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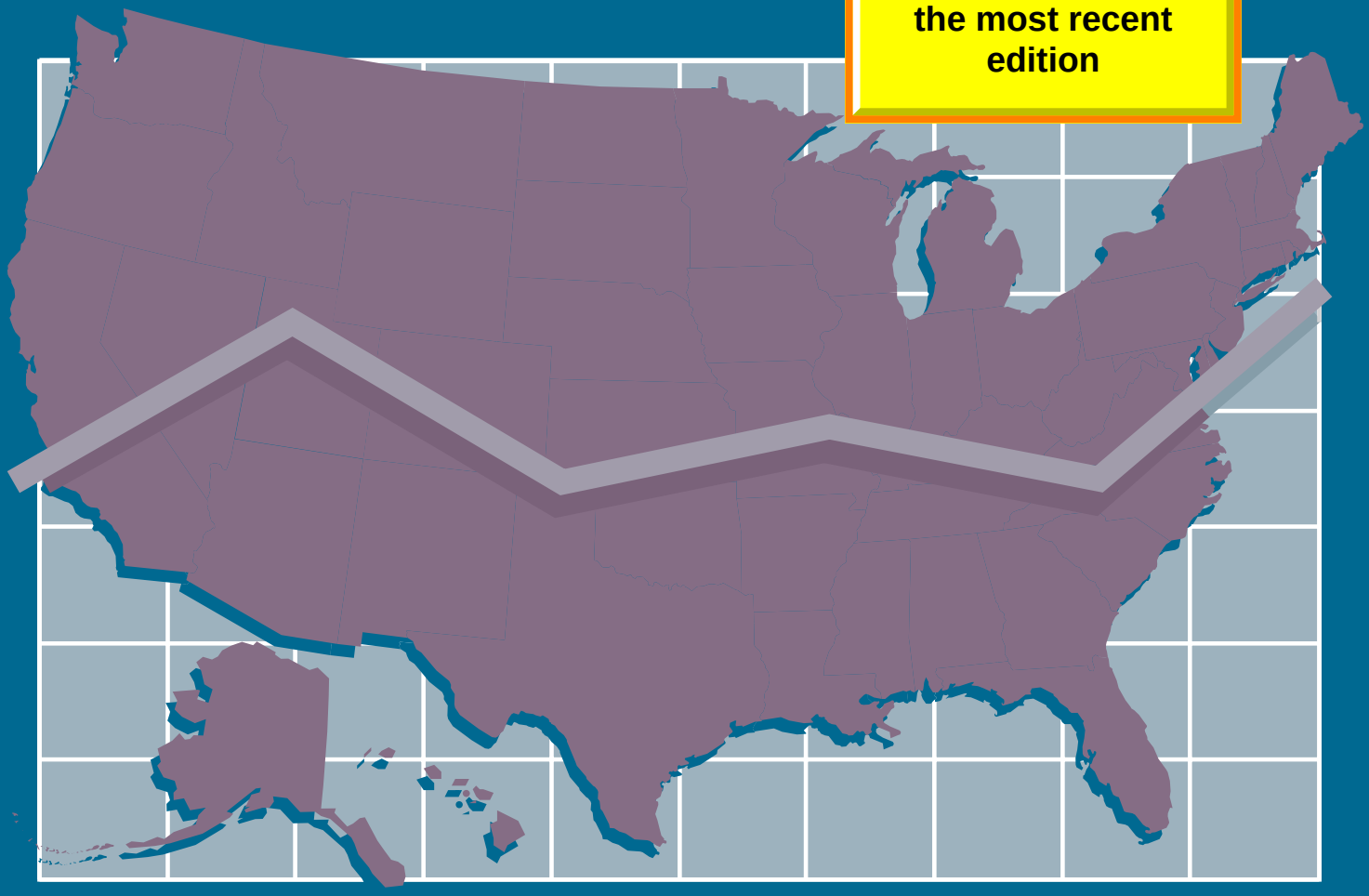
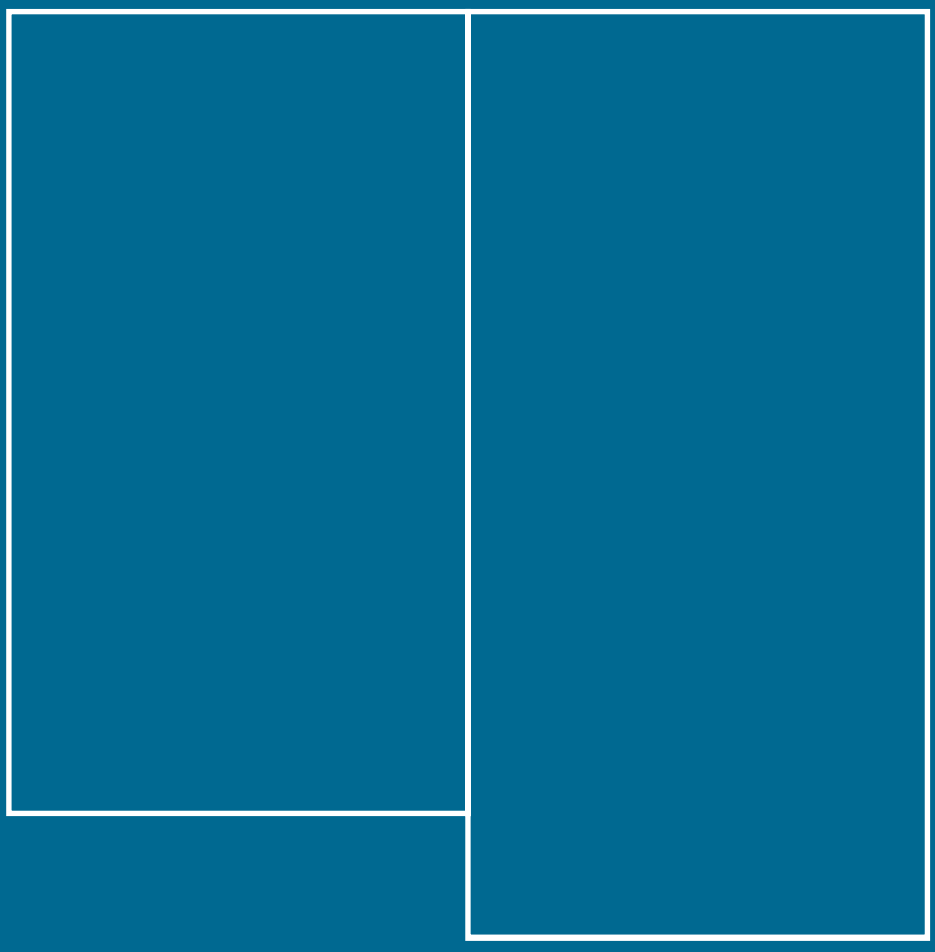


Health United States 1995

Chartbook

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service



Health United States 1995

Chartbook

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service
Centers for Disease Control and Prevention
National Center for Health Statistics

Hyattsville, Maryland
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Preface

Health, United States, 1995 is the 20th report on the health status of the Nation submitted by the Secretary 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 Centers for Disease Control and Prevention (CDC), National Center for Health Statistics. The National Committee on Vital and Health Statistics served in a review capacity.

Health, United States, 1995 presents national trends in public health statistics. Major findings are presented in the Highlights. The report includes a chartbook on women's health consisting of 39 figures and accompanying text. The chartbook is followed by 148 detailed tables organized around four major subject areas: health status and determinants, utilization of health resources, health care resources, and health care expenditures. A major criterion used in selecting the detailed tables is the availability of comparable national data over a period of several years. The detailed tables report data for selected years to highlight major trends in health statistics. Similar tables appear in each volume of *Health, United States* to enhance the use of this publication as a standard reference source. Several tables in *Health, United States, 1995* present data according to race and Hispanic origin consistent with Department-wide emphasis on expanding racial and ethnic detail in the presentation of health data. The large differences in health status according to race and Hispanic origin that are 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.

To use *Health, United States, 1995* most effectively, the reader should become familiar with two appendixes at the end of the report. Appendix I describes each data source used in the report and provides references for further information about the sources. Appendix II is an alphabetical listing of terms used in the report. It also contains standard populations used for age adjustment and *International Classification of Diseases* codes for cause of death and diagnostic and procedure categories.

Health, United States, 1995 can be accessed electronically in three formats. First, the 148 detailed tables in *Health, United States, 1995* are available on diskette as Lotus 1-2-3 spreadsheet files for use with IBM-compatible personal computers. The diskette of spreadsheet files includes an electronic index that enables the user to search the tables by topic. Second, the entire *Health, United States, 1995* is available, along with other NCHS reports, on a CD-ROM entitled ''Publications from the National Center for Health Statistics, featuring *Health, United States, 1995*,'' vol 2 no 1, June 1996. These publications can be viewed, searched, printed, and saved using the Adobe Acrobat LE software on the CD-ROM. The Lotus diskette and CD-ROM may be purchased from the Government Printing Office or the National Technical Information Service. Third, the complete *Health, United States, 1995* is available as an Acrobat .pdf file on the Internet at the NCHS home page on the World Wide Web. The Uniform Locator Code (URL) address is:

http://www.cdc.gov/nchswww/nchshome.htm

This *Health, United States, 1995 Chartbook* is reprinted from the complete *Health, United States, 1995* report and includes highlights of the detailed tables and the appendixes.

Acknowledgments

Overall responsibility for planning and coordinating the content of this volume rested with the Office of Analysis, Epidemiology, and Health Promotion, National Center for Health Statistics (NCHS), under the supervision of Kate Prager, Diane M. Makuc, and Jacob J. Feldman.

The chartbook was prepared by Kate M. Brett, Mary Beth Ofstedal, Elsie R. Pamuk, Clemencia M. Vargas, and Julie A. Weeks, with assistance from Julie M. Piorkowski, Anne C. Looker, Linda J. Piccinino and Kenneth C. Schoendorf from NCHS, Lisa M. Koonin from the Division of Reproductive Health, Centers for Disease Control and Prevention, Ronet Bachman from the Bureau of Justice Statistics, Mark Edlund from the University of Michigan, Debra Trunzo from the Substance Abuse and Mental Health Services Administration, and Tom Brundage and other staff from the Klemm Analysis Group under contract to NCHS.

Detailed tables and highlights were prepared by Margaret A. Cooke, Virginia M. Freid, and Rebecca A. Placek, with assistance from John L. Kiely, Alicia J. Kokkinis, Jaleh Mousavi, Anita L. Powell, Kenneth C. Schoendorf, Fred Seitz, and Diane K. Wagener. The appendixes and index to detailed tables were prepared by Anita L. Powell. Systems design and computer programming were provided by Mitchell B. Pierre, Jr., Jaleh Mousavi, Ildy I. Shannon, and Patricia A. Knapp. Production planning and coordination were managed by Rebecca A. Placek with typing assistance from Carole J. Hunt.

Publications management and editorial review were provided by Thelma W. Sanders and Rolfe W. Larson. The designer was Sarah M. Hinkle. Graphics were supervised by Stephen L. Sloan. Production was done by Jacqueline M. Davis and Annette F. Holman. Printing was managed by Patricia L. Wilson.

Publication of *Health, United States* would not have been possible without the contributions of numerous staff members throughout the National Center for Health Statistics and several other agencies. These people gave generously of their time and knowledge, providing data from their surveys and programs; their cooperation and assistance are gratefully acknowledged.

Contents

Appendixes

Symbols

- - -	Data not available
. . .	Category not applicable
–	Quantity zero
0.0	Quantity more than zero but less than 0.05
*	Figure does not meet standard of reliability or precision

List of Figures

Substance Use

Highlights

Women's Health Chartbook

Mortality

■ Between 1940 and 1970 the difference in **life expectancy** at birth between women and men increased from 4.4 to 7.6 years. After remaining stable in the 1970's the difference in life expectancy between women and men decreased. In 1993 life expectancy at birth was 78.8 years for women, 6.6 years longer than for men (figure 1).

■ **Life expectancy** has consistently been lower among black women than among white women in the United States. Between 1970 and 1984 this difference narrowed from 7.3 to 5.1 years as the increase in life expectancy for black women outpaced that for white women. During the mid-1980's, however, life expectancy for black women declined slightly, resulting in an increase in the differential between black women and white women. In 1993 life expectancy at birth was 73.7 years for black women, 5.8 years less than for white women (figure 1).

■ In 1993 heart disease was the **leading cause of death** among all women. It was the second leading cause among women 45–74 years of age, after cancer, and the leading cause among women 75 years of age and over. In contrast, heart disease was the leading cause of death among men of all ages as well as those 45 years of age and over, while cancer was the second leading cause. Other leading causes of death for women 45–74 years of age were chronic obstructive pulmonary diseases, stroke, and diabetes (figures 3 and 4).

Morbidity and Disability

■ Although men are at higher risk than women for many fatal diseases, women have a higher risk of incurring a number of **nonfatal chronic conditions**, including arthritis, osteoporosis, and depressive and anxiety disorders. Arthritis, the most common chronic condition among women 45 years of age and over, affected over one-half of all women age 65 years and over in 1993–94. Osteoporosis, a major risk factor for bone fractures, increased dramatically with age among women in 1988–91, from 4 percent of women age 50–59 years to 50 percent of those age 80 years and over (figures 13, 14, and 16).

■ In 1988–91 the percent of women under 50 years of age with **hypertension** was lower than for men (13 and 24 percent at 40–49 years of age). The percent of hypertensive women 20–59 years of age with controlled hypertension (59 percent) was nearly twice that for hypertensive men (33 percent). By age 70–79 years the prevalence of hypertension was 12 percent higher among women than men (66 and 59 percent), and the levels of controlled hypertension were similar among hypertensive women and men ages 60 years and over (28 percent and 25 percent) (figures 18 and 19).

■ Because many of the conditions that are more prevalent among women than men are disabling, rates of **activity limitation and disability** tend to be higher for women than for men. In 1993–94 the proportion of women 45–64 years of age reporting activity limitation due to arthritis (7 percent) was 2.7 times that for men and the proportion among women 65–74 years of age (13 percent) was 1.6 times that for men. Likewise, in 1991 the proportion of middle-aged and older persons reporting difficulty performing home management activities and/or physical care activities due to a health or physical problem was 76–84 percent higher among women than among men (figures 13 and 15).

Smoking, Lung Cancer, and COPD

■ In 1993 **cancer** was the leading cause of death for women 45–74 years of age and **chronic obstructive pulmonary diseases** (COPD) ranked fourth for women 45–64 years of age and third for women 65–74 years of age. Between the early 1970's and the early 1990's the age-adjusted incidence rate for lung cancer more than doubled and the age-adjusted death rate rose 182 percent among women. Between 1979 and 1993 the age-adjusted death rate for COPD doubled among women. These rates of increase substantially exceeded those observed for men (figures 3, 4, 6, 7, and 9).

■ **Cigarette smoking** is a major risk factor for lung cancer and COPD. Between 1965 and 1990 cigarette smoking declined more among men than among women. In 1965 the age-adjusted prevalence of cigarette smoking among persons 18 years of age and over was 52 percent for men and 34 percent for women. By 1990 smoking prevalence was only slightly higher among men than women (28 percent and 23 percent). Between 1990 and 1993 smoking prevalence remained relatively stable for women and men aged 18 years and over (figure 20).

Overweight and Sedentary Lifestyle

■ In 1993 heart disease, stroke, and diabetes were the first, third, and sixth leading causes of death for women in the United States. Excess body weight and **sedentary lifestyle** (the lack of any leisure time physical activity) are risk factors for these diseases. Between 1976–80 and 1988–91 the age-adjusted prevalence of **overweight** among women 20–74 years of age increased from 27 to 35 percent. In 1991 the age-adjusted prevalence of sedentary lifestyle among women 25 years of age and over was 30 percent (figures 22 and 24).

■ There are substantial **racial and ethnic differences** in the prevalence of overweight and sedentary lifestyle. Non-Hispanic black women and women of Hispanic origin, who are at increased risk of diabetes mortality, have higher prevalence of these conditions than non-Hispanic white women. In 1988–91 the age-adjusted prevalence of overweight for non-Hispanic black and Mexican American women (47–49 percent) was more than 50 percent greater than for non-Hispanic white women. In 1991 the age-adjusted prevalence of sedentary lifestyle was 40 percent greater for Hispanic and non-Hispanic black women (39 percent) than for non-Hispanic white women (figures 8, 23, and 24).

AIDS

■ Although acquired immunodeficiency syndrome (AIDS) is a threat to the health of all women, there are large **racial and ethnic differences** in the rate of reported AIDS. In the 12 months ending June 1995 non-Hispanic black women had nearly 17 times the rate of reported AIDS as non-Hispanic white women (3.7 per 100,000 population); Hispanic women had roughly 6 times the rate as non-Hispanic white women; and American Indian women's case rate for AIDS was 19 percent higher than that of non-Hispanic white women (figure 10).

■ The impact of AIDS and AIDS-opportunistic illnesses on the health of women in the United States has been increasing, diminishing the **gender differential** in the prevalence of AIDS. During the first 6 months of 1985 the estimated incidence of AIDS-opportunistic illnesses among men was 13 times that for women (360 cases). During the second half of 1994 the number for men was just under five times that for women (5,200 cases) (figure 11).

Reproductive Health

■ The ratio of **abortions** to live births has been decreasing over time while the proportion of births resulting from **unintended pregnancies** has remained fairly stable. In addition, young women under 20 years of age have higher abortion ratios and higher proportions of unintended pregnancies than women 25–34 years of age. Between 1980 and 1992 the ratio of abortions to live births decreased by 7 percent overall and by 38 percent for women 15–19 years of age. In 1992 the abortion ratio for women 15–19 years of age (440 abortions per 1,000 live births) was 52 percent higher than for women 25–34 years of age. In 1984–88, 71 percent of all live births to women 15–19 years of age resulted from unintended pregnancies, a proportion 136 percent higher than among women 25–34 years of age (figures 27 and 28).

■ Women are **delaying childbearing** in the United States. In 1993, 44 percent of women 25–29 years of age had not had one live birth compared with 20 percent in 1960. This may have implications for future incidence rates of breast and ovarian cancer, which are associated with delayed or no childbearing (figure 26).

Breast Cancer

■ The pattern of **breast cancer** incidence and mortality differs by race. Between 1973 and 1991 breast cancer incidence was 15–25 percent higher for white women than for black women. Beginning in the late 1970's the age-adjusted death rate for breast cancer for black women exceeded that for white women and this gap continues to widen. In 1993 breast cancer mortality was 28 percent higher for black women than for white women (figures 6 and 9).

Mental Health

■ The lifetime prevalence of **psychiatric disorders** is similar among women and men. In 1990–92 nearly half of women and men 15–54 years of age, 47 and 49 percent, reported having experienced symptoms of psychiatric disorder at some time during their lives. Women who had reported a psychiatric symptom, however, were more likely than men to have received some form of **mental health services** (55 and 42 percent) (figures 16 and 36).

■ The **types of psychiatric disorders** experienced differ by gender. In 1990–92 women 15–54 years of age were about 60 percent more likely to report having had symptoms of depressive (24 percent) and anxiety disorders (31 percent) at some point during their lifetime than men, while they were only half as likely to report substance abuse disorders (18 percent) (figure 16).

Victimization

■ Women, and especially poor women, are much more likely than men to be victims of violent crime committed by an intimate (a current or former partner) or relative. In 1992–93 the rate of victimization of women by intimates was nearly seven times as high as for men. The rate of **violent attacks by intimates** was highest among women in families with annual incomes of less than $10,000 (19.9 per 1,000) and lowest among women with annual family incomes of $50,000 or more (4.5 per 1,000) (figure 25).

Health Care Access

■ In 1993 poor women 25–64 years of age were 3.2 times as likely to have no **health care coverage** as nonpoor women (36 and 11 percent, age adjusted). Women who were uninsured were more likely to have **no usual source of medical care** than women with health care coverage. After adjusting for differences in age, almost 30 percent of uninsured women 25–64 years of age, regardless of poverty status, had no regular source of medical care compared with less than 10 percent of women who were insured (figures 29 and 30).

Health Care Utilization

■ In 1992 average annual use of **ambulatory medical care** by women 15–64 years of age (4.0 visits per year) was 66 percent higher than for men in this age group. Twenty-two percent of physician use by women was attributable to visits principally for diagnosis and screening, which included services for family planning, pregnancy, and infertility (figure 31).

■ Many women do not obtain adequate diagnostic and screening care. In 1993, 21 percent of women who had a live birth did not receive **prenatal care** in the first trimester of pregnancy, the recommended time to begin care. Mothers with less than 12 years of education were 3.7 times as likely to lack early prenatal care as mothers with more than 12 years of education (37 and 10 percent). Furthermore, in 1993, 53 percent of women 50–64 years of age and 61 percent of women 65 years of age and over had not received a **mammogram** in the previous 12 months, the recommended screening schedule for women in these age groups (figures 34 and 35).

■ In 1993 **hospital discharge rates** among persons 45 years of age and over were 7 percent lower for women than for men. Among persons 45–64 years of age, the average length of hospital stay was 0.2 days shorter for women than for men; whereas, among those 65 years of age and over, the length of stay was 0.6 days longer for women than for men (figures 32 and 33).

■ In 1993 the first and second most frequent **hospital discharge diagnoses**, heart disease and malignant neoplasms, were the same for women and men aged 45 years and over. Fractures, stroke, and pneumonia were also leading causes of hospitalization for women 65 years of age and over (figures 32 and 33).

■ In 1993 women were more likely than men to be under the care of a home health agency. Among persons 65–74 years of age, the rate of **home health care utilization** was 36 percent higher for women than for men, and this differential increased to 65 percent among those 85 years of age and over (figure 37).

Substance Use

■ In 1994 compared with women who were not pregnant and had no children, **pregnant women** 15–44 years of age were significantly less likely to use cigarettes (21 percent and 29 percent), moderate to heavy amounts of alcohol (4 percent and 16 percent), or illicit drugs (2 percent and 8 percent). However, use of these substances among nonpregnant women with children were similar to use among childless women who were not pregnant, suggesting that many women resume use of licit and illicit substances after pregnancy (figure 38).

■ Among admissions of women to specialty treatment facilities, **primary substance of abuse** is strongly associated with race and ethnicity. In fiscal year 1993 the greatest proportion of admissions among non-Hispanic white women was for alcohol and alcohol combined with another drug (59 percent); the greatest proportion among non-Hispanic black women was for cocaine abuse (53 percent); and the greatest proportion among

Hispanic women was for heroin abuse (43 percent) (figure 39).

Detailed Tables

Health Status and Determinants

Population

■ Racial and ethnic diversity of the **United States population** is increasing. Of the estimated 258 million persons in 1993, 12 percent were black, 3 percent were Asian or Pacific Islander, and almost 1 percent were American Indian or Alaskan Native. Persons of Hispanic origin who may be of any race comprised about 10 percent of the population in 1993. In 1950, 10 percent of the U.S. population was black and less than 1 percent were races other than white or black (table 1).

■ Between 1993 and 1994 the **poverty** rate decreased from 15.1 to 14.5 percent for all persons, reversing an upward trend since 1989. The poverty rate for children under 18 years of age declined from 22.0 to 21.2 percent. In 1994 a total of 38 million persons lived in poverty including 14.6 million children (table 2).

Fertility and Natality

■ Between 1990 and 1993 the **fertility rate** declined by nearly 5 percent to 67.6 births per 1,000 women 15–44 years of age. The decline in the fertility rate for black women (more than 7 percent) was nearly twice the decline for white women. During this period the birth rate for women 30–34 years of age remained stable and the birth rate for women 35–39 years of age increased about 1 percent per year following average annual increases of 3 and 5 percent between 1980 and 1990. Between 1991 and 1993 the birth rates for teenagers 15–17 and 18–19 years of age declined by about 1 percent per year on average following average annual increases of 5 and 3 percent between 1986 and 1991 (tables 3 and 4).

■ Between 1991 and 1993 the proportion of mothers beginning **prenatal care** in the first trimester of pregnancy rose from 76 to 79 percent. The proportion of mothers receiving early prenatal care increased for nearly all racial and ethnic groups with the largest increases observed among those groups with the lowest levels of early care. However, large differences remain in the level of early prenatal care among racial and ethnic groups. In 1993 receipt of early prenatal care for American Indian, Mexican American, non-Hispanic black, Central and South American, Puerto Rican, and Hawaiian mothers (63–71 percent) was much lower than for Chinese, non-Hispanic white, Japanese, and Cuban mothers (85–89 percent) (table 7).

■ The percent of live births to **unmarried mothers** increased at a slower average annual rate between 1991 and 1993 (2.5 percent per year) than between 1980 and 1991 (4.4 percent per year). In 1993, 31 percent of live births were to unmarried mothers. The percent of births to unmarried mothers varied substantially by race and Hispanic origin from 7–10 percent for Chinese and Japanese mothers to 56–59 percent for American Indian and Puerto Rican mothers, and 69 percent for non-Hispanic black mothers (table 8).

■ Between 1989 and 1993 the percent of mothers who **smoked cigarettes during pregnancy** declined from 20 to 16 percent. In 1993 smoking prevalence for mothers with 9–11 years of education (29 percent) was more than nine times that for mothers who were college graduates (3 percent). In 1993 smoking prevalence was higher for Hawaiian, non-Hispanic white, and American Indian mothers (17, 19, and 22 percent) than for mothers in other racial and ethnic groups. In 1993 the incidence of low birthweight (less than 2,500 grams) was 80 percent greater among babies born to mothers who smoked than among babies born to nonsmokers (11.8 and 6.6 percent) (tables 10 and 11).

■ **Low birthweight** is associated with elevated risk of death and disability in infants. In 1993 the incidence of low birthweight (less than 2,500 grams) among live-born infants was 7.2 percent, up from 6.8 percent in 1980. Between 1980 and 1993 the incidence of very low birthweight (less than 1,500 grams) increased among black babies from 2.5 to 3.0 percent and among white babies from 0.9 to 1.0 percent. For the 1991 birth cohort, **mortality for very low birthweight infants** was 85 times that for infants of normal weight (3.6 deaths per 1,000 live births). Mortality for very low birthweight infants has improved. For infants weighing 1,000–1,499 grams at birth mortality declined by 44 percent between the birth cohorts of 1983 and 1991 (tables 11 and 22).

■ In 1993 the incidence of **low birthweight** babies (babies weighing less than 2,500 grams at

birth) was 50 percent greater for mothers with less than 12 years of education than for mothers with education beyond high school (9 and 6 percent). The education differential in low birthweight was much greater among non-Hispanic white mothers than Mexican American mothers for whom the percent of mothers with a low birthweight infant was less than 6 percent, regardless of education. For the 1991 birth cohort, infant mortality for mothers who had not completed high school was nearly twice that for mothers with 13 or more years of education (11 and 6 deaths per 1,000 live births) (tables 12 and 21).

Mortality

■ In 1993 the **infant mortality** rate was 8.4 deaths per 1,000 live births, a record low. Between 1980 and 1993 mortality for white infants declined 38 percent while mortality for black infants declined 26 percent resulting in a widening gap in infant mortality between the two groups. In 1993 the infant mortality rate for black infants (16.5) was 2.4 times that for white infants (6.8) compared with 2.0 times in 1980 (table 23).

■ Compared with the **infant mortality** rate for the 1989–91 birth cohort of non-Hispanic white infants (7.3 deaths per 1,000 live births), mortality was 136 percent higher for non-Hispanic black infants, 73 percent higher for American Indian infants, 42 percent higher for Puerto Rican infants, 23 percent higher for Hawaiian infants, and 27–30 percent lower for Japanese and Chinese infants (table 20).

■ In 1992 **infant mortality** in the United States was 88 percent higher than in Japan and 40 percent higher than in Canada. The feto-infant mortality rate in the United States was 58 percent higher than in Japan and 28 percent higher than in Canada (table 27).

■ Between 1992 and 1993 overall **life expectancy** at birth declined slightly to 75.5 years reflecting the impact of two influenza outbreaks in 1993. Provisional data indicate that life expectancy turned upward again in 1994. In 1993 the age-adjusted death rates for heart disease and stroke, the first and third leading causes of death, increased slightly. Nevertheless in 1993 heart disease and stroke mortality were 28 percent and 35 percent lower than in 1980 (tables 29, 32, 37, and 38).

■ Mortality is higher for persons whose **educational attainment** is less than high school than for persons with more than a high school education. In 1992–93 the age-adjusted death rate for persons 25–64 years of age with less than a high school education was more than double the rate for persons with more than a high school education, and the death rate for persons with a high school education was 79 percent higher than for those with more education (table 35).

■ In 1993 life expectancy at birth for **black Americans** was 69.2 years, 7.1 years less than for white Americans. In 1993 age-adjusted death rates for HIV infection and homicide among black males and black females were about four to nine times the rates among white males and white females. Mortality from heart disease, cancer, and stroke, the first three leading causes of death, was also higher for the black population than for the white population. In 1993 age-adjusted death rates for black males and black females for stroke were nearly double the rates for white males and white females (tables 29, 30, and 32).

■ In 1993 age-adjusted death rates for **Asian American** males and females were nearly 40 percent lower than rates for white males and white females. Death rates for Asian American males and females in every age group are lower than corresponding rates for white persons. Mortality from heart disease, the leading cause of death for all racial and ethnic groups, is lower for Asian Americans than for other racial or ethnic groups. In 1993 the age-adjusted death rate for heart disease for Asian American men and women was more than 40 percent lower than for white men and women (tables 36 and 37).

■ In 1993 death rates for **American Indians** under 55 years of age were higher than those for white Americans. The death rates for American Indian males 15–34 years of age were about 50 percent greater than rates for white males, and death rates for American Indian females 15–34 years of age were about 75 percent greater than for white females (table 36).

■ In 1993 the death rate for **Hispanic American** males 15–24 years of age was 53 percent greater than for non-Hispanic white males. Death rates for Hispanic males 25–44 years of age were more than 30 percent greater than for non-Hispanic white males of similar age (table 36).

■ Between 1992 and 1993 the age-adjusted death rate for **HIV infection**, the eighth leading cause of death overall, increased about 10 percent compared

with average annual rates of increase of 13 percent between 1989 and 1992 and 26 percent between 1987 and 1989. The rate of increase continues to be substantially higher for females than for males. Between 1992 and 1993 the death rate increased 19–21 percent for black females and white females, 13 percent for black males, and 5 percent for white males (tables 32 and 43).

■ In 1993 the **homicide** rate for young black males 15–24 years of age increased by 8 percent to 167 deaths per 100,000 population, a record high, following a slight decline during the previous year. In 1993 the homicide rate for young Asian American males increased by 25 percent to 23 per 100,000. In 1993 the homicide rate for young Hispanic males decreased by 6 percent to 64 per 100,000 while that for young non-Hispanic white males was nearly unchanged at 8 per 100,000. In 1993 homicide was the second leading cause of death for young persons 15–24 years of age (tables 33 and 46).

■ Between 1980 and 1993 the **suicide** rate for young black males 15–24 years of age increased 63 percent to 20.1 deaths per 100,000 population compared with an 8–percent increase to 23.1 per 100,000 for young white males. In 1980 the suicide rate for young white males was 74 percent higher than the rate for young black males and in 1993 that difference had narrowed to 15 percent (table 47).

■ In 1993 the death rate for **firearm-related injuries** for young people 15–24 years of age (31 deaths per 100,000 population) was 7 percent higher than the death rate for **motor vehicle crashes** for this age group. Since the mid-1980's mortality from firearm-related injuries among 15–24 year olds has generally increased and mortality from motor vehicle crashes has declined. In 1993 among young black males firearm mortality was more than five times that for motor vehicle crashes while among young Asian males firearm mortality was 44 percent higher than for motor-vehicle crashes. In 1993 among young Hispanic males firearm mortality was 62 percent higher than for motor vehicle crashes. Firearm mortality was lower than that for motor vehicle crashes among young American Indian and non-Hispanic white males (tables 45 and 48).

Determinants and Measures of Health

■ Between 1992 and 1994 the **vaccination** rate for children 19–35 months of age increased 9 percent for polio to 79 percent, 9 percent for measles-containing vaccine to 90 percent, and 8 percent for diphtheria-tetanus-pertussis vaccine (DTP) to 90 percent. In 1994, 68 percent of children had received the combined series of 4 doses of DTP vaccine, 3 doses of polio vaccine, and 1 dose of measles-containing vaccine (table 54).

■ In 1994 about 1,000 **measles** cases were reported, three times the number of cases in 1993, but well below the 28,000 reported cases in 1990. The year 2000 objective for measles is to reduce the number of cases to zero. Between 1993 and 1994 the number of reported **hepatitis A** cases increased by 23 percent to nearly 30,000 cases, the highest number since 1989 when there were 36,000 reported cases (table 55).

■ In 1994, 44 percent of noninstitutionalized elderly persons 75 years of age and over reported some **limitation of activity due to chronic health conditions**. The proportion of elderly persons with some limitation was 21 percent higher among black persons than white persons. In addition, the degree of activity limitations among the elderly was more severe for black persons than for white persons. Sixteen percent of black persons and 10 percent of white persons were unable to perform their major activity and an additional 18 percent of black persons and 14 percent of white persons were limited in their major activity (table 61).

■ In 1995, 19 percent of eighth graders and 34 percent of high school seniors **smoked cigarettes** in the past month and in 1993 one-quarter of persons 18 years of age and over were current cigarette smokers. At younger ages cigarette use is higher for white persons than for black persons. In 1995, 22 percent of white eighth graders and 37 percent of white seniors smoked cigarettes compared with 8 and 15 percent of black eighth graders and black seniors. In 1993 among young persons 18–24 years of age the cigarette smoking rate was more than 50 percent higher for white males than for black males and for white females the rate was more than three times that for black females (tables 63 and 66).

■ Overall, the percent of persons who used **marijuana** in the past month remained stable between 1992 and 1994 at about 4–5 percent. However, marijuana use among youths 12–17 years of age increased during that period. Among youths the percent who used marijuana in the past month rose from 4 percent in 1992 to 7 percent in 1994. This follows a decline in marijuana use among

youths from 17 percent in 1979 to 4 percent in 1992 (table 65).

■ Between 1990 and 1994 the number of **cocaine-related emergency room episodes** increased 77 percent to more than 142,000 episodes. During this period the increase in cocaine-related episodes was greatest among persons 35 years of age and over (136 percent). These data measure the consequences rather than the prevalence of cocaine use and indicate that cocaine use has placed an increasing burden on hospital emergency rooms (table 67).

■ An **environmental health** objective for the year 2000 is that at least 85 percent of the U.S. population should be living in counties that meet the Environmental Protection Agency's National Ambient Air Quality Standards (NAAQS). In 1993, 77 percent of people lived in counties that met the NAAQS for all pollutants, up from 50 percent in 1988. Differences exist among racial and ethnic groups. In 1993, 58–63 percent of Hispanic and Asian American persons lived in counties that met NAAQS for all pollutants compared with 75–77 percent of black persons and white persons and 82 percent of the American Indian population. In 1993, 80 percent of people overall lived in counties that met the standard for ozone, the most pervasive air pollutant (table 72).

Utilization of Health Resources

Ambulatory Care

■ **Place of physician contact** is strongly associated with family income. In 1994 the age-adjusted percent of physician contacts in doctors' offices was 31 percent lower for persons with family income below $14,000 than for persons with an income of $50,000 or more. Persons with low family income were less likely than persons with high family income to have a telephone contact with a physician (12 and 16 percent). The age-adjusted percent of visits to hospital outpatient departments and emergency rooms was about twice as great for low income persons as for high income persons (19 and 9 percent) (table 75).

■ In 1994 the age-adjusted percent of persons **without a physician contact in the previous 2 years** was about twice as great for males as for females (15 and 8 percent). Nearly one-quarter of men 15–44 years of age and almost one-fifth of men 45–64 years of age were without a recent physician contact compared with less than one-tenth of women in those age groups (table 77).

■ In 1993 there were 870 million **ambulatory care visits**, 82 percent occurring in physician offices, 10 percent in hospital emergency departments, and 7 percent in hospital outpatient departments. In 1993 the age-adjusted number of ambulatory visits per 100 persons for all places combined was 15 percent lower for black persons than for white persons (291 and 343). Use of physician offices was 34 percent lower for black persons than for white persons. However, use of hospital outpatient departments by black persons was double that for white persons and use of hospital emergency departments by black persons 15–64 years of age was 82–91 percent greater than for white persons of comparable age (table 79).

■ In 1993 the age-adjusted percent of adults 25 years and over with a **dental visit** within the last year was almost twice as great for persons with more than 12 years of education as for those with less than 12 years of education, a pattern similar to that of a decade earlier. In addition, use of recent dental services varies by race and Hispanic origin among persons of similar educational level. In 1993 among persons with less than 12 years of education and those with more than 12 years of education, the age-adjusted percent of non-Hispanic white adults with a dental visit within the last year was about 25 percent greater than for non-Hispanic black or Hispanic adults (table 81).

■ In 1993 about 1.5 million persons were under the care of **home health agencies** on an average day. Home health care services are provided mainly to the elderly; three-quarters of those being served were 65 years of age and over at the time of admission, and nearly 20 percent were 85 years of age and over. In 1993 among current users of home health services, the most common primary admission diagnoses were heart disease (13 percent of patients), diseases of the musculoskeletal system (9 percent), diabetes and cerebrovascular diseases (7 percent each) (table 82).

Inpatient Care

■ Utilization of **inpatient short-stay hospital care** is greater for persons with low family income (less than $14,000) than for persons with high family income ($50,000 or more). In 1994 the age-adjusted days of care rate reported by low income persons was three times the rate for high

income persons (970 and 320 days of care per 1,000 population) (table 83).

■ Between 1988 and 1993 the age-adjusted **days of care rate** in non-Federal short-stay hospitals declined by 15 percent to 639 per 1,000 population. During this period days of care per 1,000 population declined by 19 percent to 399 among persons 15–44 years of age and by 18 percent to 785 among persons 45–64 years (table 84).

■ Between 1980 and 1993 the percent of all **surgical operations** performed on an outpatient basis in short-stay hospitals more than tripled to 55 percent. During the same period, outpatient visits in short-stay hospitals grew by 67 percent to 426 million visits, while inpatient admissions declined by 15 percent to 32 million (table 90).

■ Between 1990 and 1992 the **mental health inpatient and residential treatment addition rate** (admissions and readmissions) to all mental health organizations declined by 3 percent to 810 additions per 100,000 civilian population, after increasing by 19 percent between 1983 and 1990. Between 1983 and 1992 the addition rate for State and county mental hospitals declined by 26 percent (table 93).

Health Care Resources

Personnel

■ Between 1990 and 1994 the number of civilians **employed in health services sites** increased by 12 percent to 10.6 million persons compared with a 4-percent increase in total civilian employment. In 1994 institutional settings accounted for 63 percent of civilians employed in health services industries with hospitals accounting for 47 percent and nursing homes for 16 percent (table 96).

■ Between 1990 and 1993 full-time equivalent **employment in community hospitals** increased by 7 percent to 3.7 million workers with nursing personnel comprising 35 percent of the total. In 1993 two-thirds of nursing personnel were registered nurses, and one-third were licensed practical nurses and ancillary nursing personnel (table 102).

■ In 1994 there were 605,000 active medical doctors with one-third practicing as **generalists** and two-thirds as **specialists**. In 1995, 28 percent of graduating medical school seniors planned on future certification in a primary care generalist area, up from 15 percent in 1991 (table 100).

■ In 1993 there were 60 **dentists** per 100,000 population, 13 percent more than in 1980. Between 1993 and 1994 the number of graduates from schools of dentistry increased slightly to 3,800 after declining between 1983 and 1993 by 35 percent from a high of 5,800 graduates. In academic year 1993–94, 37 percent of students enrolled in dental schools were women, up from 17 percent in academic year 1980–81 (tables 101, 104, and 106).

■ Between 1984 and 1992 the number of full-time equivalent (FTE) **patient care staff in mental health organizations** grew by 39 percent to 435,000. During this period FTE's in private psychiatric hospitals more than doubled; FTE's in non-Federal general hospitals' psychiatric services grew by 22 percent; and FTE's in State and county mental hospitals declined by 6 percent (table 103).

Facilities

■ Between 1985 and 1993 the number of **short-stay hospital beds** in the United States declined by 9 percent to 992,000. During the same period, **occupancy rates** in short-stay hospitals remained fairly stable at 65–67 percent. In 1993 occupancy rates in short-stay hospitals ranged from 49 percent for the smallest hospitals (under 100 beds) to 75 percent for the largest hospitals (500 beds or more) (table 107).

■ Between 1990 and 1992 the **mental health inpatient and residential treatment bed rate** declined by 4 percent to 107 beds per 100,000 civilian population after remaining stable between 1984 and 1990. Between 1984 and 1992 the proportion of beds in State and county mental hospitals declined from 50 percent to 34 percent, beds in private psychiatric hospitals increased from 8 percent to 16 percent, and beds in non-Federal general hospitals' psychiatric services remained stable at about 18–19 percent of the total (table 109).

■ Between 1980 and 1993 the number of **community hospital beds** per 1,000 civilian population decreased by 20 percent to 3.6 beds per 1,000 population and the overall **occupancy rate** declined by 14 percent to 65 percent. In 1993 States with the greatest number of community hospital beds per 1,000 population were North Dakota, South Dakota, Nebraska, and Montana (5–7 beds per 1,000) and those with the fewest were Alaska, Washington, and Utah (2 beds per 1,000). In 1993 States with the highest occupancy rates were

Hawaii, New York, and New Jersey (77–83 percent) and those with the lowest occupancy rates were Wyoming, Utah, and Alaska (49–53 percent) (tables 110 and 111).

Health Care Expenditures

National Health Expenditures

■ In 1994 **national health care expenditures** in the United States totaled $949 billion, an average of $3,510 per person. The annual rate of increase in national health expenditures slowed to 6–7 percent in 1993 and 1994, down from 9–10 percent in 1991 and 1992. The average annual rate of increase had been 12 percent during the 25-year period from 1965 to 1990. Health expenditures made up 13.7 percent of the gross domestic product in 1994, a record high (tables 114 and 118).

■ In 1994 **Federal health expenditures** comprised 19 percent of total Federal Government expenditures, up from 15 percent in 1989 and 1990. Health expenditures as a percent of total State and local government expenditures remained relatively stable at 13 to 14 percent over the same period (table 114).

■ In 1993 health spending in the United States accounted for a larger **share of gross domestic product** (GDP) than in any other major industrialized country. The United States devoted 13.6 percent of GDP to health in 1993. Canada, the country with the second highest health share of GDP, devoted 10.2 percent of GDP to health in 1993, followed by Switzerland and France with nearly 10 percent. Between 1990 and 1993 health expenditures as a percent of GDP increased by 1.5 percentage points in the United States and Switzerland (table 115).

■ The rate of increase in the medical care component of the **Consumer Price Index** (CPI) continued to decline from 8.7 percent in 1991 to 5.9 percent in 1993 and 4.5 percent in 1995. Despite the slowdown, the inflation rate for the medical care component of the CPI remained at a much higher level than the overall inflation rate of 2.8 percent in 1995. Inflation for medical care services (5.1 percent in 1995) outpaced that of medical care commodities (1.9 percent) (tables 116 and 117).

■ In 1994 expenditures for **hospital care** accounted for 36 percent of national health expenditures, physician services for 20 percent, drugs and nursing home care each for 8 percent, and other professional services, dentist services and home health care each for 3–5 percent (table 119).

■ Between 1994 and 1995 **private employers' health insurance costs** per employee-hour worked declined by 7 percent to $1.06 per hour after increasing by 24 percent between 1991 and 1994. Health insurance costs per employee hour worked for State and local government workers declined by 5 percent between 1994 and 1995 to $1.95 per hour. In 1995 private employers with fewer than 100 employees paid less than one-half as much for health insurance per employee-hour worked ($.77) as did the employers with 500 or more employees ($1.65). Private employers paid 2.3 times as much for health insurance per employee-hour worked for union workers as for nonunion workers (table 121).

■ In 1994 rising prices explained the largest portion (68 percent) of growth in **personal health care expenditures**, with 42 percent of growth attributable to a rise in economy-wide prices and 26 percent to medical price increases. Eighteen percent of the growth was attributed to population increase and 15 percent to changes in the use or kinds of services and supplies (table 122).

■ In 1994 one-fifth of **personal health expenditures** were paid out of pocket; private health insurance paid one-third; the Federal Government paid one-third; and State and local government paid one-tenth. The share paid by the Federal Government increased by 5 percentage points from 1990 to 1994 while the shares paid by other sources declined (table 123).

■ In 1994 the major **sources of funds** for hospital care were private health insurance (34 percent) and Medicare (30 percent). In 1994 physician services were also primarily funded by private health insurance (47 percent) and Medicare (20 percent). In contrast, in 1994 nursing home care was financed primarily by Medicaid (47 percent) and out-of-pocket payments (37 percent) (table 124).

■ Between 1985 and 1994 the **proportion of health expenditures** paid by Medicaid increased from 9 to 15 percent for hospital care, and from 4 to 7 percent for physician services. Over the same period Medicare funding for nursing home care increased from 1 to 8 percent. The share of physician services expenditures paid by private health insurance increased from 40 percent in 1985 to 47 percent in 1994 (table 124).

■ In 1993 the increase in **expenses in non-Federal short-stay hospitals** slowed to

7.3 percent, following a period of higher growth from 1987 to 1992 that averaged 10.2 percent annually. In 1993 employee costs accounted for 52.8 percent of total hospital costs. Personnel per 100 patients continued its gradual rise to 441 in 1993 (table 125).

■ From 1988 to 1991 total public health expenditures by State and territorial health agencies increased at an average annual rate of 11 percent. During this period expenditures for the supplemental food program for women, infants, and children **(WIC)** increased at an average annual rate of 16 percent. This growth in the WIC program was similar to that experienced from 1980 to 1984 (18 percent per year) after which annual increases slowed to 9 percent from 1984 to 1987 and to only 2 percent in 1988. WIC has accounted for one-fifth of public health expenditures by State and territorial health agencies since the mid-1980's (table 129).

■ **Expenditures by mental health organizations** remained stable from 1990 to 1992 at $28 billion. Private psychiatric hospitals decreased their share of mental health dollars from 22 percent in 1990 to 14 percent in 1992. State and county mental hospitals accounted for 28 percent of expenditures in 1992. Spending on mental health decreased from $117 per capita in 1990 to $112 in 1992 after increasing steadily from $62 per capita in 1983 (table 130).

■ In 1993 **funding for health research and development** increased by 6.1 percent. Since 1980 the average annual increase in health research funding by industry (including drug research) has been more than twice that of the Federal Government (15.3 percent compared with 7.5 percent). Between 1980 and 1993 industry's share of funding for health research increased from 31 to 51 percent while the Federal Government's share declined from 59 to 39 percent (table 131).

■ In 1995 **Federal expenditures for HIV-related activities** increased 13 percent to $7.1 billion compared with an annual average increase of 20 percent between 1990 and 1994. Of the total Federal spending in 1995, 48 percent was for medical care, 22 percent for research, 21 percent for cash assistance (Disability Insurance, Supplemental Security Income, and Housing and Urban Development assistance), and 9 percent for education and prevention. Between 1994 and 1995 expenditures for medical care increased by 11 percent, research by 2 percent, cash assistance by 36 percent, and education and prevention by 7 percent (table 133).

