

**Health United States 1991**  
**and Prevention Profile**



U.S. DEPARTMENT OF HEALTH  
AND HUMAN SERVICES

Public Health Service



### **Copyright Information**

Permission has been obtained from the copyright holders to reproduce certain quoted material in this report. Further reproduction of this material is prohibited without specific permission of the copyright holder. All other material contained in this report is in the public domain and may be used and reprinted without special permission; citation as to source, however, is appreciated.

### **Suggested Citation**

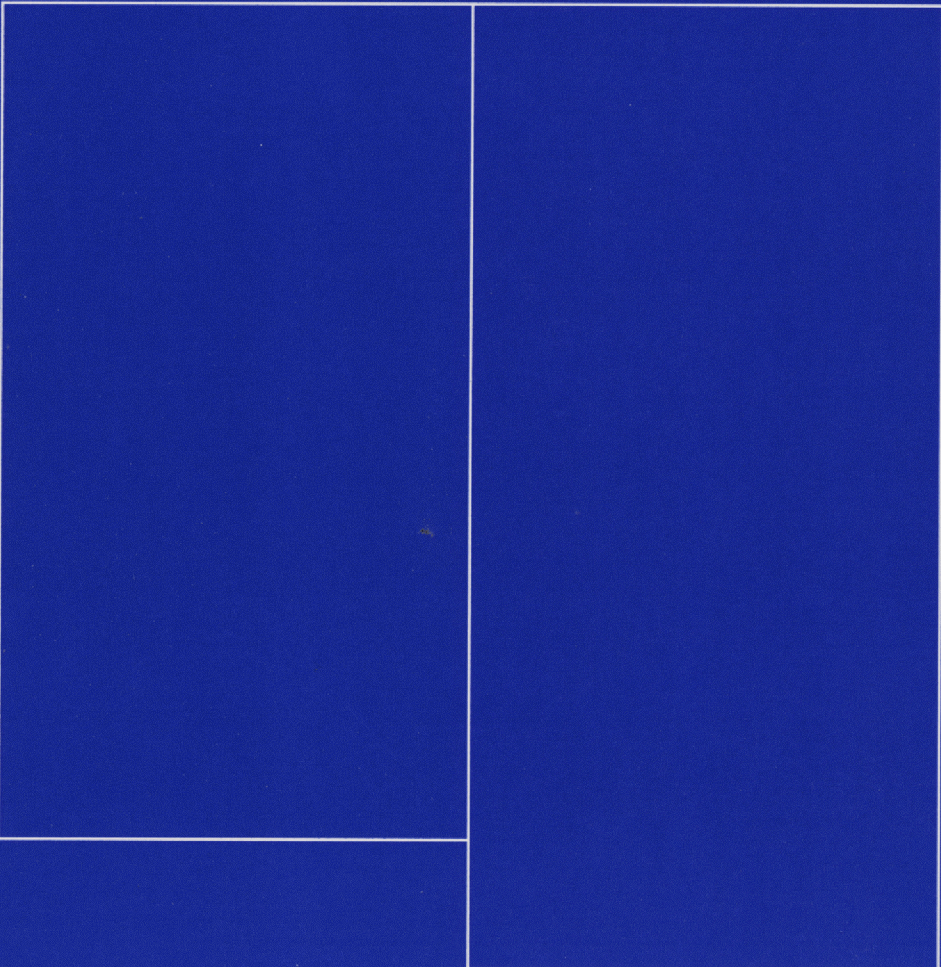
National Center for Health Statistics. Health, United States, 1991. Hyattsville, Maryland: Public Health Service, 1992.

National Center for Health Statistics. Prevention profile. Health, United States, 1991. Hyattsville, Maryland: Public Health Service, 1992.

Library of Congress Catalog Card Number 76-641496

For sale by  
Superintendent of Documents  
U.S. Government Printing Office  
Washington, D.C. 20402





# Health United States 1991

## and Prevention Profile

U.S. DEPARTMENT OF HEALTH  
AND HUMAN SERVICES

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

Hyattsville, Maryland  
May 1992

DHHS Pub. No. (PHS) 92-1232



**U.S. Department of Health and Human  
Services**

Louis W. Sullivan, M.D.  
Secretary

**Public Health Service**

James O. Mason, M.D., Dr. P.H.  
Assistant Secretary for Health

**Centers for Disease Control**

William L. Roper, M.D., M.P.H.  
Director

**National Center for Health Statistics**

Manning Feinleib, M.D., Dr. P.H.  
Director



## Preface

---

*Health, United States, 1991* is the 16th 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 volume also contains the 1991 *Prevention Profile*, fifth in a series of profiles, submitted by the Secretary of the Department of Health and Human Services to the President and the Congress of the United States in compliance with the Health Services and Centers Amendments of 1978 (Public Law 95-626). These reports were compiled by the National Center for Health Statistics, Centers for Disease Control. The National Committee on Vital and Health Statistics served in a review capacity.

The 1991 *Prevention Profile* serves as an integral part of the Department's overall disease prevention and health promotion initiatives. It has provided data in past years (1980, 1983, 1986, and 1989) to chart progress toward the five broad goals for 1990 published in *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* and to track the 1990 objectives first delineated in *Promoting Health/Preventing Disease: Objectives for the Nation*.

In this transition year, the report bridges the 1990 and year 2000 initiatives. The year 2000 initiative was unveiled in September 1990, by the Secretary of the U.S. Department of Health and Human Services, when he released *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*.

This profile highlights the final status of each of the 1990 objectives as well as several components of the three broad goals for the year 2000. Beginning

with the 1992 profile, the year 2000 objectives will be tracked annually.

*Health, United States, 1991* presents statistics concerning recent trends in the health care sector. The 143 detailed tables in this year's report are organized around four major subject areas—health status and determinants, utilization of health resources, health care resources, and health care expenditures. The detailed tables are designed to show continuing trends in health statistics. A major criterion used in selecting the detailed tables is the availability of comparable national data over a period of several years. Similar tables appear in each volume of *Health, United States*, to enhance the use of this publication as a standard reference source. Data are reported for selected years to highlight major trends.

To use *Health, United States, 1991* most effectively, the reader should become familiar with the two appendixes. Appendix I describes each data source used in this report and provides references for further information about the sources. Appendix II defines the terms used in the report. It also contains the standard populations used for age adjustment and *International Classification of Diseases* codes for cause of death and diagnostic and procedure categories.



## Acknowledgments

cooperation and assistance are gratefully acknowledged.

Overall responsibility for planning and coordinating the content of this volume rested with the Office of Analysis and Epidemiology, National Center for Health Statistics, under the general direction of Jacob J. Feldman.

