do not receive potentially beneficial health care services, and the reasons underlying suboptimal use of services, is essential to identifying solutions that can improve access to needed health care.

Foregone or delayed health care due to cost

The percentage of Americans who reported not receiving needed health care services (as determined by the respondents) varies by age, family income, insurance coverage, and state of residence.

In 2005, 19% of adults 18 years of age and over—more than 40 million people—reported that they needed and **did not receive one or more of the following services in the past year because they could not afford them:** medical care, prescription medicines, mental health care, dental care, or eyeglasses, (Figure 21).

In 2005, about 12% of adults 18 years of age and over reported that they **did not receive needed dental care;** 7% did **not purchase needed eyeglasses,** and about 9% **did not purchase needed prescription drugs due to cost** (Figure 21).

Adults 18–64 years of age were more likely than older adults or children to report not receiving needed medical care or delaying their medical care due to cost. In 2005, 7% of adults 18–64 years of age reported that they did **not get needed medical care** during the past 12 months, 9%–10%

delayed medical care, and 9%–10% **did not get needed prescription drugs** due to the cost. Compared with 1997, in 2005, more adults 18–64 years of age reported not getting needed medical care and needed prescription drugs due to cost (Table 79).

Almost all **adults 65 years of age** and over have Medicare coverage. Despite this health insurance coverage, in 2005, 4%–6% of those with income below or near the poverty level **did not get needed medical care** during the past 12 months, 6%–9% **delayed their medical care**, and 9%–12% **did not get the prescription drugs** they needed due to the cost. Medicare coverage for prescription drugs began in 2006 (Table 79).

In 2004–2005, reduced access to medical care due to cost varied across the 25 most populous states. The percentage of residents who reported not getting needed care due to cost ranged from 3%–9%. The range of those reporting delaying medical care due to cost was 5%–11%. The percentage reporting not getting needed prescription drugs due to cost varied among the 25 states from 4%–14% (Table 80).

In 2005, 19% of people under age 65 years of age who were uninsured for all or part of the preceding year **did not receive needed medical care** in the past 12 months **due to cost**, compared with 2% of people covered by health insurance for the full year (Table 79 and Figure 33).

In 2004, 27% of people with family income below the poverty line paid more than 10% of their **after-tax family income on out-of-pocket health care expenditures** (including health insurance premiums) (Figure 31).

The burden of **out-of-pocket expenses** for health care varies considerably by age. In 2004, more than one-half of people 75 years of age and over with health care expenses paid $1,000 or more out-of-pocket, compared with 28% of those 45–64 years of age, and 13% of adults 18–44 years of age (Table 130).

Barriers to health care use

Often-cited barriers to accessing needed health care include a lack of transportation and not having a usual source of medical care. Supply shortages or maldistribution of services can also create obstacles to the timely receipt of health care services.

In 2004–2005, about 5%–6% of **adults 45–64 years** of age with hypertension, a serious heart condition, or diabetes did not report a **usual source of care** (Figure 26).

In 2004–2005, 6% of adults living below the poverty level reported **delaying health care** in the past 12 months due to a **lack of transportation** compared with less than 1% of adults living at 200% or more of the poverty level. On average, women were more likely to report delaying care due to a lack of transportation than men (data table for Figure 27).

From 1988 to 2004 the percentage of patients receiving **kidney transplants** within two years of being added to the waiting list declined 56% for white patients and about 65% for black patients, in large part because the increase in the number of patients on the waiting list has not been met by a concurrent increase in the number of donated kidneys (Figure 25).

Lack of health insurance

Access to health care is often equated with lack of health insurance coverage, which has been established as a major barrier to receiving most health care services.

In 2005, the percentage of the **population under 65 years of age with no health insurance coverage** (public or private) **at a point in time** was 16.4%. Between 1995 and 2005, this percentage fluctuated between 16.1% and 17.5% (Figure 28 and Table 139).