Health Care Coverage and Major Federal Programs

■ Between 1989 and 1994 the age-adjusted proportion of the population under 65 years of age with private **health insurance** declined from 77 to 70 percent. Expansions in the Medicaid program resulted in an increase in the proportion of the population with Medicaid coverage during this period from 6 to 10 percent. The age-adjusted proportion of the population under 65 years of age without health care coverage increased from 16 percent in 1989 to 18 percent in 1994 (table 134).

■ In 1994 the percent of persons with no **health care coverage** declined steadily with increasing income from 35 percent among those with family incomes of less than $14,000 to 6 percent among those with family incomes of $50,000 or more. Hispanic persons were more than twice as likely to have no coverage as non-Hispanic white persons in 1994 (33 percent and 15 percent) (table 134).

■ Between 1994 and 1995 enrollment in health maintenance organizations **(HMO's)** increased 9 percent to 46 million persons. In 1995, 18 percent of the U.S. population was enrolled in an HMO, ranging from only 11 percent in the South to 29 percent in the West. In 1995, 38 percent of HMO members were enrolled in individual practice associations, 28 percent in Group HMO's, and 35 percent in Mixed Model HMO's. In 1995, 8 percent of HMO enrollees were funded by Medicare and another 10 percent by Medicaid (table 136).

■ In 1994 the **Medicare** program had 37 million enrollees and expenditures of $165 billion. The total number of enrollees increased 2 percent over the previous year while expenditures for Hospital Insurance (HI) increased by 11 percent and expenditures for Supplementary Medical Insurance (SMI) increased by 8 percent. In 1994 SMI accounted for 37 percent of Medicare expenditures (table 137).

■ Between 1990 and 1994 **Medicare** expenditures under (HI) increased at an average annual rate of 36 percent for home health agency services, 41 percent for hospices, and 31 percent for skilled nursing facilities. Between 1990 and 1994 Medicare

expenditures under (SMI) increased at an average annual rate of 18 percent for group practice prepayment (table 137).

■ Of the 32.5 million elderly **Medicare** enrollees in 1993, 11 percent were 85 years of age and over. In 1993 the average payment per Medicare enrollee for those 85 years of age and over ($5,083) was 2.3 times that for those aged 65–66 years ($2,238) (table 138).

■ In 1994 **Medicaid** vendor payments totaled $108 billion for 35.1 million recipients. In 1994 payments increased by 6 percent and recipients by 5 percent. This growth was slower than during the period 1990 to 1993 with average annual increases of 16 percent for payments and 10 percent for recipients. In 1994 children under the age of 21 years comprised 49 percent of recipients but accounted for only 16 percent of expenditures. The aged, blind, and disabled accounted for 27 percent of recipients and 70 percent of expenditures (table 139).

■ In 1994 about one-quarter of **Medicaid** payments went to general hospitals and another quarter to nursing facilities. Home health accounted for nearly 7 percent of Medicaid payments in 1994, up from 1 percent in 1980. Early and periodic screening, rural health clinics, and family planning services combined received less than 2 percent of Medicaid funds in 1994. Average payments per recipient ranged from $152 for early and periodic screening for children to $52,269 for intermediate care facility services for the mentally retarded (table 140).

■ Between 1993 and 1994 spending on health care by the **Department of Veterans Affairs** increased by 5 percent to $15.4 billion. In 1994, 54 percent of the total was for inpatient hospital care, 28 percent for outpatient care, and 11 percent for nursing home care. Veterans with service-connected disabilities accounted for 39 percent of inpatients and 37 percent of outpatients. Low income veterans with no service-connected disability were the largest group served accounting for 57 percent of inpatients and 43 percent of outpatients (table 141).

State Health Expenditures

■ Between 1990 and 1993 **hospital care expenditures** in the United States grew at an average annual rate of 8.4 percent, slower than in the preceding decade when the rate was 9.6 percent. Between 1990 and 1993 the average annual rate of increase in hospital care expenditures varied twofold among the States from 5.4 percent in Minnesota to 10.7 percent in New Mexico, South Carolina, and Texas. During this period average annual increases in the New England and the West North Central geographic divisions (7.0–7.3 percent) were lower than in other divisions (table 142).

■ Between 1990 and 1993 **physician service expenditures** in the United States grew at an annual average rate of 6.8 percent, compared with an average rate of 12.0 percent per year during the previous decade. Between 1990 and 1993 average annual increases in physician service expenditures were lowest in the West South Central and South Atlantic geographic divisions (5.5–5.7 percent) and highest in the Pacific division (8.8 percent) (table 143).

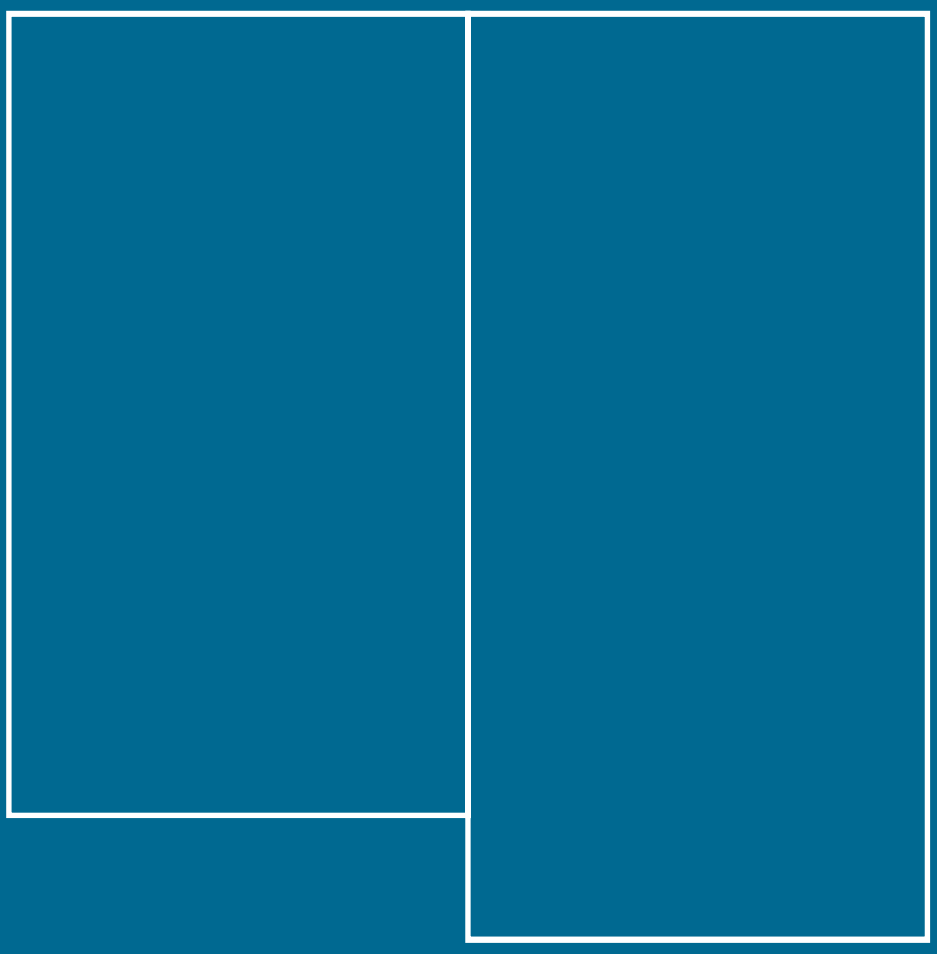
■ Expenditures for purchases of **prescription drugs** from retail outlets increased at an average annual rate of 8.5 percent between 1990 and 1993 compared with an average rate of 12.2 percent per year during the previous decade. Between 1990 and 1993 average annual increases in prescription drug expenditures were lowest in the New England and Middle Atlantic geographic divisions (6.4–6.9 percent) and highest in the Mountain division (11.9 percent) (table 144).

■ In 1993 **Medicare payments per enrollee** varied more than twofold among the States from $2,183 in Hawaii, to $4,538 in Maryland, and $4,973 in the District of Columbia. Utilization of short-stay hospitals by Medicare enrollees also varied twofold among the States from 207 discharges per 1,000 enrollees in Hawaii to 413 in Mississippi. The length of stay in short-stay hospitals by Medicare enrollees averaged 6.2–6.3 days in the Mountain and Pacific geographic divisions compared with 7 or more days in other geographic divisions in 1993 (table 145).

■ In 1994 **Medicaid payments per recipient** ranged from $1,995 in California to $6,441 in New York. For the United States as a whole, the ratio of Medicaid recipients to persons below the poverty level increased from 75 per 100 in 1989–90 to 89 per 100 in 1993–94. The States with the lowest ratio of Medicaid recipients to poverty population in 1993–94 were Nevada, Oklahoma, South Dakota, and Louisiana (59–68 per 100) (table 146).

■ In 1994 the proportion of the population without **health care coverage** varied among the

States from 8 to 24 percent. States with relatively low percents of uninsured persons (less than 14 percent) throughout the period 1987 to 1994 were more likely to be located in the New England, Middle Atlantic, East North Central, and West North Central geographic divisions than in the other five geographic divisions (table 148).



Chartbook: Women's Health

Introduction

Improving the health of all Americans has long been a major goal for this nation. Until recently, however, issues concerning differences in the health of women and men with respect to mortality, morbidity, lifestyles, and health care access and utilization have received little attention. Research on women's health has historically focused primarily on reproductive health and neglected other health issues. Furthermore, biomedical research has typically focused exclusively on men, thereby contributing to a lack of information and understanding of women's health (1).

In recent years, interest in the health of women has increased substantially. Several reports have emphasized the need for more information on the health of women in the United States, the lack of commitment to health research specific to women, and strategies for improving women's health (1,2). The result has been a growing body of knowledge regarding women's health, as well as a much stronger commitment towards women's health among Federal, State, and local agencies as well as the academic community. Data pertaining to a range of important health concerns among women are becoming available, as is information on the prevention of these health problems. This chartbook presents data to address some of these issues, drawing from several national surveys and data systems.

The topic of women's health is broad and could not be covered completely in this chartbook. Topics chosen for inclusion met at least one of the following criteria: (a) major public health importance (for example, heart disease), (b) higher prevalence in women than in men (for example, osteoporosis), (c) unique to women (for example, reproductive health), or (d) affects women and men differently (for example, violence). Even within these guidelines, many additional topics could have been included. This report spotlights women's health issues and provides examples of the spectrum of concerns included under this broad heading, but should not be considered a full representation of all issues that could be addressed.

The chartbook consists of 39 figures with accompanying text, data tables, and technical notes. The first section of figures presents information on mortality, including life expectancy (figure 1), the leading causes of death among women (figures 2–4), and trends in death rates for heart disease, breast and lung cancer, chronic obstructive pulmonary disease, and diabetes (figures 5–8). The next set of figures (9–19) focuses on various types of morbidity, including incidence rates for selected cancers (figure 9), AIDS incidence (figures 10 and 11), occupational injuries (figure 12), and two chronic conditions common among older women, arthritis (figure 13) and osteoporosis (figure 14). Other charts in the morbidity section present data on disability (figure 15), mental health (figures 16 and 17), and hypertension (figures 18 and 19). Health behaviors provide the focus for the next section of figures, starting with individual behaviors such as cigarette smoking (figures 20 and 21), overweight and exercise (figures 22–24), and ending with violent behavior of other persons (figure 25). The chartbook then turns to issues relating to reproductive health, including live births, unintended pregnancy, and abortion information (figures 26–28). The next section of figures (figures 29–37) focuses on health care access and utilization, including such aspects as health care coverage (figure 29), lack of a usual source of health care (figure 30), utilization of ambulatory health care (figure 31), and inpatient health care (figures 32 and 33). Information on utilization of services that are of particular importance to women including prenatal care (figure 34), mammography (figure 35), mental health services (figure 36), and home health care (figure 37) are presented next. The final section addresses substance use among women in relation to pregnancy and parental status (figure 38) and at admission for treatment (figure 39).

This report uses the term ''sex'' rather than ''gender'' to refer to the classification of women and men. This usage does not imply, however, that differences in health and health care utilization between women and men are exclusively a function of biological factors, as the word ''sex'' is generally used to convey. Other factors of potential importance include differences in the social roles and expectations of women and men, which vary over time both within and across cultures (3). These social roles and expectations affect women's health, in part, by influencing health-related behaviors and affecting access to and utilization of health services.

In general, data have not been presented by race and Hispanic origin in the charts because the primary focus of the chartbook is on gender differences. Where data are available, however, bullets that highlight these differences have been included. A few of the charts do present data by race and ethnicity (figures 6, 10, 21, 23, 24, and 39). In addition, race- and ethnic-specific data are presented in the detailed tables of *Health, United States, 1995*. The chartbook also highlights

differences in the health of women according to socioeconomic status, (figures 21, 23, 24, 27, 29, 30, 34, and 35), since previous research has demonstrated that socioeconomically advantaged groups tend to have better health than other members of our society (4). Because many minority subpopulations tend to be less advantaged with respect to socioeconomic status than the white majority, racial and ethnic differences in health status are likely due in part to differences in economic and social status.

Technical information pertaining to specific charts is provided in the Technical Notes section of the chartbook. Several graphs that present trends over time are plotted on a log scale because the rate of change over time is easily seen on this scaling (5). A straight line indicates an annual rate of change that remains constant over time, while curves up or down indicate increasing or decreasing rates of change. Data points for all charts are provided in the data tables following the Technical Notes.

In summary, this chartbook is one contribution to an ongoing effort to increase awareness and knowledge of women's health and the issues that comprise and shape it. The chartbook does not provide a complete account of those issues. It does, however, provide information on a wide range of health topics that are important to women, and highlights some of the gender, race and ethnic, and socioeconomic disparities that impact most directly on the health of all women.

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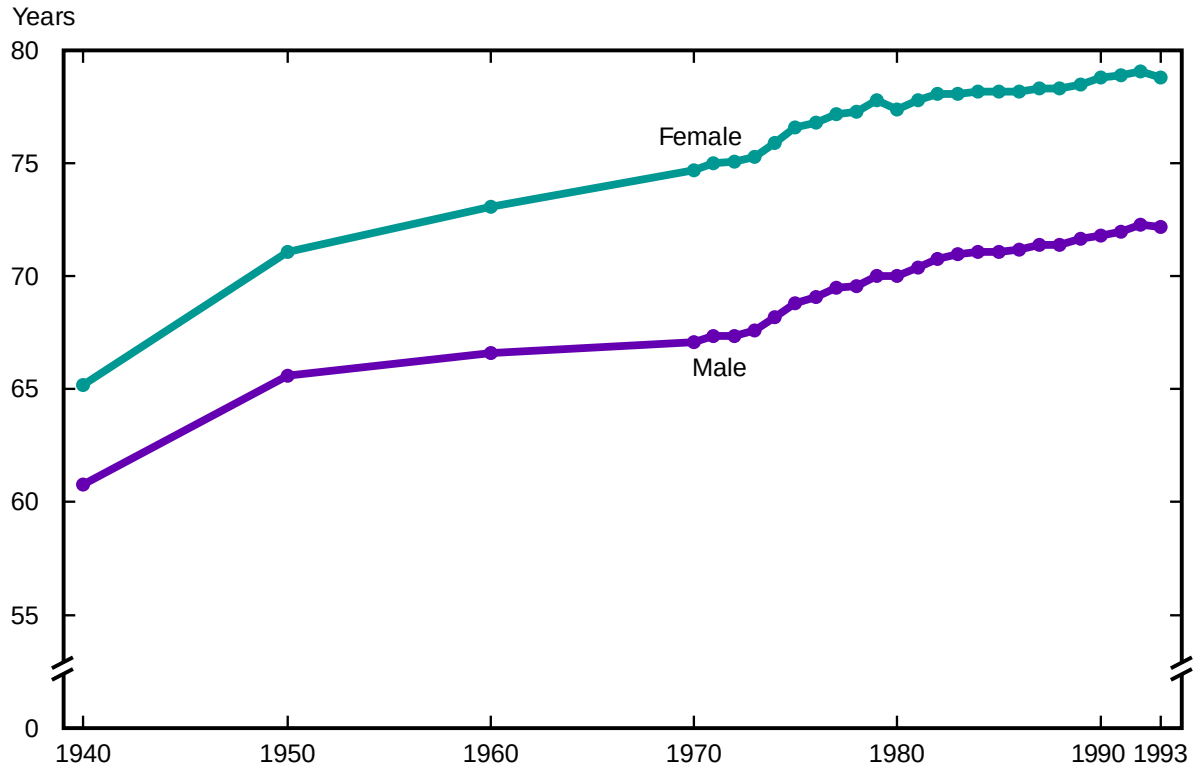
Life Expectancy

Figure 1. Life expectancy at birth by sex: United States, 1940–93



SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. See related *Health, United States, 1995*, table 29.

■ In 1993 life expectancy at birth for women was 78.8 years, 6.6 years longer than for men. At age 65 the difference between life expectancy for women and men was 3.6 years. The life expectancy of women in the United States has been continuously higher than that for men since before 1900, when death registration in the United States began.

■ For both women and men life expectancy at birth has increased since 1940, although the increase has been greater for women than for men. Between 1940 and 1993 life expectancy at birth increased by 13.6 years for women and 11.4 years for men.

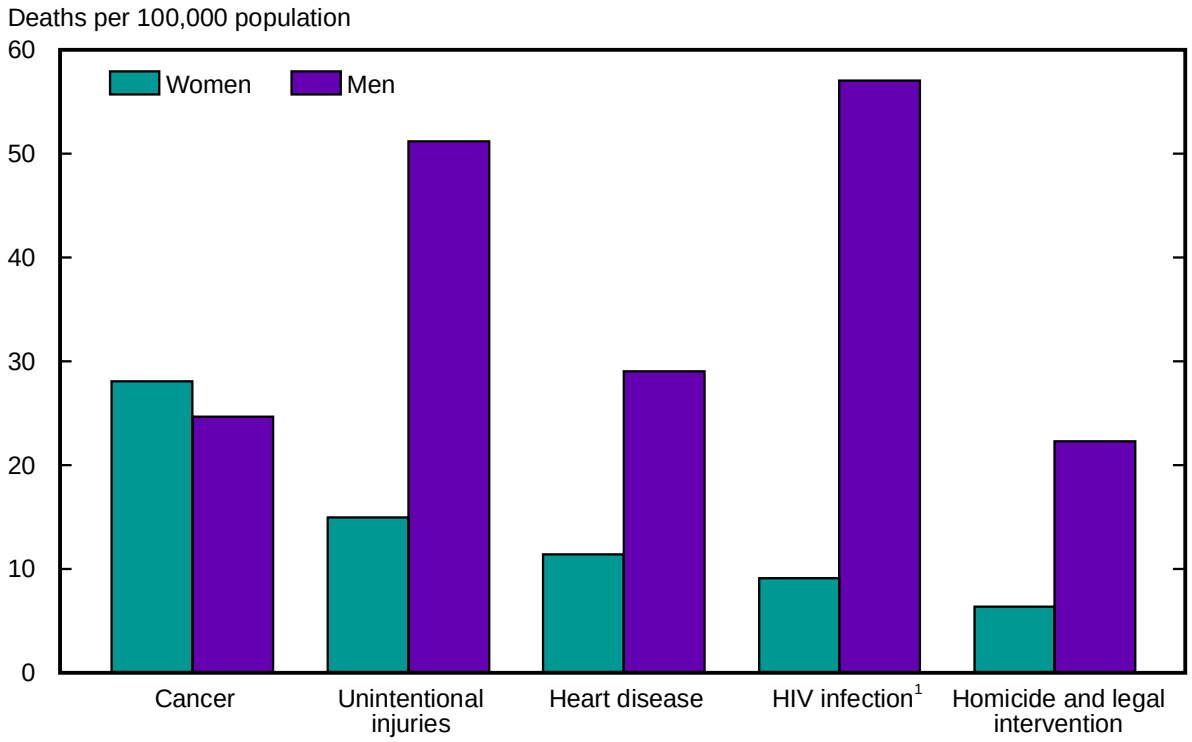
■ Between 1940 and 1972 the difference in life expectancy between the sexes increased from 4.4 years to 7.7 years. After remaining stable through the remainder of the 1970's, the difference narrowed to 6.9 years in 1987. Since 1987 the difference in life expectancy between women and men has remained between 6.6 and 7.0 years.

■ White women have consistently had a higher life expectancy than black women. In 1993 life expectancy at birth was 79.5 years for white women and 73.7 years for black women, a difference of 5.8 years.

■ Life expectancy increased faster among black women than among white women between 1970 and 1984, resulting in a narrowing of the differential in life expectancy between black women and white women from 7.3 years to 5.1 years. Between 1984 and 1988 the difference in life expectancy between black women and white women widened to 5.7 years as black women's life expectancy declined slightly from 73.6 to 73.2 years. From 1989 to 1993 the difference in life expectancy between white women and black women remained between 5.8 and 5.9 years.

Death Rates

Figure 2. Death rates for selected causes of death among persons 25–44 years of age by sex: United States, 1993



[1]Human immunodeficiency virus infection.

NOTES: Data are for the five leading causes of death among women 25–44 years of age. For a description of International Classification of Diseases code numbers for causes of death and cause-of-death ranking, see Appendix II.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. See related *Health, United States, 1995*, tables 33, 37, 39, 43, and 46.

■ In 1993 the overall death rate for women 25–44 years of age was 59 percent lower than for men in this age group (109.8 and 267.5 per 100,000 population). Sixty-four percent of all deaths among women in this age group were attributed to the five leading causes of death.

■ In 1993 the leading cause of death among women 25–44 years of age was cancer. For men in this age group, cancer was the fourth leading cause of death. The death rate for cancer among women 25–44 years of age was 14 percent higher than among men. The cancer death rate for black women (39.3 per 100,000) was 47 percent higher than for white women.

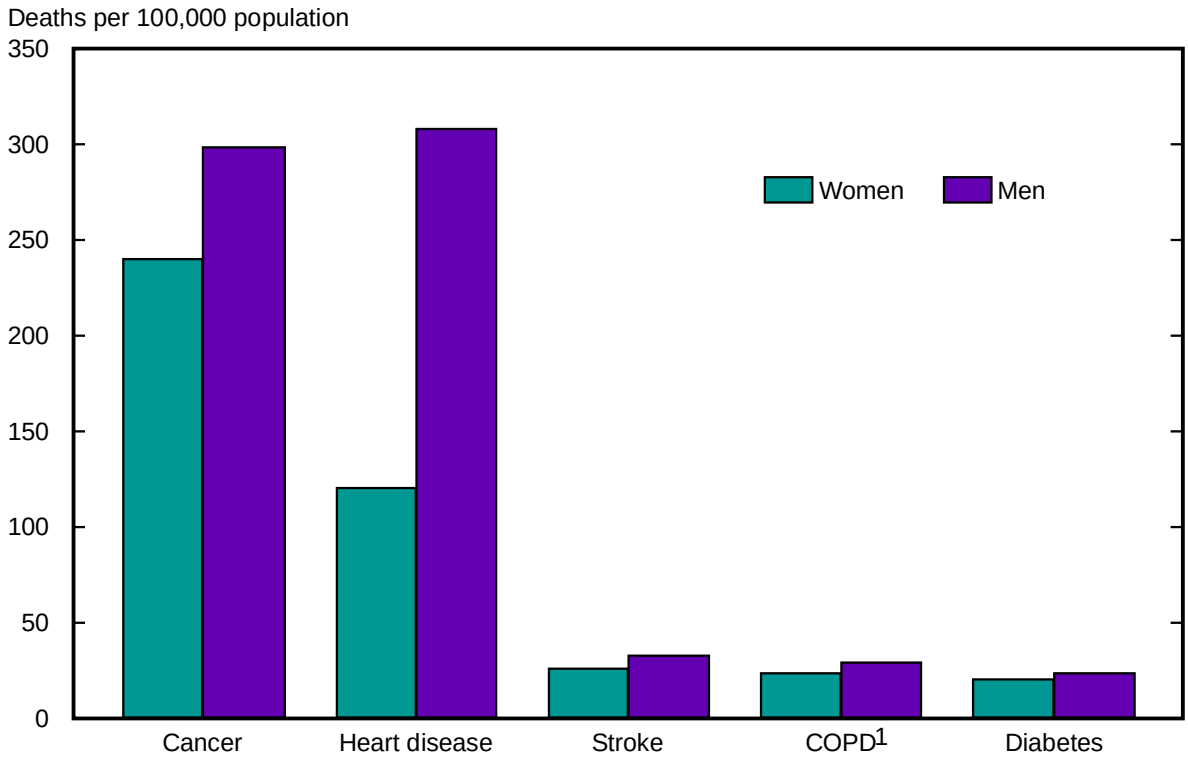
■ Unintentional injuries were the second leading cause of death among both women and men 25–44 years of age. The death rate among men for this cause was 3.4 times the rate for women. Among women motor vehicle crashes accounted for 62 percent of these deaths, while they accounted for only 50 percent of the unintentional injury deaths among men.

■ In 1993 human immunodeficiency virus (HIV) infection was the fourth leading cause of death among women aged 25–44 years, having moved up from a ranking of fifth in 1991, and sixth in 1990. HIV was the leading cause of death among black women in this age group, accounting for 2,226 deaths.

■ In 1993 homicide was the fifth leading cause of death among women 25–44 years of age. The homicide rate for women in this age group was at a record high in 1993. The death rate due to homicide among black women (20.6 per 100,000) was almost 5 times as great as the homicide death rate among white women (4.2 per 100,000).

■ The suicide rate among women 25–44 years of age declined between 1990 and 1993, and suicide moved down in ranking from fourth to sixth leading cause of death.

Figure 3. Death rates for selected causes of death among persons 45–64 years of age by sex: United States, 1993



[1]Chronic obstructive pulmonary disease.

NOTES: Data are for the five leading causes of death for women 45–64 years of age. For a description of the International Classification of Diseases code numbers for causes of death and cause-of-death ranking, see Appendix II.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. See related *Health, United States, 1995*, tables 33, 37–39, and 42.

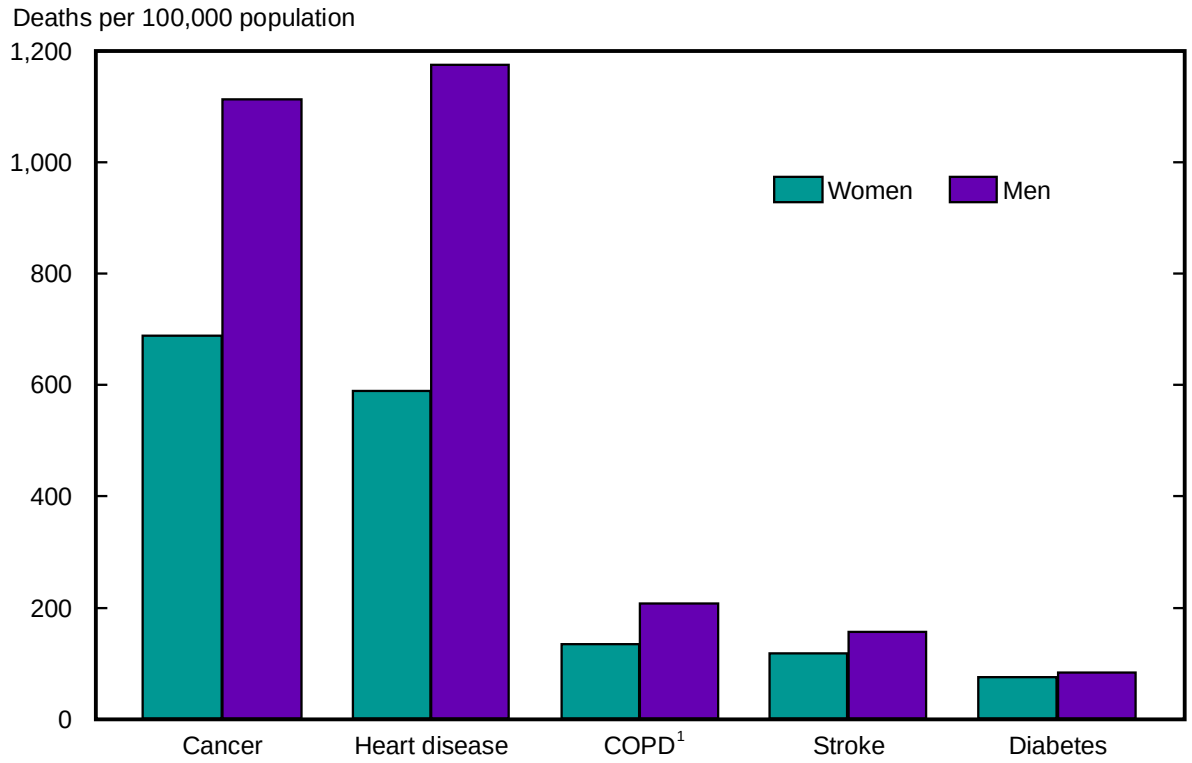
■ In 1993 the overall death rate for women 45–64 years of age (557.6 per 100,000 population) was 42 percent lower than the death rate for men in the same age group. The deaths attributed to the five leading causes of death accounted for 77 percent of all deaths among middle-aged women. Deaths attributed to cancer and heart disease, the first and second leading causes of death, accounted for 65 percent of all deaths to women in this age group.

■ As was the case for younger women, cancer was the leading cause of death among women 45–64 years of age, with a death rate of 240.1 per 100,000 population. The death rate for cancer among women was 20 percent lower than that for men in this age group. The death rate for cancer was 29 percent higher among black women than among white women in this age group.

■ In 1993 heart disease was the second leading cause of death among women in the age group 45–64 years. The death rate for heart disease among middle-aged black women (263.6 per 100,000) was 150 percent greater than among middle-aged white women (105.3 per 100,000).

■ Death rates among persons 45–64 years of age for cancer, stroke, chronic obstructive pulmonary disease, and diabetes were more similar by sex than they were for heart disease. These death rates were lower for women than for men in this age group by 14–21 percent, compared with 61 percent for heart disease.

Figure 4. Death rates for selected causes of death among persons 65–74 years of age by sex: United States, 1993



[1]Chronic obstructive pulmonary disease.

NOTES: Data are for the five leading causes of death for women 65–74 years of age. For a description of the International Classification of Diseases code numbers for causes of death and cause-of-death ranking, see Appendix II.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. See related *Health, United States, 1995*, tables 33, 37–39, and 42.

■ In 1993 the overall death rate for women 65–74 years of age (2,001 per 100,000 population) was 41 percent lower than the death rate for men in this age group. The deaths attributed to the five leading causes of death accounted for 80 percent of all deaths among women in this age group.

■ The leading cause of death among women 65–74 years of age in 1993 was cancer, as it was for women in the younger age groups. Among women 75 years of age and over, cancer dropped to the second leading cause of death after heart disease.

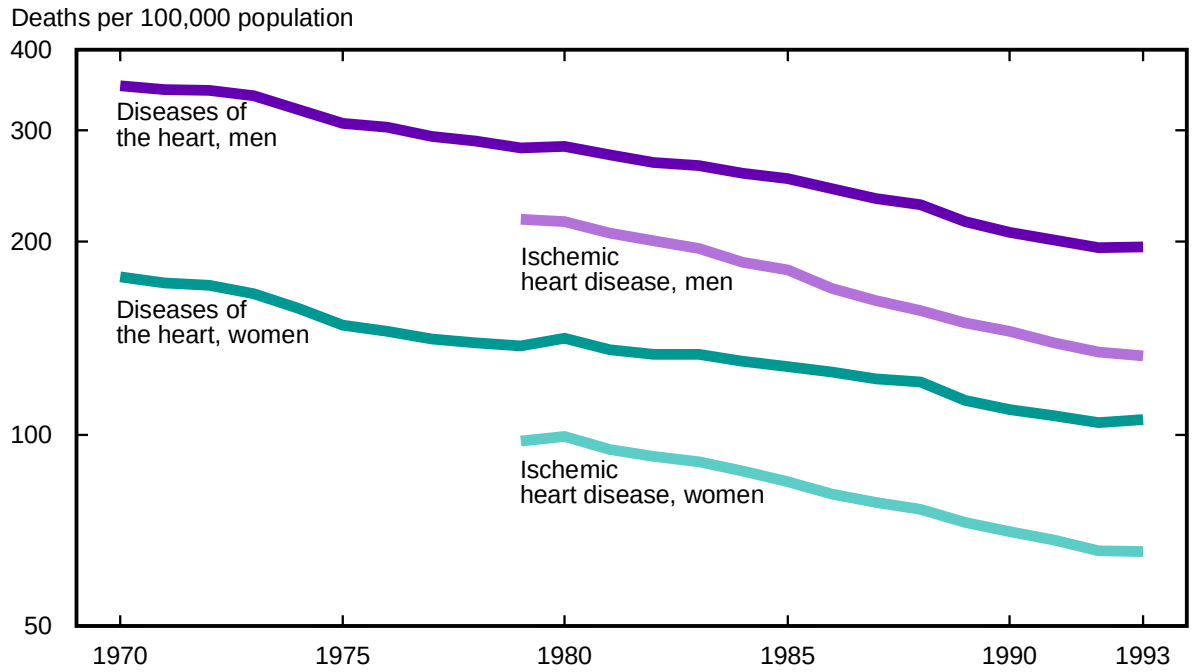
■ Heart disease was the second leading cause of death among women 65–74 years of age in 1993 and the leading cause of death among women 75 years of age and over. However, the death rate due to heart disease was only 14 percent less than the death rate for cancer. In comparison, for women 45–64 years of age the death rate for heart disease was 50 percent less than the death rate for cancer.

■ In 1993 chronic obstructive pulmonary disease (COPD) was the third leading cause of death among women and men 65–74 years of age. The death rate for COPD among black women was 46 percent lower than among white women.

■ Stroke was the fourth leading cause of death for both women and men 65–74 years of age. The death rate for stroke among women was 25 percent lower than among men in this age group. However, among women 75 years of age and over, the stroke death rate among women was 8 percent greater than for men. The death rate for stroke among black women 65–74 years of age was more than twice that of white women (221 and 109 per 100,000).

Heart Disease

Figure 5. Death rates for heart disease and ischemic heart disease by sex: United States, 1970–93



NOTES: Death rates are age adjusted. For a description of age adjustment and International Classification of Diseases code numbers for causes of death, see Appendix II. Rates are plotted on a log scale.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. See related *Health, United States, 1995*, tables 30 and 37.

■ In every year from 1970 to 1993 heart disease was the leading cause of death for both women and men in the United States. Between 1970 and 1979 women and men experienced similar rates of decline in mortality from heart disease. Between 1979 and 1993 the decline in heart disease mortality was less rapid for women (23 percent) than for men (30 percent).

■ Almost all of the decline in heart disease mortality since 1979 was attributable to declining mortality from ischemic heart disease. The age-adjusted death rate for ischemic heart disease fell by 33 percent for women and 39 percent for men between 1979 and 1993.

■ Sex differentials in heart disease mortality narrow with age. Among persons 75 years of age and over in 1993, the death rate for heart disease was 16 percent lower for women than men. In contrast, among persons 65–74 years of age the heart disease death rate among women was about half that for men.

■ Between 1970 and 1980 the age-adjusted death rate for heart disease was about 50 percent higher for black women than white women. Between 1980 and 1993 the heart disease mortality differential between white and black women widened to 67 percent due to a more rapid decline in heart disease death rates for white women (26 percent) than for black women (18 percent).

■ In 1993 age-adjusted heart disease death rate was 24 percent lower for American Indian or Alaskan Native women, and 43 percent lower for Asian or Pacific Islander women than for white women (99.3 per 100,000) and 29 percent lower for Hispanic women than non-Hispanic white women.

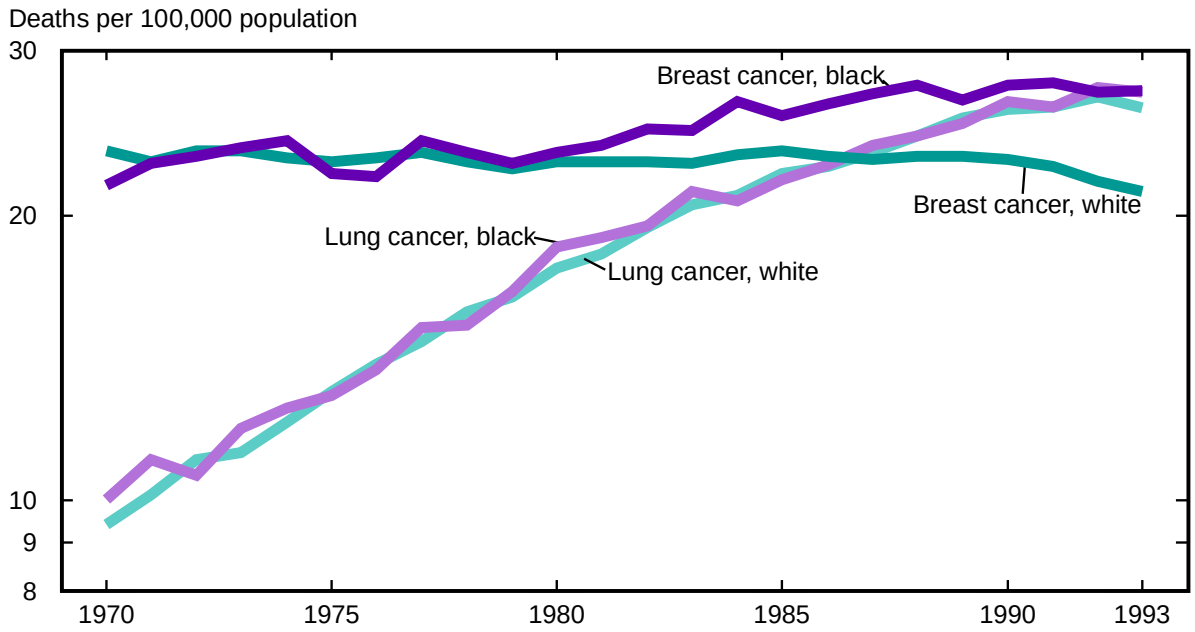
■ In 1985–89 the age-adjusted death rate for heart disease among women was higher in the United States than most countries in Western and Southern Europe, Scandinavia, and Japan (1).

Reference

1. Zarate AO. International mortality chartbook: Levels and trends, 1955–91. Hyattsville, Maryland: Public Health Service, 1994.

Lung and Breast Cancer

Figure 6. Death rates for lung and breast cancer among women by race: United States, 1970–93



NOTES: Death rates are age adjusted. For a description of age adjustment and International Classification of Diseases code numbers for breast cancer deaths, see Appendix II. See the Technical Notes for information on International Classification of Diseases code numbers for lung cancer. Rates are plotted on a log scale.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. See related *Health, United States, 1995*, tables 40 and 41.

■ In 1993 the age-adjusted death rate among women due to breast cancer was 21.5 per 100,000 women, only 7 percent lower than in 1970.

■ Between 1973 and 1992 the age-adjusted breast cancer incidence rate for white women has been 12–29 percent higher than for black women (1). However, in 1993 black women were 28 percent more likely to die from breast cancer than were white women.

■ Between 1970 and 1988 the age-adjusted death rate for breast cancer increased by 28 percent among black women to 27.5 per 100,000, after which it remained relatively stable. Among white women the age-adjusted death rate for breast cancer was stable between 1970 and 1985, after which it declined 9 percent to 21.2 per 100,000 women in 1993.

■ Between 1970 and 1993 the age-adjusted death rate for lung cancer among all women rose 182 percent to 26.5 per 100,000. In contrast, the age-adjusted lung cancer death rate for men rose by only 24 percent from 1970 to 1987 and then declined slightly to 55.5 per 100,000 in 1993.

■ The age-adjusted lung cancer death rates for black women and white women have been similar between 1970 and 1993.

■ Mortality due to respiratory cancer among women in the United States ranked highest among 35 mostly developed countries (2). Breast cancer mortality among U.S. black women was higher than all but four countries: New Zealand, Netherlands, Denmark, and the United Kingdom (2).

■ Compared with other cancers, lung cancer incidence is third highest after breast and colorectal cancer among U.S. women (1). However, starting in 1987 the number of deaths due to lung cancer surpassed that for breast cancer, making lung cancer the leading cause of cancer deaths for women.

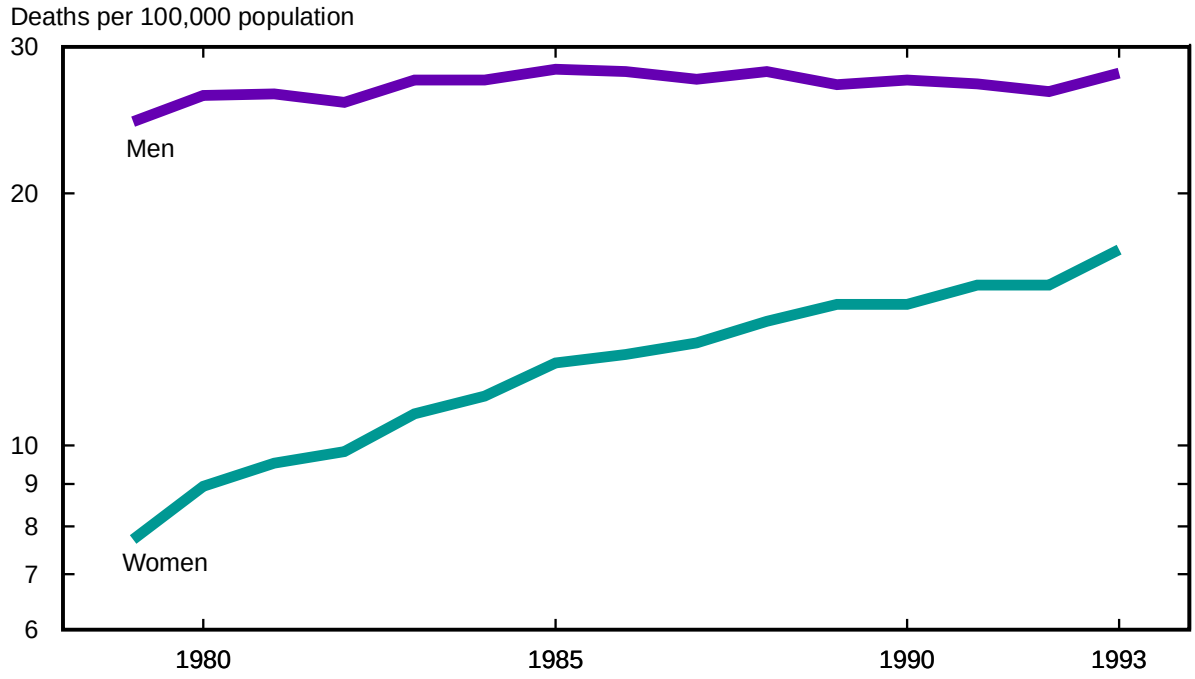
References

1. Ries LAG, Miller BA, Hankey BF, eds. SEER Cancer Statistics Review, 1973–1991. National Cancer Institute. NIH Pub. No. 94–2789. 1994.

2. Zarate AO. International mortality chartbook: Levels and trends, 1955–91. Hyattsville, Maryland: Public Health Service, 1994.

Chronic Obstructive Pulmonary Disease

Figure 7. Death rates for chronic obstructive pulmonary disease by sex: United States, 1979–93



NOTES: Death rates are age adjusted. For a description of age adjustment and International Classification of Diseases code numbers for causes of death, see Appendix II. See Technical Notes for discussion of underlying and nonunderlying causes of death. Rates are plotted on a log scale.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. See related *Health, United States, 1995*, tables 30 and 42.

■ In 1993 chronic obstructive pulmonary disease (COPD) was the underlying cause of death for 46,702 women in the United States. COPD, which includes bronchitis, emphysema and asthma, was the fourth leading cause of death among women of all ages in 1993.

■ The age-adjusted death rate for COPD among women increased by 122 percent between 1979 and 1993 to 17.1 per 100,000 women. During this same period, the age-adjusted death rate for COPD among men increased by only 14 percent to 27.8 per 100,000 men.

■ COPD significantly contributes to mortality from other causes. In 1993, as it has been since 1979, the number of deaths among women associated with COPD as either underlying or nonunderlying cause of death (98,092) was about two times as great as the number of deaths of COPD as the underlying cause of death.

■ The age-adjusted death rate for COPD was highest among white women in 1991–93 (16.7 per 100,000 women), lowest among Asian or Pacific Islander women (5.0 per 100,000 women), and intermediate for black women (11.6 per 100,000), American Indian women (10.7 per 100,000 women). The death rate associated with COPD among Hispanic women of any race was 6.4 per 100,000 women.

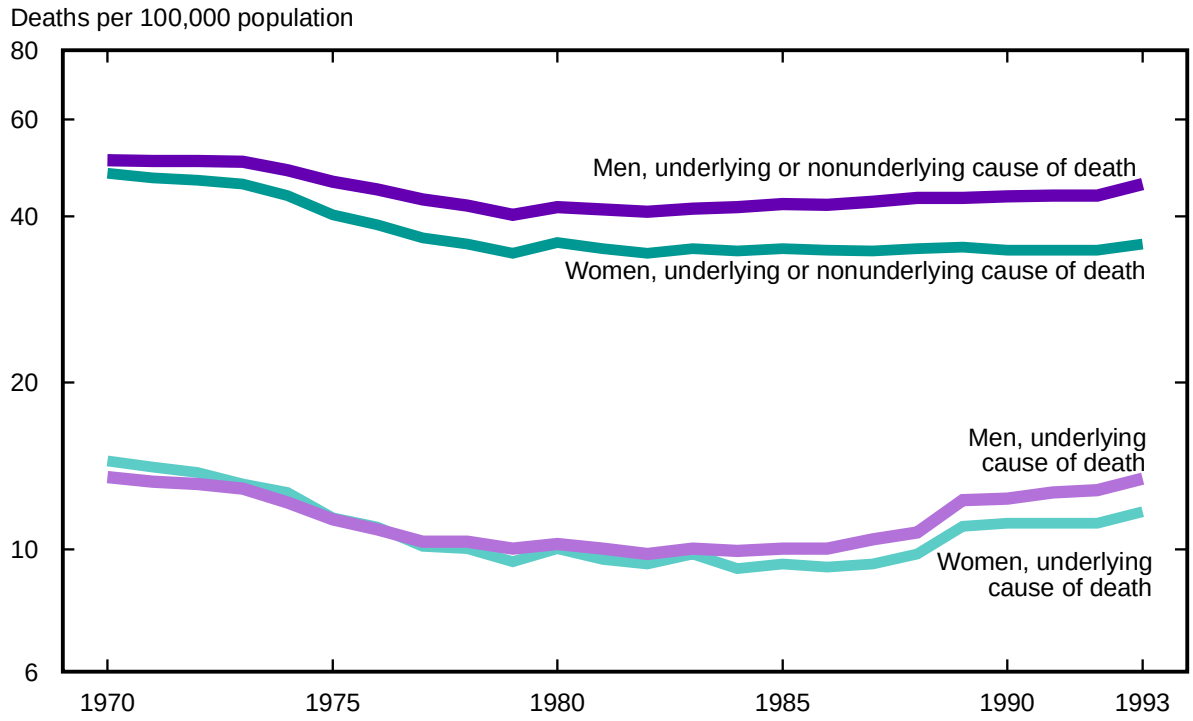
■ Smoking is the strongest avoidable risk factor for COPD (1). Among persons with COPD as a nonunderlying cause of death, the most common underlying causes of death were heart disease and lung cancer, other causes of mortality strongly associated with smoking.