The *Prevention Profile* was prepared by Kathleen M. Turczyn and Laura E. Montgomery under the guidance of Mary Ann Freedman, Patricia M. Golden, and Ronald W. Wilson. Peter C. Velarde provided statistical assistance.

*Health, United States* was prepared under the direction of Diane M. Makuc and Joel C. Kleinman. Detailed tables were prepared by Margaret A. Cooke, Virginia M. Freid, Mitchell B. Pierre, Jr., Rebecca A. Placek, Ildy I. Shannon, Kate Prager, Lois A. Fingerhut, Jennifer D. Parker, and Diane K. Wagener. Mavis B. Prather, Peter C. Davis, and Jennifer A. Harris provided statistical assistance. 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. Production and printing were managed by Linda L. Bean, assisted by Jacqueline M. Davis, Annette F. Gaidurgis, and Patricia L. Wilson. Graphics were supervised by Stephen L. Sloan. The designer was Sarah M. Hinkle.

Publication of *Health, United States* and *Prevention Profile* 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



This volume is dedicated to  
Joel C. Kleinman, Ph.D.  
1946-1991



Dr. Kleinman guided the production of this publication for more than a decade. His extraordinary ability to identify and communicate important public health issues through data is reflected in every volume. His counsel and insights will be deeply missed.



# Contents

---

Preface	iii
Acknowledgments	iv
Dedication	v
Geographic Regions and Divisions of the United States	viii
Health, United States, Highlights	1

## Prevention Profile

List of Figures	9
Introduction	11
<b>1990 Goals</b>	<b>15</b>
Infants	15
Children	16
Adolescents and Young Adults	18
Adults	18
Elderly	19
<b>Year 2000 Goals</b>	<b>21</b>
Increase the Span of Healthy Life for Americans	21
Reduce Health Disparities Among Americans	26
Improve Access to Preventive Health Services	35
<b>1990 Objectives for the Nation: Final Status</b>	<b>43</b>
High Blood Pressure Control	47
Family Planning	49
Pregnancy and Infant Health	52
Immunization	58
Sexually Transmitted Diseases	63
Toxic Agent and Radiation Control	66
Occupational Safety and Health	69
Injury Prevention	73
Fluoridation and Dental Health	78
Surveillance and Control of Infectious Diseases	81
Smoking and Health	85
Alcohol and Drug Misuse	88
Improved Nutrition	93
Physical Fitness and Exercise	97
Control of Stress and Violent Behavior	99
<b>Summary and Information Tables</b>	<b>102</b>
Table A. Relative status of 1990 health promotion and disease prevention objectives	102
Table B. 1990 health promotion/disease prevention objectives similar to the year 2000	107
Table C. Data tables for figures 1-32	110

## Health, United States

List of Detailed Tables	117
Detailed Tables	121

## Appendixes

Contents	303
I. Sources and Limitations of Data	305
II. Glossary	322
<b>Index to Detailed Tables</b>	<b>335</b>

---

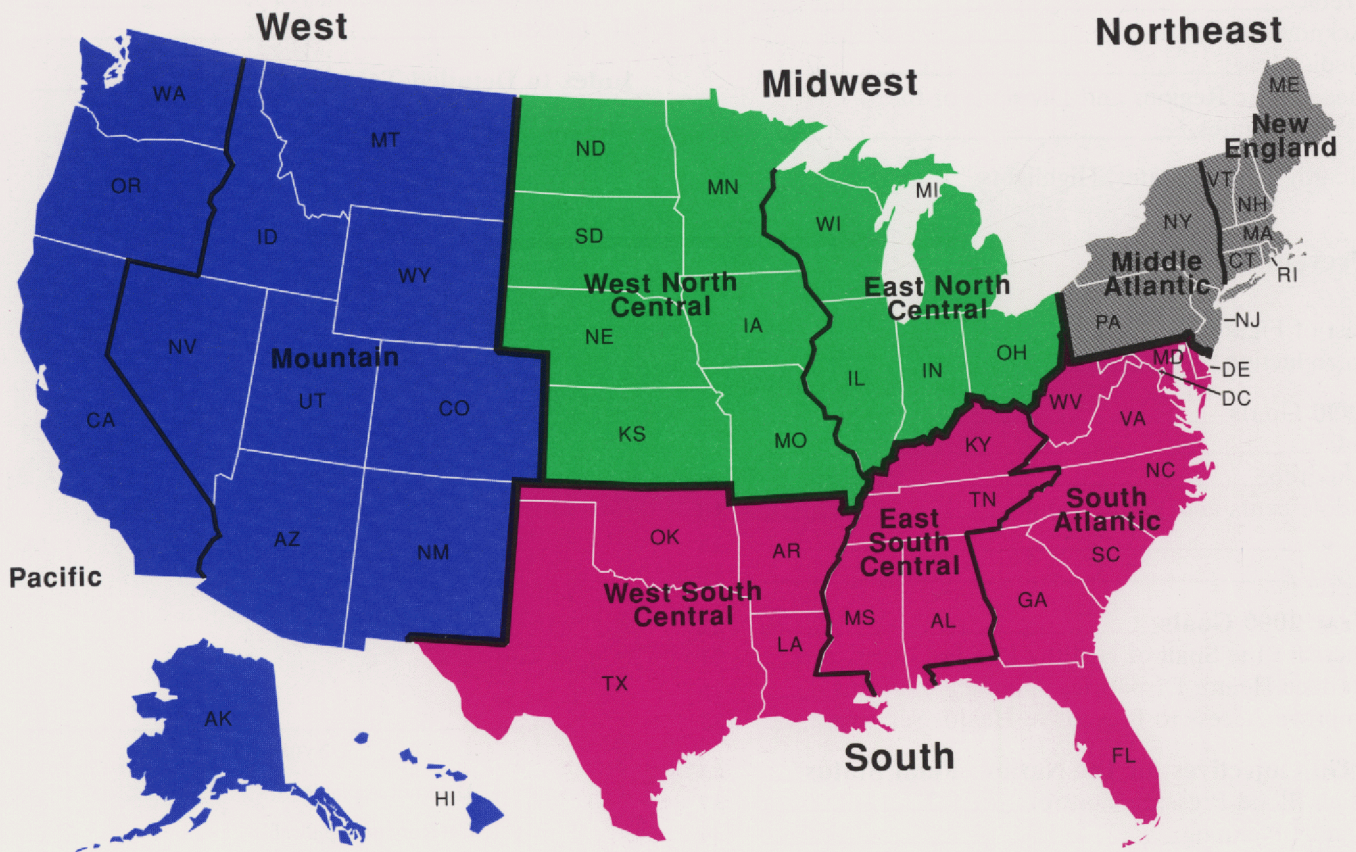
### Symbols

- - -	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

---



# Geographic Regions and Divisions of the United States





# Health, United States, Highlights

## Health Status and Determinants

■ In 1989 the **fertility rate** was 69.2 live births per 1,000 women 15–44 years of age, 3 percent higher than in 1988. The largest increases (6–8 percent) occurred in the birth rates for teenagers and for women aged 35–44 years. The increase in 1989 was a continuation of an upward trend in the fertility rate since 1987, and provisional data show another 3 percent increase in 1990 (tables 3 and 4).