Among the under 65 years of age population, the **poor and near poor** (those with family income less than 200% of poverty) were much more likely to be **uninsured at a point in time** than persons in higher income families (Table 139).

In 2005, 9% of **children** under 18 years of age were **uninsured at a point in time**. Between 2000 and 2005, among children in families with income just above the poverty level (100%–150% of poverty), the percentage uninsured dropped from 25% to 15% (Table 139) , while the percentage with Medicaid or State Children's Health Insurance Program (SCHIP) coverage increased from 35% to 49% (Table 138).

In 2005, 29% of **young adults** 18–24 years of age were **uninsured at a point in time.** This age group was more than twice as likely to be uninsured as those 45–64 years of age (Table 139).

In 2005, among persons under 65 years of age, those of **Hispanic origin and American Indians and Alaska Natives** were more likely to be **uninsured at a point in time** than were those in other racial and ethnic groups (Table 139).

Many people under 65 years of age, particularly those with a low family income, do not have health insurance coverage consistently throughout the year. In 2005, one-fifth of people under 65 years of age **were uninsured for at least part of the 12 months prior to interview**. Two-fifths of people of Mexican origin were uninsured for at least part of the 12 months prior to interview (Figure 29).

The likelihood of being **uninsured** varied among the **states**. In 2003–2005, the average percentage of the population with no health insurance coverage ranged from less than 10% in Minnesota, Hawaii, and Iowa, to 25% in Texas (Table 151).

About one-half of the **uninsured population** were non-Hispanic white persons with the other half being people of other **races and ethnicities** (Figure 30).

Differential utilization of services by population group

Access is often studied by examining whether rates of service use are at recommended or expected levels, or whether population groups differ in use of services. Lower rates of service use among a population group may reflect an access barrier in the lower-use group.

The percentage of mothers receiving **prenatal care** in the first trimester of pregnancy remained unchanged from 2003 to 2004 at 84% for the 43 reporting areas for which comparable trend data were available. In 2004, the percentage of mothers with early prenatal care varied substantially by **race and ethnicity**, from 70% for American Indian or Alaska Native mothers to 89% for non-Hispanic white mothers (Table 7).

In 2005, 82% 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 than were children living at or above poverty to have received the combined vaccination series (79% compared with 84%) (Table 83).

Between 1987 and 1999, **mammography usage** in the past 2 years among women 40 years of age and over rose from 29% to 70% and has been between 67%–70% through 2005. Mammography levels are lower among Hispanic and Asian women compared with non-Hispanic black and white women (Table 87).

In 2004–2005, 6% of **children** under 6 years of age and 14% of children 6–17 years of age had **no health care visit** to a doctor or clinic within the past 12 months. Uninsured children under age 18 were almost three times as likely as those with insurance to have no recent health care visits (Table 81).

In 2005, about one-fourth of **children** 2–17 years of age did not have a **dental visit** in the past year. Children with family income below 200% of poverty were more likely to lack a recent dental visit than those with higher family income (Table 94).

In 2005, about one-half of adults with family income below 200% of the **poverty** level **did not have a dental visit** in the past year (Figure 34).

In 1999–2002, nearly 13% of non-Hispanic white women reported **antidepressant drug use** in the past month, more than twice the percentage of non-Hispanic black women and women of Mexican origin (age-adjusted; Figure 36).

In 2000–2005, about 44% of adults 50 years of age and over reported ever having had a procedure for detecting colorectal cancer using **colonoscopy, proctoscopy, or sigmoidoscopy.** Among insured adults 50–64 years of age, the proportion who ever had a scope procedure was lower among Hispanic and non-Hispanic black adults than non-Hispanic white adults (Figure 35).

In 1973–1974, the **nursing home resident** rate for the white population 65 years of age and over was more than twice that for the black population (61.2 compared with 28.2 per 1,000 population; age-adjusted). By 2004, the resident rate for the black population (49.9) exceeded that for the white population (34.0) (Table 104).