Reference

1. Ingram RH. Chronic bronchitis, emphysema, and airways obstruction. In Isselbacher KJ, Braunwald E, Wilson JE, eds. Harrison's Principles of Internal Medicine, 13th ed. New York: McGraw-Hill, Inc. 1994.

Diabetes

Figure 8. Death rates associated with diabetes by sex: United States, 1970–93



NOTES: Death rates are age adjusted. For a description of age adjustment and International Classification of Diseases code numbers for causes of death, see Appendix II. See Technical Notes for discussion of underlying and nonunderlying causes of death. Rates are plotted on a log scale.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. See related *Health, United States, 1995*, table 30.

■ In 1993 diabetes was the underlying cause of death for 30,464 women in the United States. Diabetes was the sixth leading cause of death among women of all ages in this year.

■ For many women diabetes is listed as a nonunderlying cause of death on the death certificate. In 1993 diabetes was a nonunderlying cause of death for 66,456 women, 2.2 times the number of women for whom diabetes was the underlying cause of death.

■ The age-adjusted death rate for diabetes as the underlying cause of death among women declined by 35 percent from 1970 to 1982. It rose in the late 1980's, attributable largely to a change on the death certificate form that was introduced in 1989.

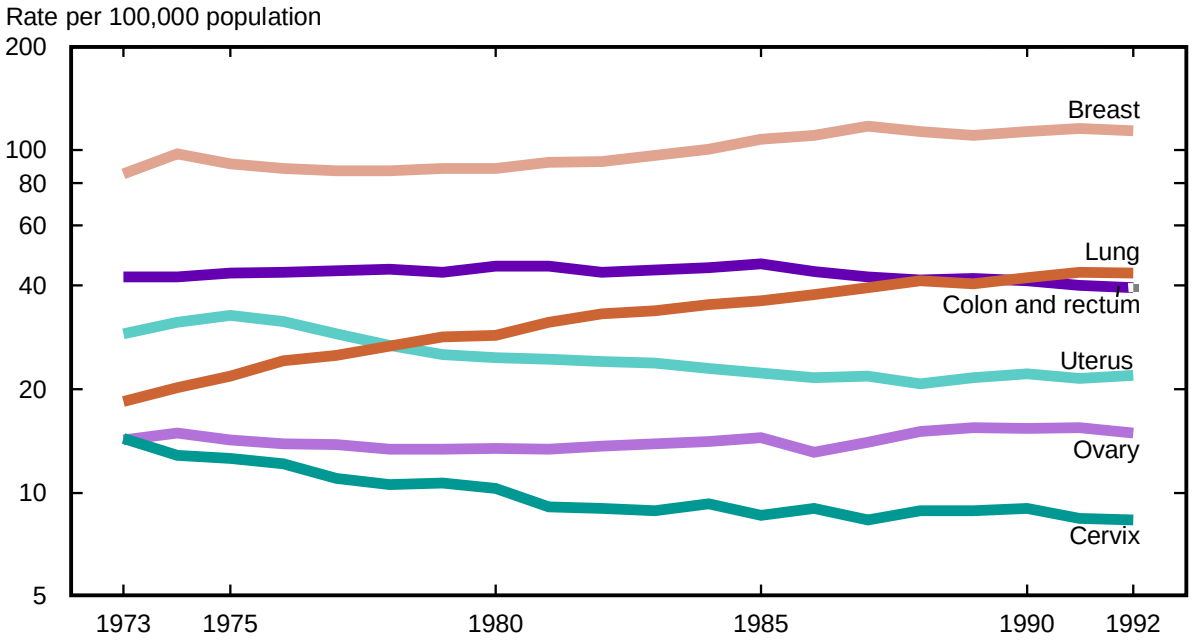
■ Between 1970 and 1993 diabetes mortality for women and men based on underlying cause has remained similar.

■ Diabetes mortality based on either underlying or nonunderlying cause has diverged for women and men. The age-adjusted death rate among women decreased 28 percent between 1970 and 1982 and then stabilized. The age-adjusted death rate among men decreased 19 percent from 1970 to 1982 and then increased from 1986 to 1993 by 9 percent. In 1993 diabetes mortality based on underlying and nonunderlying cause was 22 percent lower among women than men.

■ In 1991–93 the age-adjusted death rate for diabetes as either the underlying or nonunderlying cause of death among Asian or Pacific Islander women (14.1 per 100,000) was less than one-half that of white women (30.8 per 100,000). Compared with white women, mortality associated with diabetes among Hispanic women (41.0 per 100,000) was approximately one-third higher and that of American Indian women (45.3 per 100,000) almost 50 percent higher. Black women had the highest mortality associated with diabetes (72.2 per 100,000), 134 percent higher than the mortality of white women.

Cancer Incidence

Figure 9. Incidence rates for selected cancer sites among women: Selected geographic areas of the United States, 1973–92



NOTES: Data are age adjusted to the 1970 U.S. population, see Appendix II. Rates are plotted on a log scale.

SOURCE: National Institutes of Health, National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER) Program registries (1). See related *Health, United States, 1995*, table 59.

■ Breast cancer is the most commonly diagnosed cancer among U.S. women. The age-adjusted breast cancer incidence rate in women increased 32 percent between 1980 and 1987. This increase appears to have been due in large part to increases in early diagnosis and use of mammography (1). Between 1987 and 1992 breast cancer incidence has remained relatively stable.

■ Cancer of the colon and rectum was the second most commonly diagnosed cancer among women in 1992. Between 1985 and 1992 the incidence of colorectal cancer among women declined by 15 percent to 39 per 100,000 women. Black women had a 20 percent higher age-adjusted incidence rate of colorectal cancer than white women in 1992.

■ Lung cancer was the third highest incident cancer among women in 1992. Lung cancer incidence increased 134 percent between 1973 and 1992. However, the average annual rate of increase in lung cancer incidence among women slowed from 7.9 percent between 1973 and 1977 to 1.3 percent between 1988 and 1992.

■ Uterine cancer, including endometrial cancer, is the most common cancer of the female genital system. Incidence of uterine cancer rose by 13 percent between 1973 and 1975. This increase has been attributed to use of estrogen replacement therapy without concurrent progestin use (1). Between 1975 and 1985 the incidence rate dropped 31 percent, and has remained stable since that time. Among black women, uterine cancer incidence has been fairly stable since 1973.

■ Ovarian cancer is the second most common female reproductive malignancy. The incidence of ovarian cancer has remained fairly stable since 1973. The age-adjusted incidence rate for ovarian cancer has been approximately 50 percent higher among white women than among black women throughout the entire period.

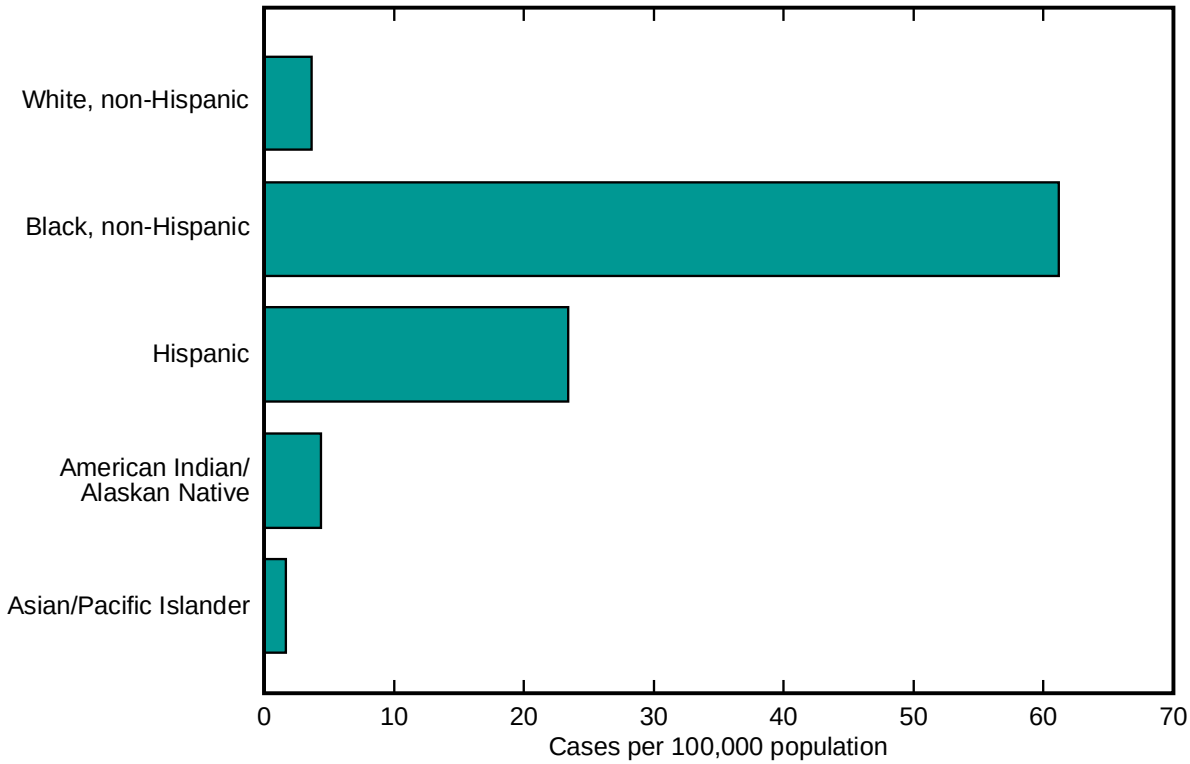
■ The age-adjusted incidence rate for cervical cancer has decreased 42 percent since 1973 to 8 per 100,000 women in 1992. Black women 50 years of age and over are over twice as likely to have incident cervical cancer as white women.

Reference

1. Miller BA, Ries LAG, Hankey BF, eds. SEER Cancer Statistics Review: 1973–1990. National Cancer Institute. 1993.

AIDS

Figure 10. AIDS case rates among women 13 years of age and over by race and Hispanic origin: United States, 12 months ending June 1995



NOTES: See Appendix II for current definition of AIDS. Excludes residents of U.S. territories.

SOURCE: Centers for Disease Control and Prevention, National Center for HIV, STD, and TB Prevention. See related *Health, United States, 1995*, table 56.

■ The acquired immunodeficiency syndrome (AIDS) case rates differ substantially among racial and ethnic groups in the United States for women and men. The burden of this disease falls heavily on some minority populations, especially among women. The majority of women diagnosed with AIDS during the 12 months ending June 30, 1995, were black or Hispanic women (59 and 17 percent).

■ Non-Hispanic black women are at greater risk of AIDS than women in any other racial or ethnic group. This group had 16.5 times the rate of reported AIDS compared with non-Hispanic white women in the 12 months ending June 1995. The AIDS case rate among non-Hispanic black men was 5.5 times the rate among non-Hispanic white men.

■ Hispanic women had 6.4 times the AIDS case rate of non-Hispanic white women in the 12 months ending June 1995. Hispanic men had 2.7 times the rate of AIDS as non-Hispanic white men.

■ In the 12 months ending June 1995 the AIDS case rate was 19 percent greater for American Indian women than white women. The AIDS case rate was 21 percent lower for American Indian men than non-Hispanic white men.

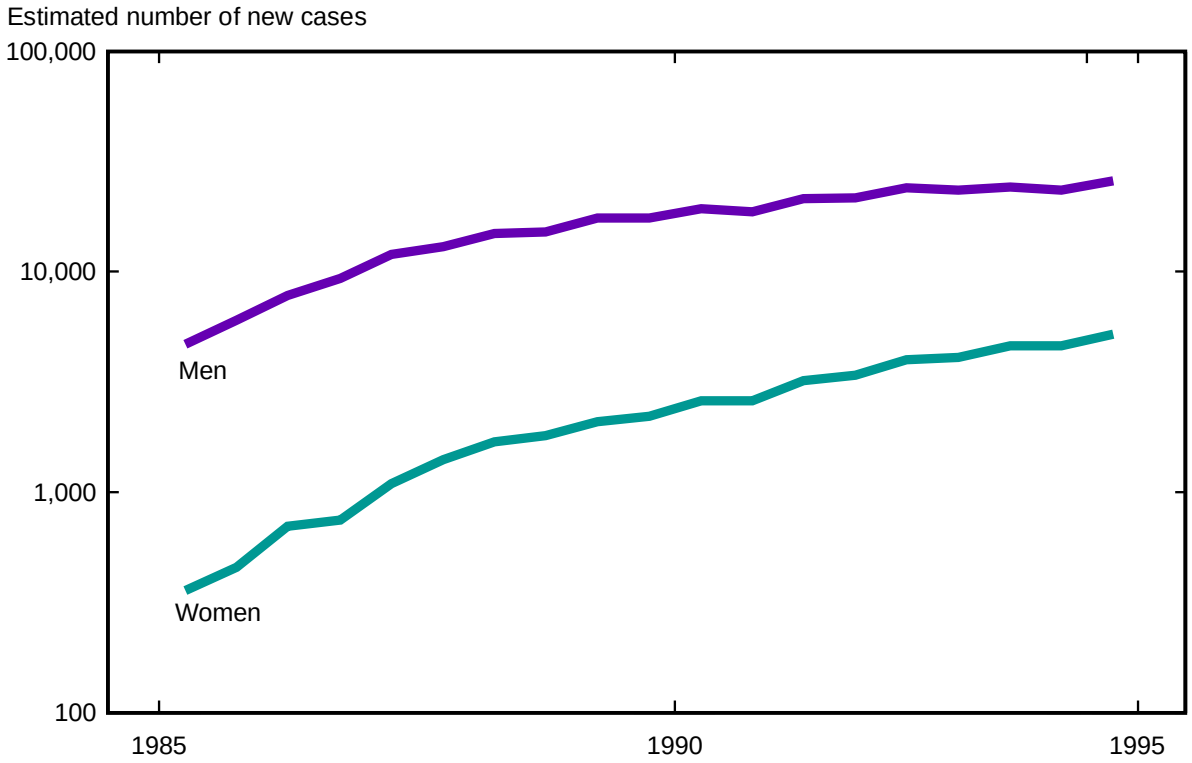
■ The AIDS case rate was 54 percent lower for Asian or Pacific Islander women and 58 percent lower for Asian or Pacific Islander men than white women and men between July 1994 and June 1995.

■ In 1994 the AIDS transmission categories that accounted for 79 percent of women diagnosed with AIDS were injecting drug use and heterosexual contact with a partner at risk or known to have HIV infection or AIDS. (1).

Reference

1. Centers for Disease Control and Prevention. Update: AIDS among women—United States, 1994. MMWR 44(5): 81–84. 1995.

Figure 11. Estimated AIDS-opportunistic illness incidence among persons 13 years of age and over by sex: United States, January 1985–December 1994



NOTES: See Technical Notes for a description of the method of estimating the incidence of AIDS-opportunistic illnesses. Excludes residents of U.S. territories. Number of cases are plotted on a log scale.

SOURCE: Centers for Disease Control and Prevention, National Center for HIV, STD, and TB Prevention.

■ In January 1993 the AIDS surveillance case definition was expanded to include a laboratory measure of severe immunosuppression and three additional clinical conditions. Before this time, the AIDS surveillance definition included only AIDS-opportunistic illnesses. To examine trends in the incidence of AIDS over this and previous changes in case definition, a method of estimating the incidence of AIDS-opportunistic illnesses (AIDS-OI), including all those listed in the 1993 definition, was developed (1).

■ The estimated incidence of AIDS-OI in the United States has increased more rapidly among women than among men between January 1985 and June 1994. The incidence of AIDS-OI among women in the second half of 1994 was 14.4 times the incidence during the first half of 1985. Among men the incidence of AIDS-OI in the second half of 1994 was 5.3 times the incidence in the first half of 1985.

■ The estimated incidence of AIDS-OI in 1994 represents 20 percent of the total number of AIDS-OI estimated to have occurred among women since January 1985. The AIDS-OI incidence in 1994 among men represents 15 percent of the total estimated to have occurred over this period.

■ During the first 6 months of 1985 the estimated number of AIDS-OI among men was 13 times the number among women. During the second half of 1994 the number of AIDS-OI among men was about 5 times the number among women.

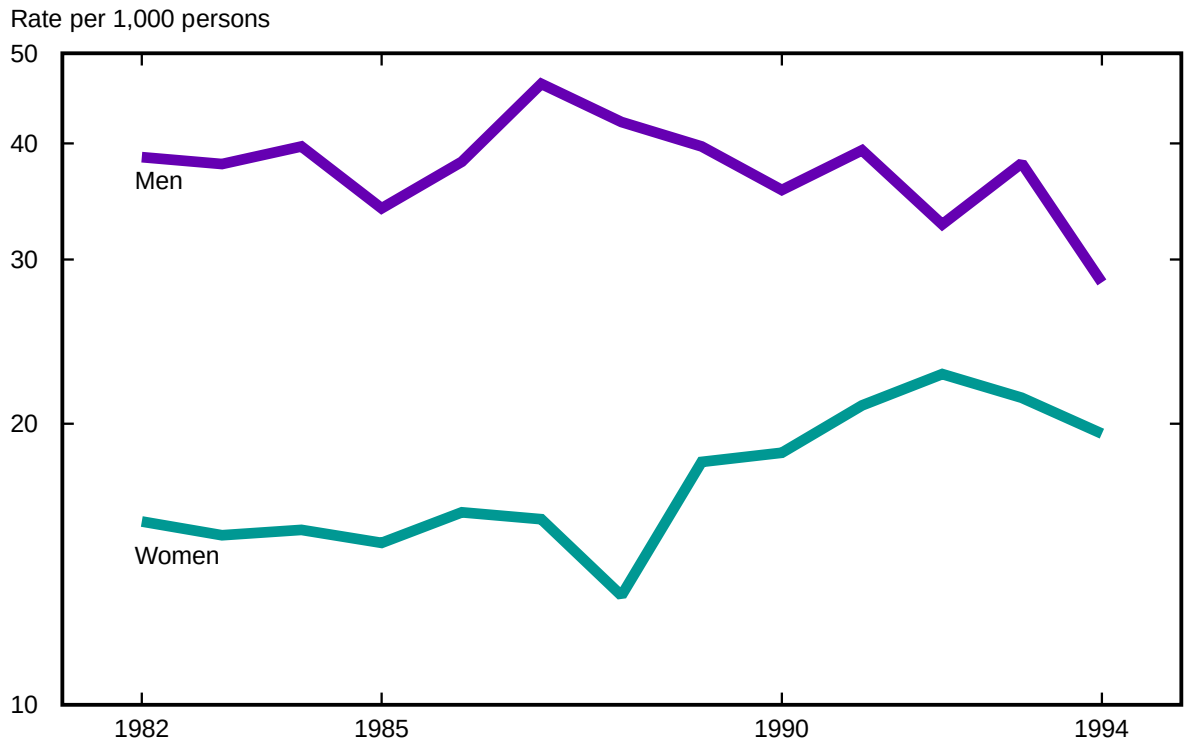
■ Among women, estimated AIDS-OI incidence is increasing most rapidly among those infected heterosexually (1).

Reference

1. Centers for Disease Control and Prevention. HIV/AIDS Surveillance Report 6(2): 1–39. 1994.

Occupational Injuries

Figure 12. Annual bed days associated with injuries at work by sex: United States, 1982–94



NOTES: Rates are plotted on a log scale.

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

■ In 1994, 2.3 per 100 working women were injured at work, totaling 2,237,000 episodes of work-related injuries. Due to these injuries, 19.5 days per 100 women were spent either restricted to bed for at least half the day or as an inpatient in the hospital (bed day). Among men, the bed days due to work-related injuries was 28.3 per 100 in 1994.

■ The number of bed days per 100 working women per year increased 24 percent between 1982 and 1994, while the number of bed days among men decreased 27 percent. Between 1982 and 1994 the number of working women also increased by 32 percent to 56.0 million. In 1994, 19.3 million bed days were associated with episodes of women injured at work, a 41 percent increase compared with the number of bed days in 1982.

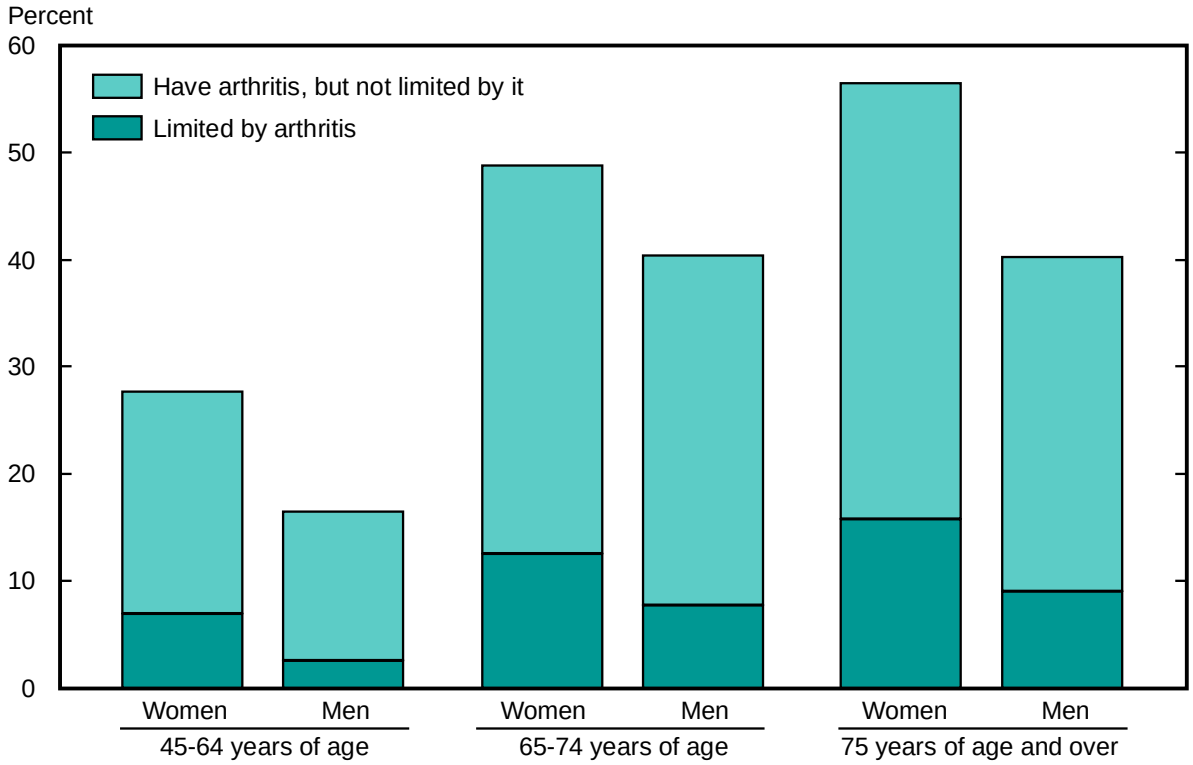
■ Between 1990 and 1992, 1,068 women died as a result of injuries sustained at work. As was the case in the 1980's (1), over half of these deaths occurred in the retail trade and services industries. No specific occupation was at greatest risk of death at work among women. The leading cause of work-related death among women was homicide; 44 percent of the work-related injury deaths in 1990–92 were due to homicide compared with 13 percent among men.

Reference

1. Jenkins EL. Occupational injury deaths among females: The U.S. experience for the decade 1980–1989. Ann Epidemiol 4(2): 146–51. 1994.

Arthritis

Figure 13. Proportion of persons with arthritis and proportion with limitations of activities due to arthritis by age and sex: United States, 1993–94



NOTES: See Technical Notes for *International Classification of Diseases, 9th Revision, Clinical Modification* code numbers for arthritis.

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

■ In 1993–94 the prevalence of arthritis generally increased with age for both women and men. In the oldest age groups, however, the prevalence of arthritis for men leveled off while the prevalence for women continued to increase. Twenty-eight percent of women 45–64 years of age reported having arthritis. Among women 65–74 years of age and 75 years of age and over, the proportion reporting arthritis increased to 49 and 57 percent.

■ The proportion reporting having arthritis was higher for women than for men in each age group. Among those 45–64 years of age, the proportion of women reporting arthritis was 67 percent greater than for men. The prevalence of arthritis was 20 percent greater for women than men 65–74 years of age and 40 percent greater for women than men 75 years of age and over reported having arthritis.

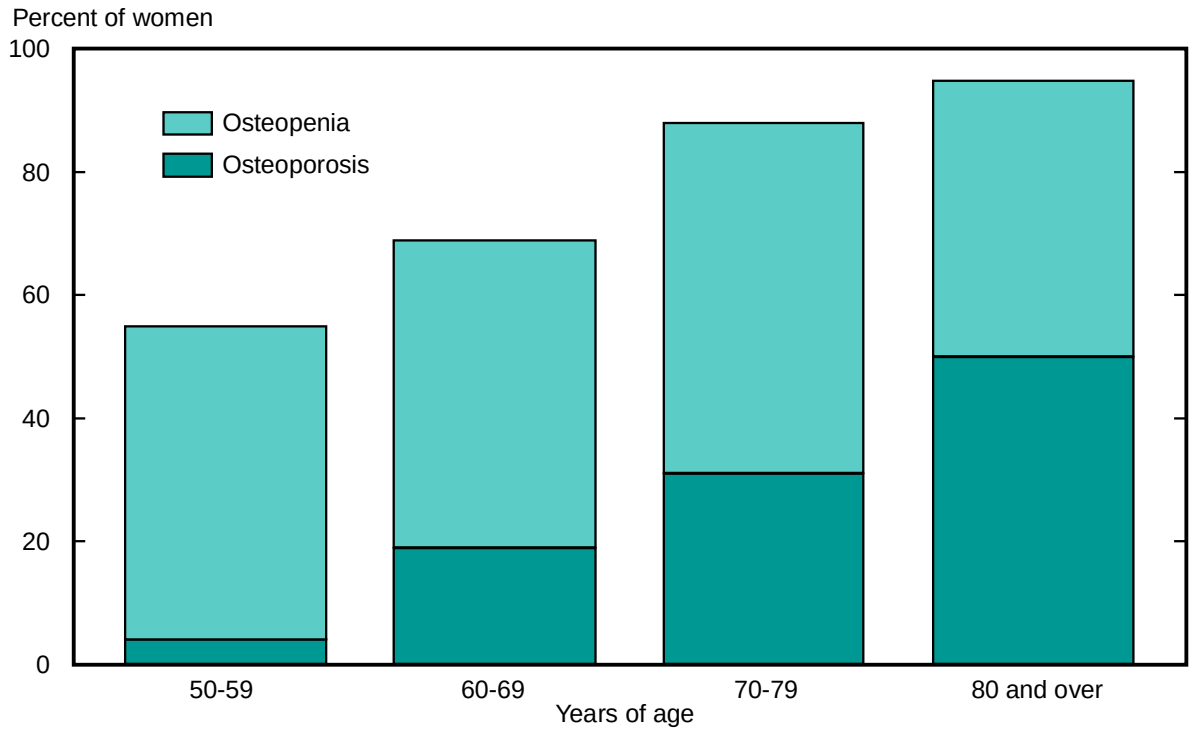
■ Limitation of activity refers to a long-term reduction in a person's capacity to perform the usual kind or amount of activities associated with his or her age group. Persons who report that their limitation is due to arthritis are highlighted in this chart.

■ Similar to prevalence of arthritis, the proportion of persons who reported limitation of activity due to arthritis increased with age in 1993–94, from 7 percent among women age 45–64 years to 16 percent among those age 75 years and over. Among women 45–64 years of age who reported having arthritis, 25 percent reported being limited by their arthritis. This proportion is similar among women 65–74 years of age (26 percent) and 75 years of age and over (28 percent).

■ Among persons 45–64 years of age, women were three times as likely as men to report being limited as a result of arthritis. Sixty percent more women than men 65–74 years of age and 74 percent more women than men 75 years of age and over reported activity limitation due to arthritis.

Osteoporosis

Figure 14. Prevalence of reduced hip bone density among women 50 years of age and over by age and severity: United States, 1988–91



NOTES: Osteopenia is defined as a bone mineral density 1–2.5 standard deviations below the mean of white, non-Hispanic women 20–29 years of age as measured in NHANES III (Phase I); osteoporosis is defined as a bone mineral density value of more than 2.5 standard deviations below the mean of young white, non-Hispanic women (WHO expert panel).

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey III (Phase I).

■ In 1988–91, 50 percent of U.S. women 50 years of age and over had moderately reduced bone density, known as osteopenia, of the hip (femur neck), and 20 percent had severely reduced bone density, known as osteoporosis, at this site (1).

■ The percent of women with osteoporosis in the hip increases dramatically with each decade of life after age 50. Compared with women 50–59 years of age, women 60–69 years of age were 4.8 times as likely to have osteoporosis, women 70–79 years of age were 7.8 times as likely to have osteoporosis, and women 80 years of age and over were 12.5 times as likely to have osteoporosis.

■ In 1988–91 about 50 percent of women 50–59 and 60–69 years of age had osteopenia. This proportion increased to 57 percent among women 70–79 years of age than decreased to 45 percent among women 80 years of age and over.

■ In 1988–91 mean bone density values for non-Hispanic black women and Mexican-American women were approximately 8–13 percent and 0–4 percent higher than mean bone density levels of non-Hispanic white women (1). The patterns by age were similar for all these groups (1).

■ Osteoporosis is an important cause of hip fractures among older women, with decreased bone mass density predicting future hip fracture risk (2). The cost of hip fractures in the United States has been estimated to be between $10–20 billion annually (3), and these costs will increase as the population ages.

References

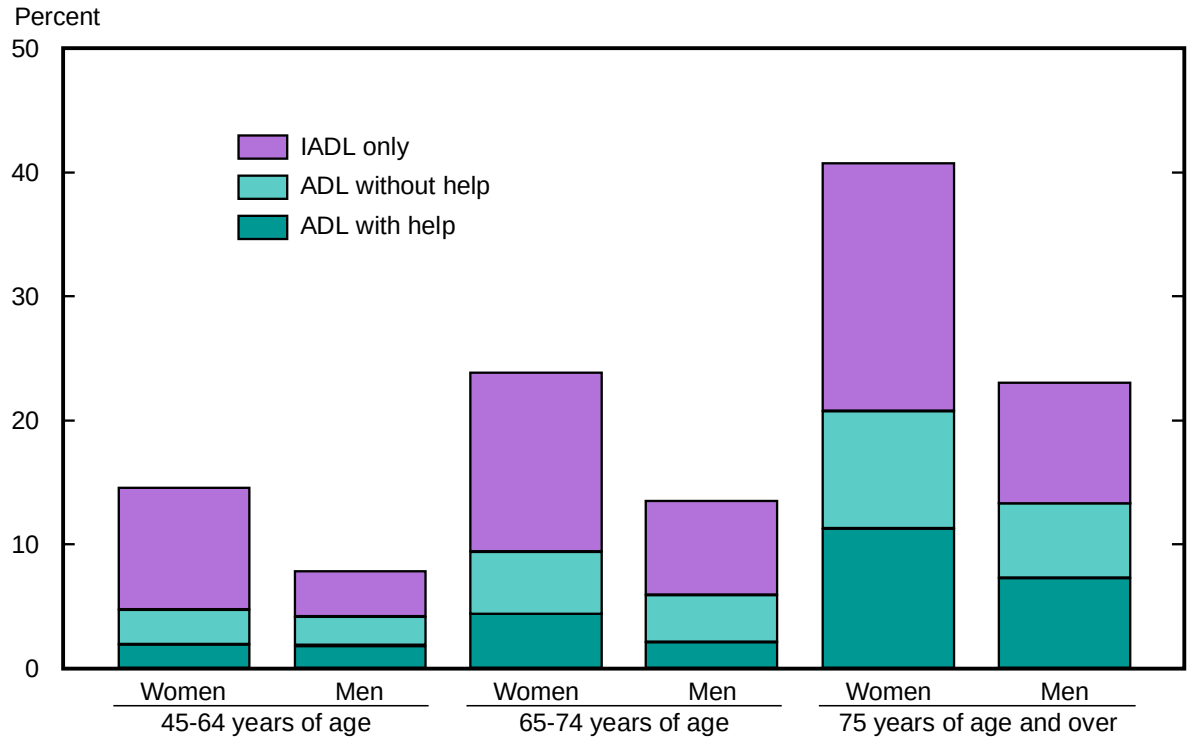
1. Looker AC, Johnston CC, Wahner HW, et al. Prevalence of low femoral bone density in older U.S. women from NHANES III. J Bone Miner Res 10:796–802. 1995.

2. Black DM. Why elderly women should be screened and treated to prevent osteoporosis. Am J Med 98: 67S–75S. 1995.

3. Lindsay R. The burden of osteoporosis: Cost. Am J Med 98: 9S–11S. 1995.

Disability

Figure 15. Disability status among noninstitutionalized persons 45 years of age and over by sex and age: United States, 1991



NOTES: See Technical Notes for a description of the definition of disability and the definitions of the specific activities included in the activities of daily living (ADL) and instrumental activities of daily living (IADL) scales.

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

■ In 1991 the percent of noninstitutionalized women who reported some level of disability increased with age. Approximately 15 percent of women 45–64 years of age reported some disability. This proportion increased to 24 and 41 percent for women aged 65–74 years and 75 years of age and over.

■ Within each age group, the total proportion disabled was nearly twice as high among women as among men.

■ Three mutually exclusive categories of disability status are represented in this chart. The lowest level of disability includes persons who have difficulty with one or more instrumental activities of daily living (IADL), and no difficulty with any activities of daily living (ADL). The next category includes those who have difficulty with one or more ADL but do not receive help with any ADL. The category representing the greatest degree of disability includes individuals who have difficulty and receive help with one or more ADL.

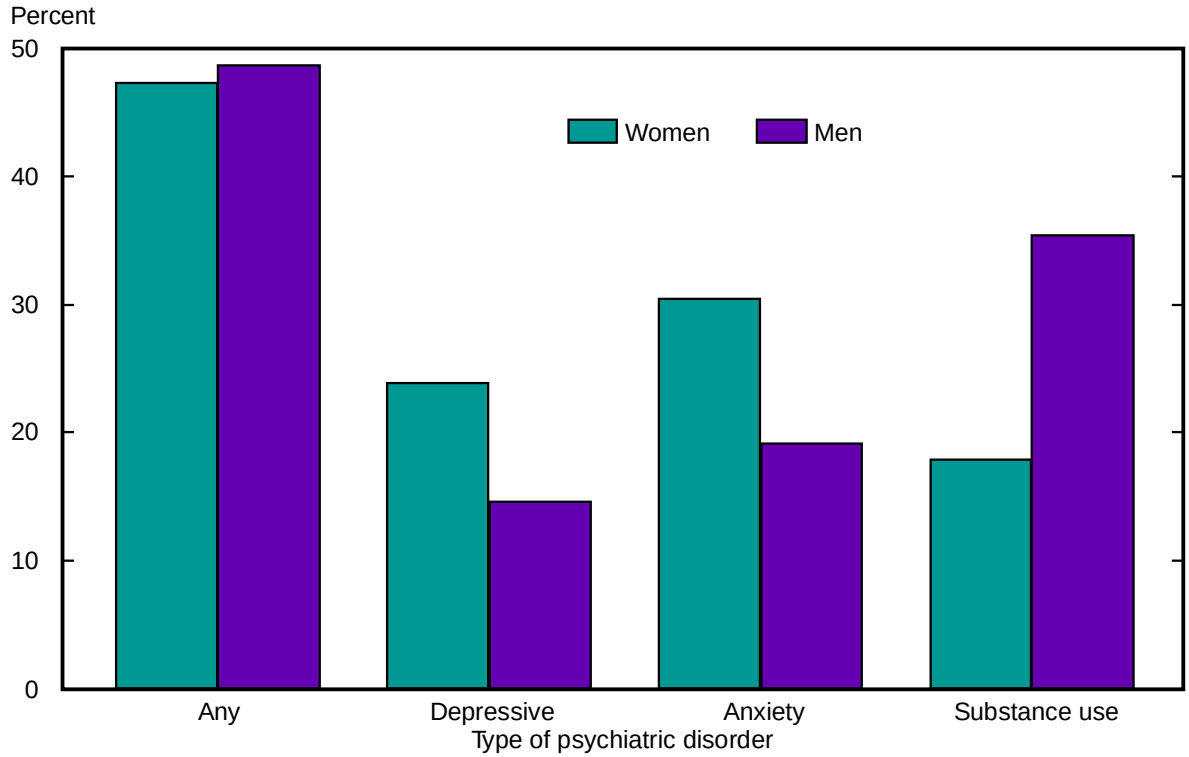
■ The percent of noninstitutionalized persons reporting disability increased with age for each level of disability severity. Among women, the percent reporting IADL disability was twice as high for those 75 years of age and over compared with those 45–64 years of age. The increase with age was three-fold for women who reported an ADL difficulty but did not receive help, and six-fold for those who received help with one or more ADL.

■ At each age, the proportion who are IADL disabled was higher among women than among men. In addition, among persons in the two older age groups, the proportion reporting ADL disability, with and without help, was higher among women than among men.

■ The sample represented in this chart excludes persons residing in institutions. As a result, these figures underestimate the prevalence of disability in the total population among both women and men.

Mental Health

Figure 16. Lifetime prevalence of psychiatric disorders among persons 15–54 years of age by sex: United States, 1990–92



NOTES: The presence of a psychiatric disorder did not have to be formally diagnosed for persons to be included as having had a disorder. The category "Any Disorder" includes disorders not included in the specific types shown. See Technical Notes for description of the diagnoses included in each category and the data source.

SOURCE: University of Michigan, Institute for Social Research/Survey Research Center, National Comorbidity Survey.

■ In 1990–92 nearly half of all women between 15–54 years of age had experienced symptoms suggestive of a psychiatric disorder at some time during their life.

■ The lifetime prevalence of a psychiatric disorder was similar for women (47 percent) and men (49 percent).

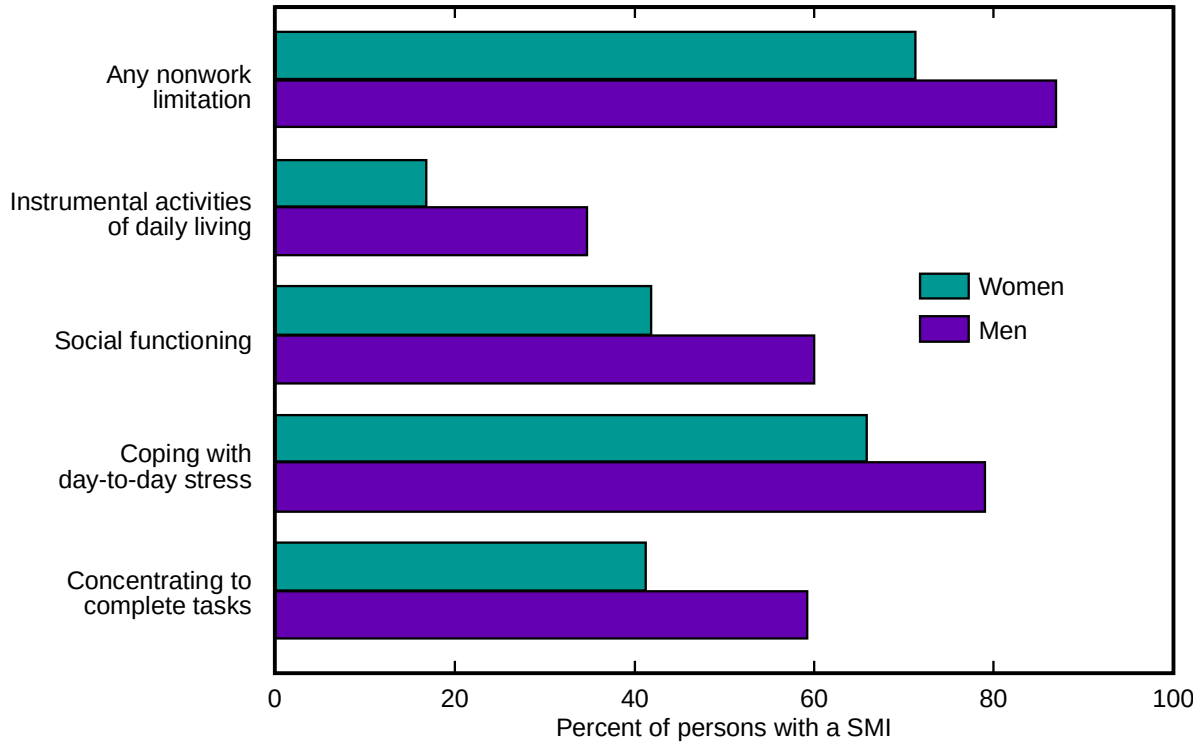
■ Women and men have experienced different types of psychiatric disorders in their lifetimes. Compared with men, women were more likely to have experienced a depressive disorder (24 percent and 15 percent) or an anxiety disorder (31 percent and 19 percent). Men had a higher lifetime prevalence of substance use disorder than women (35 percent and 18 percent).

■ Women were 24 percent more likely than men to have had three or more disorders in their life than men (16 percent and 13 percent) (1).

Reference

1. Kessler RC, McGonagle KA, Zhao S, et al. Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States: Results from the National Comorbidity Survey. Arch Gen Psych 51:8–19. 1994.

Figure 17. Prevalence of limitations due to serious mental illness among persons 25–64 years of age with these disorders by sex: United States, 1989



NOTES: See Technical Notes for definitions of serious mental illness and measures of limitations.

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

■ In 1989 a substantial proportion of noninstitutionalized women and men 25–64 years of age who reported a serious mental illness (SMI) also reported some type of nonwork-related limitation (71 percent and 87 percent).

■ Reduced ability in coping with day-to-day stress was the most frequently reported limitation. Sixty-six percent of women and 79 percent of men had problems in this area.

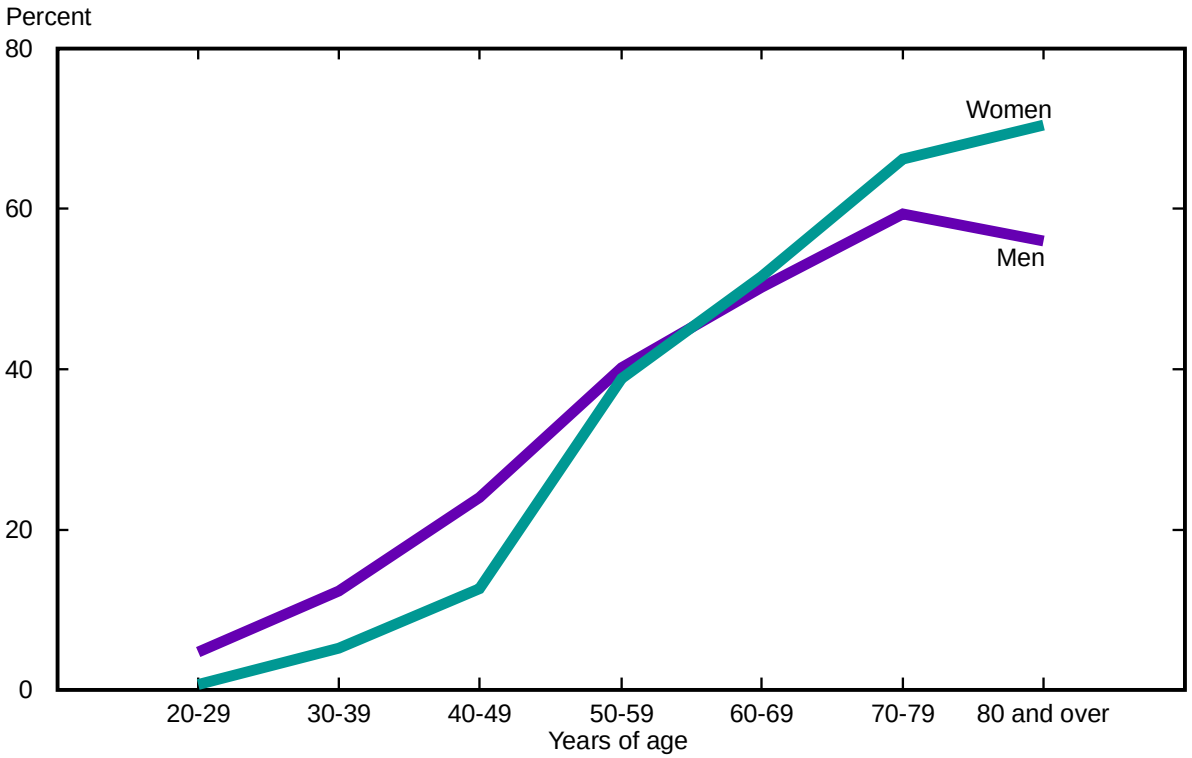
■ Limited functioning in instrumental activities of daily living (IADL), such as managing money and shopping, is an important indicator of disability. In 1989, 17 percent of women 25–64 years of age with a SMI reported problems with IADL, 51 percent fewer than the proportion of men with a SMI who had IADL limitations.

■ In 1989 among persons 65 years of age and over with a SMI, the prevalence of limitations was greater than in the 25–64 year old group. There was no significant difference in the prevalence of limitations between elderly women and men. Eighty-six percent of women and 84 percent of men 65 years of age and over with SMI reported any limitation. The inability to perform IADL's increased substantially compared with the younger group, as 56 percent of women and 62 percent of men 65 years of age and over had problems in this area.

■ The lower prevalence of disability among women compared with men under 65 years of age who reported a SMI may be due in part to the reporting of less severe mental illness or a different type of mental illness by women. Women are more likely to be treated for mental illness than men (see figure 36), and may be treated for less severe illness. Men are also more likely to be diagnosed with substance abuse illnesses than women (see figure 16). Finally, there may be a lower social stigma attached to admitting mental illness among women than men.

Hypertension

Figure 18. Prevalence of hypertension among persons 20 years of age and over by sex and age: United States, 1988–91



NOTES: A person with hypertension is defined by either having elevated blood pressure (systolic pressure of at least 140 mmHg or diastolic pressure of at least 90 mmHg) or taking antihypertensive medication. Percents are based on an average of six measurements of blood pressure.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey III (Phase I). See related *Health, United States, 1995*, table 69.

■ Hypertension is a major risk factor for heart disease and stroke, the first and third leading causes of death among women in 1993. Although the prevalence of hypertension has declined since the 1960's, in 1988–91 it affected 21.9 million women (22 percent) 18 years of age and over in the United States (1).

■ For women and men the prevalence of hypertension increases with age. Among persons under 50 years of age in 1988–91, men were more likely to be hypertensive than women, while among persons 70 years of age and over, women were more likely to be hypertensive than men.