■ The overall percent of **live-born infants weighing less than 2,500 grams** has remained generally stable during the 1980's at 7 percent. However, the percent of **live-born infants weighing less than 1,500 grams** (those at greatest risk of death and disability) steadily increased between 1980 and 1989 from 1.15 to 1.28 percent of births. Among black mothers, the group at greatest risk of having a very low birth weight infant, the percent very low birth weight increased from 2.48 to 2.95 percent of live births between 1980 and 1989 (table 7).

■ During the 1980's the percent of mothers who began **prenatal care** in the first trimester of pregnancy has remained stable at 75–76 percent. Large differences among racial and ethnic groups in use of early prenatal care continued in 1989. Early prenatal care was used by only 57–58 percent of Mexican American and American Indian mothers and 60–63 percent of black, Central and South American, and Puerto Rican mothers compared with 82–86 percent of Chinese, non-Hispanic white, Cuban, and Japanese mothers (table 8).

■ Between 1970 and 1989 the percent of live births to **unmarried mothers** has increased

steadily from 11 to 27 percent. In 1989 the majority of black, Puerto Rican, and American Indian mothers of live-born infants were unmarried (66, 55, and 53 percent of live births, respectively) (table 9).

■ In 1990 the **poverty rate** for black children (45 percent) was almost 3 times that for white children (16 percent) and poverty among Hispanic children (38 percent) was 2.4 times that for white children (table 2).

■ Between 1988 and 1989 overall **life expectancy** at birth increased from 74.9 to 75.3 years. Life expectancy for black males was 64.8 years, continuing the downward trend observed since 1984. Life expectancy for black females was 73.5 years, up slightly from the previous year. Provisional data show an increase in life expectancy for black males and black females between 1989 and 1990 (table 17).

■ In 1989 the **infant mortality rate** was 9.8 deaths per 1,000 live births. Between 1988 and 1989 infant mortality decreased by 4 percent for white infants to 8.1 deaths per 1,000 live births, and remained about the same for black infants at 18.6 deaths per 1,000 live births. Provisional data show that overall infant mortality declined by 6 percent to 9.1 deaths per 1,000 live births in 1990 (table 18).

■ For the 1986 birth cohort the **infant mortality rate** for very low birth weight infants (less than 1,500 grams) was nearly 90 times higher than that for normal weight infants (2,500 grams or more). Between 1960 and 1986 the risk of dying in infancy declined by 70 percent for infants of moderately low birth weight (1,500–2,499 grams), by 63 percent for normal weight infants; and by 52 percent for very low birth weight infants (table 20).

■ In 1988 the **infant mortality rate** in the United States was more than twice as great as in

Japan. The U.S. fetoinfant mortality rate was nearly 60 percent higher than in Japan; and postneonatal mortality in the United States was 80 percent higher than in Japan (table 25).

■ In 1988 **life expectancy** at birth in Japan was 4.3 years longer than in the United States for males and 3.6 years longer for females.

These differences have increased since 1983 when life expectancy in Japan exceeded that in the United States by 3.5 years for males and 2.2 years for females (table 26).

■ In 1989 Asian persons in the United States had lower **death rates** than other racial and ethnic groups. Among persons under 65 years of age black persons and American Indians had the highest death rates. At ages 25–44 years the death rate for black persons was 2.5 times that for white persons and the death rate for American Indians was almost twice the rate for white persons. With increasing age these differences narrowed and for persons 65 years and over, the death rate for white persons exceeded that for American Indians (table 28).

■ In 1989 **death rates** at ages 15–44 years for the Hispanic population were one-third greater than those for the white population. Among persons ages 1–14 years and 45 years and over, death rates for Hispanic persons were similar to or lower than those for white persons in 1989 (table 28).

■ In 1989 **years of potential life lost** per 100,000 population under 65 years of age, a measure of premature mortality, was more than twice as high for males and females of the black population as for males and females of the white population. Premature mortality was almost twice as high for males as for females of both races (table 32).

■ Between 1970 and 1989 the age-adjusted death rate for **heart disease**, the leading cause of death for both men and women,



declined by 39 percent. Since 1970 heart disease mortality has declined by 41 percent for white males, 36 percent for white females, 31 percent for black females, and 27 percent for black males. In 1989 heart disease mortality was almost twice as great for white males as for white females and almost 60 percent greater for black males than for black females (table 33).

■ Between 1970 and 1989 the age-adjusted death rate for **stroke**, the third leading cause of death, declined by 58 percent. Stroke mortality has declined at about the same rate for white and black persons of both sexes. In 1989 the age-adjusted death rate for black men and black women remained almost twice as great as for white men and white women (table 34).

■ Between 1980 and 1989 the age-adjusted death rate for **lung cancer** increased by 42 percent for white women and 30 percent for black women. During this period lung cancer mortality remained fairly stable for men of both races. In 1989 age-adjusted death rates for lung cancer were 50 percent higher for black men than for white men (84.6 and 57.4 deaths per 100,000) and were much lower for black women and white women (25.4 and 25.8 deaths per 100,000) (table 36).

■ Between 1980 and 1989 the age-adjusted death rate for **breast cancer** increased by 12 percent for black women while remaining stable for white women. In 1989 breast cancer mortality was 14 percent higher for black women than for white women (26.0 and 22.9 deaths per 100,000, respectively) (table 37).

■ Between 1980 and 1989 the age-adjusted death rate for **prostate cancer** increased by 9 percent. In 1989 prostate cancer mortality was more than twice as great for black men as for white men (30.9 and 14.5 deaths per 100,000, respectively) (table 30).

■ Between 1985 and 1989 the age-adjusted **homicide** rate

increased by 13 percent to 9.4 deaths per 100,000, and homicide rose from the 12th to the 10th leading cause of death in the United States. During this period the homicide rate for black males aged 15–24 years increased by 74 percent to 114.8 deaths per 100,000, the highest level ever for this group. In 1989 the age-adjusted homicide rate for black males 15–24 years was almost 9 times that for white males 15–24 years (table 40).

■ Between 1988 and 1989 the age-adjusted death rate for **human immunodeficiency virus (HIV)** infection increased by 32 percent, and HIV infection rose from the 15th to the 11th leading cause of death in the United States. In 1989 the age-adjusted HIV infection death rate for black men was 3 times that for white men (40.3 and 13.1 deaths per 100,000) and the HIV death rate for black women was 9 times that for white women (8.1 and 0.9 deaths per 100,000) (table 42).