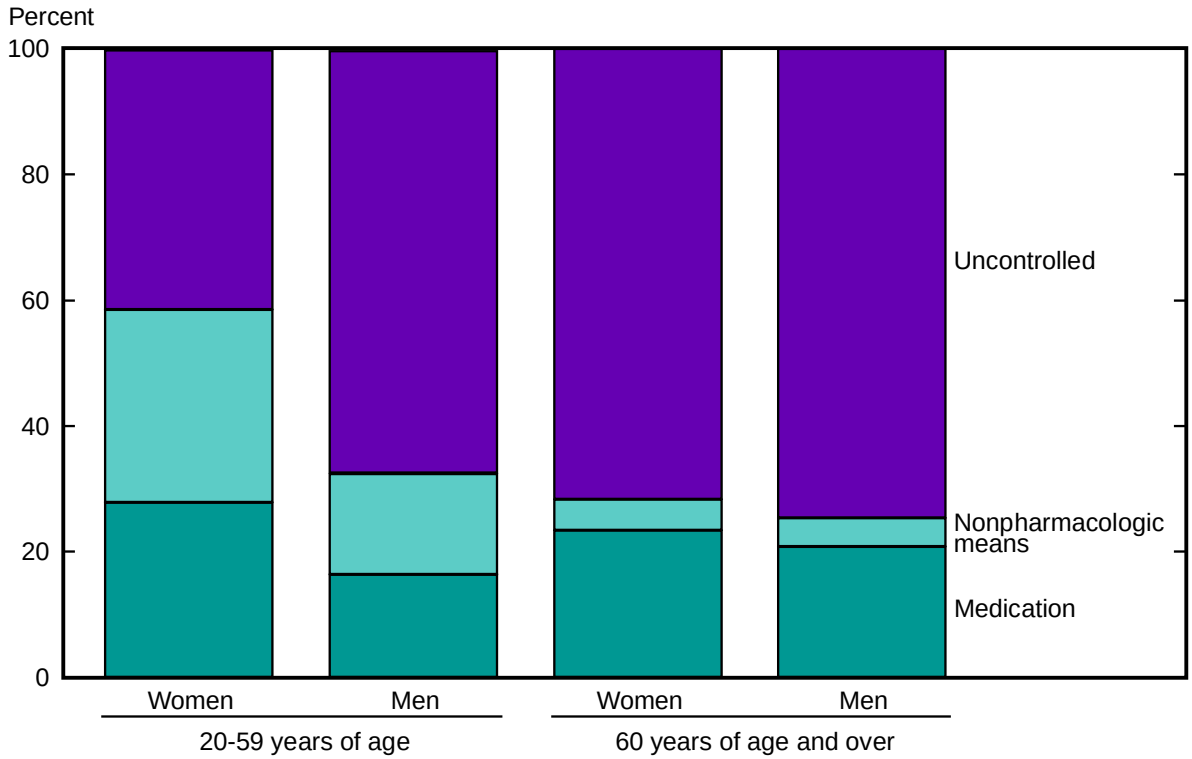
■ In 1988–91 the age-adjusted prevalence of hypertension was higher for non-Hispanic black women (31 percent) than for non-Hispanic white women (21 percent) or Mexican-American women (22 percent).

■ The pattern of higher hypertension prevalence for men at younger ages and for women at older ages was observed among non-Hispanic white persons, non-Hispanic black persons, and Mexican-American persons.

Reference

1. Burt VL, Whelton P, Roccella EJ, et al. Prevalence of hypertension in the U.S. adult population. Results from the Third National Health and Nutrition Examination Survey, 1988–1991. Hypertension 25:305–13. 1995.

Figure 19. Type of hypertension control among persons 20 years of age and over with hypertension by sex and age: United States, 1988–91



NOTES: A person with hypertension is defined by either having elevated blood pressure (systolic pressure of at least 140 mmHg or diastolic pressure of at least 90 mmHg), taking antihypertensive medication, or controlling their blood pressure without medication through losing weight, cutting down on salt, or restricting alcohol consumption.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutritional Examination Survey III (Phase I).

■ In 1988–91 more than half (59 percent) of hypertensive women 20 years of age and over did not have their blood pressure controlled, a quarter (25 percent) controlled their blood pressure with medication, and 16 percent achieved control by losing weight, cutting down on salt, or limiting use of alcohol. This compares with 70 percent of hypertensive men over 20 years of age who did not have their hypertension under control, 18 percent who controlled their hypertension with medication, and 11 percent who controlled it with nonpharmacologic means.

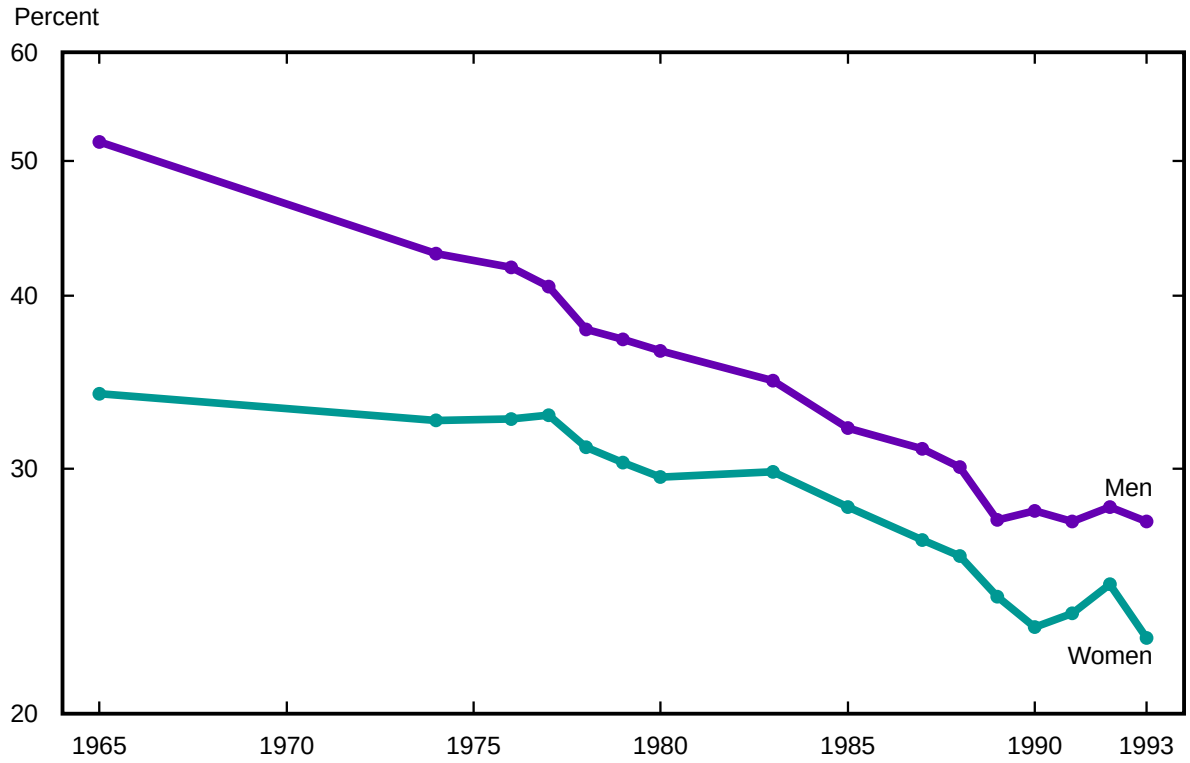
■ Among hypertensive persons, women 20–59 years of age were about twice as likely to have controlled their blood pressure as either women 60 years of age and over (59 percent and 28 percent), or men in either age group (33 percent among those 20–59 years of age and 25 percent among those 60 years of age and over).

■ Among hypertensive persons 20–59 years of age, the proportion who used medication to control their hypertension was 69 percent higher among women (28 percent) than among men. Also, nearly twice the proportion of women (31 percent) as men (16 percent) in this age group controlled their hypertension only with nonpharmacologic means (losing weight, cutting down on salt, or limiting use of alcohol). The type of hypertension control did not differ between women and men above 60 years of age with hypertension.

■ Awareness of hypertension is a prerequisite for control of hypertension. Regardless of age group, in 1988–91 women were more likely than men to be aware of their hypertension (77 percent and 63 percent).

Cigarette Smoking

Figure 20. Current cigarette smokers among persons 18 years of age and over by sex: United States, 1965–93



NOTES: Proportions are age adjusted. Data for 1992 and 1993 are not strictly comparable with earlier years or each other due to a change in the definition of current smoker in 1992 and the use of a split sample in 1992. See discussion of current smoker and age adjustment in Appendix II. Percents are plotted on a log scale.

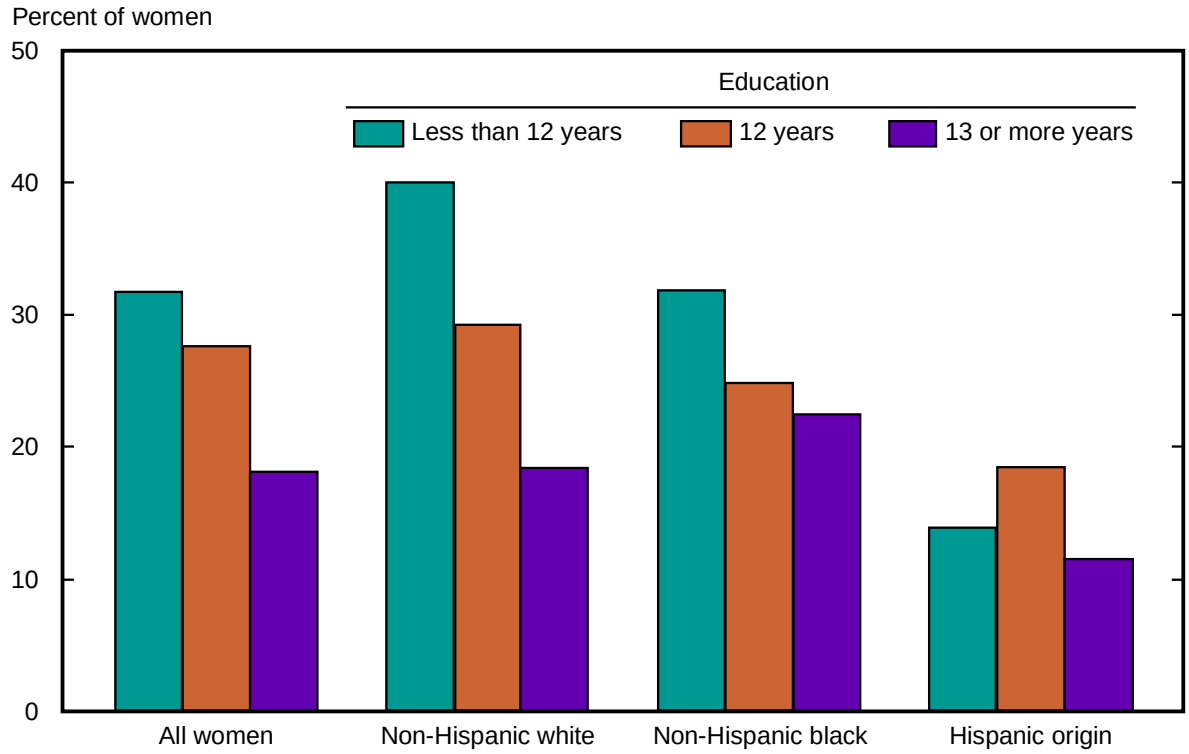
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey. See related *Health, United States, 1995*, table 63.

■ In 1993 the age-adjusted prevalence of current cigarette smoking among persons 18 years of age and over was 23 percent for women and 28 percent for men. Between 1983 and 1993, the difference in smoking prevalence between men and women has been between 3 and 5 percentage points.

■ Cigarette smoking declined more among men than among women between 1965 and 1990. The age-adjusted smoking prevalence declined at an average annual rate of 2.4 percent for men and 1.5 percent for women during this period. Between 1990 and 1993 smoking prevalence remained relatively stable at around 28 percent for men, and between 23 and 25 percent for women.

■ In 1993, among persons 18–24 years of age, 29 percent of men and 23 percent of women were current smokers. Between 1965 and 1990 smoking prevalence for this age group declined at an average annual rate of 2.8 percent for men and 2.1 percent for women. However, smoking prevalence in this age range increased at an average annual rate of 0.6 percent for women and 2.7 percent for men between 1990 and 1993.

Figure 21. Current cigarette smokers among women 25 years of age and over by race, Hispanic origin, and years of education: United States, 1992–93



NOTES: Proportions are age adjusted. ''All Women'' includes persons of race or ethnicity groups not shown separately. See Appendix II for definition of current smoker and discussion of age adjustment.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey. See related *Health, United States, 1995*, table 64.

■ Among all women 25 years of age and over, the prevalence of cigarette smoking declines with increasing years of education. In 1992–93 the age-adjusted prevalence of current cigarette smoking among women was 32 percent among those who had not completed high school, 28 percent among high school graduates, and 18 percent among those with more than a high school education.

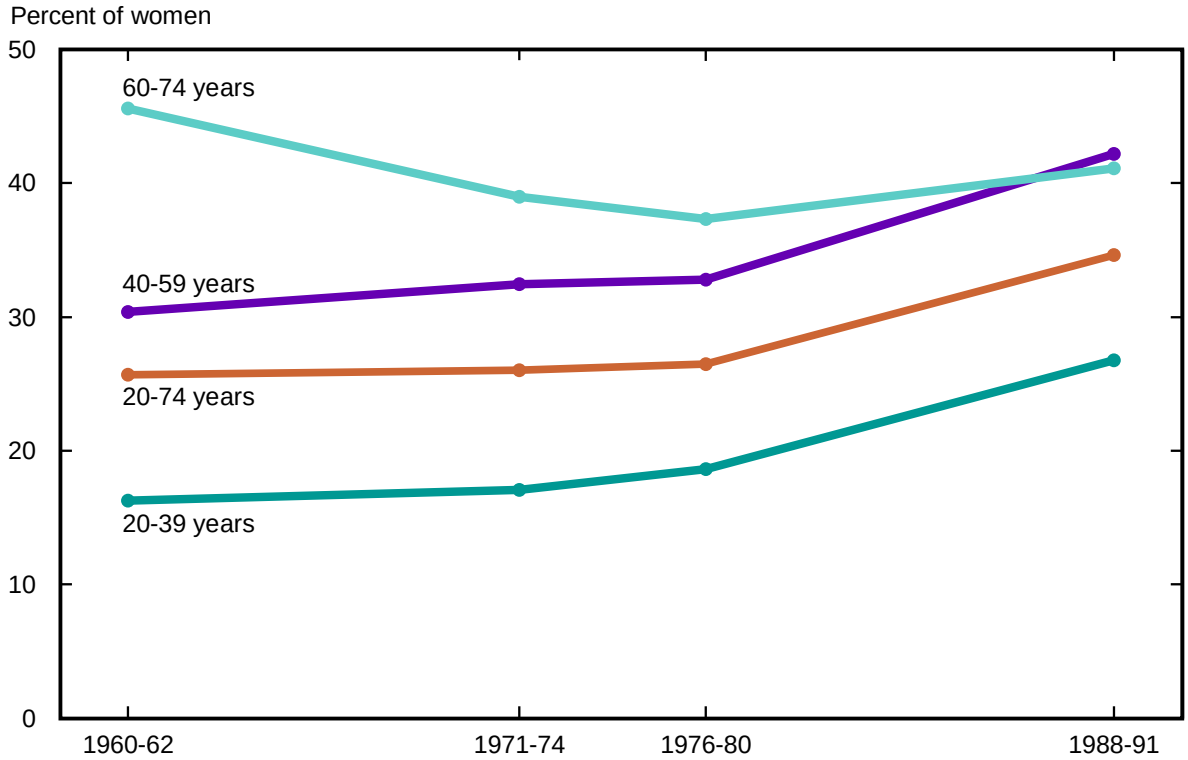
■ In 1992–93 the age-adjusted prevalence of current cigarette smoking among non-Hispanic women 25 years of age and over was similar for white women and black women (27 percent and 26 percent). Women of Hispanic origin had a lower prevalence of current smoking (15 percent) than either non-Hispanic white women or non-Hispanic black women both overall and at every level of education.

■ Among non-Hispanic women with less than a college education, the percent currently smoking cigarettes was lower among black women than among white women. Conversely, among non-Hispanic women with at least some college, the percent smoking was higher among black women than among white women.

■ Differences in current cigarette smoking by level of education were greater for non-Hispanic white women than for either non-Hispanic black women or women of Hispanic origin. In 1992–93 the age-adjusted prevalence of current cigarette smoking among non-Hispanic white women with less than a high school education was 2.2 times the level for those with at least some college. Among non-Hispanic black women who had not completed high school, the percent smoking was 1.4 times the level for those with at least some college. Among women of Hispanic origin the age-adjusted prevalence of current smoking was highest among high school graduates.

Overweight

Figure 22. Prevalence of overweight among women 20–74 years of age by age: United States, selected years, 1960–62, 1971–74, 1976–80, and 1988–91



NOTES: Percents for ages 20–74 years are age adjusted (see definition in Appendix II). Overweight is defined for women as body mass index greater than or equal to 27.3 kilograms/meter^2. These cut points were used because they represent the 85th percentiles for women 20–29 years of age in the 1976–80 National Health and Nutrition Examination Survey. Height was measured without shoes; 2 pounds are deducted from data for 1960–62 to allow for weight of clothing. Pregnant women are excluded.

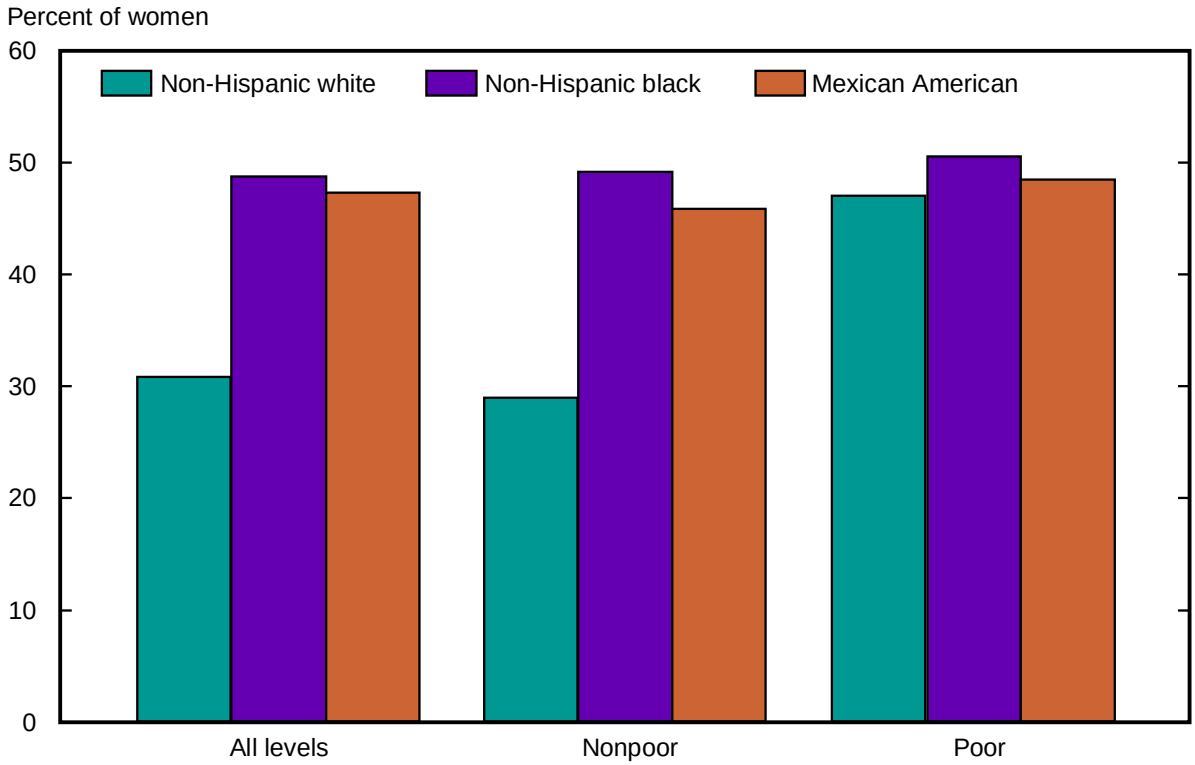
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey III (Phase I). See related *Health, United States, 1995*, table 71.

■ The prevalence of overweight in the United States increased dramatically over the last decade. Between 1976–80 and 1988–91, the age-adjusted prevalence of overweight among persons 20–74 years of age rose from 27 percent to 34 percent for women and from 24 percent to 32 percent for men. Between 1960–62 and 1976–80, the age-adjusted prevalence of overweight increased by approximately 1 percentage point for both women and men.

■ Among women 20–74 years of age, the largest increases in the prevalence of overweight occurred in women under 60 years of age. Between 1976–80 and 1988–91, the prevalence of overweight increased 8 percentage points among women 20–39 years of age, 9 percentage points among women 40–59 years of age, and 4 percentage points among women aged 60–74 years. Between 1960–62 and 1976–80, the prevalence of overweight increased 2 percentage points among women 20–59 years of age, and declined 8 percentage points among women aged 60–74 years.

■ Increases in the prevalence of overweight have been similar for non-Hispanic white women, non-Hispanic black women, and women of Hispanic origin. Between 1976–80 and 1988–91, the age-adjusted prevalence of overweight among women aged 20–74 years increased 7 percentage points among non-Hispanic white women and 6 percentage points among non-Hispanic black women. Between 1982–84 and 1988–91, the age-adjusted prevalence of overweight increased 7 percentage points among Mexican-American women 20–74 years of age.

Figure 23. Prevalence of overweight among women 20 years of age and over by race, Hispanic origin, and poverty status: United States, 1988–91



NOTES: Data are age adjusted (see Appendix II for description). All levels include persons of unknown poverty status. See Technical Notes for a description of poverty status. Overweight is defined for women as body mass index greater than or equal to 27.3 kilograms/meter^2. These cut points were used because they represent 85th percentiles for women 20–29 years of age in the 1976–80 National Health and Nutrition Examination Survey. Height was measured without shoes. Excludes pregnant women.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey III (Phase I). See related *Health, United States, 1995*, table 71.

■ In 1988–91 the age-adjusted prevalence of overweight among women 20 years of age and over was nearly one-third among non-Hispanic white women (31 percent), and nearly half among both non-Hispanic black women (49 percent) and Mexican-American women (47 percent).

■ In 1988–91 being overweight was more common among women whose family incomes were below poverty level than among those with higher incomes. Among all women 20 years of age and over, the age-adjusted prevalence of overweight was 47 percent for women below poverty and 32 percent for those at or above poverty.

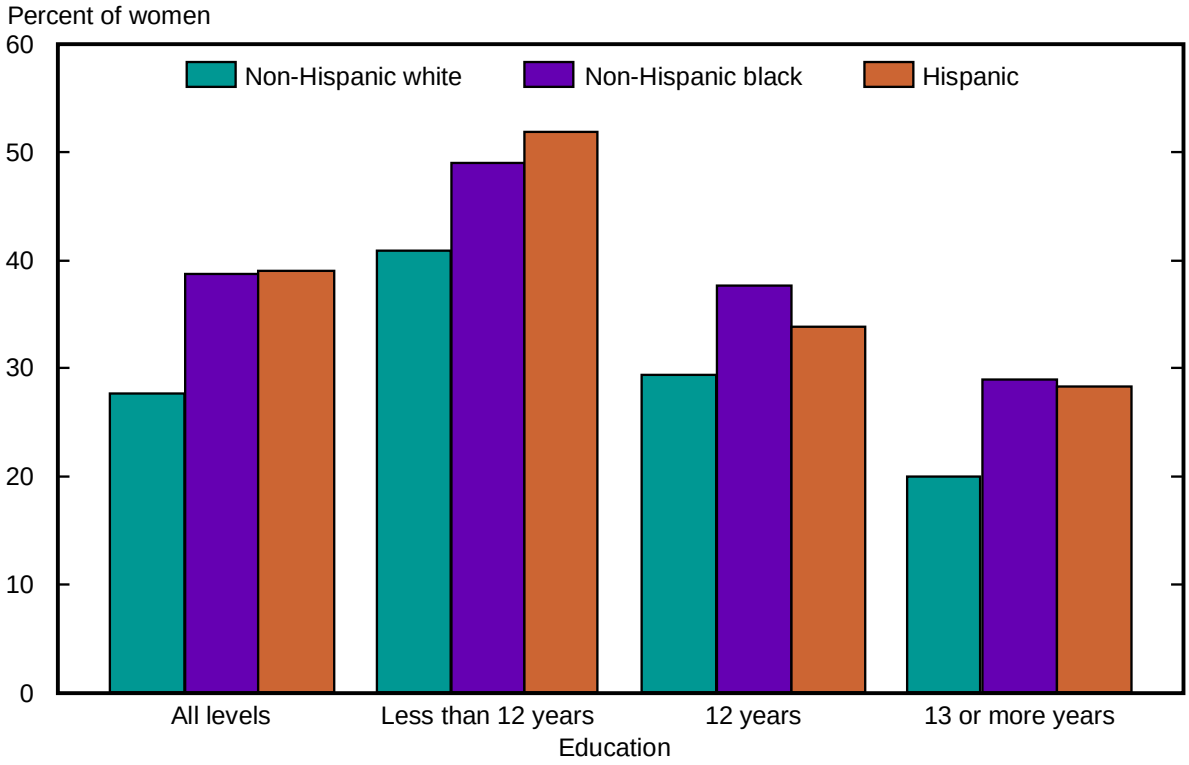
■ Among nonpoor women, the age-adjusted prevalence of overweight was higher for non-Hispanic black women (49 percent) and Mexican-American women (46 percent) than for non-Hispanic white women (29 percent).

■ Among poor women, the age-adjusted prevalence of overweight was similar for non-Hispanic white women (47 percent), non-Hispanic black women (51 percent), and Mexican-American women (49 percent).

■ In 1988–91 the age-adjusted prevalence of overweight among non-Hispanic white women below poverty level was 18 percentage points higher than for those at or above poverty. Among non-Hispanic black women and Mexican-American women, the age-adjusted prevalence of overweight did not differ significantly by poverty status.

Exercise

Figure 24. Prevalence of sedentary lifestyle among women 25 years of age and over by race, Hispanic origin, and years of education: United States, 1991



NOTES: For description of sedentary lifestyle, see Technical Notes. Percentages are age adjusted (see Appendix II). The category "all levels" includes persons with unknown education level.

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

■ In 1991 the age-adjusted prevalence of sedentary lifestyle among persons 25 years of age and over was greater for women (30 percent) than for men (25 percent).

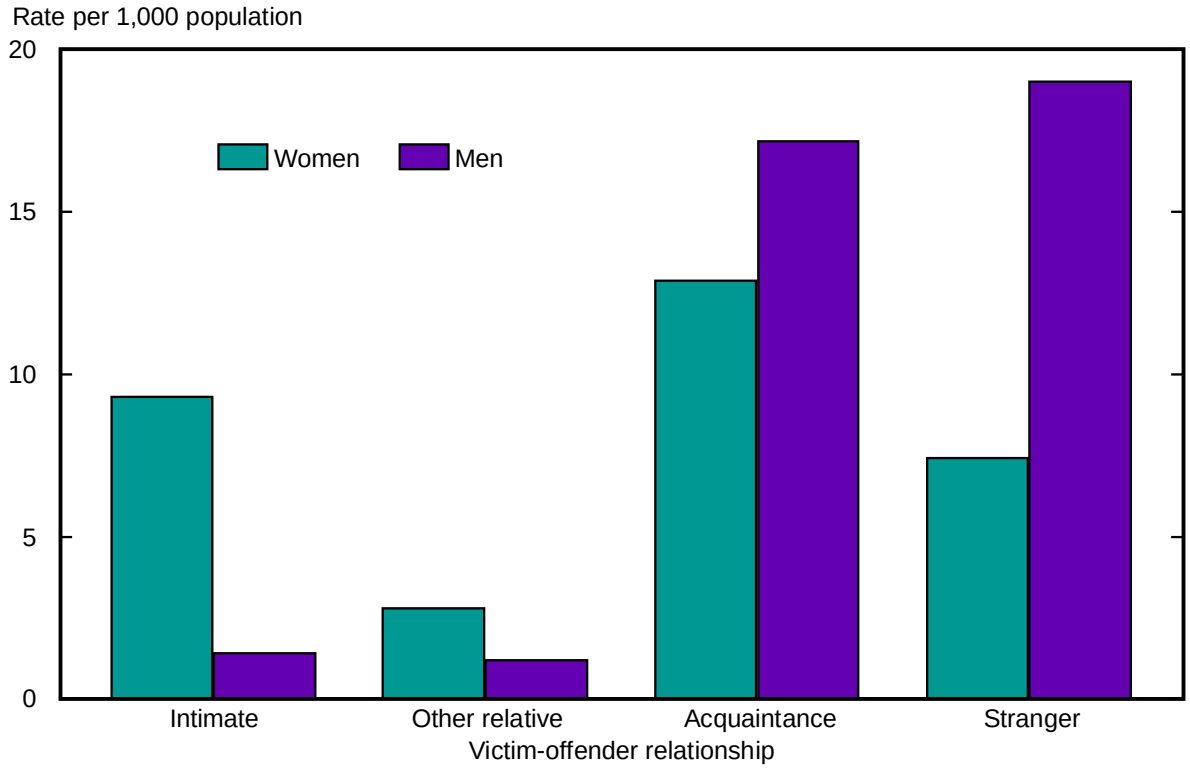
■ The prevalence of sedentary lifestyle differs by race and ethnic origin. In 1991 among women 25 years of age and over the prevalence of sedentary lifesyle was greater for Hispanic women and non-Hispanic black women (39 percent) than for non-Hispanic white women (28 percent).

■ In 1991 the age-adjusted prevalence of sedentary lifestyle among women 25 years of age and over declined with increasing years of education, from 46 percent among women with less than a high school education to 21 percent among women with more than a high school education.

■ Among women 25 years of age and over in 1991, the likelihood of being sedentary increased with decreasing levels of education within each race and Hispanic origin group. Among non-Hispanic white women, those with less than a high school education were twice as likely to be sedentary as women with at least some post-high school education. Non-Hispanic black women and women of Hispanic origin with less than a high school education were 69 percent and 83 percent more likely to be sedentary than women with more than a high school education.

Violence

Figure 25. Rate of violent crimes by a lone offender among persons 12 years of age and over by victim-offender relationship and sex: United States, 1992–93



NOTES: For description of this survey, and definitions of the different groups of relationships used, see Technical Notes.
SOURCE: Bureau of Justice Statistics, National Crime Victimization Survey.

■ In 1992–93 women were 6.6 times as likely as men to experience violent crimes by an intimate (a spouse, ex-spouse, or partner) (9.3 per 1,000 and 1.4 per 1,000 population). On average each year, women experienced 1,008,000 violent victimizations at the hands of an intimate.

■ Women were just as likely to experience a violent victimization by an intimate or other relative (37 percent of all female victimizations) as they were to be victimized by an acquaintance (40 percent), while they were least likely to be victimized by a stranger (23 percent). In contrast, family-related violence accounted for only 7 percent of all violent victimizations against men. Men were far more likely to be victimized by an acquaintance (44 percent of all male victimizations) or a stranger (49 percent) than by an intimate or family member.

■ In 1992–93 women of all races, as well as Hispanic and non-Hispanic women, were about equally vulnerable to attacks by intimates. However, family income was strongly related to the likelihood of being violently attacked by an intimate. The rate of violent attacks by intimates among women in families with annual incomes of less than $10,000 was 19.9 per 1,000 women, compared with 4.5 per 1,000 women among those with annual incomes of $50,000 or more (1).

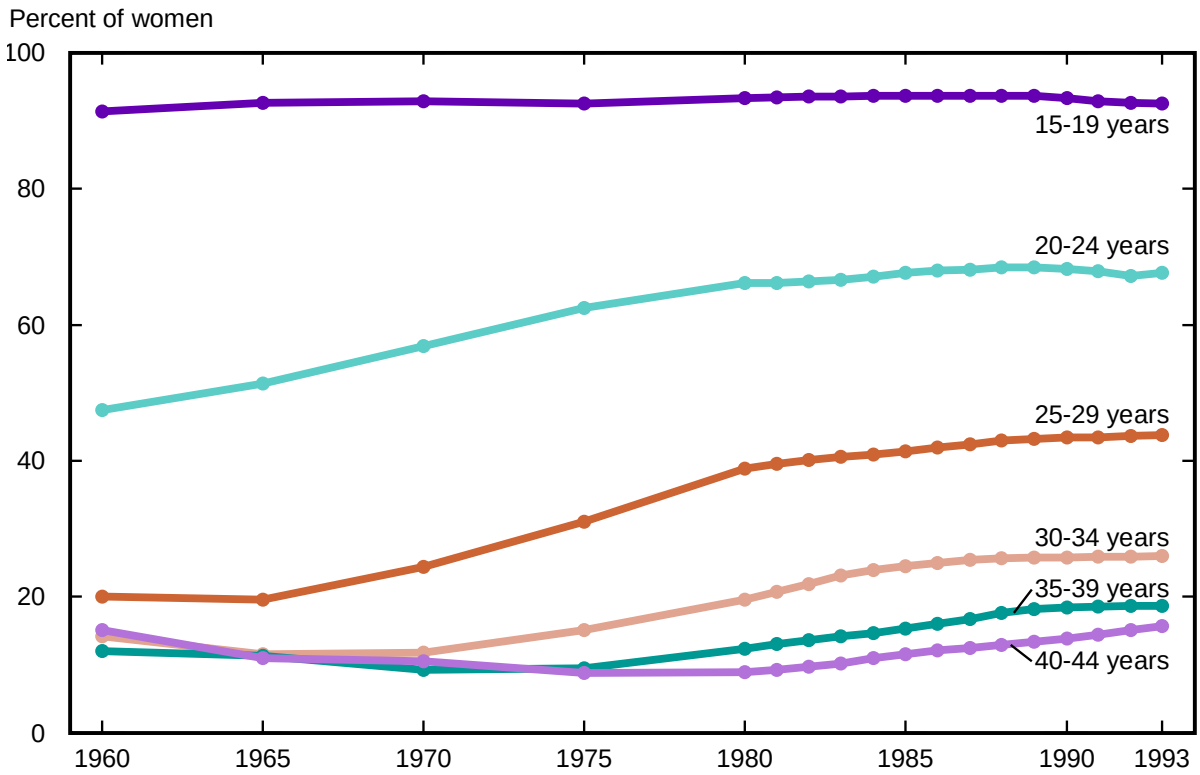
■ Friends or acquaintances of women committed more than half of all rapes and sexual assaults reported, intimates committed 26 percent, while strangers were responsible for less than one in five sexual assaults (18 percent) (1).

Reference

1. Bachman R, Saltzman LE. Violence against women: Estimates from the redesigned survey. U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. 1995.

First Live Births

Figure 26. Proportion of women 15–44 years of age who have not had at least one live birth by age: United States, 1960–93



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

■ Between 1960 and 1993 the proportion of women 20–39 years of age who had not had at least one live birth increased.

■ In 1993, 67 percent of women 20–24 years of age had never had a live birth, compared with 48 percent of women in this age group in 1960. Similarly, women 25–29 years of age were more likely never to have had a live birth in 1993 (44 percent), compared with 1960 (20 percent).

■ Between 1960 and 1993 the proportion of women aged 30–34 years, 35–39 years, and 40–44 years who have had no live births increased less substantially than for women 20–29 years of age (increases of 12, 7, and 1 percentage points).

■ The increase in the proportion of women under 30 years of age who have not had one live birth is mostly a result of delays in childbearing in the United States rather than a decrease in the proportion of women having any births. The proportion of women 40–44 years of age who had not had a live birth declined from 1960 to 1975 and then rose by 1993 to about the same level as in 1960.

■ The trend towards women having first births at later ages may affect the incidence rates of breast and ovarian cancers in the future. Research has shown a possible association between lack of child bearing or late age at first birth and the incidence of these cancers (1,2).

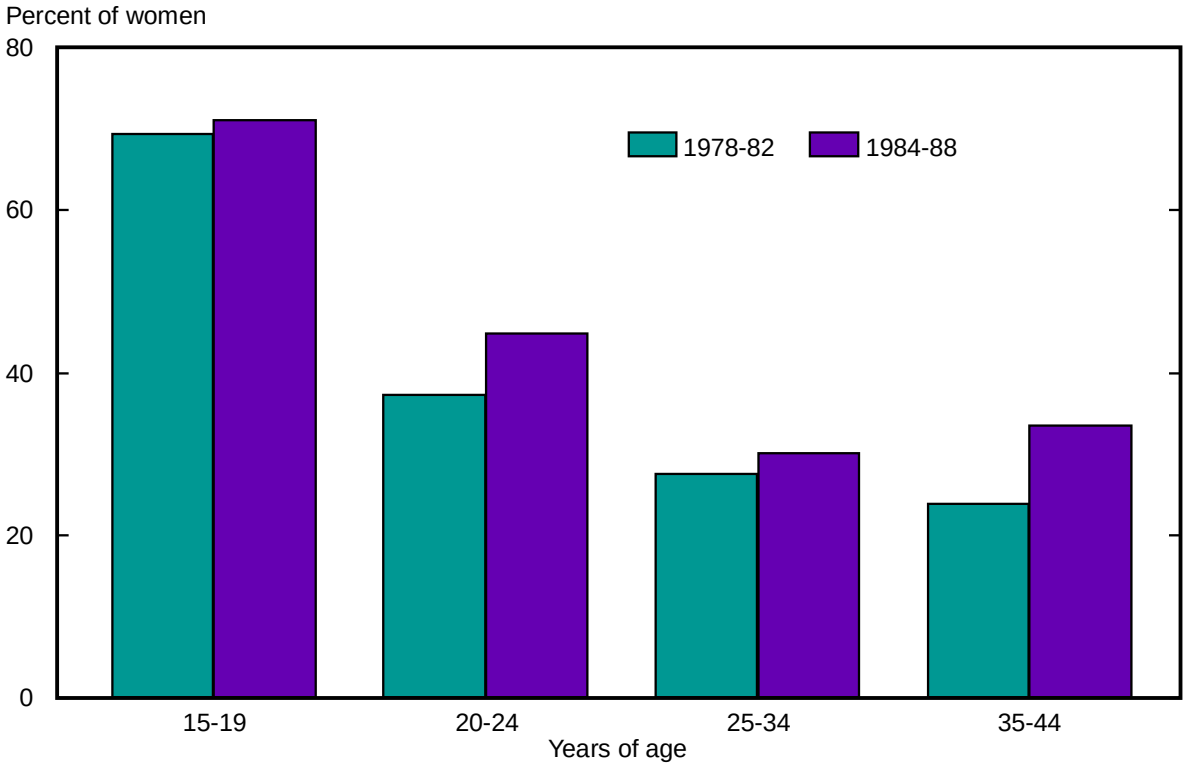
References

1. Rosner B, Colditz GA, Willett WC. Reproductive risk factors in a prospective study of breast cancer: The Nurses' Health Study. Am J Epidemiol 139:819–35. 1994.

2. Horn-Ross PL, Whittemore AS, Harris R, Itnyre J. Characteristics relating to ovarian cancer risk: Collaborative analysis of 12 U.S. case-control studies. VI. Nonepithelial cancers among adults. Epidemiology 3:490–5. 1994.

Unintended Pregnancy

Figure 27. Proportion of live births that were unintended pregnancies among women 15–44 years of age by age: United States, 1978–82 and 1984–88



NOTES: Data based on pregnancies occurring among respondents in the 5 years before being interviewed in 1982 and 1988. Intendedness was classified as pregnancies or births that were mistimed or unwanted at the time of conception. Women who responded as not knowing were included in the denominator. Age is measured at delivery.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, Division of Vital Statistics, National Survey of Family Growth, Cycle III 1982, Cycle IV 1988.

■ In 1984–88, 39 percent of live births to women 15–44 years of age were unintended.

■ Between 1978–82 and 1984–88 there was no significant change in the proportion of unintended births, either overall or in any age group.

■ The proportion of unintended live births was higher for women under 25 years of age than for older women, both in 1978–82 and in 1984–88. In 1984–88, 71 percent of all births to women 15–19 years of age were unintended, more than twice the proportion for women 35–44 years of age. Women 20–24 years of age were 34 percent more likely to have an unintended birth than women 35–44 years of age. Women 25–34 years of age were about as likely as women 35–44 years of age to have an unintended birth, although approximately one-third of all births to women in these age groups were unintended.

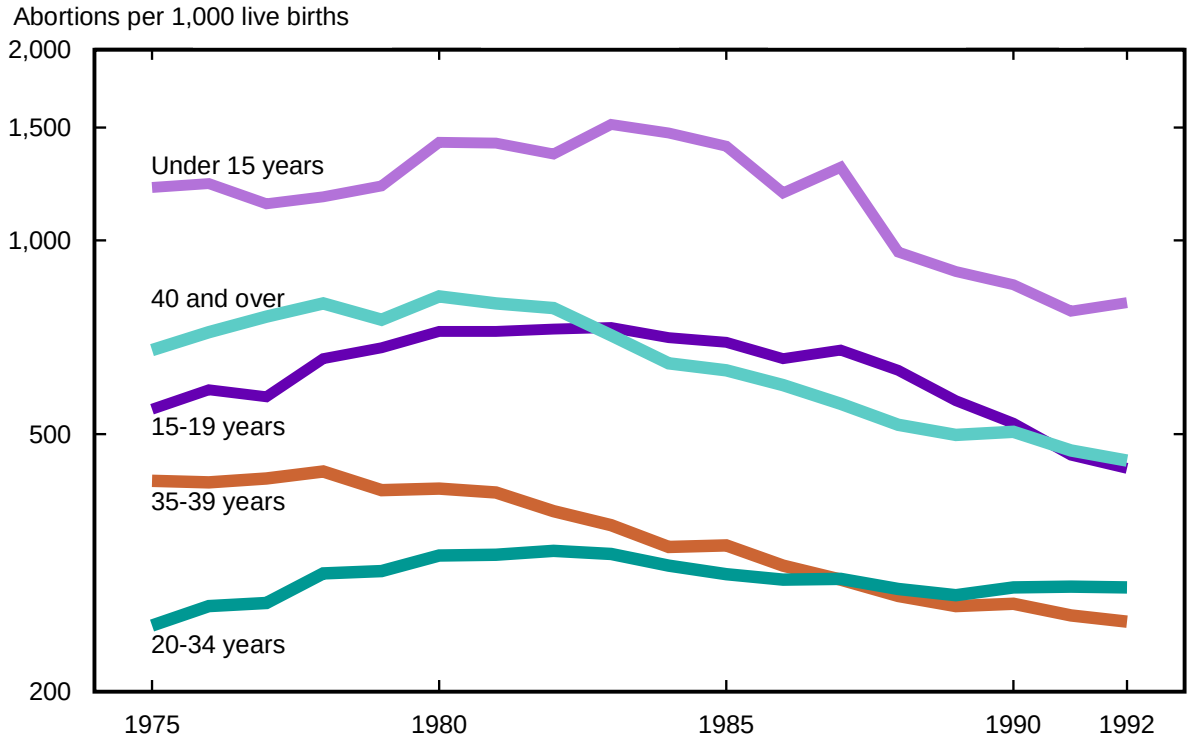
■ Unintended pregnancies largely result because a woman failed to use a contraceptive method correctly or because the method itself failed. This has important implications for family planning programs and contraceptive development to improve efforts to ensure proper and consistent use of modern methods as well as reliable backups when these methods fail (1).

Reference

1. Piccinino LJ. Unintended pregnancy and childbearing. In Wilcox LS, Marks JS, eds: From Data to Action: CDC's Public Health Surveillance for Women, Infants, and Children. U.S. Department of Health and Human Services. 1994.

Abortion

Figure 28. Legal abortion ratio by age: United States, 1975–92



NOTES: See Technical Notes for information on which States are included in this figure and how missing data were handled. Ratios are plotted on a log scale.

SOURCE: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Abortion Surveillance. See related *Health, United States, 1995*, tables 15 and 16.

■ Between 1980 and 1992 the overall abortion ratio declined by 7 percent and the number of reported abortions per 1,000 women 15–44 years of age declined by 8 percent.

■ The age-specific abortion ratios have been decreasing since the early 1980's for most age groups. However, the ratio for women aged 20–34 years, the group that accounted for 71 percent of all abortions in 1992, remained the most stable, decreasing only 4 percent since 1985.

■ The abortion ratios for women under 15 years of age have been consistently higher than any other age group. The abortion ratio in this age group dropped 43 percent between 1980 and 1992. This is a result of a 20 percent increase in the number of pregnancies being carried to term during this period and a 33 percent decrease in the number of reported abortions.

■ The abortion ratios for women 15–19 years of age were second highest between 1983 and 1990. Since 1980 the abortion ratio in this age group has declined by 38 percent, as a result of a drop in the number of abortions among women 15–19 years of age.

■ The abortion ratios among women 40 years of age and over declined by 44 percent between 1980 and 1992. The number of live births among women in this group increased by 138 percent between 1980 and 1992, while the reported number of abortions only increased 10 percent.

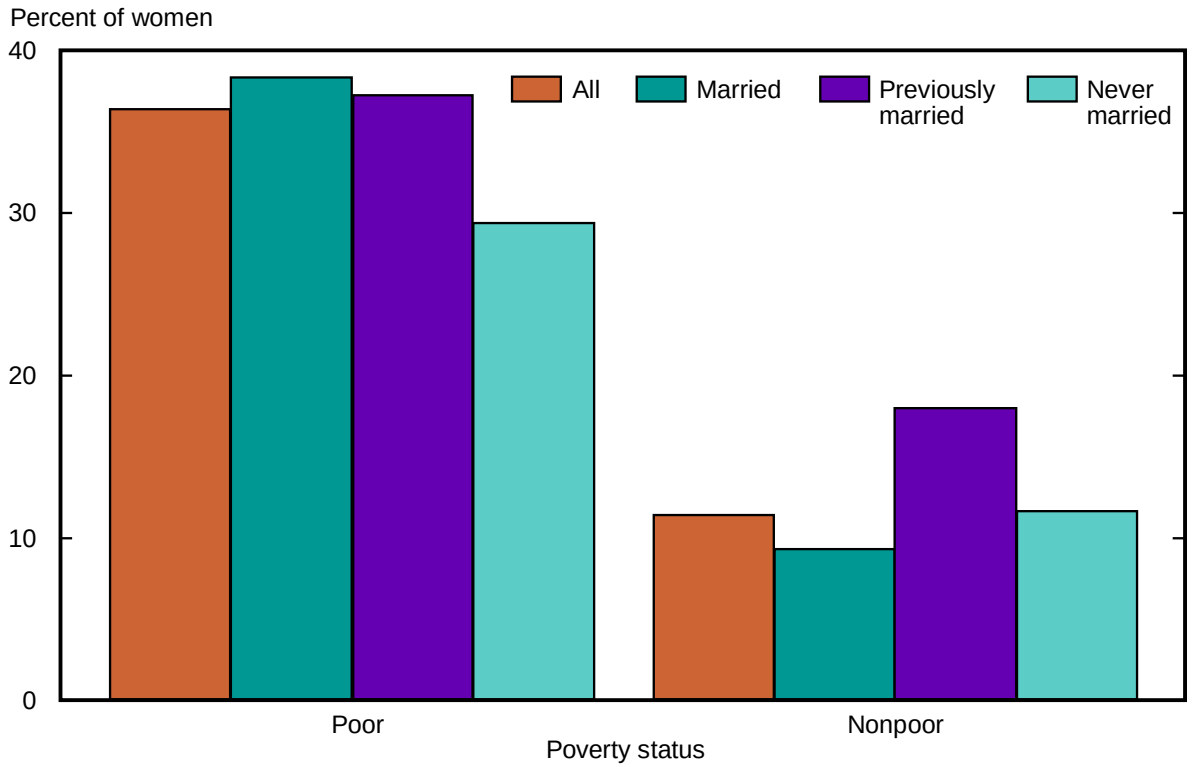
■ The decline in the national abortion ratio may be attributable to factors such as reduced access to abortion services, changes in abortion laws (for example, parental consent or notification laws and mandatory waiting periods), changes in contraceptive practices, and attitudinal changes concerning abortion and/or carrying unplanned pregnancies to term (1).