■ Between 1980 and 1986 the death rate for **occupational injuries** decreased 34 percent with declines occurring in all industries. In 1986 the industries with the highest death rates were mining and construction (22 deaths per 100,000 workers), and transportation, communication and public utilities (20 deaths per 100,000 workers) (table 44).

■ In 1989 private sector employers reported 74 **lost workdays from injuries** per 100 full-time employees. The 1990 national health objective was 55. The lost workday rate for occupational injuries decreased from 1979 to 1983, but has increased at an average annual rate of 4 percent from 1983 to 1989. Industries reporting the highest lost workday rates were construction, mining, and transportation, communication and public utilities (table 73).

■ In 1990 there were 28,000 **measles** cases reported, an 8-fold

increase over the 1988 level and 56 times the 1990 objective of 500 cases (table 50).

■ Between 1984 and 1990 the proportion of persons reported with **AIDS** who were women almost doubled from 6 to 11 percent. During this period the proportion of AIDS cases among women that were transmitted through heterosexual contact increased from 17 to 31 percent of female cases reported. Fifty-six percent of all AIDS cases reported among women as of September 30, 1991 were black women (tables 51 and 53).

■ In 1990 the percent of noninstitutionalized persons with **limitation of activity caused by chronic conditions** was 38 percent for those 65 years of age and over, 22 percent for those 45–64 years of age, 9 percent for those 15–44 years of age, and only 5 percent at ages under 15 years (table 59).

■ In 1991, 20 percent of youth 12–17 years of age reported **alcohol consumption** in the past month, with similar levels reported by white, black, and Hispanic youth. During the period 1985 to 1991 alcohol consumption among white youth declined from 34 to 20 percent while remaining fairly stable for black and Hispanic youth (table 64).

■ Between 1989 and 1990 the number of **cocaine-related emergency room episodes** decreased by 27 percent, following a period of steep annual increases between 1985 and 1988 and a slight decline from 1988 to 1989. However, preliminary data for 1991 show an increase in cocaine-related emergency room episodes, with similar trends observed for the black, white, and Hispanic populations (table 66).

## Utilization of Health Resources

■ Between 1985 and 1990 the average annual number of ambulatory **physician contacts** per person increased slightly from 5.2 to 5.5 contacts. In 1990 the



age-adjusted average number of physician contacts per person was 10 percent higher for white persons than for black persons (5.6 compared with 5.1 contacts). Ambulatory care for black persons was twice as likely to occur in hospital outpatient and clinic settings as care for white persons (24 compared with 12 percent of physician contacts in 1990) (table 76).

■ Between 1985 and 1990 the age-adjusted **hospital discharge rate** declined by 15 percent for noninstitutionalized white persons and by 3 percent for noninstitutionalized black persons. In 1990 the hospital discharge rate was 25 percent higher for black than white persons (112.0 compared with 89.5 per 1,000 population) and average length of stay was 1.3 days longer for black than white persons (table 81). The age-adjusted proportion of persons in **fair or poor health** continued to be almost twice as great for black as for white persons in 1990 (15 percent compared with 8 percent) (table 61).

■ Between 1985 and 1989 the age-adjusted proportion of **office visits** to physicians involving the administration or prescription of medications remained at 60 percent (table 79).

■ In 1989 use of **dental care** continued to vary substantially by family income. The age-adjusted percent of persons with a dental visit within the past year rose steadily with family income from 42 percent for those with the lowest family incomes to 76 percent for those with the highest family incomes (table 80).

■ Between 1988 and 1990 the number of discharges from short-stay hospitals with a diagnosis of **HIV infection** increased 54 percent to 146,000 discharges. Men 20–49 years of age accounted for 70 percent of all HIV discharges in 1990, down from 77 percent in 1988. The average length of stay for patients

with HIV infection was twice that for all discharges (14.9 days compared with 6.4 days in 1990) (table 83).

■ In 1990 there were 30.8 million discharges from non-Federal short-stay hospitals. Among men the most common first-listed **diagnoses** were diseases of the heart (1.9 million), malignant neoplasms (730 thousand), and pneumonia (530 thousand). Among women the most common first-listed diagnoses were delivery (4.0 million), diseases of the heart (1.6 million), and malignant neoplasms (841 thousand) (table 85).

■ In 1989 one-half of all **surgery in short-stay hospitals** was performed on an outpatient basis, 3 times the proportion of outpatient surgery in 1980. The proportion of outpatient surgery was inversely related to hospital size, ranging from 42 percent for hospitals with 500 beds or more to 54 percent for hospitals with fewer than 100 beds (table 88).

■ Throughout the 1980's **average length of stay** has been shorter in smaller hospitals than larger hospitals but the gap has narrowed. In 1980 patients in short-stay hospitals with fewer than 100 beds had an average length of stay 3.3 days shorter than patients in hospitals with 500 beds or more. By 1989 the difference in average length of stay between small and large hospitals had declined by a full day to 2.3 days (table 88).

■ In 1985 the percent of persons institutionalized in **nursing homes** rose sharply with age from 1 percent for those 65–74 years to 6 percent at 75–84 years and 22 percent for those 85 years and over (table 89).

### Health Care Resources

■ Between 1985 and 1990 the number of civilians employed in the **health service industry** grew by 19 percent to 9.4 million, compared with a 9 percent

increase for other industries. In 1990 half of all health service industry workers were employed in hospitals, down from 54 percent in 1985 (table 95).

■ Between 1985 and 1989 the number of active non-Federal **physicians** per 10,000 population grew by 6 percent to 21.9. Increases in physician supply during this period ranged from 4 percent in the Pacific Division to 9 percent in the East South Central Division. In 1989 physician supply was lowest in the East South Central Division (16.4 per 10,000) and highest in New England (28.6 per 10,000) (table 96).

■ Between 1981 and 1989 the total number of **nursing personnel in community hospitals** increased slightly from 1.1 to 1.2 million full-time equivalent employees (FTEs). During this period the mix of nursing staff changed. Among all nursing FTEs the proportion who were registered nurses increased from 55 to 65 percent; the proportion who were licensed practical nurses declined from 20 to 14 percent; and the proportion who were ancillary nursing personnel declined from 25 to 21 percent (table 100).

■ Between 1985 and 1989 the number of **registered nursing (RN) graduates** declined by 25 percent to 62 thousand, after increasing by 11 percent from 1981 to 1985. Between 1981 and 1989 the proportion of RN graduates receiving baccalaureate degrees remained fairly stable (33 to 31 percent), while associate degree graduates increased from 50 to 61 percent and those receiving diplomas declined from 17 to 8 percent (table 102).

■ Between academic years 1979–80 and 1989–90 total **minority enrollment in medical schools** increased from 14 to 25 percent of all medical students. Much of the increase was accounted for by rising enrollment of Asian students. In



1989-90, 12 percent of medical students were Asian, 6 percent were black, and 5 percent were Hispanic (table 103).

■ Between 1985 and 1989 **occupancy rates in short-stay hospitals** have remained fairly stable at 65-67 percent, after declining from 76 percent occupancy in 1980. Smaller hospitals continue to have lower occupancy rates than larger hospitals. In 1989 the occupancy rate was 49 percent for hospitals with fewer than 100 beds, compared with 77 percent for hospitals with 500 beds or more (table 105).

■ Between 1980 and 1988 the number of **psychiatric beds** in State and county mental hospitals fell 32 percent to 107 thousand while beds in private psychiatric hospitals increased 2½ fold to 42 thousand (table 107).

## Health Care Expenditures

■ In 1990 **national health care expenditures** in the United States totaled \$666 billion, an average of \$2,566 per person. Health expenditures comprised 12.2 percent of the gross national product in 1990, a record high. Federal Government health expenditures rose from 3.1 percent of total Federal Government expenditures in 1960 to 15.3 percent in 1990 (table 112).

■ In 1990 health spending in the United States accounted for a larger **share of gross domestic product (GDP)** than in other major industrialized countries and the gap continued to widen. The United States devoted 12.4 percent of GDP to health in 1990, up from 9.3 percent in 1980. Canada, the country with the second highest health share of GDP, devoted 9.0 percent of GDP to health in 1990 (table 113).

■ **National health expenditures** increased by 10.5 percent in 1990, compared with a 5.1 percent

increase in the GNP.

Expenditures for hospital care (38 percent of the total) and physician services (19 percent of the total) increased at about the overall level. Home health care costs (1 percent of the total) increased by 22.5 percent in 1990. (tables 112 and 114).

■ In 1990 rising prices continued to explain the largest portion (63 percent) of growth in **personal health care expenditures**. Ten percent of the growth was attributed to population increase and 27 percent to changes in the use or kinds of services and supplies (table 115).

■ In 1990 the rate of increase in the medical care component of the **Consumer Price Index (CPI)** was 9.0 percent compared with an overall inflation rate of 5.4 percent. During the last decade the medical care component of the CPI has grown at an average annual rate of 8.1 percent compared with 4.7 percent for the overall CPI. The hospital component of the CPI increased by 10.9 percent in 1990, physicians' services by 7.1 percent and prescription drugs by 10.0 percent (tables 116 and 117).

■ From 1965 to 1980 the share of **health care expenditures** paid by households declined from 61 to 38 percent, while the shares paid by private business and government increased. However, for the past decade these shares have remained relatively stable. In 1990, 35 percent of health care expenditures were paid by households, 33 percent by government, and 29 percent by private business including, for example, employer contributions to health insurance premiums and Medicare (table 122).

■ In 1990 the major sources of funds for **hospital care** were the government (55 percent) and private health insurance (35 percent). Medicare provided almost half of government funds for hospital care. **Nursing home**

**care** was financed almost equally by Medicaid and out-of-pocket payments (45 percent each).

**Physician services** were primarily funded by private health insurance (46 percent) and the government (35 percent) with Medicare providing nearly 70 percent of government funds (table 123).

■ Expenditures for **HIV-related** activities by the Federal government increased from \$8 million in 1982 to almost \$3 billion in 1990. The Health Care Financing Administration accounted for 26 percent of these expenditures in 1990, the National Institutes of Health for a quarter, and the Centers for Disease Control for 15 percent. The Alcohol, Drug Abuse, and Mental Health Administration and the Department of Veterans Affairs accounted for 7 percent of expenditures each. Of the total in 1990, 39 percent was for research, 38 percent for medical care, 16 percent for education and prevention, and 7 percent for cash assistance (disability insurance and supplemental security income) (table 128).

■ In 1989 total public health expenditures by State and territorial health agencies increased by 13 percent compared with 5 percent the previous year. Expenditures for the supplemental food program for **women, infants, and children (WIC)** increased by 17 percent in 1989. 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 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).

■ Enrollment in **health maintenance organizations (HMOs)** continued to increase slowly to 34 million in 1991. The growth in enrollment has slowed after a period of rapid expansion during the early to mid-1980's.



Despite the increase in enrollment, the number of plans continued to decline in 1991 to 553 after reaching a high of 647 in 1987 (table 135).

■ In 1990 **Medicare** expenditures totaled \$67 billion under Hospital Insurance (HI) and \$44 billion under Supplementary Medical Insurance (SMI). HI expenditures increased by 14 percent in 1989 and 10 percent in 1990. Average annual increases in HI expenditures had slowed from 14 percent between 1980 and 1985 to 3 percent between 1985 and 1988. SMI expenditures grew by 11 percent in 1990 compared with an average annual increase of 15 percent from 1980 to 1989 (table 136).

■ The proportion of **Medicare** enrollees age 85 years and over increased from 6.7 percent in 1967 to 10.5 percent in 1989. In 1989 payments per enrollee averaged \$3,809 for those 85 years and over, compared with \$1,737 for those 65–66 years of age (table 137).