Reference

1. Koonin LM, Smith JC, Ramick M. Abortion surveillance—United States, 1991. In: CDC surveillance summaries, May 1995. MMWR 44(SS-2):23–53. 1995.

Health Care Coverage

Figure 29. Proportion of women 25–64 years of age with no health care coverage by poverty and marital status: United States, 1993



NOTES: Percents are age adjusted. For a description of age adjustment, see Appendix II. See Technical Notes for description of poverty status and health care coverage.

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

■ In 1993, 15 percent of all women aged 25–64 years had no health care coverage, compared with 17 percent of all men in this age group. Persons without health care coverage were not currently enrolled in either public or private insurance.

■ In 1993 poor women were 3.2 times as likely to be uninsured as nonpoor women (36 percent and 11 percent).

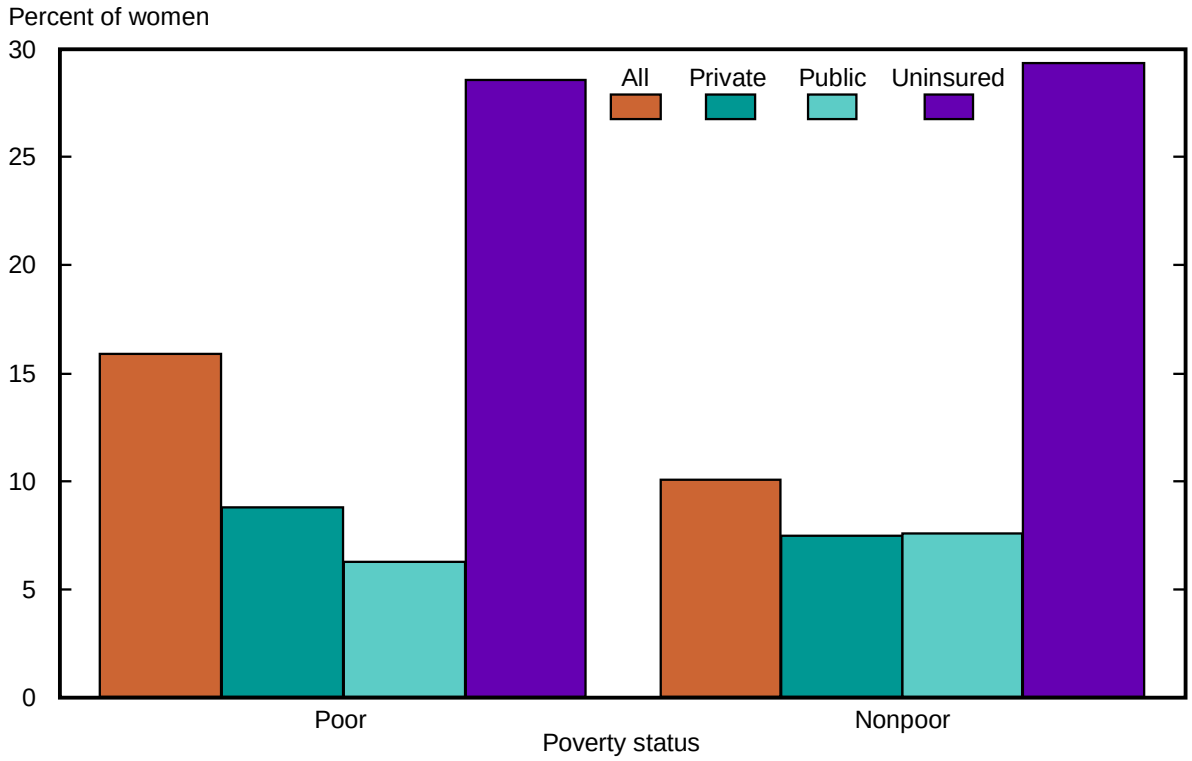
■ Thirty eight percent of currently married and previously married poor women were uninsured in 1993, compared with 29 percent of never married women. The higher insurance rate for never married women was partially attributable to the higher rates of Medicaid coverage among never married women than among currently married women (57 percent and 34 percent).

■ Among nonpoor women 25–64 years of age in 1993, previously married women were twice as likely to be uninsured as currently married women (18 percent and 9 percent).

■ In 1993, 19 percent of women 25–34 years of age were uninsured, 36 percent more than the proportion of women 45–64 years of age who were uninsured (14 percent). The proportion of women 35–44 years of age who were uninsured was similar to that of the older age group (14 percent).

Usual Source of Health Care

Figure 30. Proportion of women 25–64 years of age with no usual source of health care by poverty status and health care coverage: United States, 1993



NOTES: Percents are age adjusted (see Appendix II). Usual source of care was defined as having one or several clinics, health centers, doctor's offices, or other places that a person goes to if they are sick or need advice about their health. Private insurance includes either fee-for-service or HMO coverage. Public insurance is Medicaid or Medicare excluding HMO enrollees. See Technical Notes for definitions of health care coverage and poverty status.

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

■ In 1993, 11 percent of all women aged 25–64 years did not have a usual source of health care. Women 25–34 years of age were most likely to have no usual source of health care (15 percent). The percent of women without a usual source of health care declined with age to 9 percent for women 45–64 years of age and 6 percent for women 65 years of age and over.

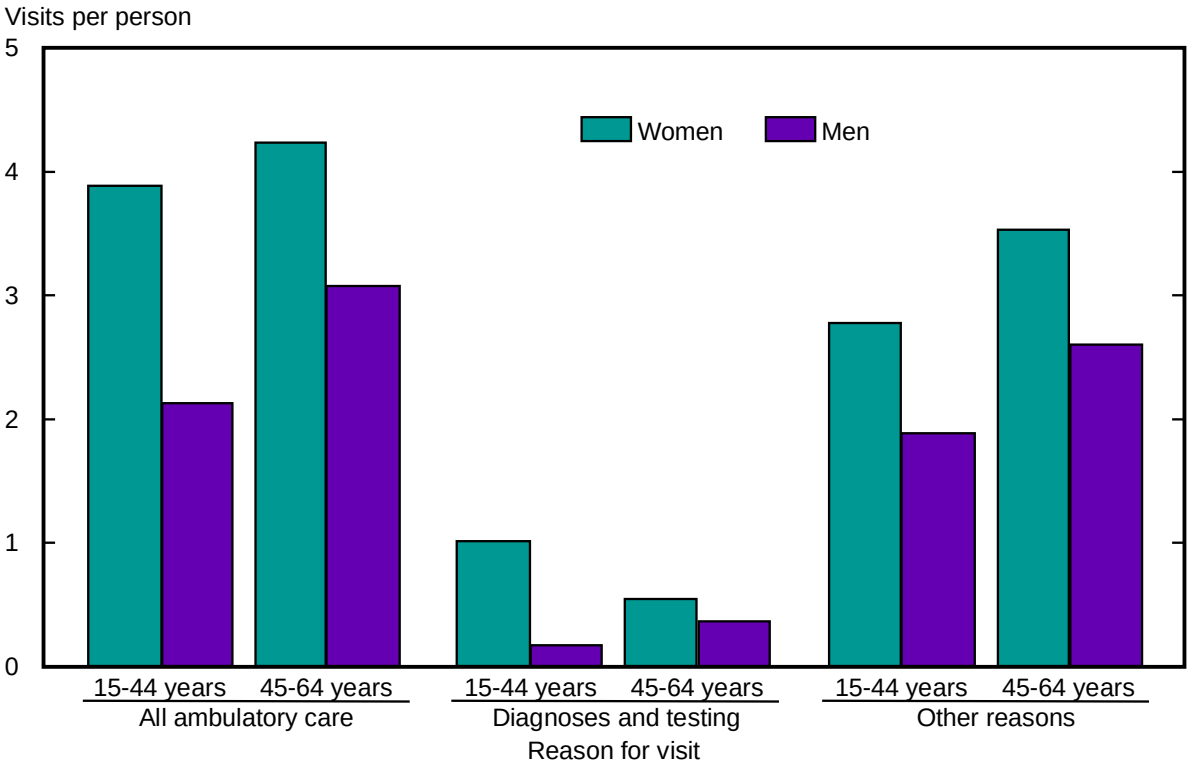
■ In 1993 women who lived below the poverty line were 57 percent more likely to lack a regular source of medical care than women whose family income was at or above the poverty line (16 percent and 10 percent, age-adjusted).

■ Among women with some form of health care coverage, poor women were as likely to have a regular source of medical care as nonpoor women. There were no significant differences in the proportion of women without a usual source of care by poverty status among women with private health insurance or among those with public coverage.

■ In 1993, 29 percent of both poor and nonpoor women who had no health insurance also had no regular source of medical care. This figure was 3–4.5 times the proportion of insured women who lacked a regular source of medical care.

Ambulatory Care

Figure 31. Physician contacts among persons 15–64 years of age by patient's principal reason for visit, age, and sex: United States, 1992



NOTE: For description of how reason for visit was defined, see Technical Notes.

SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Ambulatory Medical Care Survey and National Hospital Ambulatory Medical Care Survey. See related *Health, United States, 1995*, table 79.

■ Women 15–64 years of age visited physicians in private practices, emergency rooms, or hospital outpatient clinics an average of 4.0 times in 1992. This was 66 percent more than the average number of physician visits made by men, even though women are less likely to have chronic diseases such as hypertension in their middle years.

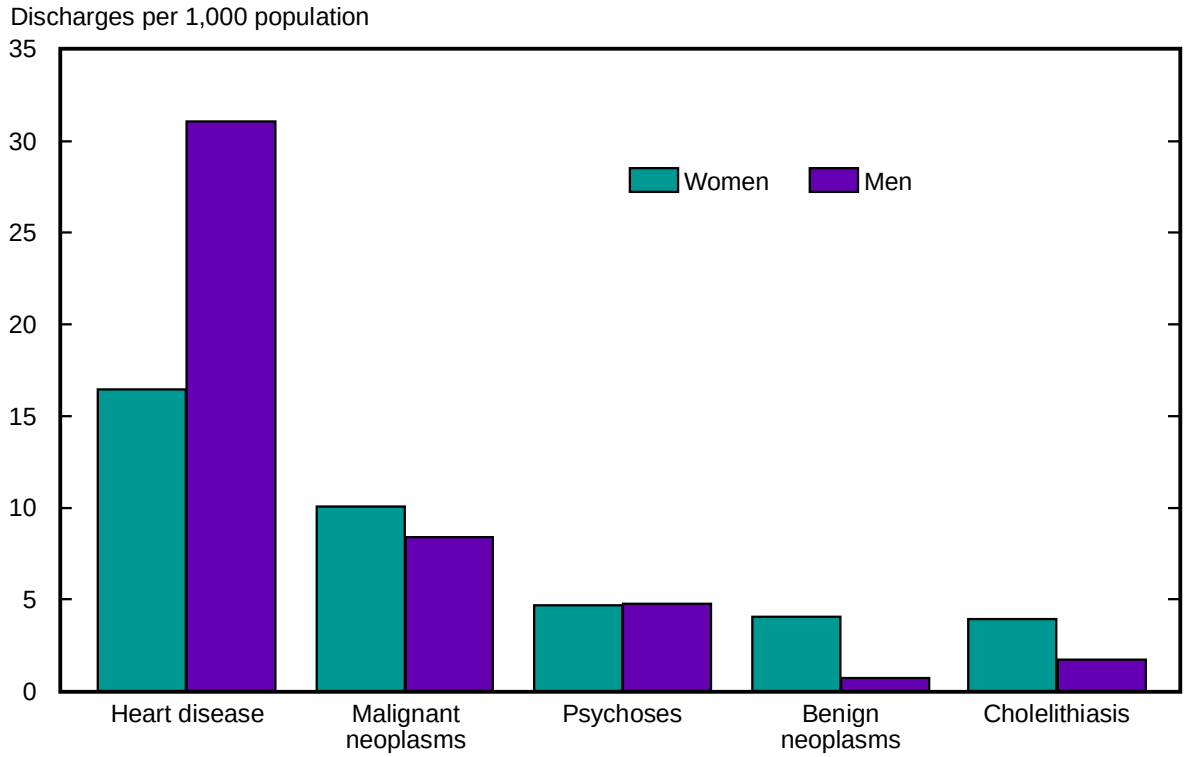
■ In 1992 women 15–64 years of age made an average of 0.9 visits to physicians for diagnosis, screening, and test results, almost 4 times the number of physician visits made by men for these reasons (0.2 average visits). Visits for these reasons accounted for 22 percent of all physician visits made by women in this age group.

■ Among persons 15–44 years of age, women were 5.7 times as likely to see a physician for diagnosis, screening, or test results as men. Visits for pregnancy-related concerns accounted for 59 percent of these visits, while family planning and other obstetrical or gynecological visits accounted for an additional 9 percent among women of this age group. Women 45–64 years of age were about half as likely to see a physician for diagnosis or screening as women 15–44 years of age.

■ When visits principally for diagnosis, screening, and test results are excluded, women 15–64 years of age saw physicians approximately 43 percent more often than men in 1992. Furthermore, this gender differential in ambulatory care use was similar for each of the two age groups (15–44 and 45–64) after excluding visits for diagnosis, screening, and test results.

Inpatient Care

Figure 32. Hospital discharge rates in non-Federal short-stay hospitals for selected first-listed diagnoses among persons 45–64 years of age by sex: United States, 1993



NOTES: Data shown are for the five leading first-listed diagnoses among women 45–64 years of age in 1993. For a description of the International Classification of Diseases, Clinical Modification, code numbers for diagnostic categories, see Appendix II.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey. See related *Health, United States, 1995*, tables 86, 87, and 88.

■ In 1993 the hospital discharge rate among persons 45–64 years of age was 7 percent lower for women than for men (123 and 132 discharges per 1,000 population) and days of care were 11 percent lower for women than men (742 and 831 days of care per 1,000 population).

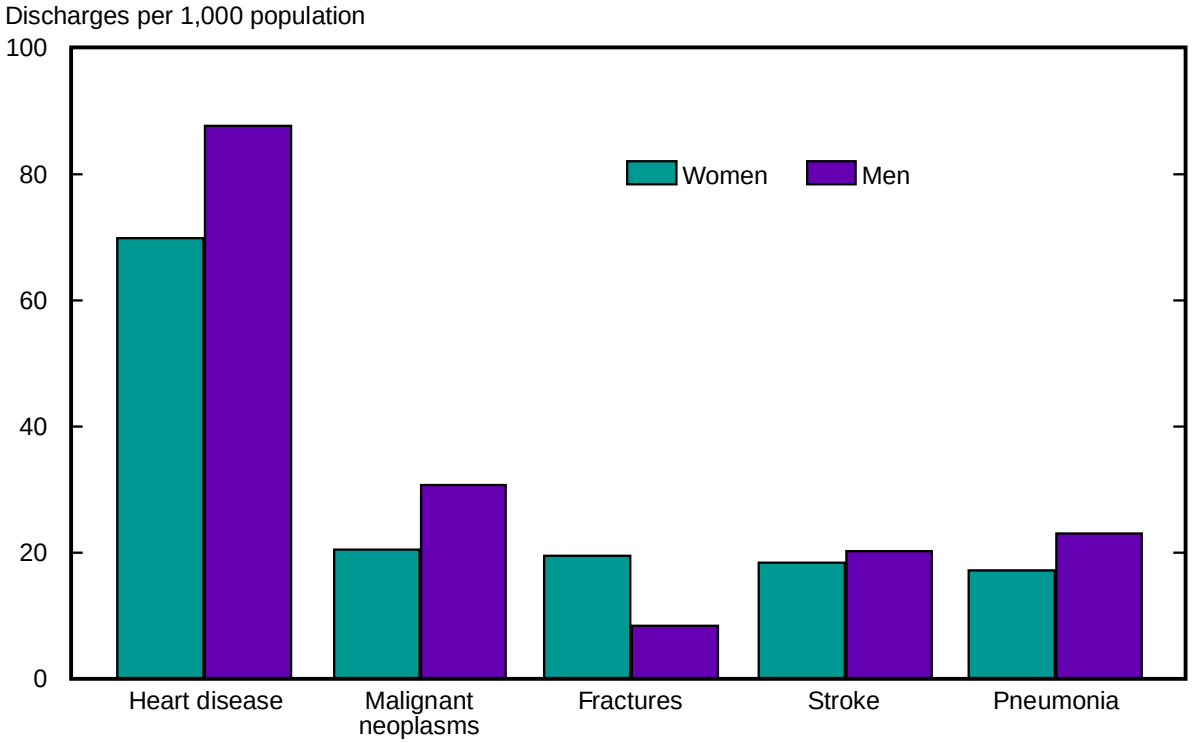
■ Among both women and men 45–64 years of age, heart disease was the most frequent first-listed diagnosis on hospital discharge summaries in 1993. The hospital discharge rate for heart disease was 47 percent lower among women than men in this age group. This mirrors the lower risk of heart disease mortality among women than men of this age (figure 3).

■ Malignant neoplasms, psychoses, benign neoplasms, and cholelithiasis (gall stones) were the second–fifth most frequent first-listed hospital discharge diagnoses among middle-aged women. Hospital discharge rates among women for these diagnoses equaled or exceeded those for men.

■ In 1993 the hospital discharge rate for benign neoplasms was 413 percent greater among women than men. Hysterectomies were performed during 53 percent of hospitalizations of middle-aged women with this discharge diagnosis. Hysterectomy was the most common operation among women in this age group as well as the most frequent nonobstetric operation performed on women of all ages.

■ In 1993 the hospital discharge rate for delivery was 67.8 per 1,000 among women 15–44 years of age. This hospitalization rate was greater than that for any other diagnosis for either sex in any age group under 65 years.

Figure 33. Hospital discharge rates in non-Federal short-stay hospitals for selected first-listed diagnoses among persons 65 years of age and over by sex: United States, 1993



NOTES: Data shown are for the five leading first-listed hospital diagnoses among women 65 years of age and over in 1993. For a description of the International Classification of Diseases, Clinical Modification, code numbers for diagnostic categories, see Appendix II.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Hospital Discharge Survey. See related *Health, United States, 1995*, tables 86 and 87.

■ In 1993 the hospital discharge rate for women 65 years of age and over was 7 percent less than the hospital discharge rate among men in this age group (331 and 357 per 1,000 population). The average length of stay among older women was 8.1 days, about half a day longer than for men.

■ Heart disease was the most frequent first-listed hospital discharge diagnosis among women and men 65 years of age and over in 1993. The gender differential in hospitalization for heart disease narrows with advancing age; the hospitalization rate for women due to heart disease was 47 percent lower than for men at 45–64 years of age, compared with a 20 percent lower hospitalization rate for women than men among the elderly.

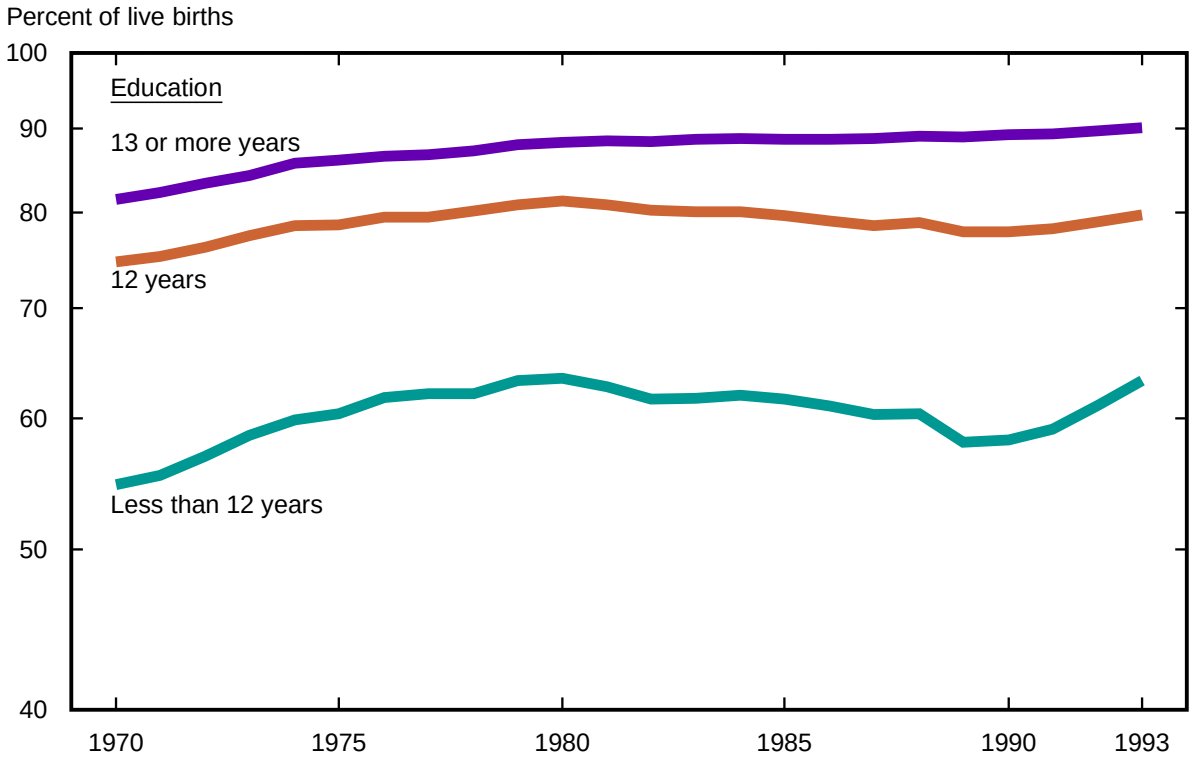
■ In 1993 women aged 65 years and over had a total of 9,535,000 days of care in non-Federal short-stay hospitals for heart disease and men had 7,711,000 days of care. Days of care were higher for women than men because there are more women in this age group, and the average hospital stay for women with heart disease was slightly longer than for men.

■ Malignant neoplasm was the second most common hospital discharge diagnosis for both women and men 65 years of age and over. The hospital discharge rate for malignant neoplasms was 50 percent greater among men than women in this age group.

■ Hospitalizations for fractures as the first-listed diagnosis represented 6 percent of all discharges for women 65 years of age and over from non-Federal short-stay hospitals. Women were 129 percent more likely to be discharged with a diagnosis of fracture than men. Of these hospitalizations among women, 57 percent were for hip fractures, resulting in approximately 219,000 hospital stays in 1993.

Prenatal Care

Figure 34. Receipt of early prenatal care among mothers 20 years of age and over by maternal education: United States, 1970–93



NOTES: Data shown only for States with education of mother and prenatal care items on their birth certificates. The number of States reporting both items increased from 35 in 1970 to 50 and the District of Columbia starting in 1992 (see Appendix I). Percents are plotted on a log scale.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. See related *Health, United States, 1995*, table 7.

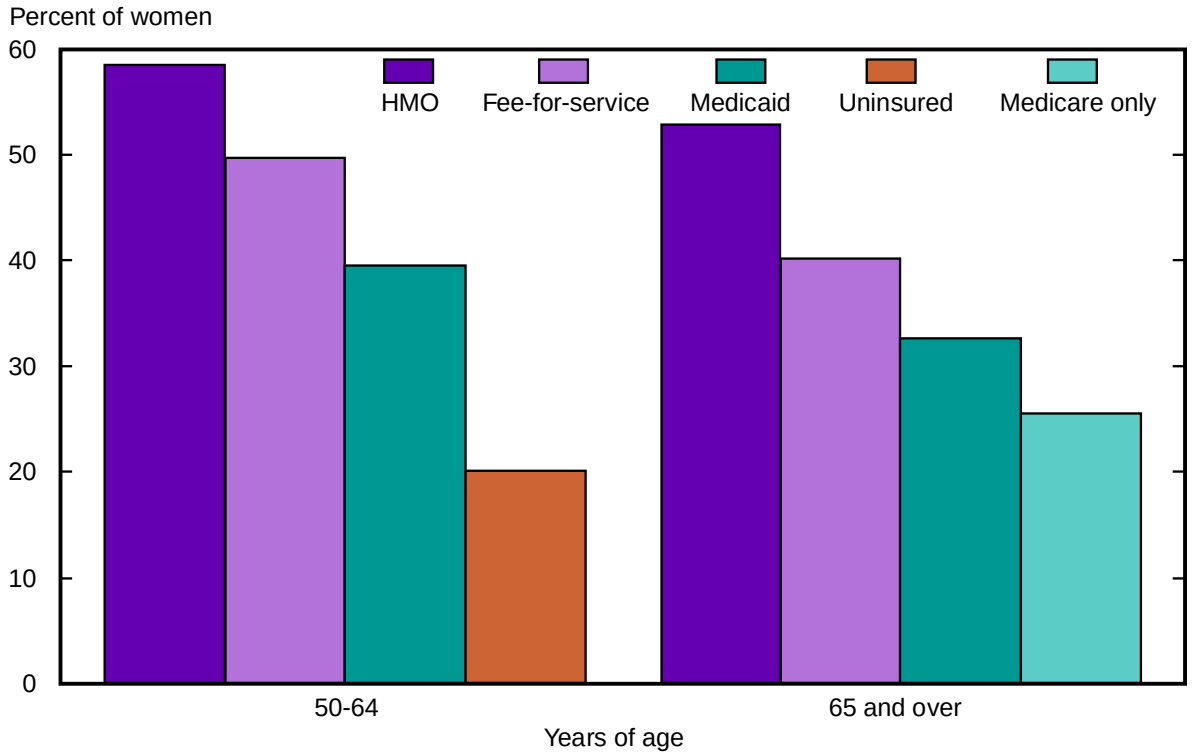
■ In 1993, 90 percent of mothers 20 years of age and over with more than 12 years of education received early prenatal care, compared with 80 percent of mothers with 12 years of education, and 63 percent of mothers with fewer than 12 years of education. This assocation between maternal education level and the likelihood of receiving first trimester prenatal care has been observed since these data were first collected.

■ The percent of mothers with fewer than 12 years of education who received first trimester prenatal care increased by 16 percent between 1970 and 1980, decreased by 8 percent between 1980 and 1990, then increased 9 percent from 1990–93. In contrast, at no point between 1970 and 1993 did receipt of early prenatal care by mothers with more than 12 years of education decline.

■ In 1993 black mothers were less likely to receive early prenatal care than were white mothers at every educational level. Among black mothers with fewer than 12 years of education, 55 percent received first trimester care, compared with 65 percent among white mothers. Among mothers with more than 12 years of education, 79 percent of black mothers and 92 percent of white mothers received first trimester prenatal care.

Mammography

Figure 35. Receipt of mammography within the last year among women 50 years of age and over by age and health care coverage: United States, 1993



NOTES: See Technical Notes for definitions of health care coverage and groups that were excluded from the chart.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey. See related *Health, United States, 1995*, table 78.

■ In 1993, 47 percent of women 50–64 years of age reported having had a mammogram within the past year. There was no difference in the proportion of black women and white women who reported recent mammography in this age group.

■ Among women aged 50–64 years, the percent of women reporting a recent mammogram was lowest for uninsured women (20 percent) and highest for women enrolled in an health maintenance organization (HMO) (59 percent). Women 50–64 years of age with Medicaid coverage were twice as likely to report use of mammography within the last year as uninsured women in this age group.

■ In 1993, 39 percent of women 65 years of age and over reported having had a mammogram within the past year, 8 percentage points lower than for women 50–64 years of age, even though breast cancer incidence and mortality are higher among women 65 years of age and over than for younger women (1).

■ Almost all women 65 years of age and over have Medicare coverage, and about 75 percent also have private health insurance coverage, either HMO or fee-for-service (2). Among women 65 years of age and over who had private coverage, those who were enrolled in HMO's were 31 percent more likely to report recent mammography than women with fee-for-service coverage.

■ Women aged 65 years and over with only Medicare coverage were 36 percent less likely to report recent mammography than women with both Medicare and private fee-for-service coverage.

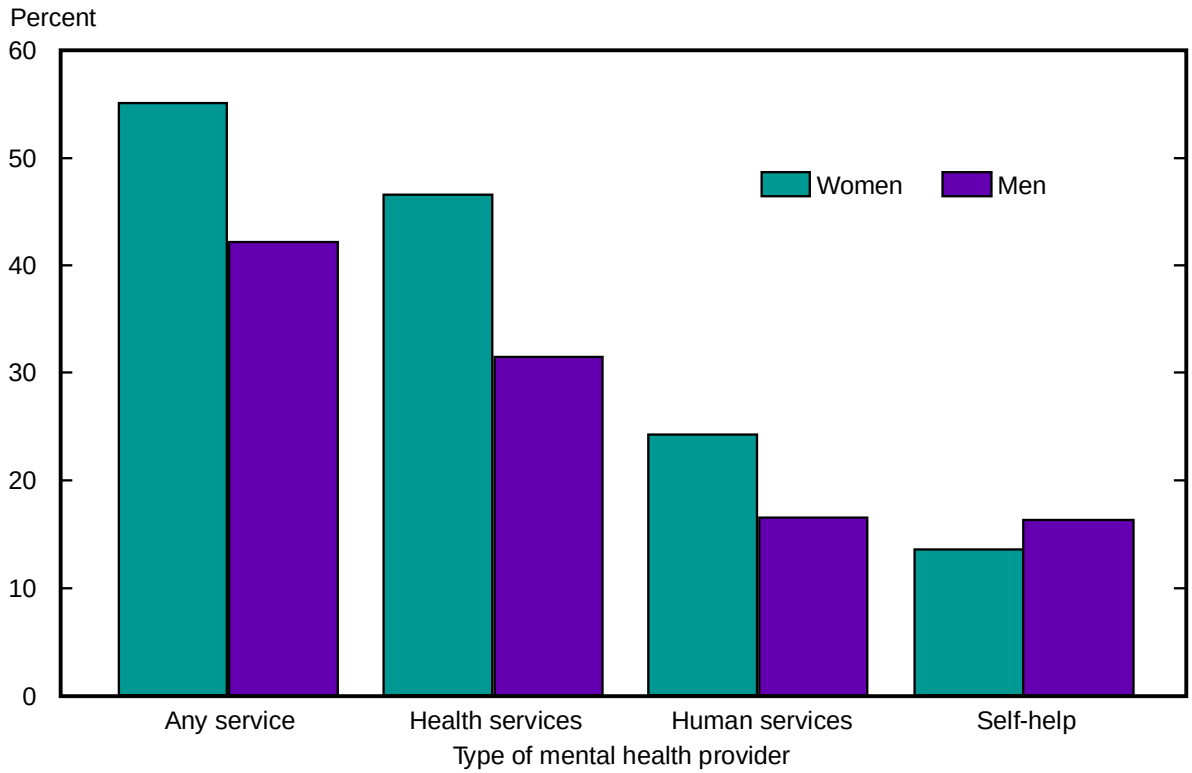
References

1. Miller BA, Ries LAG, Hankey BF, et al., eds. SEER Cancer Statistics Review: 1973–90. National Cancer Institute. 1993.

2. Makuc D, Freid VM, Parsons PE. Health insurance and cancer screening among women. Advance data from vital and health statistics; no 254. Hyattsville, Maryland: National Center for Health Statistics. 1994.

Mental Health Services

Figure 36. Lifetime mental health services utilization among persons 15–54 years of age who ever had a psychiatric disorder by sex: United States, 1990–92



NOTES: The presence of a psychiatric disorder did not have to be formally diagnosed for people to be included as having a disorder. See Technical Notes for description of the services included in each category and data source.

SOURCE: University of Michigan, Institute for Social Research/Survey Research Center, National Comorbidity Survey.

■ In 1990–92 only 55 percent of U.S. women who had ever had an episode of a psychiatric disorder in their lives had ever received mental health treatment.

■ Mental health service utilization varies by sex. Among persons who have ever had a disorder, women were slightly more likely to have used any type of mental health service than men (55 percent and 42 percent).

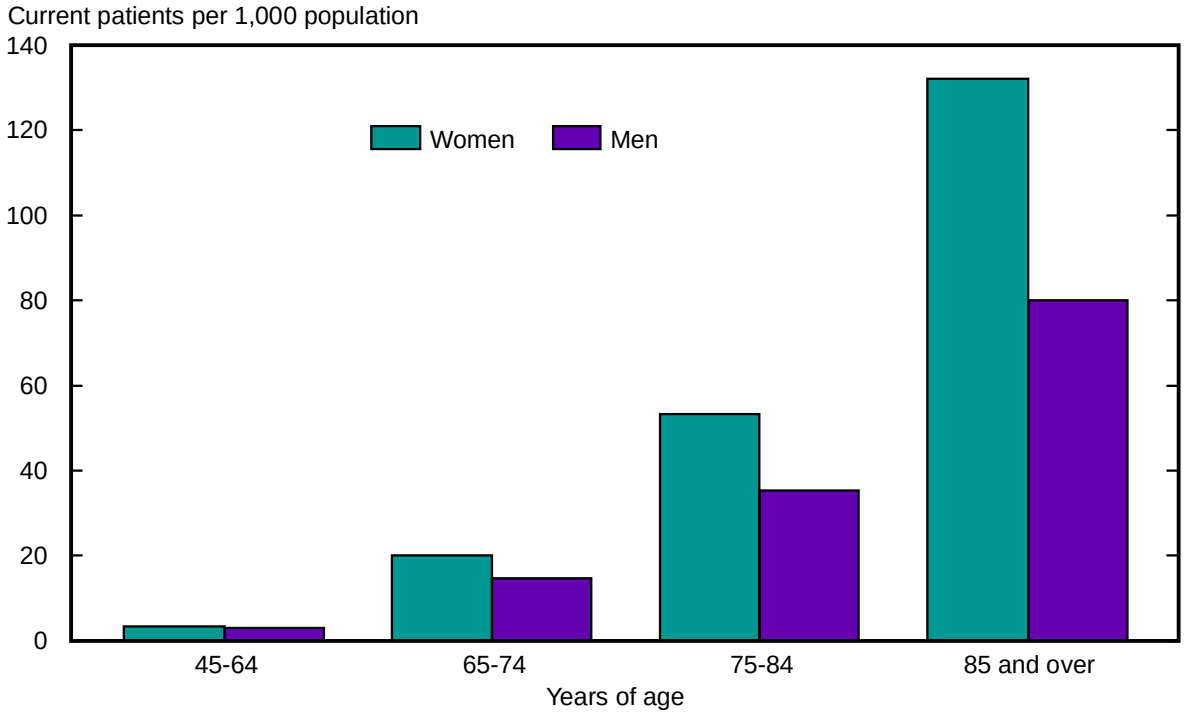
■ Women were 48 percent more likely than men to have been treated by a health service professional for a psychiatric disorder at some point during their lifetime. Women more often than men sought help from physicians, including psychiatrists (25 percent and 11 percent) and mental health specialists (36 percent and 26 percent).

■ Human services, such as social service providers, clergy, hotlines, and school counselors, were also accessed for help by women with psychiatric disorders 46 percent more often than by men with psychiatric disorders. Women were only 23 percent more likely to seek help from religious organizations, while they were 78 percent more likely to go to a social service agency.

■ Men were slightly more likely to use self-help groups for their psychiatric disorder than women (16 percent and 14 percent). This is partially due to the larger number of men with substance abuse disorders than women, for which there are a large number of self-help groups.

Home Health Care

Figure 37. Home health care patients among persons 45 years of age and over by sex and age: United States, 1993



NOTES: Age is defined as age at interview. Rates are based on the civilian noninstitutionalized population as of July 1, 1993. See Appendix II for definition of home health care.

SOURCES: Centers for Disease Control and Prevention, National Center for Health Statistics, National Home and Hospice Care Survey. See related *Health, United States, 1995*, table 82.

■ The United States has experienced rapid growth in the availability and use of home care in recent years (1). This is due in large part to advances in modern medical technology that have allowed delivery of health care services in the home, as well as expansion of insurance coverage to include home health care as a cost-saving measure. (1)

■ In 1993 approximately 1.5 million persons were under the care of a home health agency on an average day. Of these patients, approximately three-quarters were 65 years of age and over and two-thirds were women.

■ The rate of home health care utilization increases sharply with age. Among women the rate of utilization in 1993 increased from just over 3 per 1,000 population among those 45–64 years of age at the time of the survey to 132 per 1,000 among those aged 85 years and over. For men the rate increased from 3 per 1,000 among those aged 45–64 years to 80 per 1,000 among those 85 years of age and over.

■ Women are more likely to utilize home health care than men, and this differential increases with age. For example, among persons 65–74 years of age, the rate of utilization is 36 percent higher among women than men. Among persons aged 85 years and over, however, the rate is 65 percent higher among women.

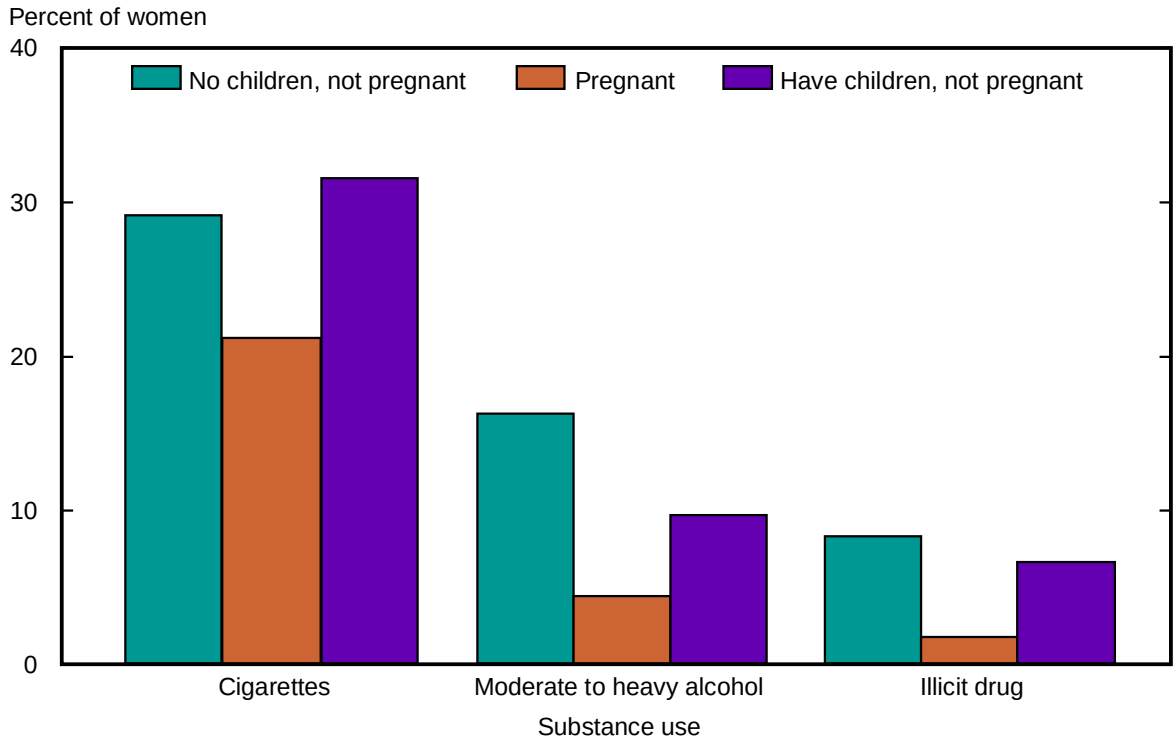
■ Heart disease was the most common condition leading to utilization of home health care for both women and men in 1993. Other frequent admission diagnoses among female patients included arthritis and other musculoskeletal diseases, diabetes, and stroke.

Reference

1. Dey AN. Characteristics of elderly men and women discharged from home health care services: United States, 1991–92. Advance data from vital and health statistics; no 259. Hyattsville, Maryland: National Center for Health Statistics. 1995.

Substance Use

Figure 38. Substance use in the past month among women 15–44 years of age by pregnancy and parental status: United States, 1994



NOTES: Percents are adjusted for age and marital status. Cigarette smokers are those who reported having smoked at all in the past 30 days. See Technical Notes for definitions of moderate to heavy alcohol use and illicit drug use, and the method of age and marital status adjustment.

SOURCE: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, National Household Survey on Drug Abuse.

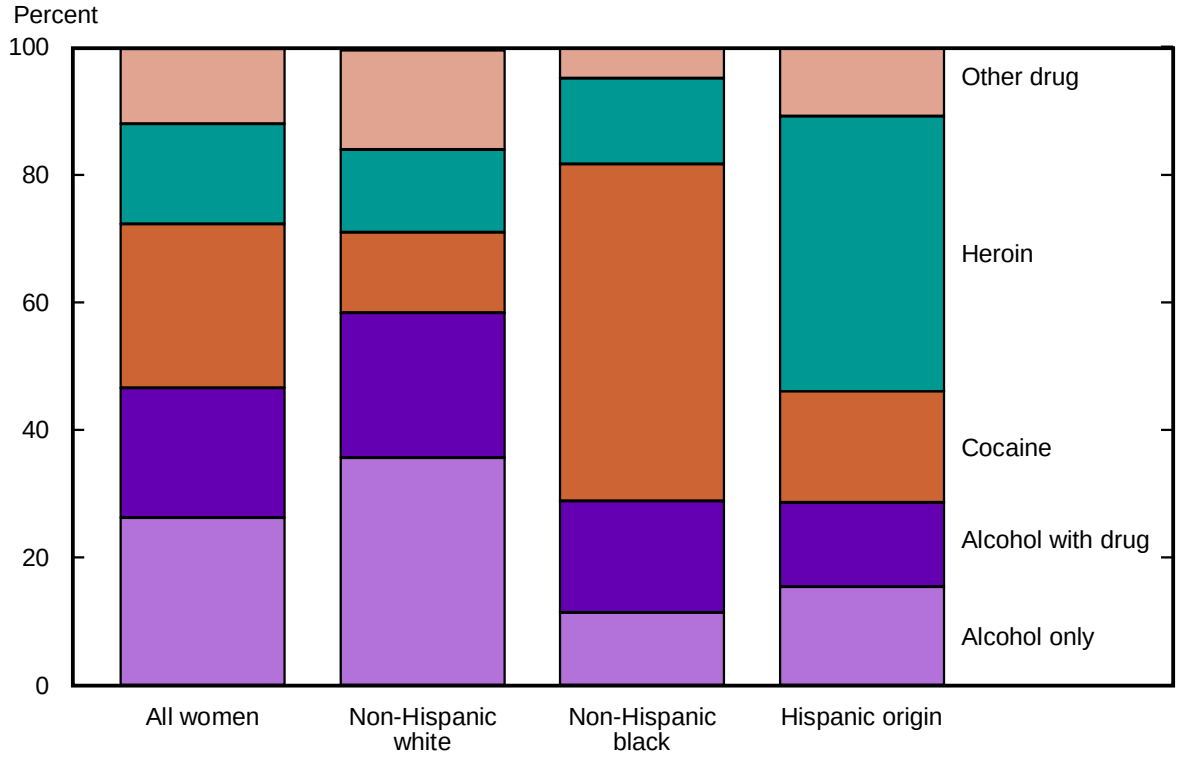
■ Pregnant women and other women of childbearing age are equally likely to have used alcohol, cigarettes, and illicit drugs at some time in their lives. Among all women 15–44 years of age, 47 percent have ever used illicit drugs compared with 46 percent among currently pregnant women. Proportions of women using alcohol and cigarettes in the past year also showed no differences between pregnant women and all women in this age group.

■ Among pregnant women 15–44 years of age, 2 percent used an illicit drug within the past month. Among women in this age group without children 8 percent had used an illicit drug, while among nonpregnant women with children 7 percent had used an illicit drug within the past month. This suggests that 78 percent of drug using women stop drug use during pregnancy, but that most resume drug use after pregnancy.

■ In 1994 the proportion of pregnant women 15–44 years of age who were moderate to heavy alcohol users in the past month was 4 percent while 10 percent of women in this age group with children were moderate to heavy alcohol users.

■ Twenty-one percent of pregnant women 15–44 years of age had smoked cigarettes in the past month compared with 29 percent of women in this age group with no children and 32 percent of women with children. These data suggest that reducing cigarette use during pregnancy is less likely to occur than reducing alcohol or illicit drug use.

Figure 39. Primary substance of abuse among admission to substance abuse treatment facilities of women 15 years of age and over by race and Hispanic origin: United States, 12 months ending September 1993



NOTES: Cocaine includes both crack and powder. Other drugs include marijuana, methamphetamines, and more than eight other drug types. See Technical Notes for description of the data source.

Source: Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set.

■ Between October 1992 and September 1993, women accounted for 28 percent of all reported admissions to publicly funded specialty substance abuse treatment facilities. Non-Hispanic white women accounted for 56 percent of admissions of women, while non-Hispanic black women accounted for 32 percent and Hispanic women accounted for 9 percent of all admissions of women.

■ Among the 390,000 admissions of women to publicly funded specialty treatment facilities in fiscal year 1993, alcohol and alcohol combined with another drug was the primary substance of abuse for 47 percent (26 percent and 21 percent). Cocaine accounted for 26 percent of admission, most of which (19 percent) was crack cocaine and the remainder was powder. Heroin accounted for 16 percent of all admissions of women, while other drugs accounted for 12 percent.

■ Between October 1992 and September 1993, type of substance abuse was highly correlated with race and ethnicity. Alcohol and alcohol combined with another drug was the primary substance of abuse among non-Hispanic white women, account for 59 percent of admissions. Among admissions of non-Hispanic black women, cocaine was the predominant type of substance abuse (53 percent) including 45 percent who abused crack. Among admissions of Hispanic women, the great proportion (43 percent) were a result of abuse of heroin.

■ Women accounted for less than half of all admissions to publicly funded specialty treatment facilities for most types of substance abuse. In fiscal year 1993 the exceptions were admissions for tranquilizers for which women accounted for 60 percent, and sedatives, for which 58 percent were women.

Technical Notes

Cause of Death: Lung Cancer (figures 6 and 9)

For the purpose of national mortality statistics, every death is attributed to one underlying condition, based on information reported on the death certificate. Most figures and tables in *Health, United States, 1995* reflect groupings of deaths from the List of 72 Selected Causes of Death and HIV Infection that follows the *Ninth Revision, International Classification of Diseases* (ICD-9). One of these groupings is Malignant neoplasms of respiratory and intrathoracic organs (ICD-9 Nos. 160–165). These figures focus specifically on trachea, bronchus and lung cancer (ICD-9 No. 162 and ICDA-8 No. 162), a subgroup of neoplasms of respiratory and intrathoracic organs.

Underlying and Nonunderlying Causes of Death (figure 8)

The U.S. standard death certificate is designed to collect information on all conditions that the medical certifier reported as contributing to the death, either directly or indirectly. The first section of the death certificate lists all of the condition(s) that directly led to the death, distinguishing between the immediate cause of death, any intermediate cause(s), and the underlying cause of death. The second section requests information on other conditions that contributed to the death but did not result in the underlying cause of death.

The concept of an underlying cause of death is based on the premise that, if the starting point of a sequence of events is known, death can be postponed by preventing the initiating cause from further impacting upon health. Cause-specific mortality is usually based on classifications of underlying cause of death. This concept was developed when mortality patterns were dominated by infectious diseases, which tended to be the only serious condition present at the time of death. Mortality patterns in the United States are currently dominated by chronic conditions and, because of common etiologies and concurrent disease processes, these conditions often occur jointly (1).

For analysis of trends over time and international comparisons, information on underlying cause of death is critical. However, to gain a better understanding of the variety of concurrent diseases contributing to death, it may be important to have information on all diseases listed on the death certificate.

Estimated AIDS-Opportunistic Illness (figure 11)

Before 1993 the Centers for Disease Control (CDC) surveillance definition of acquired immunodeficiency syndrome (AIDS) included only opportunistic illness (AIDS-OI) diagnosed per year or quarter (adjusted for reporting delays). In 1993 the AIDS surveillance case definition was expanded to include a laboratory measure of severe immunosuppression ($CD4^+$ T-lymphocyte count of less than 200 cells/μL or a percent of total lymphocytes less than 14) and three additional AIDS-OI clinical conditions (pulmonary tuberculosis, recurrent pneumonia, and invasive cervical cancer). Because most HIV-infected persons do become severely immunosuppressed before the onset of AIDS-OI, the addition of the $CD4^+$ criteria resulted in a sharp increase in incidence rates for AIDS in 1993. In order to examine trends over time, an adjustment is required to estimate the time at which AIDS-OI will develop in persons reported with AIDS based on the $CD4^+$ criteria.

The estimated AIDS-OI incidence (figure 11) is the sum of incidence in two groups. The first group includes persons who were reported to AIDS surveillance as having AIDS-OI. Incidence in this group is estimated by adjusting reported cases for delays in case reporting using maximum likelihood statistical procedures. The second group is comprised of persons reported as having AIDS based on a $CD4^+$ count or percent. Most of these persons will eventually have an AIDS-OI diagnosed. CDC has estimated the number of persons who had or will have an AIDS-OI diagnosed after the date of the reported $CD4^+$ count or percent by month of AIDS-OI diagnosis. CDC used data from the Adult Spectrum of Disease Project to estimate the probability distribution of the time interval between a $CD4^+$ count in a particular range and the diagnosis of an AIDS-OI.

There is some uncertainty in these estimates of AIDS-OI incidence. Part of the uncertainty results from the need to adjust for delays in reporting of AIDS causes. Additional uncertainty arises because some persons reported with AIDS based on the $CD4^+$ criteria die before an AIDS-OI is diagnosed and, hence, should not contribute to the AIDS-OI incidence estimate. Other persons reported with AIDS based on the $CD4^+$ criteria have an unreported AIDS-OI diagnosis by the date of the $CD4^+$ determination; thus, the estimation procedure counts their contribution to AIDS-OI incidence later than it

should. However, preliminary analyses show that the effect of these two sources of bias on estimates of AIDS-OI incidence is minimal, in that the estimates change by only a few percentage points (2).

Arthritis (figure 13)

In the National Health Interview Survey one-sixth of the respondents in any given year are asked a series of questions regarding current bone and muscle disorders. Conditions that are classifiable according to the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD–9–CM) to the following codes were used to define arthritis: 711, 711.0, 711.9, 712, 712.8–712.9, 714–716.9, 720.0, and 721.

Indicators of Disability and Functional Limitation (figures 15 and 17)

Data on impairments, disabilities, or handicaps presented in this chartbook conform closely to the definitions of impairment, disability, and handicap as proposed by the World Health Organization in the *International Classification of Impairments, Disabilities, and Handicaps*. Based on this classification, an impairment is defined as ''any loss or abnormality of psychological, physiological, or anatomical structure or function.'' A disability is defined as ''any restriction (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being'' (3).

Activities of Daily Living and Instrumental Activities of Daily Living (figures 15 and 17)

The activities of daily living (ADL) and instrumental activities of daily living (IADL) scales are used to measure disability, primarily in community-dwelling populations. Questions pertaining to ADL's and IADL's are periodically included in supplements to the National Health Interview Survey. The most recent supplement in which questions were asked was the 1991 Supplement on Health Promotion and Disease Prevention.

The ADL scale is comprised of a set of self-maintenance activities specifically designed to measure the ability to perform routine personal care functions. The activities included in the measure of ADL disability are: bathing or showering, dressing, eating, getting in and out of bed or chairs, walking, and using the toilet, including getting to the toilet. Questions about these activities ask whether an individual has any difficulty performing the activity without personal assistance or the assistance of special equipment because of a health or physical problem. If the individual has difficulty, then degree of difficulty is obtained, including whether he or she receives help from another person.

The instrumental activities of daily living (IADL) scale is used to assess home management and independent living skills. The activities included in the IADL measure of disability include: doing heavy work around the house, doing light work around the house, preparing meals, shopping for personal items, using a telephone, and managing money. The degree of difficulty and receipt of help are obtained in a manner similar to that used with the ADL series.

Social Functioning (figure 17)

This is an indicator of whether the subject has difficulty either forming or keeping friendships because of one or more mental or emotional disorders.

Coping with Day-to-Day Stress (figure 17)

This is an indicator of whether the subject has difficulty coping with day-to-day stress because of one or more mental or emotional disorders.

Concentrating Long Enough to Complete Tasks (figure 17)

This is an indicator of whether the subject has difficulty concentrating long enough to complete tasks because of one or more mental or emotional disorders.

The National Comorbidity Survey (figures 16 and 36)

The National Comorbidity Survey (NCS) was a collaborative epidemiologic investigation of the prevalence, causes, and consequences of psychiatric morbidity and comorbidity in the United States that was carried out between 1990 and 1992 by the Institute for Social Research's Survey Research Center at the University of Michigan. In the NCS 8,098 persons 15–54 years of age who were in the noninstitutionalized civilian population of the 48 coterminous states were interviewed. Psychiatric diagnoses were based on the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders, Revised Third Edition, 1987*. The

instrument used to generate these diagnoses was a structured diagnostic interview designed to be used by trained interviewers who are not clinicians. Respondents were asked about symptoms, from which diagnoses were generated. Most of these diagnoses have high interrater reliability, test-retest reliability, and validity (4). Respondents who recalled symptoms of acute psychotic disorder, which has been shown to be diagnosed with low reliability and validity by structured interviews, were reinterviewed by experienced clinicians.

The psychiatric diagnostic categories and specific conditions included in figure 16 are defined as follows:

- Depressive (affective) disorders: major depressive episodes, manic episodes, dysthymia, anxiety disorders, panic disorder, agoraphobia without panic disorder, social phobia, simple phobia, and generalized anxiety disorder.
- Substance use disorder: alcohol abuse without dependence, alcohol abuse dependence, and drug dependence
- Other disorders: antisocial personalities, and nonaffective psychosis (schizophrenia, schizophreniform disorder, schizoaffective disorder, delusional disorder, and atypical psychosis).

The types of mental health services and providers that correspond to the categories presented in figure 36 are defined as follows:

- Health services: physicans (any specialty), psychologists, counselors, and nurses
- Human services: clergy, social workers, school personnel, hotlines, spiritualists, and herbalists
- Self-help: all self-help groups.

Serious Mental Illness (figure 17)

Serious mental illness (SMI) was defined for the 1989 Mental Health Supplement to the National Health Interview Survey as having one or more psychiatric disorders during the past year that seriously interfered with one or more aspects of a person's daily life. To make this determination, household respondents were asked whether anyone in the household had the following conditions: schizophrenia, paranoid or delusional disorder, manic episodes or manic depression, major depression, anti-social personality, obsessive-compulsive personality, or other severe personality disorders, Alzheimer's disease or other type of senile disorder, alcohol abuse disorder, drug abuse disorder, mental retardation, or other mental or emotional disorder.

Poverty Status (figures 23, 29, and 30)

Poverty status is based on family income and family size using poverty thresholds developed by the U.S. Bureau of the Census (see Appendix II). Poor persons are defined as having family incomes below the poverty threshold and nonpoor persons have incomes equal to or greater than the poverty threshold.

Sedentary Lifestyle (figure 24)

Sedentary lifestyle is defined as no self-reported leisure time physical activity during the past 2 weeks. Individuals with disabilities were asked if they had done any exercises, sports or physically active hobbies in the past 2 weeks. All other persons were asked about the following specific activities: walking for exercise, gardening or yard work, stretching exercises, lifting weights, jogging or running, aerobics or aerobic dancing, bicycle riding, stair climbing, swimming for exercise, bowling, golfing, or playing the following sports: softball, baseball, tennis, handball/racquetball/squash, basketball, volleyball, soccer, or football. A final question was asked about doing any other sport, exercise, or physically active hobbies.

The National Crime Victimization Survey (figure 25)

The National Crime Victimization Survey (NCVS) obtains information about crimes, including incidents not reported to the police, from a continuous, nationally representative sample. The sample consisted of approximately 100,000 persons 12 years of age and over in 50,000 households in the United States each year (5). This survey has been conducted annually since 1972.

NCVS measures crimes of violence such as rape, robbery, aggravated assault, and simple assault. The survey also measures crimes of theft (personal larceny with and without contact), and household crimes (burglary, household larceny, and motor vehicle theft). The survey does not include murder, kidnapping, commercial crimes, and incidents that the victim may not recognize as crimes, such as fraud or con games.

In 1992 a redesigned NCVS interview instrument was implemented. One of the goals of the NCVS redesign was to produce more accurate

reporting of incidents of rape and sexual assault and other crimes committed by intimates and family members. This was done by encouraging respondents to report incidents of this nature.

The relationship of the victim to the offender was categorized as follows:

- Intimate: spouse, ex-spouse, boyfriend, girlfriend, ex-boyfriend, or ex-girlfriend.
- Other relative: a child or stepchild, parent or stepparent, sibling, grandparent, in-law, cousin, or other relative.
- Acquaintance: a friend or former friend, roommate or boarder, schoolmate, neighbor, someone at work, or other nonrelative known to victim.
- Stranger: someone completely unknown by victim.

Legal Abortion (figure 28)

For each year since 1969 the Centers for Disease Control and Prevention has compiled total abortion data from the States, the District of Columbia, and New York City. The number of states with abortion data available by age fluctuates, but was smallest in 1975 with 23 plus the District of Columbia and highest in 1991 and 1992 at 41 States plus the District of Columbia and New York City.

For calculations of ratios by age, abortions with unknown age have been distributed in proportion to abortions with age known.

Health Care Coverage (figures 29, 30, and 35)

The data in these figures are based on the one-half sample that received the 1993 National Health Interview Survey (NHIS) Year 2000 Supplement.

Uninsured individuals were identified as those who did not report private insurance, Medicare, Medicaid, military/CHAMPUS/CHAMP-VA, or public assistance coverage. The category pertaining to health maintenance organization (HMO) coverage includes all persons who reported having HMO coverage, regardless of any other type of health insurance coverage they reported. The Medicaid category excludes persons with HMO coverage, but otherwise includes persons who reported Medicaid irrespective of other coverage reported. Among people 65 years of age and over, both fee-for-service and HMO categories include people who were also covered by Medicare.

Only health care coverage categories for which there were a sufficient number of respondents to calculate mammography estimates are shown in figure 35. Due to small numbers, mammography data are not shown for women 50–64 years of age who reported only Medicare or military/CHAMPUS coverage, and for women 65 years of age and over who were uninsured or reported military/CHAMPUS coverage.

Reasons for Physician Visits (figure 31)

From each sampled visit in the National Ambulatory Medical Care Survey and National Hospital Ambulatory Medical Care Survey, the patient's complaints, symptoms, or other reasons for the visit are recorded in the patient's own words, with the most important reason listed first. This information is then coded according to an updated version of *A Reason for Visit Classification for Ambulatory Care* (6).

The data on reasons for visits that are presented in figure 31 were collapsed into two broad categories, including (a) visits for diagnosis, screening, administrative screening, or test results, and (b) all other visits. Examples of specific reasons that fall into the first category (diagnosis, testing, and administrative reasons) are as follows:

- Diagnosis and screening refer to group of reasons for physician visits having to do with general or special examinations, diagnostic tests, screening and other procedures, and family planning.
- Test results include all abnormal test results and followups for test results.
- Administration refers to physical examinations required for specific reasons, such as employment, school, insurance, or marriage.

Home Health Care (figure 37)

The National Home and Hospice Care Survey defines home care as care that is provided to individuals and families in their places of residence to promote, maintain, or restore health or to maximize the level of independence while minimizing the effects of disability and illness, including terminal illness.

Current home health care patients are defined as patients who were on the rolls of the sampled agency as of midnight on the day immediately prior

to the date of the survey. See Appendix I on National Home and Hospice Care Survey for further information on sample design.

Alcohol Use and Illicit Drug Use (figure 38)

Moderate to heavy alcohol use is defined as drinking 15 or more drinks in the past 30 days. Illicit drug use is defined as any nonmedical use of marijuana or hashish, cocaine (including crack), inhalants, hallucinogens (including LSD and PCP), heroin, or psychotherapeutics at least once in the past 30 days.

Standardization by Age and Marital Status (figure 38)

For the comparisons in Figure 38 adjustment by age and marital status, using the direct method, was performed. This adjustment is the application of the age and marital status specific rates in a population of interest to a standardized age/marital status distribution in order to eliminate differences in the observed proportions that result from age and marital status differences in population composition. Proportions were adjusted to a standard million population of women 15–44 years of age who reported they were pregnant at the time of the survey in the 1994 National Household Survey on Drug Abuse sample. Adjustment is based on 12 age and marital status groups as shown below.

Table I. Standard million age and marital status distribution used to adjust proportions of women in the National Household Survey on Drug Abuse

All ages		1,000,000
15–17	Married	1,458
	Never married	32,791
	Other*	572
18–25	Married	192,044
	Never married	145,542
	Other*	22,178
25–34	Married	366,309
	Never married	42,570
	Other*	31,840
35–44	Married	126,653
	Never married	10,271
	Other*	27,773

* Other includes separated, widowed, and divorced.

The Treatment Episode Data Set (figure 39)

The Treatment Episode Data Set (TEDS) contains data on a census of all client admissions to publicly funded specialty substance abuse treatment facilities in the United States by fiscal year. TEDS data are collected primarily to monitor treatment services, including inpatient, outpatient, and long-term residential treatment, delivered by these facilities. It is estimated that 94 percent of specialty substance abuse treatment providers receive public funds. The TEDS reporting system, formerly the Client Data System, was begun under sponsorship by the National Institute on Drug Abuse starting with substance abuse treatment admissions on January 1, 1990. As of October 1, 1992, the survey was sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA).

TEDS data are reported to the States by approximately 6,600 treatment facilities, and then compiled and submitted by the States to SAMHSA. The data collected focus primarily on the substance abuse patterns and demographic characteristics of clients at the time of admission. Over 99 percent of responses have complete race information, and 97 percent obtain complete information on type of substance abuse at the time of admission. The data shown in Figure 39 are for 45 States plus the District of Columbia. Arizona, Nebraska, Kentucky, Kansas, Mississippi did not report to TEDS in fiscal year 1993.

For more information on TEDS, see: Advance Report 12, *Client Admission to Specialty Substance Abuse Treatment in the United States: Treatment Episode Data Set* (TEDS) or contact: Office of Applied Studies, Substance Abuse and Mental Health Services Administration, Room 16–105, 5600 Fishers Lane, Rockville, MD 20857.

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Data Tables for Figures 1–37

Figure 1

Year	*Women*	*Men*
1940	65.2	60.8
1950	71.1	65.6
1960	73.1	66.6
1970	74.7	67.1
1971	75.0	67.4
1972	75.1	67.4
1973	75.3	67.6
1974	75.9	68.2
1975	76.6	68.8
1976	76.8	69.1
1977	77.2	69.5
1978	77.3	69.6
1979	77.8	70.0
1980	77.4	70.0
1981	77.8	70.4
1982	78.1	70.8
1983	78.1	71.0
1984	78.2	71.1
1985	78.2	71.1
1986	78.2	71.2
1987	78.3	71.4
1988	78.3	71.4
1989	78.5	71.7
1990	78.8	71.8
1991	78.9	72.0
1992	79.1	72.3
1993	78.8	72.2

Cause of death	*Women*	*Men*
Figure 2		
Cancer	28.1	24.7
Unintentional injuries	15.0	51.2
Heart disease	11.4	29.0
HIV/AIDS	9.1	57.0
Homicide	6.4	22.3
Figure 3		
Cancer	240.1	298.7
Heart disease	120.7	308.2
Stroke	26.2	33.3
Chronic obstructive pulmonary disease	23.6	29.7
Diabetes	20.4	23.8
Figure 4		
Cancer	688.4	1,113.3
Heart disease	589.3	1,175.3
Chronic obstructive pulmonary disease	135.6	208.4
Stroke	118.7	157.4
Diabetes	76.6	85.1

Year	Figure 5				Figure 6			
	Women		Men		Breast cancer		Lung cancer	
	Heart disease	Ischemic heart disease	Heart disease	Ischemic heart disease	Black	White	Black	White
1970	175.2	– – –	348.5	– – –	21.5	23.4	10.0	9.4
1971	171.7	– – –	344.1	– – –	22.7	22.8	11.0	10.1
1972	170.3	– – –	343.1	– – –	23.1	23.4	10.6	11.0
1973	165.6	– – –	337.3	– – –	23.6	23.4	11.9	11.2
1974	157.1	– – –	321.3	– – –	24.0	23.0	12.5	12.1
1975	147.4	– – –	305.7	– – –	22.1	22.8	12.9	13.0
1976	144.4	– – –	300.2	– – –	22.0	23.0	13.7	13.9
1977	139.9	– – –	291.3	– – –	24.0	23.3	15.2	14.7
1978	138.5	– – –	286.2	– – –	23.3	22.8	15.3	15.8
1979	136.8	97.3	278.9	216.2	22.7	22.4	16.6	16.4
1980	140.3	98.8	280.4	214.8	23.3	22.8	18.5	17.6
1981	135.3	94.5	271.5	206.1	23.7	22.8	18.9	18.2
1982	132.7	92.2	264.9	200.1	24.7	22.8	19.5	19.4
1983	132.6	90.5	262.2	193.8	24.6	22.7	21.2	20.5
1984	129.5	87.2	254.1	185.2	26.4	23.2	20.7	21.0
1985	127.4	84.2	250.1	179.6	25.5	23.4	21.8	22.1
1986	124.8	80.7	240.9	168.8	26.2	23.1	22.6	22.5
1987	121.9	78.0	232.7	161.5	26.9	22.9	23.7	23.3
1988	120.1	76.1	228.0	155.9	27.5	23.1	24.3	24.3
1989	112.7	72.6	214.0	149.0	26.5	23.1	25.0	25.3
1990	108.9	70.2	206.7	144.0	27.5	22.9	26.4	25.9
1991	106.3	68.0	201.0	138.7	27.6	22.5	26.1	26.1
1992	103.8	65.7	195.1	133.8	27.0	21.7	27.3	26.7
1993	105.0	65.4	195.5	132.3	27.1	21.2	27.0	26.0

Year	Figure 7		Figure 8			
			Women		Men	
	Women	Men	Underlying	Underlying or nonunderlying	Underlying	Underlying or nonunderlying
1970	– – –	– – –	14.4	47.4	13.5	49.9
1971	– – –	– – –	14.0	46.4	13.2	49.7
1972	– – –	– – –	13.7	46.2	13.1	49.8
1973	– – –	– – –	13.1	45.2	12.8	49.6
1974	– – –	– – –	12.6	43.3	12.1	47.9
1975	– – –	– – –	11.4	39.9	11.3	45.6
1976	– – –	– – –	10.9	38.3	10.8	44.3
1977	– – –	– – –	10.1	36.3	10.3	42.4
1978	– – –	– – –	10.0	35.3	10.3	41.4
1979	7.7	24.3	9.5	34.0	10.0	39.8
1980	8.9	26.1	10.0	35.5	10.2	41.2
1981	9.5	26.2	9.6	34.6	10.0	40.7
1982	9.8	25.6	9.4	33.9	9.8	40.3
1983	10.9	27.2	9.8	34.7	10.0	41.0
1984	11.4	27.2	9.2	34.3	9.9	41.2
1985	12.5	28.1	9.4	34.6	10.0	41.7
1986	12.8	27.9	9.3	34.4	10.0	41.5
1987	13.2	27.3	9.4	34.3	10.4	42.1
1988	14.0	27.9	9.8	34.6	10.7	42.6
1989	14.7	26.9	11.0	34.8	12.2	42.8
1990	14.7	27.2	11.1	34.4	12.3	43.1
1991	15.5	27.0	11.1	34.4	12.6	43.3
1992	15.5	26.4	11.1	34.4	12.7	43.3
1993	17.1	27.8	11.7	35.2	13.4	45.2

Figure 9

Year	Breast	Colorectal	Lung	Uterus	Ovary	Cervix
1973	82.5	41.6	18.2	28.4	14.1	14.2
1974	94.6	41.6	19.9	30.8	14.7	12.7
1975	87.9	42.7	21.5	32.1	14.1	12.4
1976	85.3	43.1	23.8	31.0	13.7	12.0
1977	83.9	43.5	24.7	28.5	13.6	10.9
1978	84.0	43.9	26.2	26.5	13.2	10.5
1979	85.4	43.0	27.8	24.9	13.2	10.6
1980	85.2	44.5	28.1	24.2	13.3	10.2
1981	88.7	44.5	30.8	24.0	13.2	9.0
1982	89.2	42.9	32.4	23.7	13.4	8.9
1983	93.2	43.6	33.3	23.4	13.7	8.8
1984	96.9	44.2	34.6	22.6	14.0	9.2
1985	103.8	45.3	35.3	22.0	14.3	8.5
1986	106.3	43.3	37.0	21.3	12.9	8.9
1987	112.8	41.5	38.6	21.5	13.8	8.3
1988	110.0	40.6	40.4	20.5	14.9	8.8
1989	106.1	40.9	39.9	21.3	15.3	8.8
1990	109.6	40.4	41.4	21.8	15.2	8.9
1991	111.5	39.2	42.9	21.2	15.3	8.4
1992	110.6	38.7	42.6	21.6	14.7	8.3

Figure 10

Non-Hispanic white	Non-Hispanic black	Hispanic	American Indian or Alaskan Native	Asian or Pacific Islander
3.7	61.2	23.5	4.4	1.7

Figure 11

Month and year	Women	Men
January–June 1985	360	4,700
July–December 1985	460	6,000
January–June 1986	700	7,800
July–December 1986	750	9,300
January–June 1987	1,100	12,000
July–December 1987	1,400	13,000
January–June 1988	1,700	14,900
July–December 1988	1,800	15,200
January–June 1989	2,100	17,500
July–December 1989	2,200	17,500
January–June 1990	2,600	19,200
July–December 1990	2,600	18,700
January–June 1991	3,200	21,500
July–December 1991	3,400	21,600
January–June 1992	4,000	24,000
July–December 1992	4,100	23,400
January–June 1993	4,600	24,100
July–December 1993	4,600	23,500
January–June 1994	5,200	25,600
July–December 1994	5,200	24,800

Figure 12

Year	Women	Men
1982	15.7	38.6
1983	15.2	37.9
1984	15.4	39.6
1985	14.9	34.0
1986	16.1	38.2
1987	15.8	46.2
1988	13.1	42.1
1989	18.2	39.6
1990	18.6	35.6
1991	20.9	39.2
1992	22.6	32.7
1993	21.3	38.0
1994	19.5	28.3

Figure 13

Sex	45–64 years			65–74 years			75 years and over		
	Total	Limited	Not limited	Total	Limited	Not limited	Total	Limited	Not limited
Women	27.7	7.0	20.7	48.8	12.5	36.3	56.5	15.8	40.7
Men	16.6	2.6	14.0	40.5	7.8	32.7	40.3	9.1	31.2

Figure 14

Significant bone loss	50–59 years	60–69 years	70–79 years	80 years and over
Total	55	69	88	95
Osteopenia	51	50	57	45
Osteoporosis	4	19	31	50

Figure 15

Sex	45–64 years				65–74 years				75 years and over			
	Total	IADL difficulty only	ADL difficulty	ADL with help	Total	IADL difficulty only	ADL difficulty	ADL with help	Total	IADL difficulty only	ADL difficulty	ADL with help
Women	14.7	9.9	2.8	1.9	24.0	14.5	5.0	4.5	40.9	20.0	9.5	11.4
Men	8.0	3.8	2.4	1.9	13.6	7.7	3.8	2.2	23.2	9.8	6.1	7.3

NOTES: IADL, instrumental activities of daily living. ADL, activities of daily living.

Sex	Figure 16				Figure 17				
	Any disorder	Depressive disorder	Anxiety disorder	Substance use disorder	Any nonwork limitation	Instrumental activities of daily living	Social functioning	Coping with day-to-day stress	Concentrating to complete tasks
Women	47.3	23.9	30.5	17.9	71.3	16.9	41.9	65.9	41.4
Men	48.7	14.7	19.2	35.4	87.0	34.7	60.0	79.1	59.2

Sex	Figure 18						
	20–29 years	30–39 years	40–49 years	50–59 years	60–69 years	70–79 years	80 years and over
Women	0.7	5.2	12.6	38.9	51.6	66.2	70.5
Men	4.7	12.4	24.1	40.2	50.3	59.4	56.0

Sex	Figure 19					
	20–59 years			60 years and over		
	Medication	Nonpharmacologic means	Uncontrolled	Medication	Nonpharmacologic means	Uncontrolled
Women	27.9	30.7	41.4	23.4	5.0	71.7
Men	16.5	16.1	67.3	20.8	4.7	74.5

Year	Figure 20	
	Women	Men
1965	34.0	51.6
1974	32.5	42.9
1976	32.6	41.9
1977	32.8	40.6
1978	31.1	37.8
1979	30.3	37.2
1980	29.6	36.5
1983	29.9	34.7
1985	28.2	32.1
1987	26.7	31.0
1988	26.0	30.1
1989	24.3	27.6
1990	23.1	28.0
1991	23.6	27.5
1992	24.8	28.2
1993	22.7	27.5

Figure 21

Race and Hispanic origin	Less than high school	High school	More than high school
All women	31.8	27.7	18.1
Non-Hispanic white	40.0	29.3	18.4
Non-Hispanic black	31.9	24.9	22.5
Hispanic origin	13.9	18.5	11.6

Figure 22

Year	20–74 years	20–39 years	40–59 years	60–74 years
1960–62	25.6	16.4	30.8	45.8
1971–74	25.9	17.4	32.8	39.2
1976–80	26.5	18.9	33.0	37.7
1988–91	34.1	26.8	42.2	41.1

Figure 23 / Figure 24

Race and Hispanic origin	Figure 23 Total	Figure 23 Nonpoor	Figure 23 Poor	Figure 24 Total	Figure 24 Less than high school	Figure 24 High school	Figure 24 More than high school
Non-Hispanic white	30.9	29.0	47.1	27.7	40.9	29.4	20.0
Non-Hispanic black	48.8	49.2	50.6	38.8	49.0	37.6	29.0
Mexican American	47.3	45.9	48.5	. . .	. . .	. . .	. . .
Hispanic	. . .	. . .	. . .	39.0	51.9	33.8	28.4

Figure 25

Sex	Intimate	Other relative	Acquaintance	Stranger
Women	9.3	2.8	12.9	7.4
Men	1.4	1.2	17.2	19.0

Year	Figure 26						Figure 28				
	15–19 years	20–24 years	25–29 years	30–34 years	35–39 years	40–44 years	Less than 15 years	15–19 years	20–34 years	35–39 years	40 years and over
1960	91.4	47.5	20.0	14.2	12.0	15.1	– – –	– – –	– – –	– – –	– – –
1965	92.7	51.4	19.7	11.7	11.4	11.0	– – –	– – –	– – –	– – –	– – –
1970	93.0	57.0	24.4	11.8	9.4	10.6	– – –	– – –	– – –	– – –	– – –
1975	92.6	62.5	31.1	15.2	9.6	8.8	1,193	542	253	422	668
1976	. . .	. . .	. . .	. . .	. . .	. . .	1,208	582	271	419	712
1977	. . .	. . .	. . .	. . .	. . .	. . .	1,123	568	274	424	755
1978	. . .	. . .	. . .	. . .	. . .	. . .	1,149	650	304	435	788
1979	. . .	. . .	. . .	. . .	. . .	. . .	1,196	676	307	407	746
1980	93.4	66.2	38.9	19.7	12.5	9.0	1,397	714	323	410	807
1981	93.5	66.2	39.6	20.9	13.1	9.4	1,393	716	324	404	789
1982	93.6	66.4	40.2	22.0	13.7	9.8	1,337	722	330	379	777
1983	93.6	66.7	40.6	23.1	14.2	10.3	1,486	727	325	361	707
1984	93.7	67.2	41.0	24.0	14.8	11.0	1,439	697	313	334	640
1985	93.7	67.7	41.5	24.6	15.4	11.7	1,376	688	302	336	623
1986	93.8	68.0	42.0	25.1	16.1	12.2	1,163	650	297	313	590
1987	93.8	68.2	42.5	25.5	16.9	12.6	1,275	668	298	297	555
1988	93.8	68.4	43.0	25.7	17.7	13.0	949	624	288	280	514
1989	93.7	68.4	43.3	25.9	18.2	13.5	886	560	281	271	496
1990	93.3	68.3	43.5	25.9	18.5	13.9	844	515	290	273	501
1991	93.0	67.9	43.6	26.0	18.7	14.5	767	462	291	262	469
1992	92.7	67.3	43.7	26.0	18.8	15.2	790	440	290	256	454
1993	92.6	67.7	43.8	26.1	18.8	15.8	– – –	– – –	– – –	– – –	– – –

Figure 27

Year	15–19 years	20–24 years	25–34 years	35–44 years
1978–82	69.4	37.4	27.6	24.0
1984–88	71.2	44.9	30.2	33.6

Poverty status	Figure 29				Figure 30			
	All	Married	Previously married	Never married	All	Private	Public	Uninsured
Poor	36.4	38.4	37.3	29.4	15.9	8.8	6.3	28.6
Nonpoor	11.4	9.3	18.0	11.7	10.1	7.5	7.6	29.4

Figure 31

Sex	15–44 years			45–64 years		
	All ambulatory care	Diagnosis/ screen/ test results	Other reasons	All amubulatory care	Diagnosis/ screen/ test results	Other reasons
Women	3.9	1.0	2.8	4.2	0.6	3.5
Men	2.1	0.2	1.9	3.1	0.4	2.6

Discharge diagnosis	Women	Men
Figure 32		
Heart disease	16.5	31.1
Malignant neoplasms	10.1	8.4
Psychoses	4.7	4.8
Benign neoplasms	4.1	0.8
Cholelithiasis	4.0	1.8
Figure 33		
Heart disease	69.9	87.8
Malignant neoplasm	20.6	30.8
Fractures	19.5	8.5
Stroke	18.5	20.2
Pneumonia	17.2	23.1

Figure 34

Year	Less than high school	High school	More than high school
1970	54.7	74.6	81.3
1971	55.4	75.1	82.1
1972	56.9	76.1	83.2
1973	58.6	77.3	84.1
1974	59.9	78.4	85.5
1975	60.4	78.5	85.9
1976	61.8	79.4	86.4
1977	62.1	79.4	86.6
1978	62.1	80.1	87.0
1979	63.2	80.7	87.7
1980	63.4	81.1	88.1
1981	62.7	80.7	88.3
1982	61.6	80.2	88.2
1983	61.7	80.0	88.4
1984	61.9	80.0	88.5
1985	61.6	79.5	88.4
1986	61.0	78.9	88.4
1987	60.3	78.4	88.5
1988	60.4	78.7	88.8
1989	58.0	77.8	88.7
1990	58.2	77.8	89.0
1991	59.1	78.1	89.1
1992	61.1	78.8	89.5
1993	63.2	79.6	89.9

Figure 35

50–64 years				65 years and over			
Health maintenance organization	Fee-for-service	Medicaid	Uninsured	Health maintenance organization	Fee-for-service	Medicaid	Medicare
58.6	49.7	39.6	20.2	52.8	40.3	32.7	25.6

Sex	Figure 36				Figure 37			
	All mental health services	*Health services*	*Human services*	*Self-help*	*45–64 years*	*65–74 years*	*75–84 years*	*85 years and over*
Women	55.1	46.6	24.2	13.7	3.5	20.1	53.5	132.2
Men	42.3	31.5	16.6	16.4	3.0	14.8	35.6	80.0

Pregnancy and parental status	Figure 38		
	Cigarettes	*Moderate to heavy alcohol*	*Illicit drugs*
No children and not pregnant	29.2	16.3	8.3
Pregnant	21.2	4.4	1.8
Have children under 18 years of age and not pregnant	31.6	9.7	6.7

Race and Hispanic origin	Figure 39				
	Alcohol only	*Alcohol with drug*	*Cocaine*	*Heroin*	*Other drug*
All women	26.3	20.5	25.7	15.7	11.8
Non-Hispanic white	35.7	22.8	12.6	13.1	15.7
Non-Hispanic black	11.4	17.6	52.7	13.6	4.7
Hispanic origin	15.4	13.3	17.5	43.0	10.8

Appendixes

Appendix Contents

Appendix I
Sources and Limitations of Data

Introduction

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 governmental and nongovernmental 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.

Much of the data presented in the detailed tables are from the ongoing data collection systems of the National Center for Health Statistics. For an overview of these systems, see: Kovar MG. Data systems of the National Center for Health Statistics. National Center for Health Statistics. Vital Health Stat 1(23). 1989. However, health care personnel data come primarily from the Bureau of Health Professions, Health Resources and Services Administration, and the American Medical Association. National health expenditures data were compiled by the office of the Actuary, Health Care Financing Administration.

Although a detailed description and comprehensive evaluation of each data source is 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. They are limited by the amount of information a respondent remembers or is willing to report. Detailed medical information, such as precise diagnoses or the types of operations performed, may not be known and so will not be reported. 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. Thus statistics are not included 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, the tables have notes describing the universe and the method of data collection to enable the user to place his or her own evaluation on the data. In many instances data do not add to totals because of rounding.

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 small, 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 have been noted with asterisks in selected tables. The criteria used to designate unreliable estimates are indicated as notes to the applicable tables.

The descriptive summaries that follow provide a general overview of study design, methods of data collection, and reliability and validity of the data. More complete and detailed discussions are found in the publications referenced at the end of each summary. The data set or source is listed under the agency or organization that sponsored the data collection.

Department of Health and Human Services

Public Health Service

Centers for Disease Control and Prevention

National Center for Health Statistics

National Vital Statistics System

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. U.S. data shown in detailed tables in this book are for the 50 States and the District of Columbia, unless otherwise specified.

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, the data are sent to NCHS through the Vital Statistics Cooperative Program (VSCP), following the same procedures as the 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 the VSCP.

In most areas practically all births and deaths are registered. The most recent test of the completeness of birth registration, conducted on a sample of births from 1964 to 1968, showed that 99.3 percent of all births in the United States during that period were registered. No comparable information is available for deaths, but it is generally believed that death registration in the United States is at least as complete as birth registration.

Demographic information on the birth certificate such as race and ethnicity is provided by the mother at the time of birth. Medical and health information is based on hospital records. Demographic information on the death certificate 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.

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. For selected items, reporting areas expanded during the years spanned by this report. For items on the birth certificate, the number of reporting States increased for mother's education, prenatal care, marital status, Hispanic parentage, and tobacco use; and on the death certificate, for educational attainment and Hispanic origin of the decedent.

Maternal education—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 were available from 4 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 of New York City. In 1989–91 mother's education was missing only from Washington and New York State outside of New York City. Starting in 1992 mother's education was reported by all 50 States and the District of Columbia.

Prenatal care—Prenatal care was reported on the birth certificate by 39 States and the District of Columbia in 1970. 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 3 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.

Marital status—In 1970 mother's marital status was reported on the birth certificate by 39 States and the District of Columbia, and in 1975, by 38 States and the District of Columbia. In 1970 and 1975 data were not available from California, Connecticut, Georgia, Idaho, Maryland, Massachusetts, Montana, New Mexico, New York, Ohio, and Vermont; and in 1975 also from Nevada. In 1980 and the following years marital status of mother was reported on the birth certificates of 41–42 States and for the remaining 8–9 States that lacked the item, marital status was inferred from a comparison of the child's and parents' surnames.

Hispanic births—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. In 1990 Louisiana began reporting Hispanic parentage. 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.

Tobacco use—Information on tobacco use during pregnancy became available for the first time in 1989 with the revision of the U.S. Standard Birth Certificate. In 1989 data on tobacco use were collected by 43 States and the District of Columbia. The following States did not require the reporting of tobacco use 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 information on tobacco use was available for 46 States and the District of Columbia with the addition of Oklahoma to the reporting area.

Education of decedent—Information on educational attainment of decedents became available for the first time in 1989 due to the revision of the U.S. Standard Certificate of

Death. Mortality data by educational attainment for 1992 are based on deaths to residents of 42 States and the District of Columbia whose data were at least 80 percent complete. In 1992 the following States either did not report education of decedent or the reporting was more than 20 percent incomplete: Connecticut, Georgia, Kentucky, New York, Oklahoma, Rhode Island, South Dakota, and West Virginia. Starting in 1993 Connecticut was added to mortality reporting area for education, increasing the number of reporting States to 43 and the District of Columbia.

Hispanic deaths—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. Only Oklahoma did not provide this information in 1993. 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.

Provisional data—Provisional death rates by cause, age, race, and sex are estimated from the Current Mortality Sample. The Current Mortality Sample is a 10-percent systematic sample of death certificates received each month in the vital statistics offices in the 50 States, the District of Columbia, and the independent registration area of New York City. All death certificates received during the 1-month period are sampled regardless of the month or year in which the death occurred.

For more information, see: National Center for Health Statistics, Technical Appendix, *Vital Statistics of the United States, 1989*, Vol. I, Natality, DHHS Pub. No. (PHS) 93–1100 and Vol. II, Mortality, Part A, DHHS Pub. No. (PHS) 93–1101, Public Health Service. Washington. U.S. Government Printing Office, 1993.

National Linked File of Live Births and Infant Deaths

The national linked file of live births and infant deaths is a data file for research on infant mortality. It is comprised of linked vital records for infants born in a given year who died in that year or the next year before their first birthday. It includes all of the variables on the national natality file, as well as the medical information reported for the same infant on the death record and the age of the infant at death. The use of linked files avoids discrepancies in the reporting of race between the birth and infant death certificates. Although discrepancies are relatively rare for white and black infants, they can be substantial for other races. National linked files are available starting with the birth cohort of 1983. Match completeness for each of the birth cohort files is about 98 percent. The linked files are available after the regular vital statistics files because construction of the linked file requires 2 years of mortality data to be linked to each birth cohort. For more information, see: Prager K. Infant mortality by birthweight and other characteristics: United States, 1985 birth cohort. National Center for Health Statistics. Vital Health Stat 20(24). 1994.

Compressed Mortality File

The Compressed Mortality File (CMF) used to compute death rates by urbanization level is a county level national mortality and population data base. The mortality data base of the CMF is derived from the detailed mortality files of the National Vital Statistics System comprised of approximately 2 million microdata death records for each of the years. The population data base of the CMF is derived from intercensal estimates and census counts of the resident population of each U.S. county by 5-year age groups, race, and sex. These estimates reflect adjustments based on the 1970, 1980, and 1990 censuses. Counties are categorized according to level of urbanization based on the 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, Analytic Studies Branch, Division of Health and Utilization Analysis, National Center for Health Statistics, 6525 Belcrest Road, Hyattsville, MD 20782.

National Survey of Family Growth

Data from the National Survey of Family Growth (NSFG) are based on samples of women ages 15–44 years in the civilian noninstitutionalized population living in the coterminous United States. The first and second cycles excluded women who had never been married, except those with offspring in the household. The third and fourth cycles include all women ages 15–44 years, regardless of whether they have ever been married.

The purpose of the survey is to provide national data on the demographic and social factors associated with childbearing, adoption, and maternal and child health. These factors include sexual activity, marriage, unmarried cohabitation, divorce and remarriage, contraception and sterilization, infertility, breastfeeding, pregnancy loss, low birthweight, use of medical care for family planning, infertility, and prenatal care. Interviews are conducted in person by professional female interviewers using a standardized, printed questionnaire. The average interview length is about 1 hour.

Cycle I of the NSFG was conducted from June 1973–February 1974. The counties and independent cities of the United States were combined to form a frame of primary sampling units (PSU's), and 101 PSU's were selected as the first-stage sample. The next three stages produced a clustered sample of 28,998 households within the 101 PSU's. At

26,028 of these households (89.8 percent), household screener interviews were completed. These screeners produced a fifth-stage sample of 10,879 women of whom 9,797 were interviewed. Never-married women (except those with offspring in the household) were excluded from Cycle I.

Cycle II of NSFG was conducted from January–September 1976. The sample consisted of 27,162 households in 79 PSU's. Household screener interviews were completed at 25,479 of these households (93.8 percent). Of the 10,202 women in the sample, 8,611 were interviewed. Again, never-married women (except those with offspring in the household) were excluded from the sample for Cycle II.

Interviewing for Cycle III of the NSFG was conducted from August 1982 through February 1983. The sample design was similar to that in Cycle II: 31,027 households were selected in 79 PSU's. Household screener interviews were completed in 29,511 households (95.1 percent). Of the 9,964 eligible women identified, 7,969 were interviewed. The sample for Cycle III included black women and women 15–19 years of age at higher rates than other women. Women of all marital statuses were interviewed in Cycle III.

Cycle IV was conducted between January and August 1988. The sample was obtained from households that had been interviewed in the 1985, 1986, or 1987 National Health Interview Surveys. Women living in Alaska and Hawaii were included so that the survey covered women from the noninstitutionalized population of the entire United States. Interviews were completed with 8,450 women. As in previous cycles, black women were oversampled.

In order to produce estimates for the entire population of eligible women in the United States, data for the interviewed sample women were inflated by the reciprocal of the probability of selection at each stage of sampling and adjusted for screener and interview nonresponse. Cycles I and II estimates for ever-married women were poststratified to benchmark population values for 12 age-race categories based on data from the Current Population Survey of the U.S. Bureau of the Census. Cycle III estimates were poststratified within 24 categories of age, race, and marital status. In Cycle IV the poststratification was done within categories of age, race, marital status, and parity.

Quality control procedures for interviewer selection, interviewer training, field listing, and data processing were built into the NSFG to minimize nonsampling error and bias. In addition, the nonresponse adjustments in the estimator were designed to minimize the effect of nonresponse bias by assigning to nonrespondents the characteristics of similar respondents. Sampling errors for NSFG were estimated by balanced half-sample replication.

Between July and November of 1990, 5,686 women were interviewed by telephone in the first NSFG telephone reinterview—5,359 were reinterviews of women who were interviewed in person in 1988. The other 327 were first-time telephone interviews with women 15–17 years of age, who had turned 15 in the 2½ years since the 1988 interview.

The average length of interview in 1990 was only 20 minutes, compared with 70 minutes in 1988. Many of the questions in the reinterview were focused on updating information on changes in marital status, additional pregnancies, and contraceptive use since the original 1988 interview. In order to save interview time and make room for more questions, the sample was divided into two ''half-samples.'' About 10 of the 20 minutes of interview time was devoted to questions that were asked of both ''half-samples;'' these focused on updating information on changes in marital status, additional pregnancies, and contraceptive use since the original 1988 interview. In the other 10 minutes of interview time, half the sample (n=2,854) was asked detailed questions on use of contraception and family planning services, as in previous NSFG interviews. The other half of the sample (n=2,832) was asked detailed questions related to HIV and acquired immunodeficiency syndrome (AIDS). All women in the 1990 sample, however, were asked about contraceptive use at the time of the interview.

The response rate for the 1990 telephone reinterview was 68 percent of those responding to the 1988 survey. The 1990 sample data were adjusted for nonresponse, weighted, and adjusted to agree with control totals supplied by the U.S. Bureau of the Census. For more information on these procedures for ensuring the representativeness of the 1990 reinterview data, see: Goksel H, Judkins DR, Mosher WD. Nonresponse adjustments for a telephone follow-up to a National In-Person Survey. Journal of Official Statistics 8(4):417–32. 1992.

Detailed information on the NSFG sample design is available in the following reports: National Center for Health Statistics, 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 S. National Survey of Family Growth: Design, estimation, and inference. National Center for Health Statistics. Vital Health Stat 2(109). 1991.

National Health Interview Survey

The National Health Interview Survey (NHIS) is a continuing nationwide sample survey in which data are collected through personal household interviews. Information is obtained on personal and demographic characteristics including race and ethnicity by self-reporting 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 household questionnaire is reviewed each year with special health topics being added or deleted. For most health topics data are collected over an entire calendar year.

The sample design plan of the 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. The response rate for the ongoing portion of the survey (core) has been between 94 and 98 percent over the years. Response rates for special health topics (supplements) have generally been lower. For example the response rate was 81 percent for the 1993 Year

2000 Supplement, which included questions about cigarette smoking and use of such preventive services as mammography and dental care.

In 1985 the 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 will consist of approximately 7,500 segments containing about 59,000 assigned households. Of these households, an expected 10,000 will be vacant, demolished, or occupied by persons not in the target population of the survey. The expected sample of 49,000 occupied households will yield a probability sample of about 127,000 persons. In 1993 there was a sample of 109,671 persons and in 1994, a sample of 116,179 persons.

A description of the survey design, the methods used in estimation, and the general qualifications of the data obtained from the survey are presented in: 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; Adams PF, Marano M. Current estimates from the National Health Interview Survey, 1994. National Center for Health Statistics. Vital Health Stat 10(193). 1995.

National Health and Nutrition Examination Survey

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 11l 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 (PSU's) from the 1,900 geographic units. In 1971 a nutrition surveillance component was added and the survey name was changed to the National Health and Nutrition Examination Survey.

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.