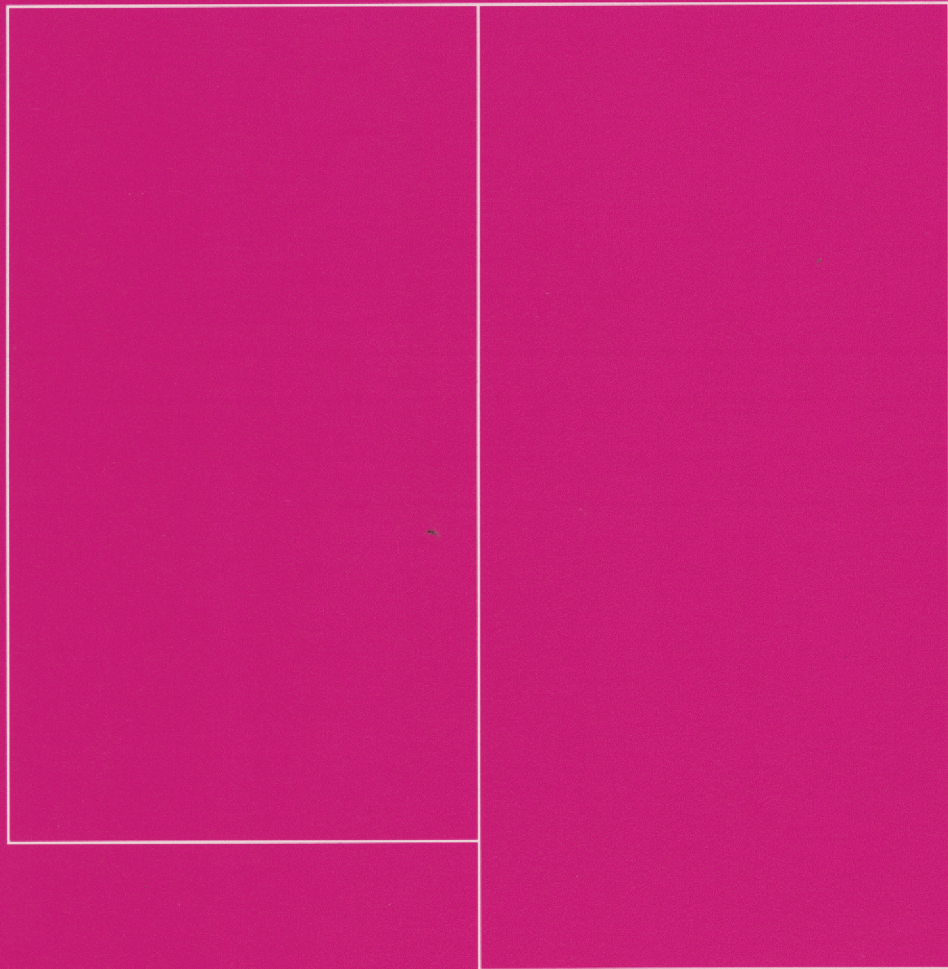
■ In 1990 children in families receiving Aid to Families with Dependent Children (AFDC) comprised 44 percent of **Medicaid** recipients but accounted for only 14 percent of expenditures. The aged, blind, and disabled accounted for 27 percent of recipients and 71 percent of expenditures. Payment per recipient ranged from \$811 for children in AFDC families to more than \$6,500 per recipient for the aged, blind, and disabled (table 139).

■ In 1990 about a quarter of **Medicaid** payments went to general hospitals, another quarter to intermediate care facilities, and an eighth to skilled nursing facilities. Prescribed drugs, physician services, home health services, and outpatient hospital services each accounted for 5–7 percent of Medicaid payments. Early and periodic screening, rural health clinics, and family planning services combined received less

than 1 percent of Medicaid funds. Payments per recipient ranged from \$67 for early and periodic screening for children to \$50,000 for intermediate care facility services for the mentally retarded (table 140).

■ Of the \$11.5 billion that the **Department of Veterans Affairs** spent on health care in 1990, 58 percent was for inpatient hospital care, 25 percent for outpatient care, and 10 percent for nursing home care. Nearly 40 percent of both inpatients and outpatients were veterans with service-connected disabilities. Fifty-five percent of inpatients and 41 percent of outpatients were low income veterans with no service-connected disability (table 141).





# Prevention Profile 1991



# List of Figures

1. Infant mortality rates: United States, 1977-90 and 1990 goal_____	15	21. Death rates for homicide and legal intervention among persons 15-24 years of age, according to race and sex: United States, 1980-89_____	31
2. Infant mortality rates, according to race of mother: United States, 1977-89_____	16	22. Death rates for suicide, according to race and sex: United States, 1989_____	32
3. Death rates for children 1-14 years of age: United States, 1977-90 and 1990 goal_____	16	23. Death rates for suicide among persons 15-24 years of age, according to race and sex: United States, 1980-89_____	33
4. Death rates for adolescents and young adults 15-24 years of age: United States, 1977-90 and 1990 goal_____	18	24. Death rates for human immunodeficiency virus (HIV) infection, according to race and sex: United States, 1989_____	34
5. Death rates for adults 25-64 years of age: United States, 1977-90 and 1990 goal_____	18	25. Years of potential life lost before age 65 for selected causes of death, according to race and sex: United States, 1989_____	35
6. Death rates for adults 25-64 years of age, according to age: United States, 1977-90_____	19	26. Proportion of mothers with early prenatal care, according to race and ethnicity of mother: United States, 1989_____	37
7. Restricted-activity days for persons 65 years of age and over: United States, 1977-90 and 1990 goal_____	20	27. Proportion of mothers with late or no prenatal care, according to race and ethnicity of mother: United States, 1989_____	37
8. Bed-disability days for persons 65 years of age and over: United States, 1977-90 and 1990 goal_____	20	28. Women 50 years of age and over who have received a clinical breast examination and a mammogram within the past 2 years, according to selected characteristics: United States, 1990_____	38
9. Life expectancy at birth, according to race and sex: United States, 1980-89_____	22	29. Women 18 years and over who have ever received a Pap test, and who received one in the past 3 years, according to selected characteristics: United States, 1990_____	39
10. Fair or poor self-assessed health status, according to selected characteristics: United States, 1990_____	22	30. Adults who had their blood pressure checked in the past year, according to sex and age: United States, 1990_____	40
11. Persons unable to carry on major activity because of chronic conditions, according to race: United States, 1983-90_____	24	31. Persons under 65 years of age without health care coverage, according to selected characteristics: United States, 1989_____	41
12. Current cigarette smokers among persons 25 years of age and over, according to selected characteristics: United States, 1990_____	24	32. Adults with a usual source of medical care, according to race, sex and poverty status: United States, 1990_____	42
13. Use of seatbelts or car seats among children under 10 years of age, according to age of child and education of responsible adult: United States, 1990_____	25		
14. Overweight adults who are trying to lose weight, according to method of weight loss and sex: United States, 1990_____	26		
15. Birth rates for women 15-17 years of age, according to live birth order and race of mother: United States, 1989_____	27		
16. Death rates for heart disease, according to race and sex: United States, 1989_____	28		
17. Death rates for stroke, according to race and sex: United States, 1989_____	29		
18. Death rates for cancer, according to race and sex: United States, 1989_____	29		
19. Death rates for motor vehicle crashes, according to race and sex: United States, 1989_____	30		
20. Death rates for homicide and legal intervention, according to race and sex: United States, 1989_____	31		



# Introduction

---

## Background

By the late 1970's, lifestyle and environmental factors had gained national recognition for their role in the promotion of health and the prevention of disease. The landmark 1979 publication, *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention* (1), provided the foundation for the first national health promotion and disease prevention initiative. Five broad national goals were set, one for each of the five major stages of life; premature mortality and morbidity were highlighted. To plan a course of action for the Nation, *Promoting Health/Preventing Disease: Objectives for the Nation* (2), produced in 1980, identified 15 priority areas to target efforts by a wide range of public and private groups, as well as individuals.

In September 1990, Department of Health and Human Services Secretary, Dr. Louis Sullivan, unveiled a second national prevention initiative when he released *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* (3).