In the first National Health and Nutrition Examination Survey (NHANES I), conducted from 1971–74, 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 PSU's selected from the 1,900 PSU's 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 1976–80, the nutrition component was expanded from the one fielded for NHANES I. 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 utilized a multistage probability design that involved selection of PSU's, segments (clusters of households) within PSU's, households, eligible persons, and finally, sample persons. The sample design provided for oversampling among those persons 6 months–5 years of age, those 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. 1987. Nutritional applications of the Health and Nutrition Examination Surveys (HANES). Ann Rev Nutr 7:441–63.

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 employed 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. The Hispanic ethnicity of these populations was determined by self-report.

In the HHANES three geographically and ethnically distinct populations were studied: Mexican Americans 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) is a 6-year survey covering the years 1988–94 and consists of two phases. The first phase, 1988–91, and the second phase, 1991–94, both separately constitute national samples of the U.S. population as does the complete 6-year survey. For the first phase of NHANES III (1988–-91), a sample of 20,277 persons was selected. Of this sample, 15,630 (77 percent) were examined in the mobile examination center. Over the 6-year period, approximately 40,000 persons will be selected for the survey and approximately 30,000 are expected to be examined.

The NHANES III target population is the civilian noninstitutionalized population 2 months of age and over. The sample design provides for oversampling among children 2–35 months of age, persons 70 years of age and over, black Americans, and Mexican Americans. Race is reported for the household by the respondent.

Although some of the specific health areas have changed from earlier NHANES surveys, the following goals of the NHANES III are similar to those of earlier NHANES surveys:

- to estimate the national prevalence of selected diseases and risk factors
- to estimate national population reference distributions of selected health parameters
- to document and investigate reasons for secular trends in selected diseases and risk factors

Two new additional goals for the NHANES III survey are:

- to contribute to an understanding of disease etiology
- to investigate the natural history of selected diseases

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.

National Health Provider Inventory (National Master Facility Inventory)

The National Master Facility Inventory (NMFI) is a comprehensive file of inpatient health facilities in the United States. The three broad categories of facilities in NMFI are hospitals, nursing and related care homes, and other custodial or remedial care facilities. To be included in NMFI, hospitals must have at least six inpatient beds; nursing and related care homes and other facilities must have at least three inpatient beds. NMFI is kept current by the periodic addition of names and addresses obtained from State licensing and other agencies for all newly established inpatient facilities. In addition, annual surveys of hospitals and periodic surveys of nursing homes and other facilities are conducted to update name and location, type of business, number of beds, and number of residents or patients in the facilities, and to identify those facilities that have gone out of business.

From 1968 to 1975 the hospital survey was conducted in conjunction with the American Hospital Association (AHA) Annual Survey of Hospitals. AHA performed the data collection for its member hospitals, while NCHS collected the data for the approximately 400 non-AHA registered hospitals. Since 1976, however, all of the data collection has been performed by AHA.

The nursing home and other facilities surveys were conducted by NCHS in 1963, 1967, 1969, 1971, 1973, 1976, 1978, 1980, 1982, 1986, and 1991.

In 1986 nursing and related care homes and facilities for the mentally retarded were covered and called the Inventory of Long-Term Care Places. In 1991 nursing homes, board and care homes, home health agencies, and hospices were covered, and the survey was called the National Health Provider Inventory.

For more detailed information, see: Sirrocco A. Nursing homes and board and care homes. Advance data from vital and health statistics; no 244. Hyattsville, Maryland: National Center for Health Statistics. 1994.

National Home and Hospice Care Survey

The National Home and Hospice Care Survey (NHHCS) was initiated in 1992 and is an annual national survey of home health agencies and hospices. The sampling frame consisted of all home health care agencies and hospices identified in the 1991 National Health Provider Inventory (NHPI) with periodic updates obtained from the Agency Reporting System.

The sample design for the NHHCS is a stratified three-stage probability design. Primary Sampling Units (PSU's) are selected at the first stage, agencies are selected at the second stage, and a sample of six patients are selected at the third stage. Current patients were on the rolls of the agency as of midnight on the day before the survey.

After the samples had been selected, the Current Patient Questionnaire was completed for each sampled person by interviewing the staff member most familiar with the care provided to the patient. The respondent was requested to refer to the medical or other records whenever necessary. 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.

National Hospital Discharge Survey

The National Hospital Discharge Survey (NHDS) is a continuing nationwide sample survey of short-stay hospitals in the United States. Before 1988 the scope of NHDS encompassed patients discharged from noninstitutional hospitals, exclusive of military and Department of Veterans Affairs hospitals, located in the 50 States and the District of Columbia. Only hospitals having six or more beds for patient use and those in which the average length of stay for all patients is less than 30 days are included in the survey. In 1988 the scope was altered slightly to include all general and children's general hospitals regardless of the length of stay. Although all discharges of patients from these hospitals are within the scope of the survey, discharges of newborn infants from all hospitals are excluded from this report as well as discharges of all patients from Federal hospitals.

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, and hospitals were 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. Upon receipt of these tapes they were subject to NCHS sampling, editing, and weighting procedures.

In 1988 the 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 the PSU's used by the National Health Interview Survey. Within PSU's, 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 number of discharges annually was used to select hospitals. The rates for systematic sampling of discharges within hospitals vary inversely with probability of hospital selection within PSU. Discharge records from hospitals submitting data via commercial abstracting services and selected State data systems (approximately 32 percent of sample hospitals in 1993) were arrayed by primary diagnoses, patient sex and age group, and date of discharge before sampling. Otherwise, the procedures for sampling discharges within hospitals is the same as that used in the prior design.

In 1991 the hospital sample was updated by continuing the sampling process among hospitals that were NHDS-eligible for the sampling frame in 1991 but not in 1987. 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. The updating process will be repeated every 3 years.

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. Of the 528 hospitals selected for the survey, 513 were within the scope of the survey, and 466 participated in the survey in 1993. Data were abstracted from about 235,000 medical records.

For more detailed information on the design of NHDS and the magnitude of sampling errors associated with NHDS estimates, see: Graves EJ. National Hospital Discharge Survey: Annual Summary, 1993. National Center for Health Statistics. Vital Health Stat 13(121). 1995; and Haupt BJ, Kozak LJ. Estimates from two survey designs: National Hospital Discharge Survey. National Center for Health Statistics. Vital Health Stat 13(111). 1992.

National Nursing Home Survey

NCHS has conducted three National Nursing Home Surveys. The first survey was conducted from August 1973 to April 1974; the second survey from May 1977 to December 1977; and the third from August 1985 to January 1986.

Much of the background information and experience used to develop the first National Nursing Home Survey was obtained from a series of three ad hoc sample surveys of nursing and personal care homes called the Resident Places Surveys (RPS-1, -2, -3). The three surveys were conducted by the National Center for Health Statistics during April–June 1963, May–June 1964, and June–August 1969. During the first survey, RPS-1, data were collected on nursing homes, chronic disease and geriatric hospitals, nursing home units, and chronic disease wards of general and mental hospitals. RPS-2 concentrated mainly on nursing homes and geriatric hospitals. During the third survey, RPS-3, nursing and personal care homes in the coterminous United States were sampled.

For the initial National Nursing Home Survey (NNHS) conducted in 1973–74, the universe included only those nursing homes that provided some level of nursing care. Homes providing only personal or domiciliary care were excluded. The sample of 2,118 homes was selected from the 17,685 homes that provided some level of nursing care and were 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 expenditures, 98 percent for residents, and 82 percent for staff.

The scope of 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 scope of the 1985 NNHS was similar to the 1977 survey in that it included all types of nursing 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 the NMFI as ''missing'' from the 1982 NMFI; facilities that opened for business between 1982 and June 1984; and hospital-based nursing homes obtained from the Health Care Financing Administration. Information on the facility was collected through a personal interview with the administrator. Accountants were asked to complete a questionnaire on expenditures 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 the 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.

Statistics for all three surveys were derived by a ratio-estimation procedure. Statistics were adjusted for failure of a home to respond, failure to fill out one of the questionnaires, and failure to complete an item on a questionnaire.

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). 1985.

National Ambulatory Medical Care Survey

The National Ambulatory Medical Care Survey (NAMCS) is a continuing national probability sample of ambulatory medical encounters. The scope of the survey covers physician-patient encounters in the offices of nonfederally employed physicians classified by the American Medical Association or American Osteopathic Association as ''office-based, patient care'' physicians. 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 (PSU's) in 1985 and 112 PSU's 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.

For the 1993 survey a sample of 3,400 physicians was selected. The physician response rate for 1993 was 71 percent providing data on 35,978 patient records. Race and ethnicity in patient records are based on observation by physician or staff.

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

For more detailed information on the NAMCS, see: Woodwell DA, Schappert SM. National Ambulatory Medical Care Survey: 1993 summary: Advance data from vital and health statistics; no 270. Hyattsville, Maryland: National Center for Health Statistics. 1995.

National Hospital Ambulatory Medical Care Survey

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 (ED's) and outpatient departments (OPD's) of non-Federal, short-stay, or general hospitals. Telephone contacts are excluded.

A four-stage probability sample design is used in the NHAMCS, involving samples of primary sampling units (PSU's), hospitals with ED's and/or OPD's within PSU's, ED's within hospitals and/or clinics within OPD's, and patient visits within ED's and/or clinics. In 1993 the hospital response rate for the NHAMCS was 94 percent. Hospital staff were asked to complete Patient Record forms for a systematic random sample of patient visits occurring during a randomly assigned 4-week reporting period. The number of Patient Record forms completed for ED's was 29,117 and for OPD's was 28,357.

For more detailed information on the 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.

National Center for HIV, STD, and TB Prevention

AIDS Surveillance

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 without personal identifiers, which is coded and computerized either at the Centers for Disease Control and Prevention (CDC) or at health departments from which it is then transmitted electronically to CDC.

AIDS surveillance data are used to detect epidemiologic trends, to identify unusual cases requiring follow up, 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.

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, National Center for HIV, STD, and TB Centers for Disease Control and Prevention, Atlanta, GA 30333.

Epidemiology Program Office

National Notifiable Diseases Surveillance System

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 purpose of this system is primarily to provide weekly provisional information on the occurrence of diseases defined as notifiable by CSTE. In addition, the system also provides summary data on an annual basis. State epidemiologists report cases of notifiable diseases to EPO, and EPO 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 used by public health practitioners at local, State, and national levels as part of disease prevention and control activities.

Notifiable disease reports are received from 52 areas in the United States and 5 territories. To calculate U.S. rates, data reported by 50 States, New York City, and the District of Columbia, are used. (New York State is reported as Upstate New York, which excludes New York City.)

Completeness of reporting varies because not all cases receive medical care and not all treated conditions are reported. Although State laws and regulations mandate disease reporting, reporting to CDC by States and territories is voluntary. Reporting of varicella (chicken pox) and mumps to CDC is not done by some States in which these diseases are not notifiable to local or State authorities. The number of areas reporting varicella was 30 in 1989, 31 in 1990 and 1991, 24 in 1992, 27 in 1993, and 26 in 1994. The number of areas reporting mumps was 50 in 1989–94.

Estimates of underreporting of some diseases have been made. For example, it is estimated that only 22 percent of cases of congenital rubella syndrome are reported. Only 10–15 percent of all measles cases were reported before the institution of the Measles Elimination Program in 1978. Recent investigations suggest that fewer than 50 percent of measles cases were reported following an outbreak in an inner city and that 40 percent of hospitalized measles cases are currently reported. Data from a study of pertussis suggest that only one-third of severe cases causing hospitalization or death are reported. Data from a study of tetanus deaths suggest that only 40 percent of tetanus cases are reported to CDC.

For more information, see: Centers for Disease Control and Prevention, Summary of notifiable diseases, United States, 1994. *Morbidity and Mortality Weekly Report*, 43(53), Public Health Service, DHHS, Atlanta, GA. Oct. 1995, or write: Director, Division of Surveillance and Epidemiology, Epidemiology Program Office, Centers for Disease Control and Prevention, Atlanta, GA 30333.

National Center for Chronic Disease Prevention and Health Promotion

Abortion Surveillance

The CDC acquires abortion service statistics by State of occurrence from three sources: central health agencies, hospitals and other medical facilities, and the NCHS. Most of the central health agencies have established direct reporting systems, although a few collected data by surveying abortion facilities. Epidemiologic surveillance of abortion was initiated in eight States in 1969. For each year since 1969 statewide abortion data have been available from 50 States, the District of Columbia, and New York City.

The total number of abortions reported to CDC is about 16 percent less than the total estimated independently by the Alan Guttmacher Institute, a not-for-profit organization for reproductive health research, policy analysis, and public education.

For more information, contact: Director, Division of Reproductive Health, Center for Health Promotion and Education, Centers for Disease Control and Prevention, Atlanta, GA 30333.

National Institute for Occupational Safety and Health

National Traumatic Occupational Fatalities Surveillance System

The National Traumatic Occupational Fatalities (NTOF) surveillance system is compiled by the National Institute for Occupational Safety and Health (NIOSH) based on information taken from death certificates. Certificates are collected from 52 vital statistics reporting units (the 50 States, New York City, and the District of Columbia) based on the following criteria: age 16 years or older, an external cause of death (ICD-9, E800-E999), and a positive response to the ''Injury at work?'' item.

For the period of this analysis there were no standardized guidelines regarding the completion of the ''Injury at work?'' item on the death certificate, thus, numbers and rates of occupational injury deaths from NTOF should be regarded as the lower bound for the true number of these events. Operational guidelines for the completion of the ''Injury at work?'' item have been developed by NIOSH in conjunction with the National Center for Health Statistics, the Association for Vital Records and Health Statistics, and the National Center for Environmental Health and were disseminated in 1992 for implementation in 1993. This should improve death certificate-based surveillance of work-related injuries.

For 1980–89 denominator data for the calculation of rates by industry division were obtained from the U.S. Bureau of the Census' County Business Patterns, supplemented by employment data for agriculture derived from the U.S. Bureau of the Census' 1982 Census of Agriculture and public administration employment data taken from the Bureau of Labor Statistics' annual average employment data for 1980–89. Starting in 1990 denominator data for all industries were obtained from the Bureau of Labor Statistics' annual average employment data. All of the rates presented are for the U.S. civilian labor force.

For further information on NTOF, see DHHS (NIOSH). Publication No. 93–108, *Fatal Injuries to Workers in the United States, 1980–1989: A Decade of Surveillance*, or contact: Director, Division of Safety Research, National Institute for Occupational Safety and Health, 1095 Willowdale Road, Mailstop P-180, Morgantown, WV 26505.

Health Resources and Services Administration

Bureau of Health Professions

Physician Supply Projections

Physician supply projections in this report are based on a model developed by the Bureau of Health Professionals to forecast the supply of physicians by specialty, activity, and state of practice. The 1986 supply of active physicians (M.D's) was used as the starting point for the most recent projections of active physicians. The major source of data used to obtain 1986 figures was the American Medical Association (AMA) Physician Masterfile.

In the first stage of the projections, graduates from U.S. schools of allopathic (M.D.) and osteopathic (D.O.) medicine and internationally trained additions were estimated on a year-by-year basis. Estimates of first-year enrollments, student attrition, other medical school-related trends, and a model of net internationally trained medical graduate immigration were used in deriving these annual additions. These year-by-year additions were then combined with the already existing active supply in a given year to produce a preliminary estimate of the active work force in each succeeding year. These estimates were then reduced to account for mortality and retirement. Gender-specific mortality and retirement losses were computed by 5-year age cohorts on an annual basis, using age distributions and mortality and retirement rates based on AMA data.

For more information, see: Bureau of Health Professions, *Health Personnel in the United States Ninth Report to Congress, 1993*, DHHS Pub. No. HRS-P-OD-94–1, Health Resources and Services Administration, Rockville, MD.

Nurse Supply Estimates

Nursing estimates in this report are based on a model developed by the Bureau of Health Professions to meet the requirements of Section 951, P.L. 94–63. The model estimates the following 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.

Substance Abuse and Mental Health Services Administration

Office of Applied Studies

National Household Surveys on Drug Abuse

Data on trends in use of marijuana, cigarettes, alcohol, and cocaine among persons 12 years of age and over are from the National Household Survey on Drug Abuse (NHSDA). The 1994 survey is the 14th in a series that began in 1971 under the auspices of the National Commission on Marijuana and Drug Abuse. From 1974 to September 1992, the survey was sponsored by the National Institute on Drug Abuse. As of October 1992, the survey is sponsored by the Substance Abuse and Mental Health Services Administration.

Since 1991 the National Household Survey on Drug Abuse has covered the civilian noninstitutionalized population 12 years of age and over 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. Hawaii and Alaska were included for the first time in 1991.

In 1994 the survey underwent major changes that affect the reporting of substance abuse prevalence rates. New questionnaire and new data editing procedures were implemented to improve the measurement of trends in prevalence and to enhance the timeliness and quality of the data. Because it was anticipated that the new methodology would affect the estimates of prevalence, the 1994 NHSDA was designed to generate two separate sets of estimates. The first set, called the 1994-A estimates, was based on the same questionnaire and editing method that was used in 1993. These estimates are presented in *Health, United States, 1995*

to continue the trends in substance use over time. The second set, called the 1994-B estimates, was based on the new questionnaire and editing methodology. The 1994-B estimates are for the analysis of patterns of substance use and demographic differences in 1994, but not for trend analysis. The 1994-A sample included 4,372 respondents and the 1994-B questionnaire included 17,809 respondents. A more complete description of this new methodology can be found in Advance Report Number 10, which is available from SAMHSA.

The 1994 survey employed a multistage probability. Young people (age 12–34 years), black Americans, and Hispanics were oversampled. The interview response rate was 77 percent for the 1994-A questionnaire and 78 percent for the 1994-B questionnaire.

For more information on the National Household Survey on Drug Abuse, see: Population Estimates 1994, Main Findings, 1993, Preliminary Estimates from the 1994 National Household Survey on Drug Abuse, Advance Report Number 10; or write: Office of Applied Studies, Substance Abuse and Mental Health Services Administration, Room 16C-06, 5600 Fishers Lane, Rockville, MD 20857.

The Drug Abuse Warning Network

The Drug Abuse Warning Network (DAWN) is a large-scale, ongoing drug abuse data collection system based on information from emergency room and medical examiner facilities. DAWN collects information about those drug abuse occurrences that have resulted in a medical crisis or death. The major objectives of the DAWN data system include: the monitoring of drug abuse patterns and trends, the identification of substances associated with drug abuse episodes, and the assessment of drug-related consequences and other health hazards.

Hospitals eligible for DAWN are non-Federal, short-stay general hospitals that have a 24-hour emergency room. Since 1988 the DAWN emergency room data have been collected from a representative sample of these hospitals located throughout the coterminous United States, including 21 oversampled metropolitan areas. The data from this sample are used to generate estimates of the total number of emergency room drug abuse episodes and drug mentions in all such hospitals. A response rate of 81 percent was obtained in the 1993 survey.

A methodology for generating comparable estimates for years before 1988 was developed, taking advantage of historical data on the characteristics of the universe of eligible hospitals and the extensive data files compiled over the years by DAWN. After the new probability sample for DAWN was implemented in 1988, old and new DAWN sample data were collected for a period of one year. This overlap period was used to evaluate various procedures for weighting the old sample data (from 1978 to 1987). The procedure that consistently produced reliable estimates for a particular metropolitan area was selected as the weighting scheme for that area and used to generate all estimates for that area for years before 1988.

Within each facility, a designated DAWN reporter is responsible for identifying drug abuse episodes by reviewing official records and transcribing and submitting data on each case.

For further information, see: The Drug Abuse Warning Network (DAWN), Annual Data, 1994, Parts A and B, or write: Office of Applied Studies, Substance Abuse and Mental Health Services Administration, Room 16C-06, 5600 Fishers Lane, Rockville, MD 20857.

Center for Mental Health Services

Surveys of Mental Health Organizations

The Survey and Analysis Branch of the Division of State and Community Systems Development conducts a biennial inventory of mental health organizations and general hospital mental health services (IMHO/GHMHS). One version is designed for specialty mental health organizations and another for non-Federal general hospitals with separate psychiatric services. The response rate to most of the items on these inventories is relatively high (90 percent or better) as is the rate for data presented in this report. However, for some inventory items, the response rate may be somewhat lower.

The IMHO/GHMHS is the primary source for Center for Mental Health Services data included in this report. This data system is 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.

Federally funded community mental health centers (CMHC's) were included separately through 1980. In 1981, with the advent of block grants, the changes in definition of CMHC's and the discontinuation of CMHC monitoring by the Center for Mental Health Services, organizations formerly classified as CMHC's have been reclassified as other organization types, primarily ''multiservice mental health organizations, not elsewhere classified,'' and ''freestanding psychiatric outpatient clinics.''

Beginning in 1983 any organization that provides services in any combination of two or more services (for example, outpatient plus partial care, residential treatment plus outpatient plus partial care) and is neither a hospital nor a residential treatment center for emotionally disturbed children is classified as a multiservice mental health organization.

Other surveys conducted by the Survey and Analysis Branch encompass samples of patients admitted to State and county mental hospitals, private mental hospitals, multiservice mental health organizations, the psychiatric services of non-Federal general hospitals and Department of Veterans Affairs medical centers, residential treatment centers for emotionally disturbed children, and freestanding outpatient and partial care programs. The purpose of these surveys is to determine the sociodemographic, clinical, and treatment characteristics of patients served by these facilities.

For more information, write: Survey and Analysis Branch, Division of State and Community Systems Development, Center for Mental Health Services, Room 15C-O4, 5600 Fishers Lane, Rockville, MD 20857. For further information on mental health, see: Center for Mental Health Services, *Mental Health, United States, 1994.* Manderscheid RW, Sonnenschein MA, eds. DHHS Pub. No. (SMA)94–3000. Washington: Public Health Service. 1994.

National Institutes of Health

National Cancer Institute

Surveillance, Epidemiology, and End Results Program

In the Surveillance, Epidemiology, and End Results (SEER) Program the National Cancer Institute (NCI) contracts with 11 population-based registries throughout the United States and Puerto Rico to provide data on all residents diagnosed with cancer during the year and to provide current follow-up information on all previously diagnosed patients.

All patients included in this report were residents of one of the following geographic areas at the time of their initial diagnosis of cancer: Atlanta, Georgia; Detroit, Michigan; Seattle-Puget Sound, Washington; San Francisco-Oakland, California; Connecticut; Iowa; New Mexico; Utah; and Hawaii. Data from New Jersey were excluded because those data are available only since 1979. Data from Puerto Rico were also excluded because this analysis focuses on trends occurring within the United States exclusive of its territories.

Population 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 the 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. Separate life tables are used for each race-sex-specific group included in the SEER Program.

For further information, see: National Cancer Institute, *Cancer Statistics Review, 1973–90* by L. Gloeckler Ries, et al., NIH Pub. No. 93–2789. Public Health Service. Bethesda, MD, 1993.

National Institute on Drug Abuse

Monitoring the Future Study (High School Senior Survey)

Monitoring the Future Study (MTF) is a large-scale epidemiological survey of drug use and related attitudes. It was initiated by the National Institute on Drug Abuse (NIDA) in 1975 and is conducted annually through a NIDA grant awarded to the University of Michigan's Institute for Social Research. The 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 the selection of particular geographic areas, stage two the selection of one or more schools in each area, and stage three the selection of students within each school. Data are collected using self-administered questionnaires administered 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. 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 1991 Digest of Educational Statistics (collected by the Census Bureau and published by the National Center for Educational Statistics) stated that among persons 14 to 15 years of age, 1.2 percent have dropped out of school. Among persons 16 to 17 years of age, 6.0 percent have dropped out of school, and the dropout percent increases to 13.3 percent of persons 18 to 19 years of age. Therefore, surveying eighth graders (where only 1 percent have dropped out) should be effective for picking up students at higher risk for drug use.

The annual senior samples are comprised of roughly 16,000 seniors in 135 public and private high schools nationwide, selected to be representative of all seniors in the continental United States. The 10th grade samples involve about 15,000 students in 125 schools each year and the annual 8th grade samples have approximately 19,000 students in 160 schools.

For further information on Monitoring the Future Study, see: National Institute on Drug Abuse, National Survey Results on Drug Use from Monitoring Future Study, 1975–1993, vols. I and II. NIH Pub. No. 94–3809 and 94–3810. Washington: Public Health Service. 1994.

Health Care Financing Administration

Office of the Actuary

Estimates of National Health Expenditures

Estimates of expenditures for health (National Health Accounts) are compiled annually by type of service and source of funds.

Estimates of expenditures for health services come from an array of sources. The American Hospital Association 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 services and services of health professionals (for example, physicians, dentists, chiropractors, private duty nurses, therapists, and podiatrists) are estimated using 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 results of a HCFA-sponsored study conducted by the Actuarial Research Corporation and on industry data on prescription drugs transactions. Expenditures for other medical nondurables, 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 and on information on consumer purchases collected in the Bureau of Labor Statistics' Consumer Expenditure Survey. Those durable and nondurable products provided to inpatients in hospitals or nursing homes, or those provided by licensed professionals or through home health agencies are excluded here, but are included with the service category expenditures of the provider of the product. 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 based upon revenue data from the U.S. Bureau of the Census Services Annual Survey, the quinquennial Census of Service Industries and from historical National Nursing Home Surveys conducted by the National Center for Health Statistics. 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 are 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.

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 Social Security Administration 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 Health Care Financing Administration analyses of private health insurers, and from the Bureau of Labor Statistics' surveys 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, 1987 National Medical Expenditure Survey conducted by the Agency for Health Care Policy and Research, and private surveys conducted by the American Hospital Association, American Medical Association and the American Dental Association are used to develop estimates of direct spending by consumers.

For more specific information on definitions, sources and methods used in the National Health Accounts, see: National Health Expenditures, Lessons from the U.S. Experience, by Lazenby HC, Levit KR, Waldo DR, et al. Health Care Financing Review, vol 14 no 4. Health Care Financing Administration. Washington: Public Health Service. Summer 1992 and National Health Expenditures, 1994, Levit KR, Lazenby HC, Sivarajan L, et al. Health Care Financing Review, vol 17 no 3. Health Care Financing Administration. Washington: Public Health Service. Spring 1996.

Estimates of State Health Expenditures

Estimates of 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. Frequently, however, surveys that are used to create valid national estimates lack sufficient size to create valid State level estimates. In these cases, alternative data sources that best represent the State-by-State distribution of spending are substituted and the U.S. aggregate expenditures 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.

Despite definitional correspondence, NHE differ from the sum of State estimates. The NHE include 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. For hospital care, exclusion of purchases of services in non-U.S. areas accounts for a 0.9 percent reduction in hospital expenditures from those measured as part of NHE.

For more information contact: Office of the Actuary, Health Care Financing Administration, 7500 Security Blvd., Baltimore, MD 21244.

Medicare Statistical System

The Medicare Statistical System (MSS) provides data for examining the program's effectiveness and for tracking the eligibility of enrollees and the benefits they use, the certification status of institutional providers, and the payments made for covered services. Records are maintained on about 33 million enrollees and 24,000 participating institutional providers. About 420 million bills for services are processed annually.

The MSS contains four major computer files: the health insurance master file, the service provider file, the Hospital Insurance (HI) claims file, and the Supplementary Medical Insurance (SMI) payment records file.

The health insurance master file contains records for each aged and disabled enrollee and includes data on type of entitlement, deductible status, benefit period status and benefits used, as well as demographic information such as age, sex, race, and residence.

The service provider file contains information on hospitals, home health agencies, skilled nursing facilities, independent clinical laboratories, and suppliers of portable x ray or outpatient physical therapy services that participate in Medicare. For hospitals, data on number of beds, type of ownership, and other characteristics are included.

The HI claims file contains information on the beneficiaries' entitlement and their use of benefits during the benefit period for hospital, skilled nursing facility, and home health agency services.

The SMI payment record file provides information on whether the enrollee has met the deductible and on amounts paid for physicians' services and other SMI-covered services and supplies.

Data from the Medicare statistical system provide information about enrollee use of benefits for a point in time or over an extended period. Statistical reports are produced on enrollment, characteristics of participating providers, reimbursements, and services used.

For further information on the Medicare statistical system, see: Health Care Financing Administration, Medicare Statistical File Manual, HCFA Pub. No. 03272, Baltimore, MD, July 1988.

Medicaid Data System

The majority of Medicaid data are compiled from forms submitted annually by State Medicaid agencies to the Health Care Financing Administration (HCFA) for Federal fiscal years ending September 30 on the Form HCFA-2082, *Statistical Report on Medical Care: Eligibles, Recipients, Payments, and Services.*

When using the data keep the following caveats in mind:

- Counts of recipients and eligibles categorized by basis of eligibility generally count each person only once based on the person's basis of eligibility as of first appearance on the Medicaid rolls during the Federal fiscal year covered by the report. Note, however, that some States report duplicated counts of recipients; that is, they report an individual in as many categories as the individual had different eligibility statuses during the year. In such cases, the sum of all basis-of-eligibility cells will be greater than the ''total recipients'' number.
- Expenditure data include payments for all claims adjudicated or paid during the fiscal year covered by the report. Note that this is not the same as summing payments for services that were rendered during the reporting period.
- Some States fail to submit the HCFA-2082 for a particular year. When this happens, HCFA estimates the current year's HCFA-2082 data for missing States based upon prior year's submissions and information the State entered on Form HCFA-64 (the form States use to claim reimbursement for Federal matching funds for Medicaid).
- HCFA-2082's submitted by States frequently contain obvious errors in one or more cells in the form. For cells obviously in error, HCFA estimates values that appear to be more reasonable.

The Medicaid data presented in *Health, United States* are from the Medicaid statistical system (using form HCFA-2082) and may differ from data presented elsewhere using the quarterly financial reports (form HCFA-64) submitted by States for reimbursement. Vendor payments from the Medicaid statistical system exclude disproportionate share hospital payments($17 billion in 1993) and payments to Health Maintenance Organizations and Medicare ($6 billion in 1993).

For further information on Medicaid data, see: *Health Care Financing Program Statistics: Analysis of State Medicaid Program Characteristics, 1986*, by C. Howe and R. Terrell, HCFA Pub. No. 03249, Health Care Financing Administration, Baltimore, MD. U.S. Government Printing Office, Aug. 1987.

Department of Commerce

Bureau of the Census

Census of Population

The census of population has been taken in the United States every 10 years since 1790. In the 1990 census, data were collected on sex, race, age, and marital status from 100 percent of the enumerated population. More detailed information such as income, education, housing, occupation, and industry were collected from a representative sample of the population. For most of the country, one out of six households (about 17 percent) received the more detailed questionnaire. In places of residence estimated to have less than 2,500 population, 50 percent of households received the long form.

For more information on the 1990 census, see: U.S. Bureau of the Census, *1990 Census of Population, General Population Characteristics*, Series 1990, CP-1.

Current Population Survey

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. The CPS provides estimates of employment, unemployment, and other characteristics of the general labor force, the population as a whole, and various other subgroups of the population.

The present CPS sample is located in 729 sample areas, with coverage in every State and the District of Columbia. In an average month during 1994, the number of housing units or living quarters eligible for interview was about 60,000; of these between 4 and 5 percent were, for various reasons, unavailable for interview. In 1994 major changes to the Current Population Survey (CPS) were introduced, which included a complete redesign of the questionnaire 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.

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 based on the 1990 census adjusted for the estimated population undercount were utilized.

For more information, see: U.S. Bureau of the Census, *The Current Population Survey, Design and Methodology*, Technical Paper 40, Washington, U.S. Government Printing Office, Jan. 1978; U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, February 1994, vol 41 no 2 and Feb. 1995, vol 42 no 2, Washington: U.S. Government Printing Office, Feb. 1994 and Feb. 1995.

Population Estimates

National population estimates are derived by using decennial census data as benchmarks and data available from various agencies as follows: births and deaths (National Center for Health Statistics); immigrants (Immigration and Naturalization Service); Armed Forces (Department of Defense); net movement between Puerto Rico and the U.S. mainland (Puerto Rico Planning Board); and Federal employees abroad (Office of Personnel Management and Department of Defense). State estimates are based on similar data and also on a variety of data series, including school statistics from State departments of education and parochial school systems. Current estimates are consistent with official decennial census figures and do not reflect estimated decennial census underenumeration.

After decennial population censuses, intercensal population estimates for the preceding decade are prepared to replace postcensal estimates. Intercensal population estimates are more accurate than postcensal estimates because they take into account the census of population at the beginning and end of the decade. Intercensal estimates have been prepared for the 1960's, 1970's, and 1980's to

correct 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 during the 1960's (379,000). However, for the 1970's it amounted to almost 5 million.

For more information, see: U.S. Bureau of the Census, U.S. population estimated by age, sex, race, and Hispanic origin: 1980–91, *Current Population Reports*. Series P-25, No. 1095, Washington: U.S. Government Printing Office. Public Health Service. 1992.

Department of Labor

Bureau of Labor Statistics

Annual Survey of Occupational Injuries and Illnesses

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 Annual Survey of Occupational Injuries and Illnesses is based on records that employers maintain under the Occupational Safety and Health Act. Excluded from the survey are self-employed individuals; farmers with fewer than 11 employees; employers regulated by other Federal safety and health laws; and Federal, State, and local government agencies.

Data are obtained from a sample of approximately 280,000 establishments, that is, single physical locations where business is conducted or where services of industrial operations are performed. An independent sample is selected for each State and the District of Columbia that represents industries in that jurisdiction. The BLS then subsamples the State samples to select the establishments to be included 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). Occupational injuries include any injury such as a cut, fracture, sprain, or amputation that results from a work accident or from exposure involving a single incident in the work environment. Occupational illnesses are any abnormal condition or disorder, other than one resulting from an occupational injury, caused by exposure to environmental factors associated with employment. Lost workday cases are cases that involve days away from work, or days of restricted work activity, or both. The response rate is about 94 percent.

For more information, see: Bureau of Labor Statistics, *Occupational Injuries and Illnesses in the United States by Industry, 1988*. BLS Bulletin 2366, U.S. Department of Labor, Washington, Aug. 1990.

Consumer Price Index

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 is representative of the buying habits of about 80 percent of the noninstitutionalized population of the United States.

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 to 1984, which equals 100. An increase of 22 percent, for example, is shown as 122. This 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 $10 in 1982 to 1984 and to $11.83 in 1988.

The most recent revision of the CPI, completed in 1987, reflected spending patterns based on the Survey of Consumer Expenditures from 1982 to 1984, the 1980 Census of Population, and the ongoing Point-of-Purchase Survey. Using this improved sample design, prices for the goods and services required to calculate the index are collected in 85 urban areas throughout the country and from about 21,000 retail and service establishments. In addition, data on rents are collected from about 40,000 tenants and 20,000 owner-occupied housing units. Food, fuels, and a few other items are priced monthly in all 85 locations. Prices of most other goods and services are collected bimonthly in the remaining areas. All price information is obtained through visits or calls by trained BLS field representatives.

The 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.

For more information, see: Bureau of Labor Statistics, *Handbook of Methods*, BLS Bulletin 2285, U.S. Department of Labor, Washington, April 1988; I. K. Ford and P. Sturm. CPI revision provides more accuracy in the medical care services component, *Monthly Labor Review*, U.S. Department of Labor, Bureau of Labor Statistics, Washington, April 1988.

Employment and Earnings

The Division of Monthly Industry Employment Statistics and the Division of Employment and Unemployment Analysis of the Bureau of Labor Statistics publish data on employment and earnings. The data are collected by the U.S. Bureau of the Census, State Employment Security Agencies, and State Departments of Labor in cooperation with BLS.

The major data source is the Current Population Survey (CPS), a household interview survey conducted monthly by the U.S. Bureau of the Census to collect labor force data for BLS. CPS is described separately in this appendix. Data based on establishment records are also compiled each month from mail questionnaires by BLS, in cooperation with State agencies.

For more information, see: U.S. Department of Labor, Bureau of Labor Statistics, *Employment and Earnings*, January 1995, vol 42 no 1, Washington: U.S. Government Printing Office. Jan. 1995.

Employer Costs for Employee Compensation

Employer costs for employee compensation cover all occupations in private industry, excluding farms and households and State and local governments. These cost levels are published once a year with the payroll period including March 12th as the reference period.

The cost levels are based on compensation cost data collected for the Bureau of Labor Statistics Employment Cost Index (ECI), released quarterly. Cost data were collected from the ECI's March 1993 sample that consisted of about 23,000 occupations within 4,500 sample establishments in private industry and 7,000 occupations within 1,000 establishments in State and local governments. The sample establishments are classified industry categories based on the 1987 Standard Industrial Classification (SIC) system, as defined by the U.S. Office of Management and Budget. Within an establishment, specific job categories are selected to represent broader major occupational groups such as professional specialty and technical occupations. The cost levels are calculated with current employment weights each year.

For more information, see: U.S. Department of Labor, Bureau of Labor Statistics, *Employment Cost Indexes and Levels, 1975–92*, Bulletin 2413, Nov. 1992.

Department of Veterans Affairs

Data are obtained from the Department of Veterans Affairs (VA) administrative data systems. These include budget, patient treatment, patient census, and patient outpatient clinic information. Data from the three patient files are collected locally at each VA medical center and are transmitted to the national databank at the VA Austin Automated Center where they are stored and used to provide nationwide statistics, reports, and comparisons.

The Patient Treatment File

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

The patient census file collects data on each patient remaining in a VA medical facility at midnight on a selected date of each year, normally September 30. This file includes patients admitted to VA hospitals, VA nursing homes, and VA domiciliaries. The census record includes information similar to that reported in the patient treatment file record.

The Outpatient Clinic File

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.

For more information, write: Department of Veterans Affairs, National Center for Veteran Analysis and Statistics, Biometrics Division 008Cl2, 810 Vermont Ave., NW, Washington, DC 20420.

Environmental Protection Agency

Aerometric Information Retrieval System (AIRS)

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 attainment of NAAQS during a 12-month period based on analysis using county level air monitoring data from AIRS and population data from the Bureau of the Census.

Data are collected at State and local air pollution monitoring sites. Each site provides data for one or more of the six pollutants. The number of sites has varied, but generally increased over the years. In 1993 there were 4,469 sites. The monitoring sites are located primarily in heavily populated urban areas. Air quality for less populated areas is assessed through a combination of data from supplemental monitors and air pollution models.

For more information, see: Environmental Protection Agency, *National Air Quality and Emissions Trend Report, 1993*, EPA-454/R-94–026, Research Triangle Park, NC, Oct. 1994, or write to Office of Air Quality Planning and Standards, Environmental Protection Agency, Research Triangle Park, NC 27711. For additional information on this measure and similar measures used to track the Healthy People 2000 Objectives and Health Status Indicators, see: National Center for Health Statistics, *Monitoring Air Quality in Healthy People 2000*, Statistical Notes, No. 9. Hyattsville, Maryland: 1995.

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 between estimates arises from differences in concepts, definitions, and time of data collection. The comparability of population data is affected by several factors, including (a) the definitions of the total population, (b) the definitions used to classify the population into its urban and rural components, (c) the difficulties relating to age reporting, (d) the extent of over- or underenumeration, and (e) the 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.

For more information, see: United Nations, *Demographic Yearbook 1993*, United Nations, New York, NY. 1993.

World Health Statistics Annual

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 late fetal and infant mortality is based entirely on official national data either reported directly or made available to the World Health Organization.

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 discussed above for the *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 1994*, World Health Organization, Geneva, Switzerland. 1994.

Alan Guttmacher Institute

Abortion Survey

The Alan Guttmacher Institute (AGI) conducts an annual survey of abortion providers. Data are collected from hospitals, nonhospital clinics, and physicians identified as providers of abortion services. A universal survey of 3,092 hospitals, nonhospital clinics, and individual physicians was compiled. To assess the completeness of the provider and abortion counts, supplemental surveys were conducted of a sample of obstetrician-gynecologists and a sample of hospitals (not in original universe) that were identified as providing abortion services through the AHA survey.

The number of abortions estimated by AGI through the mid to late 1980's was about 20 percent more than the number reported to the Centers for Disease Control and Prevention (CDC). Since 1989 the AGI estimates have been about 12 percent higher than those reported by CDC.

For more information, write: The Alan Guttmacher Institute, 120 Wall Street, New York, NY 10005.

American Association of Colleges of Osteopathic Medicine

The American Association of Colleges of Osteopathic Medicine compiles data on various aspects of osteopathic medical education for distribution to the profession, the government, and the public. Questionnaires are sent annually to all 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: *Annual Statistical Report, 1994*, American Association of Colleges of Osteopathic Medicine: Rockville, MD 1994.

American Association of Colleges of Pharmacy

The American Association of Colleges of Pharmacy 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 22314.

American Association of Colleges of Podiatric Medicine

The American Association of Podiatric Medicine 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.

American Dental Association

The Division of Educational Measurement of the American Dental Association 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, *Annual Report on Dental Education 1993–94*. Chicago, Illinois.

American Hospital Association

Annual Survey of Hospitals

Data from the American Hospital Association (AHA) annual survey are based on questionnaires that were sent to all hospitals, AHA-registered and nonregistered, in the United States and its associated areas. U.S. government hospitals located outside the United States were excluded. Questionnaires were mailed to all hospitals on AHA files. In 1993, 5,908 hospitals reported data, a response rate of 89 percent. For nonreporting hospitals and for the survey questionnaires of reporting hospitals on which some information was missing, estimates were made for all data except those on beds, bassinets, and facilities. Data for beds and bassinets of nonreporting hospitals were based on the most recent information available from those hospitals. Facilities and services and inpatient service area data include only reporting hospitals and, therefore, do not include estimates.

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

Hospitals are requested to report data for the full year ending September 30. In the 1993 survey 35 percent of the responding hospitals used this reporting period; the remaining hospitals used various reporting periods.

For more information on the AHA Annual Survey of Hospitals, see: American Hospital Association, *Hospital Statistics, 1994–95 Edition, Data from the American Hospital Association 1993 Annual Survey*. Chicago: 1994.

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 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 1969–85 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.*, 1994 ed. Chicago. 1994.

Annual Census of Hospitals

From 1920 to 1953 the Council on Medical Education and Hospitals of the AMA conducted annual censuses of all hospitals registered by AMA.

In each annual census, questionnaires were sent to hospitals asking for the number of beds, bassinets, births, patients admitted, average census of patients, lists of staff doctors and interns, and other information of importance at the particular time. Response rates were always nearly 100 percent.

The community hospital data from 1940 and 1950 presented in this report were calculated using published figures from the AMA Annual Census of Hospitals. Although the hospital classification scheme used by AMA in published reports is not strictly comparable with the definition of community hospitals, methods were employed to achieve the greatest comparability possible.

For more information on the AMA Annual Census of Hospitals, see: American Medical Association, Hospital service in the United States, *Journal of the American Medical Association*, 116(11):1055–1144. 1941.

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. The AAMC Medical School Graduation Questionnaire (GQ) surveys all U.S. accredited medical school seniors in the spring semester. Seniors are asked to indicate their intended field of specialty and/or sub-specialty. In 1994 the response rate to the GQ was 83 percent. 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: *1995 Medical School Graduation Questionnaire Survey Results: All Schools Summary*. Washington: 1995.

Association of Schools and Colleges of Optometry

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

For further information, write: Annual Survey of Optometric Educational Institutions, Association of School and Colleges of Optometry, 6110 Executive Blvd., Suite 690, Rockville, MD 20852.

InterStudy

National Health Maintenance Organization Census

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

In 1985 a large increase in the number of HMO's and enrollment was partly attributable to a change in the categories of HMO's included in the census: Medicaid-only and Medicare-only HMO's have been added. Also component HMO's, 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*, 1995. InterStudy Publications, St. Paul, MN 55104.

National League for Nursing

The division of research of the National League for Nursing 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 complete 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 Source*, 1994, New York, NY.

Public Health Foundation

Association of State and Territorial Health Officials Reporting System

The Association of State and Territorial Health Officials (ASTHO) Reporting System, operated by the Public Health Foundation (PHF), is a statistical system that provides comprehensive information about the public health programs of State and local health departments. The Reporting System was established in 1970 by ASTHO in response to congressional requests for information about State health agency uses of block grant funds (that is, PHS Act, Section 314(d) grant monies). Data collected through the Reporting System are maintained in a comprehensive data base and are published in annual reports, chartbooks, and newsletters.

PHF, through the ASTHO Reporting System, conducts an annual survey of the official State health agency (SHA) in each of the 50 States, the District of Columbia, and 4 U.S. territories. The survey includes extensive detail on the agencies, expenditures, funding sources, staffing, services, and activities.

In 1991 PHF revised the ASTHO Reporting System's core data base to be outcome-oriented and focused on national health priorities. The new data base will provide the necessary data on States' efforts to meet the national objectives outlined by the Department of Health and Human Services in *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*.

For more information on the ASTHO Reporting System contact: Public Health Foundation, 1220 L Street, NW., Suite 350, Washington, DC 20005.

Appendix II
Glossary

The glossary is an alphabetical listing of terms used in *Health, United States*. It includes cross references to related terms and synonyms. It also contains the standard populations used for age adjustment and *International Classification of Diseases* (ICD) codes for cause of death and diagnostic and procedure categories.

Abortion—The Centers for Disease Control and Prevention's (CDC) surveillance program counts legal 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 induce the termination of a pregnancy.

Acquired immunodeficiency syndrome (AIDS)—All 50 States and the District of Columbia report AIDS cases to CDC using a uniform 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); and 1993 (MMWR 1993; 41 (supp. no. RR-17)). These data are published quarterly by CDC in HIV/AIDS Surveillance Report. See related *Human immunodeficiency virus (HIV) infection*.

Active physician—See *Physician*.

Addition—An addition to a psychiatric organization is defined by the Center for Mental Health Services as a new admission, a readmission, a return from leave, or a transfer from another service of the same organization or another organization. See related *Mental disorder; Mental health organization; Mental health service type*.

Admission—The American Hospital Association defines admissions as patients, excluding newborns, accepted for inpatient services during the survey reporting period. See related *Discharge; Patient*.

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.

Age adjustment—Age adjustment, using the direct method, is the application of the age-specific rates in a population of interest to a standardized age distribution in order to eliminate the differences in observed rates that result from age differences in population composition. This adjustment is usually done when comparing two or more populations at one point in time or one population at two or more points in time.

In this report the death rates are age adjusted to the U.S. standard million population (relative age distribution of 1940 enumerated population of the United States totaling 1,000,000) (table I). Age-adjusted death 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 three 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 and over combined as one group. Second, cause-specific provisional death rates are based on 10 age groups, with 1–4 years and 5–14 years of age combined as one group. Third, age-adjusted death rates by educational attainment for the age group 25–64 years are based on four 10-year age groups. Maternal mortality rates for Complications of 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.

Table I. Standard million age distribution used to adjust death rates to the U.S. population in 1940

Age	*Standard million*
All ages	1,000,000
Under 1 year	15,343
1–4 years	64,718
5–14 years	170,355
15–24 years	181,677
25–34 years	162,066
35–44 years	139,237
45–54 years	117,811
55–64 years	80,294
65–74 years	48,426
75–84 years	17,303
85 years and over	2,770

Table II. Numbers of live births and mother's age groups used to adjust maternal mortality rates to live births in the United States in 1970

Mother's age	*Number*
All ages	3,731,386
Under 20 years	656,460
20–24 years	1,418,874
25–29 years	994,904
30–34 years	427,806
35 years and over	233,342

SOURCE: U.S. Bureau of the Census: Population estimates and projections. *Current Population Reports.* Series P-25, No. 499. Washington. U.S. Government Printing Office, May 1973.

The data from the National Health Interview Survey (NHIS) and the National Hospital Discharge Survey (NHDS) are age adjusted to the 1970 civilian noninstitutionalized population. Most of the data from the NHIS and NHDS are age adjusted using the following four age groups: under 15 years, 15–44 years, 45–64 years, and 65 years and over. The 1970 civilian noninstitutionalized population used to age adjust data from each survey are shown in table III and derived as follows: Institutionalized population = (1 - proportion of total population not institutionalized on April 1, 1970) x total population on July 1, 1970. Civilian noninstitutionalized population = civilian population on July 1, 1970 - institutionalized population.

Data from the National Health Examination Survey (NHES) and the National Health and Nutrition Examination Survey (NHANES) are age adjusted to the 1980 U.S. resident population using the following five age groups: 20–34 years, 35–44 years, 45–54 years, 55–64 years, and 65–74 years.

AIDS—See *Acquired immunodeficiency syndrome*.

Air quality standards—See *National ambient air quality standards*.

Air pollution—See *Pollutant*.

Table III. Populations and age groups used to age adjust NCHS survey data

Population, survey, and age	*Number in thousands*
U.S. civilian noninstitutionalized population in 1970 NHIS and NHDS	
All ages	199,584
Under 15 years	57,745
15–44 years	81,189
45–64 years	41,537
65 years and over	19,113
NHIS health care coverage	
65 years and over	19,113
65–74 years	12,224
75 years and over	6,889
NHIS smoking data	
18 years and over	130,158
18–24 years	22,464
25–34 years	24,430
35–44 years	22,614
45–64 years	41,537
65 years and over	19,113
NAMCS	
18 years and over	130,158
18–24 years	22,464
25–34 years	24,430
35–44 years	22,614
45–64 years	41,537
65–74 years	12,224
75 years and over	6,889
U.S. resident population in 1980 NHES and NHANES	
20–74 years	144,120
20–34 years	58,401
35–44 years	25,635
45–54 years	22,800
55–64 years	21,703
65–74 years	15,581

SOURCE: Calculated from U.S. Bureau of Census: Estimates of the Population of the United States by Age, Sex, and Race: 1970 to 1977. Population Estimates and Projections. *Current Population Reports.* Series P-25, No. 721, Washington. U.S. Government Printing Office, April 1978.

Average annual rate of change (percent change)—In this report 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, the average length of stay per discharged patient 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, the 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 the average length of stay by dividing the number of inpatient days by the number of admissions.

As measured in the National Nursing Home Survey, length of stay for residents is the time from their admission until the reporting time, and the length of stay for discharges is the time between the date of admission and the date of discharge. See related *Days of care; Discharge; Patient; Resident*.

Bed—Any bed that is set up and staffed for use by inpatients is counted as a bed in a facility. In the National Master Facility Inventory, the count is of beds at the end of the reporting period; for the American Hospital Association, it is of the average number of beds, cribs, and pediatric bassinets during the entire period. 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 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.

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 utilizing the international rules for selecting the underlying cause of death from the reported conditions. Beginning with 1979 the *International Classification of Diseases, Ninth Revision* (ICD-9) has been used for coding cause of death. Data from earlier time periods were coded using the appropriate revision of the ICD for that time period. (See tables IV and V.) Changes in classification of causes of death in successive revisions of the ICD may

Table IV. Revision of the *International Classification of Diseases,* according to year of conference by which adopted and years in use in the United States

Revision of the International Classification of Diseases	*Year of conference by which adopted*	*Years in use in United States*
First	1900	1900–1909
Second	1909	1910–1920
Third	1920	1921–1929
Fourth	1929	1930–1938
Fifth	1938	1939–1948
Sixth	1948	1949–1957
Seventh	1955	1958–1967
Eighth	1965	1968–1978
Ninth	1975	1979–present

Table V. Cause-of-death codes, according to applicable revision of *International Classification of Diseases*

Cause of death	Code numbers			
	Sixth Revision	Seventh Revision	Eighth Revision	Ninth Revision
Diseases of heart	400–402, 410–443	400–402, 410–443	390–398, 402, 404, 410–429	390–398, 402, 404–429
Ischemic heart disease	. . .	. . .	. . .	410–414
Cerebrovascular diseases	330–334	330–334	430–438	430–438
Malignant neoplasms	140–205	140–205	140–209	140–208
Respiratory system	160–164	160–164	160–163	160–165
Colorectal	153–154	153–154	153–154	153,154
Breast	170	170	174	174,175
Prostate	177	177	185	185
Chronic obstructive pulmonary diseases	241, 501, 502, 527.1	241, 501, 502, 527.1	490–493, 519.3	490–496
Pneumonia and influenza	480–483, 490–493	480–483, 490–493	470–474, 480–486	480–487
Chronic liver disease and cirrhosis	581	581	571	571
Diabetes mellitus	260	260	250	250
Nephritis, nephrotic syndrome, and nephrosis	. . .	. . .	. . .	580–589
Septicemia	. . .	. . .	. . .	038
Atherosclerosis	. . .	. . .	. . .	440
Unintentional injuries[1]	E800–E962	E800–E962	E800–E949	E800–E949
Motor vehicle crashes[1]	E810–E835	E810–E835	E810–E823	E810–E825
Suicide	E963, E970–E979	E963, E970–E979	E950–E959	E950–E959
Homicide and legal intervention	E964, E980–E985	E964, E980–E985	E960–E978	E960–E978
Complications of pregnancy, childbirth, and the puerperium	640–689	640–689	630–678	630–676
Human immunodeficiency virus infection	. . .	. . .	. . .	*042–*044
Congenital anomalies	. . .	. . .	. . .	740–759
Sudden infant death syndrome	. . .	. . .	. . .	798.0
Disorders relating to short gestation and unspecified low birthweight	. . .	. . .	. . .	765
Respiratory distress syndrome	. . .	. . .	. . .	769
Newborn affected by maternal complications of pregnancy	. . .	. . .	. . .	761
Newborn affected by complications of placenta, cord, and membranes	. . .	. . .	. . .	762
Infections specific to the perinatal period	. . .	. . .	. . .	771
Intrauterine hypoxia and birth asphyxia	. . .	. . .	. . .	768
Meningitis	. . .	. . .	. . .	322.9
Meningococcal infection	. . .	. . .	. . .	036.9
Anemias	. . .	. . .	. . .	285.9
Drug-induced causes	. . .	. . .	. . .	292, 304, 305.2–305.9, E850–E858, E950.0–E950.5, E962.0, E980.0–E980.5
Alcohol-induced causes	. . .	. . .	. . .	291, 303, 305.0, 357.5, 425.5, 535.3, 571.0–571.3, 790.3, E860
Firearm-related injuries	. . .	. . .	E922, E955, E965, E970, E985	E922, E955.0–E955.4, E965.0–E965.4, E970, E985.0–E985.4
Malignant neoplasm of peritoneum and pleura	. . .	. . .	158, 163.0	158, 163
Coalworkers' pneumoconiosis	. . .	. . .	515.1	500
Asbestosis	. . .	. . .	515.2	501
Silicosis	. . .	. . .	515.0	502

[1]In the public health community, the term ''unintentional injuries'' is preferred to ''accidents and adverse effects'' and ''motor vehicle crashes'' to ''motor vehicle accidents.''

introduce discontinuities in cause-of-death statistics over time. For further discussion, see Technical Appendix in National Center for Health Statistics: *Vital Statistics of the United States, 1990, Volume II, Mortality, Part A.* DHHS Pub. No. (PHS) 95–1101, Public Health Service, Washington, U.S. Government Printing Office, 1994. See related *International Classification of Diseases, Ninth Revision; Human immunodeficiency virus infection*.

Cause-of-death ranking—Cause-of-death ranking for infants is based on the List of 61 Selected Causes of Infant Death and HIV infection (ICD-9 Nos. *042-*044). Cause-of-death ranking for other ages is based on the List of 72 Selected Causes of Death and HIV infection. The List of 72 Selected Causes of Death was adapted from one of the special lists for mortality tabulations recommended by the World Health Organization for use with the *Ninth Revision of the International Classification of Diseases*. Two group titles—Certain conditions originating in the perinatal period and Symptoms, signs, and ill-defined conditions—are not ranked from the List of 61 Selected Causes of Infant Death; and two group titles—Major cardiovascular diseases and Symptoms, signs, and ill-defined conditions—are not ranked from the List of 72 Selected Causes. In addition, category titles that begin with the words ''Other'' and ''All other'' are not ranked. The remaining category titles are ranked according to number of deaths to determine the leading causes of death. When one of the titles that represents a subtotal is ranked (for example, unintentional injuries), its component parts are not ranked (in this case, motor vehicle crashes and all other unintentional injuries). See related *International Classification of Diseases, Ninth Revision*.

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

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

Community hospitals—See *Hospital*.

Compensation—See *Employer costs for employee compensation*.

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

Condition—A health condition is a departure from a state of physical or mental well-being. An impairment is a health condition that includes chronic or permanent health defects resulting from disease, injury, or congenital malformations. All health conditions, except impairments, are coded according to the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD-9-CM).

Based on duration, there are two categories of conditions, acute and chronic. In the National Health Interview Survey, an *acute condition* is a condition that has lasted less than 3 months and has involved either a physician visit (medical attention) or restricted activity. A *chronic condition* refers to any condition lasting 3 months or more or is a condition classified as chronic regardless of its time of onset (for example, diabetes, heart conditions, emphysema, and arthritis). The National Nursing Home Survey uses a specific list of chronic conditions, also disregarding time of onset. See related *Disability; Limitation of activity; International Classification of Diseases, Ninth Revision, Clinical Modification*.

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 the 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 *Health expenditures, national; Gross National Product*.

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

Current smoker—In 1992 the definition of current smoker in the Health Interview Survey (HIS) was modified to specifically include persons who smoked on ''some days.'' Before 1992 a current smoker was defined by the following questions from the HIS survey ''Have you ever smoked 100 cigarettes in your lifetime?'' and ''Do you smoke now?'' (traditional definition). In 1992 data were collected for half the respondents using the traditional smoking questions and for the other half of respondents using a revised smoking question (''Do you smoke everyday, 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. For further information on survey methodology and sample sizes pertaining to HIS cigarette data for data years 1965 to 1992 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. U.S. Government Printing Office, 1991.

Starting with 1993 data estimates of cigarette smoking prevalence are based on the revised definition that is considered a more complete estimate of smoking prevalence. In 1993 estimates of cigarette smoking prevalence were based on a half-sample.

Days of care—According to the American Hospital Association and National Master Facility Inventory, 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.

In the National Health Interview Survey, 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.

In the National Hospital Discharge Survey, days of care refers to the total number of patient days accumulated by patients 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. See related *Admission; Average length of stay; Discharge; Hospital; Patient*.

Death rate—See *Rate: Death Rate*

Dental visit—The National Health Interview Survey considers dental visits to be visits to a dentist's office for treatment or advice, including services by a technician or hygienist acting under the dentist's supervision. Services provided to hospital inpatients are not included. Dental visits are based on a 12-month 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, not including the period of stay of a well newborn infant. According to the National Hospital Discharge Survey, American Hospital Association, and National Master Facility Inventory, discharge is the formal release of an inpatient by a hospital (excluding newborn infants), that is, the termination of a period of hospitalization (including stays of 0 nights) by death or by disposition to a place of residence, nursing home, or another hospital. In the National Nursing Home Survey, discharge is the formal release of a resident by a nursing home. See related *Admission; Average length of stay; Days of care; Patient; Resident*.

Domiciliary care homes—See *Nursing home*.

Emergency department—According to the National Hospital Ambulatory Medical Care Survey (NHAMCS) an emergency department is a hospital facility for the provision of 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. 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 *Hospital; Outpatient department*.

Employer costs for employee compensation—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.

Expenditures—See *Health expenditures, national*.

Family income—For purposes of the National Health Interview Survey and National Health and Nutrition Examination Survey, 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. Family income is the total income received by the members of a family (or by an unrelated individual) in the 12 months before the interview. Family income includes wages, salaries, rents from property, interest, dividends, profits and fees from their own businesses, pensions, and help from relatives. Family income has generally been categorized into approximate quintiles in the tables.

Federal hospitals—See *Hospital*.

Federal physicians—See *Physician*.

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

Fetal death—In the World Health Organization's definition, also adopted by the United Nations and the National Center for Health Statistics, a fetal death is death before the complete expulsion or extraction from its mother of a product of conception, 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 *Live birth; Gestation; Rate: Death and related rates*.

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

General hospitals—See *Hospital*.

General hospitals providing separate psychiatric services—See *Mental health organization*.

Geographic region and division—The 50 States and the District of Columbia are grouped for statistical purposes by the U.S. Bureau of the Census into 4 geographic regions and 9 divisions. The groupings are as follows:

- Northeast
  - New England
    - Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
  - Middle Atlantic
    - New York, New Jersey, Pennsylvania
- Midwest
  - East North Central
    - Ohio, Indiana, Illinois, Michigan, Wisconsin
  - West North Central
    - Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas
- South
  - South Atlantic
    - Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida
  - East South Central
    - Kentucky, Tennessee, Alabama, Mississippi
  - West South Central
    - Arkansas, Louisiana, Oklahoma, Texas
- West
  - Mountain
    - Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada
  - Pacific
    - Washington, Oregon, California, Alaska, Hawaii

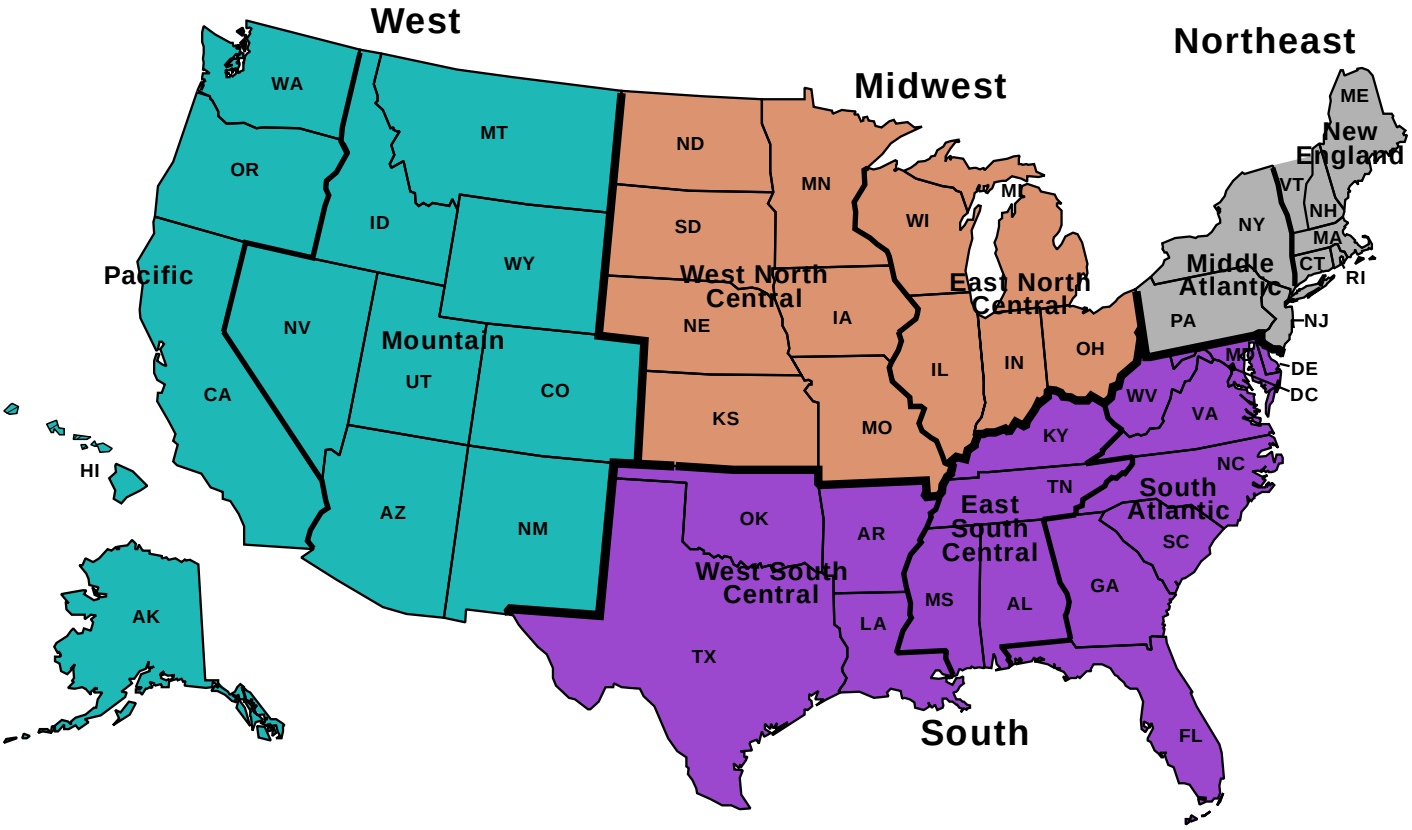

Figure I. Geographic regions and divisions of the United States

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 either U.S. residents or residents of the rest of the world. See related *Health expenditures, national*.

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), 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 skilled nursing and intermediate care facilities, including those for the mentally retarded. 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 maintenance organization (HMO)—An HMO is a prepaid health plan delivering comprehensive care to members through designated providers, having a fixed

monthly payment for health care services, and requiring members to be in a plan for a specified period of time (usually 1 year). HMO model types are:

Group—An HMO that delivers health services through a physician group that is controlled by the HMO unit or an HMO that contracts with one or more independent group practices to provide health services.

Individual practice association (IPA)—An HMO that contracts directly with physicians in independent practice, and/or contracts with one or more associations of physicians in independent practice, and/or contracts with one or more multispecialty group practices. The plan is predominantly organized around solo-single-specialty practices.

Mixed—An HMO that combines features of group and IPA. This category was introduced in mid-1990 because HMO's are continually changing and many now combine features of group and IPA plans in a single plan.

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?''

Hispanic origin—Hispanic origin includes persons of Mexican, Puerto Rican, Cuban, Central and South American, and other or unknown Spanish origins. Persons of Hispanic origin may be of any race. See related *Race*.

HIV—See *Human immunodeficiency virus infection*.

Home health care—Home health care as defined by the National Home and Hospice Care Survey is care provided 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.

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. Hospice services are available in home and inpatient settings.

Hospital—According to the American Hospital Association and National Master Facility Inventory, 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 (NHAMCS) hospitals included 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; Outpatient department; Patient*.

Community hospitals include all non-Federal short-stay hospitals excluding facilities for the mentally retarded.

Federal hospitals are operated by the Federal Government.

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.

Long-term hospitals are defined by the American Hospital Association and the National Master Facility Inventory as hospitals in which more than half the patients are admitted to units with an average length of stay of 30 days or more.

Nonprofit hospitals are operated by a church or other nonprofit organization.

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

Psychiatric hospitals are ones whose major type of service is psychiatric care. See *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 American Hospital Association and National Master Facility Inventory define short-term hospitals as hospitals in which more than half the patients are admitted to units with an average length of stay of 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; children's; 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*.

Human immunodeficiency virus (HIV) infection—Mortality coding: Beginning with data for 1987, NCHS introduced category numbers *042-*044 for classifying and coding HIV infection as a cause of death. HIV infection was formerly referred to as human T-cell lymphotropic virus-III/lymphadenopathy-associated virus

Table VI. Codes for industries, according to the *Standard Industrial Classification (SIC) Manual*

Industry	*Code numbers*
Agriculture, forestry, and fishing	01–09
Mining	10–14
Construction	15–17
Manufacturing	20–39
Textile mill products	22
Apparel and other finished products made from fabrics and similar materials	23
Lumber and wood products, except furniture	24
Printing, publishing, and allied industries	27
Chemicals and allied products	28
Rubber and miscellaneous plastics products	30
Stone, clay, glass, and concrete products	32
Primary metal industries	33
Fabricated metal products, except machinery and transportation equipment	34
Industrial and commercial machinery and computer equipment	35
Electronic and other electrical equipment and components, except computer equipment	36
Transportation equipment	37
Measuring, analyzing, and controlling instruments; photographic, medical, and optical goods; watches and clocks	38
Miscellaneous manufacturing industries	39
Transportation, communication, and public utilities	40–49
Wholesale trade	50–51
Retail trade	52–59
Finance, insurance, and real estate	60–67
Services	70–89
Public administration	91–97

(HTLV-III/LAV) infection. The asterisk before the category numbers indicates that these codes are not part of the *Ninth Revision of the International Classification of Diseases* (ICD-9). Before 1987 deaths involving HIV infection were classified to Deficiency of cell-mediated immunity (ICD-9 No. 279.1) contained in the title All other diseases; to Pneumocystosis (ICD-9 No. 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, beginning with 1987, death statistics for HIV infection are not strictly comparable with data for earlier years.

Morbidity coding: The National Hospital Discharge Survey codes diagnosis data using the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD–9–CM). During 1984 and 1985 only data for AIDS (ICD–9–CM 279.19) were included. Beginning with data for 1986 discharges with the diagnosis HIV infection (ICD–9–CM 042–044, 279.19, and 795.8) were included. See related *Acquired immunodeficiency syndrome; Cause of death; International Classification of Diseases, Ninth Revision; International Classification of Diseases, Ninth Revision, Clinical Modification*.

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

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*.

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

Industry of employment—Industries are classified according to the *Standard Industrial Classification* (SIC) *Manual* of the Office of Management and Budget. Three editions of the SIC are used for coding industry data in *Health, United States*: the 1972 edition; 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 industrial divisions (table VI) were not changed between versions.

The category ‘‘Private sector’’ includes all industrial divisions except public administration and military. The category ‘‘Civilian sector’’ includes ‘‘Private sector’’ and the public administration division. The category ‘‘Not classified’’ is comprised of the following entries from the death certificate: housewife, student, or self-employed; information inadequate to code industry; establishments not elsewhere classified.

Infant death—An infant death is the death of a live-born child before his or her first birthday. Deaths in the first year of life may be further classified according to age as 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 *Live birth; Rate: Death and related rates*.

Inpatient care—See *Mental health service type*.

Inpatient days—See *Days of care*.

Intermediate care facilities—See *Nursing homes, certification of*.

International Classification of Diseases, Ninth Revision (ICD-9)—The International Classification of Diseases (ICD) classifies mortality information for statistical purposes. The ICD was first used in 1900 and has been revised about every 10 years since then. The ICD-9, published in 1977, is used to code U.S. mortality data beginning with data year 1979. (See tables IV and V.) See related *Cause of death; 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 completely compatible with the *International Classification of Diseases, Ninth Revision*. The ICD–9–CM is used to code morbidity data and the ICD-9 is used to code mortality data. Diagnostic groupings and code number inclusions for ICD–9–CM are shown in table VII; surgical groupings and code number inclusions are shown in table VIII; and diagnostic and other nonsurgical procedure groupings and code number inclusions are shown in table IX.

ICD-9 and ICD–9–CM are arranged in 17 main chapters. Most of the diseases are arranged according to their principal anatomical site, with special chapters for infective and parasitic diseases; neoplasms; endocrine, metabolic, and nutritional diseases; mental diseases; complications of pregnancy and childbirth; certain diseases peculiar to the perinatal period; and ill-defined conditions. In

Table VII. Codes for diagnostic categories from the *International Classification of Diseases, Ninth Revision, Clinical Modification*

Diagnostic category	*Code numbers*
Females with delivery	V27
Human immunodeficiency virus (HIV)	042–044, 279.19, 795.8
Malignant neoplasms	140–208, 230–234
Large intestine and rectum	153–154, 197.5
Trachea, bronchus, and lung	162, 197.0, 197.3
Breast	174–175, 198.81
Prostate	185
Benign neoplasms	210–229, 235–239
Diabetes	250
Psychoses	290–299
Alcohol dependence syndrome	303
Diseases of the nervous system and sense organs	320–389
Eye diseases and conditions	360–379
Otitis media and eustachian tube disorders	381–382
Diseases of the circulatory system	390–459
Diseases of heart	391–392.0, 393–398, 402, 404, 410–416, 420–429
Cerebrovascular diseases	430–438
Diseases of the respiratory system	460–519
Acute respiratory infection	460–466
Chronic disease of tonsils and adenoids	474
Pneumonia, all forms	480–486
Bronchitis, emphysema, and asthma	490–493
Inguinal hernia	550
Noninfectious enteritis and colitis	555–556, 558
Cholelithiasis	574
Hyperplasia of prostate	600
Inflammatory disease of female pelvic organs	614–616
Disorders of menstruation	626
Pregnancy with abortive outcome	630–639
Decubitus ulcers	707.0
Diseases of the musculoskeletal system and connective tissue	710–739
Arthropathies and related disorders	710–719
Osteoarthritis	715
Intervertebral disc disorders	722
Congenital anomalies	740–759
Fracture, all sites	800–829
Fracture of neck of femur	820
Lacerations and open wounds	870–904

addition, two supplemental classifications are provided: the classification of factors influencing health status and contact with health service and the classification of external causes of injury and poisoning. See related *Condition; International Classification of Diseases, Ninth Revision; Mental disorder*.

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

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

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. Each person identified as having a chronic condition is classified according to the extent to which his or her activities are limited, as follows:

- Persons unable to carry on major activity;
- Persons limited in the amount or kind of major activity performed;
- Persons not limited in major activity but otherwise limited; and
- Persons not limited in activity.

See related *Condition; Major activity*.

Live birth—In the World Health Organization's definition, also adopted by the United Nations and the National Center for Health Statistics, a live birth is the complete expulsion or extraction from its mother of a product of conception, 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 hospital—See *Hospital*.

Low birthweight—See *Birthweight*.

Major activity (or usual activity)—This is the principal activity of a person or of his or her age-sex group. For children 1–5 years of age, the major activity refers to ordinary play with other children; for children 5–17 years of

Table VIII. Codes for surgical categories from the *International Classification of Diseases, Ninth Revision, Clinical Modification*

Surgical category	*Code numbers*
Extraction of lens	13.1–13.6
Insertion of prosthetic lens (pseudophakos)	13.7
Myringotomy	20.0
Tonsillectomy, with or without adenoidectomy	28.2–28.3
Adenoidectomy without tonsillectomy	28.6
Direct heart revascularization (coronary bypass)	36.1
Cardiac catheterization	37.21–37.23
Pacemaker insertion or replacement	37.7–37.8
Biopsies on the digestive system[1](Prior to 1989)	42.24, 44.14, 44.15, 45.14, 45.15, 45.25, 45.26, 45.27, 48.24, 48.25, 48.26, 49.22, 49.23, 50.11, 50.12, 51.12, 51.13, 52.11, 52.12, 54.22, 54.23
(Beginning in 1989)	42.24, 44.14, 44.15, 45.14, 45.15, 45.25, 45.27, 48.24, 48.26, 49.22, 49.23, 50.11, 50.12, 51.12–51.14, 52.11, 52.12, 52.14, 54.22, 54.24
Appendectomy, excluding incidental	47.0
Cholecystectomy	51.2
Repair of inguinal hernia	53.0–53.1
Prostatectomy	60.2–60.6
Circumcision	64.0
Oophorectomy and salpingo-oophorectomy	65.3–65.6
Bilateral destruction or occlusion of fallopian tubes	66.2–66.3
Hysterectomy	68.3–68.7, 68.9
Diagnostic dilation and curettage of uterus	69.09
Procedures to assist delivery[2](Prior to 1989)	72, 73.0–73.99
(Beginning in 1989)	72, 73.0–73.3, 73.6–73.8, 73.93–73.99
Cesarean section	74.0–74.2, 74.4, 74.99
Repair of current obstetrical laceration	75.5–75.6
Reduction of fracture (excluding skull, nose, and jaw)	76.70, 76.78–76.79, 79.0–79.6
Excision or destruction of intervertebral disc and spinal fusion	80.5, 81.0
Excision of semilunar cartilage of knee	80.6
Arthroplasty and replacement of hip[3] (Prior to 1989)	81.5–81.6
(Beginning in 1990)	81.40, 81.51–81.53
Operations on muscles, tendons, fascia, and bursa	82–83.1, 83.3–83.9
Biopsies on the integumentary system (breast, skin, and subcutaneous tissue)	85.11–85.12, 86.11
Debridement of wound, infection, or burn	86.22, 86.28

[1]In 1989 the ICD-9-CM revised or updated codes relating to biopsies of the digestive system.
[2]In 1989 the National Center for Health Statistics revised the list of surgical operations, and certain procedures previously classified as surgical were reclassified as diagnostic and other nonsurgical.
[3]The ICD-9-CM codes for arthroplasty and replacement of the hip were substantially revised in October 1989. Arthroplasty data for 1989 are omitted.

Table IX. Codes for diagnostic and other nonsurgical procedure categories from the *International Classification of Diseases, Ninth Revision, Clinical Modification*

Procedure category	*Code numbers*
Spinal tap	03.31
Endoscopy of small intestine without biopsy	45.11–45.13
Endoscopy of large intestine without biopsy	45.21–45.24
Laparoscopy (excluding that for ligation and division of fallopian tubes)	54.21
Cystoscopy	57.31–57.32
Arthroscopy of knee	80.26
Computerized axial tomography (CAT scan)	87.03, 87.41, 87.71, 88.01, 88.38
Contrast myelogram	87.21
Biliary tract x ray	87.5
Arteriography using contrast material	88.4
Angiocardiography using contrast material	88.5
Diagnostic ultrasound	88.7
Electroencephalogram	89.14
Radioisotope scan	92.0–92.1

age, the major activity refers to school attendance; for adults 18 years of age and over, the major activity usually refers to a job, housework, or school attendance. See related *Limitation of activity*.

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 Reports of the Centers for Disease Control and Prevention classify separated people as unmarried for all States except Rhode Island.

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

Medicaid—This program is State operated and administered but has Federal financial participation. Within certain broad federally determined guidelines, States decide who is eligible; the amount, duration, and scope of services covered; rates of payment for providers; and methods of administering the program. Medicaid provides health care services for certain low-income persons. Medicaid does not provide health services to all poor people in every State. It categorically covers participants in the Aid to Families with Dependent Children program and in the Supplemental Security Income program. In most States it also covers certain other people deemed to be medically needy. The program was authorized in 1965 by Title XIX of the Social Security Act. See related *Health expenditures, national; Health maintenance organization; Medicare*.

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, 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. It consists of two separate but coordinated programs, hospital insurance (Part A) and supplementary medical insurance (Part B). See related *Health expenditures, national; Health maintenance organization; Medicaid*.

Mental health disorder—The Center for Mental Health Services defines a mental health disorder as any of several disorders listed in the *International Classification of Diseases, Ninth Revision, Clinical Modification* (ICD–9–CM) or *Diagnostic and Statistical Manual of Mental Disorders, Third Edition* (DSM-IIIR). Table X shows diagnostic categories and code numbers for ICD–9–CM/DSM-IIIR and corresponding codes for the *International Classification of Diseases, Adapted for Use in the United States, Eighth Revision* (ICDA-8) and *Diagnostic and Statistical Manual of Mental Disorders, Second Edition* (DSM-II). See related *International Classification of Diseases, Ninth Revision, Clinical Modification.*

Mental health organization—The Center for Mental Health Services defines a mental health organization as an administratively distinct public or private agency or institution whose primary concern is the provision of direct mental health services to the mentally ill or emotionally disturbed. The major types of mental health organizations are described below.

Freestanding psychiatric outpatient clinics provide only ambulatory mental health and patient clinics provide only ambulatory mental health services on either a regular or emergency basis. The medical responsibility for services is generally assumed by a psychiatrist.

General hospitals providing separate psychiatric services are non-Federal general hospitals that provide psychiatric services in either a separate psychiatric inpatient, outpatient, or partial hospitalization service with assigned staff and space.

Multiservice mental health organizations directly provide two or more of the program elements defined under Mental health service type and are not classifiable as a psychiatric hospital, general hospital, or a residential treatment center for emotionally disturbed children. (The classification of a psychiatric or general hospital or a 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.

Private mental hospitals are operated by a sole proprietor, partnership, limited partnership, corporation, or nonprofit organization, primarily for the care of persons with mental disorders.

Psychiatric hospitals are hospitals primarily concerned with providing inpatient care and treatment for the mentally ill. Psychiatric inpatient units of Department of Veterans Affairs general hospitals and Department of Veterans Affairs neuropsychiatric hospitals are combined into the category Department of Veterans Affairs psychiatric hospitals because of their similarity in size, operation, and length of stay.

Residential treatment centers for emotionally disturbed children must meet all of the following criteria: (a) Not licensed as a psychiatric hospital and primary purpose is to provide individually planned mental health treatment services in conjunction with residential care; (b) Include a clinical program that is directed by a psychiatrist, psychologist, social worker, or psychiatric nurse with a graduate degree; (c) Serve children and youth primarily under the age of 18; and (d) Primary diagnosis for the majority of admissions is mental illness, classified as other than mental retardation, developmental disability,

and substance-related disorders, according to DSM-II/ICDA-8 or DSM-IIIR/ICD–9–CM codes. See related *table X and Mental health codes*.

State and county mental hospitals are under the auspices of a State or county government or operated jointly by a State and county government.

See related *Addition; Mental health service type*.

Mental health service type refers to the following kinds of mental health services:

Inpatient care is the provision of 24-hour mental health care in a mental health hospital setting.

Outpatient care is the provision of ambulatory mental health services for less than 3 hours at a single visit on an individual, group, or family basis, usually in a clinic or similar organization. Emergency care on a walk-in basis, as well as care provided by mobile teams who visit patients outside these organizations are included. ''Hotline'' services are excluded.

Partial care treatment is a planned program of mental health treatment services generally provided in visits of 3 or more hours to groups of patients. Included are treatment programs that emphasize intensive short-term therapy and rehabilitation; programs that focus on recreation, and/or occupational program activities, including sheltered workshops; and education and training programs, including special education classes, therapeutic nursery schools, and vocational training.

Residential treatment care is the provision of 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 definitions and titles of MSA's are established by the U.S. Office of Management and Budget with the advice of the Federal Committee on Metropolitan Statistical Areas. Generally speaking, an MSA consists of a county or group of counties containing at least one city (or twin cities) having a population of 50,000 or more plus adjacent counties that are metropolitan in character and are economically and socially integrated with the central city. In New England towns and cities rather than counties are the units used in defining MSA's. There is no limit to the number of adjacent counties included in the MSA as long as they are integrated with the central city. Nor is an MSA limited to a single State; boundaries may cross State lines. Metropolitan population, as used in this report in connection with data from the National Health Interview Survey, is based on MSA's as defined in the 1980 census and does not include any subsequent additions or changes.

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

National ambient air quality standards—The Federal Clean Air Act of 1970, amended in 1977 and 1990, required 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) which cannot be exceeded during a specified time interval. A county meets the national ambient air quality standards if none of the six pollutants exceed the standard during a 12-month period. See related *Particulate matter; Pollutant*.

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

Non-Federal physicians—See *Physician*.

Nonpatient revenue—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 the 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—A nursing home is an establishment with three or more beds that provides nursing or personal care services to the aged, infirm, or chronically ill. The following definitions of nursing home types apply to data collected in National Nursing Home Surveys through 1977.

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

Personal care homes with nursing have some but fewer than half the residents receiving nursing care. In addition, such homes must employ one or more registered or licensed practical nurses or must provide 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 are receiving nursing care. These homes provide

Table X. Mental health codes, according to applicable revision of the *Diagnostic and Statistical Manual of Mental Disorders* and *International Classification of Diseases*

Diagnostic category	*DSM-II/ICDA-8*	*DSM-IIIR/ICD-9-CM*
Alcohol related	291, 303, 309.13	291, 303, 305.0
Drug related	294.3, 304, 309.14	292, 304, 305.1–305.9, 327, 328
Organic disorders (other than alcoholism and drug)	290, 292, 293, 294 (except 294.3), 309.0, 309.2–309.9	290, 293, 294, 310
Affective disorders	296, 298.0, 300.4	296, 298.0, 300.4, 301.11, 301.13
Schizophrenia	295	295

administration of medications and treatments in accordance with physicians' orders, supervision of self-administered medications, or three or more personal services.

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

Nursing homes are certified by the Medicare and/or Medicaid program. 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 of 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.

See related *Nursing care; Resident*.

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

Occupancy rate—The National Master Facility Inventory and American Hospital Association define hospital occupancy rate as the average daily census divided by the average number of hospital beds during a reporting period. Average daily census is defined by the American Hospital Association as the average number of inpatients, excluding newborns, receiving care each day during a reporting period. The occupancy rate for facilities other than hospitals is calculated as the number of residents reported at the time of the interview divided by the number of beds reported.

Office—In the National Health Interview Survey, an office refers to the office of any physician in private practice not located in a hospital. In the National Ambulatory Medical Care Survey, an office is any location for a physician's ambulatory practice other than hospitals, nursing homes, other extended care facilities, patients' homes, industrial clinics, college clinics, and family planning clinics. However, private offices in hospitals are included. See related *Office visit; Outpatient visit; Physician; Physician contact*.

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; Physician contact*.

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 are examples of the types of OPD's excluded from the NHAMCS: ambulatory surgical centers, chemotherapy, employee health services, renal dialysis, methadone maintenance, and radiology. 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; Hospital*.

Outpatient visit—The American Hospital Association defines outpatient visits as visits for receipt of medical, dental, or other services 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. See related *Office visit, Physician contact*.

Partial care organization—See *Mental health organization*.

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

Particulate matter—Particulate matter is defined as particles of solid or liquid matter in the air, including nontoxic materials (soot, dust, and dirt) and toxic materials (for example, lead, asbestos, suspended sulfates and nitrates). See related *National ambient air quality; Pollutant*.

Patient—A patient 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*.

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—Physicians, through self-reporting, are classified by the American Medical Association and others as licensed doctors of medicine or osteopathy, as follows:

Active (or professionally active) physicians are currently practicing medicine, regardless of the number of hours worked per week.

Federal physicians are employed by the Federal Government; non-Federal or civilian physicians are not.

Office-based physicians spend the plurality of their time working in practices based in private offices.

Hospital-based physicians spend the plurality of their time as salaried physicians in hospitals.

Data for physicians are presented by type of education (doctors of medicine, 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 contact—In the National Health Interview Survey, a physician contact is defined as a consultation with a physician in person or by telephone, for examination, diagnosis, treatment, or advice. The service may be provided by the physician or by another person working under the physician's supervision. Contacts involving services provided on a mass basis (for example, blood pressure screenings) and contacts for hospital inpatients are not included.

Place of contact includes office, hospital outpatient clinics, emergency room, telephone (advice given by a physician in a telephone call), home (any place in which a person was staying at the time a physician was called there), clinics, HMO's, and other places located outside a hospital.

In the National Health Interview Survey, physician contacts are based on a 2-week recall period and are adjusted to produce average annual number of visits. The interval since the last physician contact is the length of time before the week of interview in which the physician was last consulted. See related *Office; Office visit*.

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 general areas of practice: generalists and specialists.

Generalist physicians are synonymous with primary care generalists and only include physicians practicing 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. The primary care subspecialties for family practice include: geriatric medicine and sports medicine. Primary care subspecialties for internal medicine include: diabetes, endocrinology and metabolism, hematology, hepatology, cardiac electrophysiology, infectious diseases, diagnostic laboratory immunology, geriatric medicine, sports medicine, nephrology, nutrition, medical oncology and rheumatology. Primary care subspecialties for pediatrics 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*.

Pollutant—A pollutant is any substance that renders the atmosphere or water foul or noxious to health. See related *National ambient air quality standards; Particulate matter*.

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.

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 here 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 usually the denominator when 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 NCHS National Hospital Discharge Survey.

Civilian noninstitutionalized population is the civilian population not residing in institutions. Institutions include correctional institutions, detention homes, and training schools for juvenile delinquents; homes for the aged and dependent (for example, nursing homes and convalescent homes); homes for dependent and neglected children; homes and schools for the mentally or physically handicapped; homes for unwed mothers; psychiatric, tuberculosis, and chronic disease hospitals; and residential treatment centers. This population is the denominator in rates calculated for the NCHS National Health Interview Survey, National Health and Nutrition Examination Survey, and National Ambulatory Medical Care Survey.

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 $15,141 in 1994 and $13,359 in 1990. See related *Consumer Price Index*.

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) defines a procedure as a surgical or nonsurgical operation, diagnostic procedure, or special treatment assigned by the physician and recorded on the medical record of patients discharged from the inpatient service of short-stay hospitals. All terms listed on the face sheet of the medical record under captions such as ''operation'', ''operative procedures'', and ''operations and/or special treatments'' are transcribed in the order listed. A maximum of four 4-digit ICD–9–CM codes are assigned per discharge. In accordance with ICD–9–CM coding, procedures are classified as diagnostic and other nonsurgical procedures or as surgical operations.

Diagnostic and other nonsurgical procedures are procedures generally not considered to be surgery. These include diagnostic endoscopy and radiography, radiotherapy and related therapies, physical medicine and rehabilitation, and other nonsurgical procedures. In 1989 the list of nonsurgical procedures was revised to include selected procedures previously classified as surgical. Selected diagnostic and other nonsurgical procedures are listed with their ICD–9–CM code numbers in table IX. For further discussion, see Graves EJ, Kozak LJ. National Hospital Discharge Survey: Annual summary 1989. National Center for Health Statistics. Vital Health Stat 13(109). 1991.

Surgical operations encompass all ICD–9–CM procedures, except those listed under ''Nonsurgical procedures.'' Selected surgical operations are listed with their ICD–9–CM codes in table VIII. In 1989 the list of surgical operations was revised and certain procedures previously classified as surgical were reclassified as diagnostic and other nonsurgical. The American Hospital Association defines surgery as a major or minor surgical episode performed in the operating room. During a single episode, multiple surgical procedures may be performed, but the episode is considered only one surgical operation. In contrast the National Hospital Discharge Survey codes up to four ICD–9–CM surgical procedures per surgical episode.

See related *International Classification of Diseases, Ninth Revision, Clinical Modification; Outpatient surgery*.

Proprietary hospitals—See *Hospital*.

Provisional death rates—See *Rate: Death and related rates*.

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

Public expenditures—See *Health expenditures, national*.

Race—Beginning in 1976 the Federal Government's data systems classified individuals into the following racial groups: American Indian or Alaskan Native, Asian or Pacific Islander, black, and white. Depending on the data source, the classification by race may be based on self-classification or on observation by an interviewer or other persons filling out the questionnaire. Starting in 1980, data from the National Vital Statistics System for newborn infants and fetal deaths are tabulated according to race of mother. Before 1980, data were tabulated by race of newborn and fetus according to 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 the National Vital Statistics System classified all births for which race was unknown as white. Beginning in 1964 these births were classified according to information on the previous record.

In *Health, United States*, trends of birth rates, birth characteristics, and infant and maternal mortality rates are calculated according to race of mother unless specified otherwise. In the National Health Interview Survey, children whose parents are of different races are classified according to the race of the mother. Vital event rates for the American Indian or Alaskan Native population shown in this book are based on the total U.S. resident population of American Indians and Alaskan 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 Alaskan Natives who reside on or near reservations. See related *Hispanic origin*.

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 of 1981–89 and 1991, rates are based on national estimates of the resident population, as of July 1, rounded to 1,000's. Population estimates for 10-year age groups are generated by summing unrounded population estimates before rounding to 1,000's. Starting in 1992 rates are based on unrounded national population estimates. 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 *Live birth*.

  Fertility rate is the number of live births 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 of 1981–89 and 1991, rates are based on national estimates of the resident population, as of July 1, rounded to 1,000's. Population estimates for 10-year age groups are generated by summing unrounded population estimates before rounding to 1,000's. Starting in 1992 rates are 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).

  Provisional death rate—See *National Vital Statistics System* in Appendix I.

  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, stated 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, stated per 1,000 live births plus late fetal deaths. See related *Fetal death; Gestation*.

  Infant mortality rate is calculated by dividing the number of infant deaths during a 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*.

  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, stated 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, stated per 1,000 live births. *Feto-infant mortality rate* is the sum of late fetal deaths plus all infant deaths divided by the sum of live births plus late fetal deaths, stated per 1,000 live births plus late fetal deaths. See related *Fetal death; Gestation; Infant death; Live birth*.

  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 Complications of pregnancy, childbirth, and the puerperium. (See related table V.) Maternal mortality rate is the number of maternal deaths per 1,000 live births. The *maternal mortality rate* indicates the likelihood that a pregnant woman will die from maternal causes. The number of live births used in the denominator is an approximation of the population of pregnant women who are at risk of a maternal death.

Region—See *Geographic division and region*.

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 the registration of births and deaths and the reporting of fetal deaths. It is believed that more than 99 percent of the 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. Both areas have covered the entire United States since 1933. Currently, Puerto Rico, U.S. Virgin Islands, and Guam comprise separate registration

areas, although their data are not included in statistical tabulations of U.S. resident data. See related *Reporting area*.

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 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. 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 1989, the reporting area for educational attainment of mother on the birth certificate included 48 States, the District of Columbia, and New York City. See related *Registration area; National Vital Statistics System* in Appendix I.

Resident—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 *Discharge; 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*.

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

Short-stay hospitals—See *Hospital*.

Skilled nursing facilities—See *Nursing homes, certification of*.

Smoker—*See Current smoker*.

Specialty hospitals—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.

Surgical operations—See *Procedure*.

Surgical specialties—See *Physician specialty*.

Urbanization—In this report death rates are presented according to the level of urbanization of the decedent's county of residence. This categorization is based on the rural-urban continuum codes for metropolitan and nonmetropolitan counties developed by the Economic Research Service, U.S. Department of Agriculture. Counties are categorized as metropolitan and nonmetropolitan by using the 1983 U.S. Office of Management and Budget definition of metropolitan statistical areas (MSA's). The codes classify metropolitan counties by size and nonmetropolitan counties by degree of urbanization or proximity to metropolitan areas. The original 10 categories of counties have been collapsed into 5 categories for this report: (a) large core metropolitan counties contain the primary central city of an MSA with a 1980 population of 1 million or more; (b) large fringe metropolitan counties are the noncore counties of an MSA with 1980 population of 1 million or more; (c) medium or small metropolitan counties are in MSA's with 1980 populations under 1 million; (d) urban nonmetropolitan counties are not in MSA's and have 2,500 or more urban residents in 1980; and (e) rural counties are not in MSA's and have fewer than 2,500 urban residents in 1980.

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 that is calculated over the age range from birth to 65 years of age using the following seven age groups: under 1 year, 1–14 years, 15–24 years, 25–34 years, 35–44 years, 45–54 years, and 55–64 years. The number of deaths for each age group is multiplied by the years of life lost, calculated as the difference between age 65 years and the midpoint of the age group. For the seven age groups these are 0.5, 8, 20, 30, 40, 50, and 60. For example, the death of a person 15–24 years of age counts as 45 years of life lost. Years of potential life lost is derived by summing years of life lost over all age groups. For more information, See Centers for Disease Control. MMWR. Vol 35 no 25S, suppl. 1986.

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