The Year 2000 initiative builds on not only the lessons learned from progress made toward the 1990 objectives, but also the decade's scientific research on health promotion and disease prevention. *Healthy People 2000* aims to significantly improve the Nation's health over the next 10 years through a comprehensive approach to three broad goals: 1) to increase the span of healthy life of Americans, 2) to reduce health disparities among Americans, and 3) to achieve access to preventive services for all Americans. *Healthy People 2000* also sets forth 300 specific and measurable objectives which, when accomplished by the year 2000, should lead to the achievement of these goals.

During the 3 years of its formulation, more than 10,000 people commented on *Healthy People 2000*, including national, State, and local agencies and communities, private and voluntary groups, consumers, and other individuals. This broad-based input was obtained through 8 regional hearings and testimonies from over 750 individuals and organizations that were assembled since work on *Healthy People 2000* began in 1987.

Implicit throughout the *Healthy People 2000* initiative is the principle that long life without good health is not enough. The prevention of disability, as well as the prevention of further impairment or morbidity for those people with disabilities, is an important aim. The *Healthy People 2000* initiative emphasizes the full range of functional capacity from infancy through old age, including measures of health outcomes.

Substantial health improvements are needed for populations who have been disadvantaged economically and educationally. This new initiative includes special targets for reducing the disparities in death, disease, and disability rates of these groups as compared to the majority population. The specific groups targeted are racial and ethnic minority populations, people with low income, and people with disabilities.



The *Healthy People 2000* initiative also recognizes that many Americans lack access to an ongoing source of primary care and therefore to essential clinical preventive services. The initiative addresses the many barriers to access to health care. These barriers include inadequate health insurance, low numbers of primary care providers, geographic barriers (for example, distance in rural areas), language and cultural barriers, restrictive hours of service availability, inadequate child care options, and lack of transportation. Even when people have access to primary care, they may not be offered clinical preventive services at recommended intervals; thus, many individuals do not receive all of the services that would benefit them. This initiative emphasizes the need for access to preventive services as an important factor in achieving many of the objectives of *Healthy People 2000*.

All of the 300 objectives for the year 2000 are designed to have quantifiable and realistic targets. The objectives are organized into 22 separate priority areas. The first 21 priority areas focus on health promotion activities related to individual lifestyle, health protection strategies related to environmental or regulatory measures, and preventive services such as counseling, screening, and immunization. Priority area 22, "Surveillance and Data Systems," addresses the critical need for data to monitor progress toward the objectives at the national, State, and local levels, as well as to enhance the public health data systems.

#### **Health Promotion**

1. Physical activity and fitness
2. Nutrition
3. Tobacco
4. Alcohol and other drugs
5. Family planning
6. Mental health and mental disorders
7. Violent and abusive behavior
8. Educational and community-based programs

#### **Health Protection**

9. Unintentional injuries
10. Occupational safety and health
11. Environmental health
12. Food and drug safety
13. Oral health

#### **Preventive Services**

14. Maternal and infant health
15. Heart disease and stroke
16. Cancer
17. Diabetes and chronic disabling conditions
18. HIV infection
19. Sexually transmitted diseases
20. Immunization and infectious diseases
21. Clinical preventive services

#### **Surveillance and Data Systems**

22. Surveillance and data systems



The 1991 *Prevention Profile*, fifth in a series of profiles, was prepared in response to legislation enacted in 1978 (Public Law 95-626) that called for the triennial preparation of a national disease prevention data profile. The first four profiles have appeared with *Health, United States, 1980; 1983; 1986; and 1989*. With the exception of the first profile, each profile has provided both baseline data and data for subsequent time periods for a substantial number of the 1990 objectives in *Promoting Health/Preventing Disease: Objectives for the Nation*. Thus, these profiles have measured and documented the cumulative effects of the strategies to alleviate or avoid the problems that were faced in moving toward the five *Healthy People* health promotion and disease prevention goals.

This report will highlight the goals for the year 2000, as well as the endpoint status of the 1990 objectives. Beginning with the 1992 profile, the year 2000 objectives will be tracked annually.

## **Organization and Scope of This Profile**

This profile is divided into three major sections—(1) a section of figures and text bridging the two initiatives by addressing both the 1990 and the year 2000 goals, (2) a section monitoring the 1990 objectives with final status tables and notes, and (3) a 3-part section of summary and information tables.

The first section of figures and accompanying text highlights the final outcome of the progress toward the five broad 1990 goals set for the five major life stages (see also detailed table 48). This section also serves as a transition to the year 2000 objectives by providing data related to the three overall goals of *Healthy People 2000*. Subsequent *Prevention Profiles* will focus entirely on the year 2000 goals and objectives.

Following the figures, the final status of each of the components of the fifteen subject areas identified in *Objectives for the Nation* is presented. A statement of each 1990 objective is followed either by tables displaying data for the baseline and subsequent years where tracking data were available, or by notes providing additional data or information where tracking data were not available. Sources for tracking data appear with the tables and notes. Provisional vital statistics data have been presented where necessary. The limitations of these data are detailed in the introduction to the section.

The summary and information tables show (1) a summary of the final status of the 1990 objectives, (2) a list of the similarities between the 1990 objectives and the 2000 objectives, and (3) the data points used in the construction of the figures.

## **References**

1. U.S. Department of Health, Education, and Welfare. *Healthy people: The surgeon general's report on health promotion and disease prevention*. Washington: Public Health Service. 1979.



2. U.S. Department of Health and Human Services. Promoting health/preventing disease: Objectives for the Nation. Washington: Public Health Service. 1984.

3. U.S. Department of Health and Human Services. Healthy people 2000: National health promotion and disease prevention objectives. Washington: Public Health Service. 1991.



## 1990 Goals

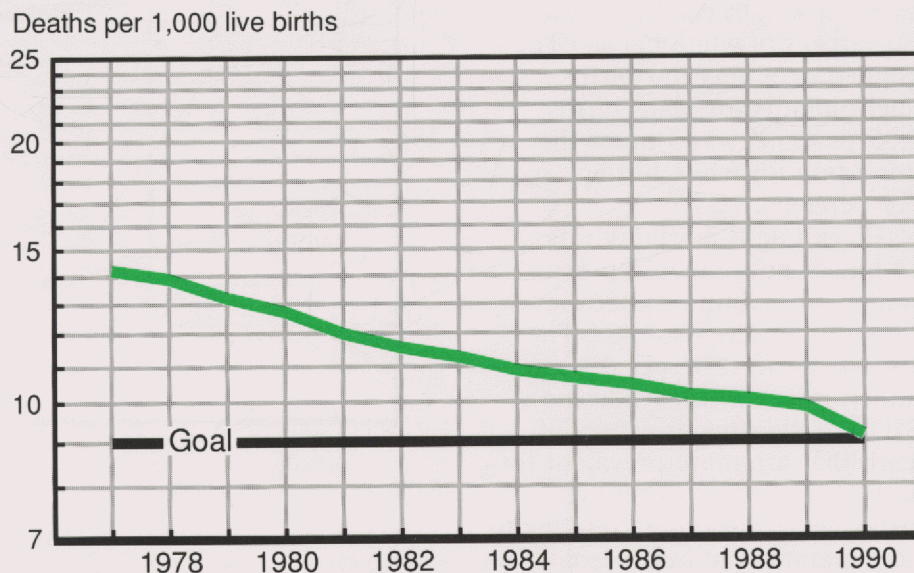
The 1979 Surgeon General's Report on Health Promotion and Disease Prevention, *Healthy People*, targeted five broad national goals for 1990, one for each of the five major stages of life. Specific objectives were developed to achieve these goals, and are presented in a later section of this profile. The goals, which concentrated on premature mortality and morbidity, were:

1. To continue to improve infant health, and, by 1990, to reduce infant mortality by at least 35 percent, to fewer than 9 deaths per 1,000 live births.
2. To improve child health, foster optimal childhood development, and, by 1990, reduce deaths among children ages 1 to 14 years by at least 20 percent, to fewer than 34 per 100,000.
3. To improve the health and health habits of adolescents and young adults, and, by 1990, to reduce deaths among people ages 15 to 24 years by at least 20 percent, to fewer than 93 per 100,000.
4. To improve the health of adults, and, by 1990, to reduce deaths among people ages 25 years to 64 by at least 25 percent, to fewer than 400 per 100,000.
5. To improve the health and quality of life for older adults, and, by 1990, to reduce the average annual number of days of restricted activity due to acute and chronic conditions by 20 percent, to fewer than 30 days per year for people aged 65 years and over.

### Infants (Under 1 year of age)

The infant mortality rate has steadily declined during the 20th century. Between 1950 and 1989, the mortality rate for U.S. infants dropped from 29.2 per 1,000 live

**Figure 1. Infant mortality rates: United States, 1977–90 and 1990 goal**



NOTE: 1990 data are provisional. Related detailed tables are 18–23, 25, and 48.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

births to 9.8 per 1,000 births (detailed table 18). Provisional data for 1990 estimate the infant mortality rate to be 9.1—very close to the 1990 goal of 9.0 deaths per 1,000 live births (figure 1 and detailed table 48). However, the U.S. infant mortality rate continues to compare poorly with that of other industrialized nations. The United States ranked 23rd among industrialized countries in 1988 (detailed table 25).

The overall infant mortality rate masks the significant discrepancy between mortality of white babies and that of black babies (figure 2). Black babies are twice as likely as white babies to die before their first birthday. In 1977, the white infant mortality rate was 12.2 per 1,000 live births; in 1989 the rate was 8.1. The comparable rates for black infants were 24.4 and 18.6. From 1977 to 1989, the ratio of black to white infant mortality increased,

reflecting a more rapid average annual decline for white babies (3.4 percent) than for black babies (2.2 percent). Overall, the infant mortality rates for white and for black infants declined 34 percent and 24 percent, respectively, between 1977 and 1989.

The five leading causes of infant death in 1989 were (1) congenital anomalies, (2) sudden infant death syndrome, (3) disorders relating to short gestation and unspecified low birth weight, (4) respiratory distress syndrome, and (5) newborn affected by maternal complications of pregnancy. Low birth weight (less than 2,500 grams or 5 pounds, 8 ounces) occurs in about 7 percent of all live births and is the greatest single hazard to infant health (detailed tables 7 and 20). Of all infants who die, about 60 percent are of low birth weight; of these, about 40 percent are of very low



birth weight (weighing less than 1,500 grams at birth).

Black babies are more than twice as likely as white babies to be born weighing less than 2,500 grams. In 1989, 13.5 percent of black babies (live births) were of low birth weight compared with 5.7 percent of white babies. The proportion of very low-birth-weight infants for black births (2.95 percent) was 3 times the proportion for white births (.95 percent).

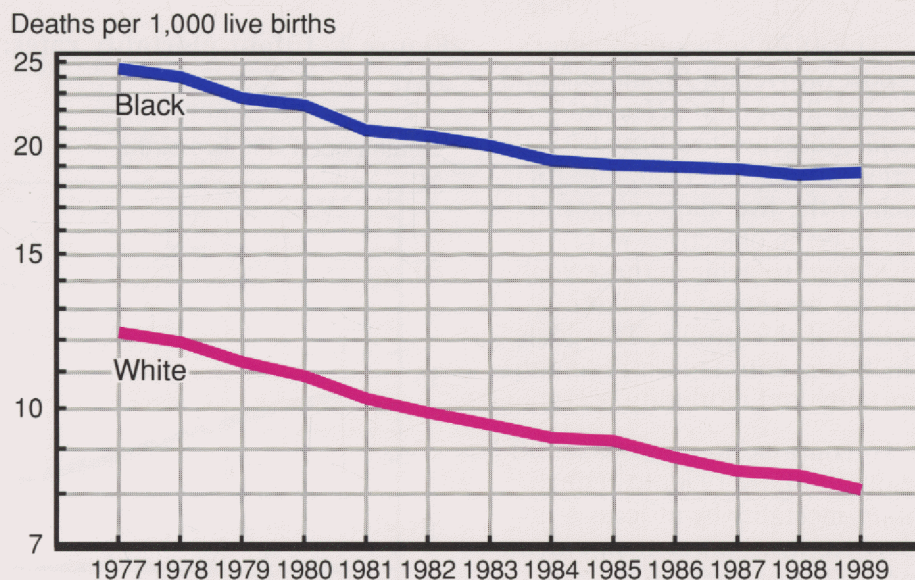
Black infant mortality rates are higher not only in the first month of life, but also between 1 month and 1 year of age. The major killer in this period is sudden infant death syndrome (SIDS). Other major causes of death that are more prevalent for black infants than for all live births include disorders relating to short gestation and unspecified low birth weight, respiratory distress syndrome, infections, and injuries.

Some of the maternal factors associated with low birth weight and other major causes of infant death and disability are lack of prenatal care, smoking, alcohol and drug use, age, and socioeconomic background. These issues are addressed in *Healthy People 2000*. The Year 2000 target is to reduce the infant mortality rate to no more than 7 per 1,000 live births. Related objectives address smoking, alcohol and drug use by expectant mothers, and age-related preconception counseling.

### Children (1–14 years of age)

The 1990 goal of limiting death among children aged 1–14 years to 34.0 deaths per 100,000 population has been reached and surpassed since 1985. In 1977, the death rate for children 1–14 years of age was 42.3 per 100,000; in 1989, it was 32.4, with a provisional estimate of 30.1 deaths per 100,000 in 1990 (figure 3). As

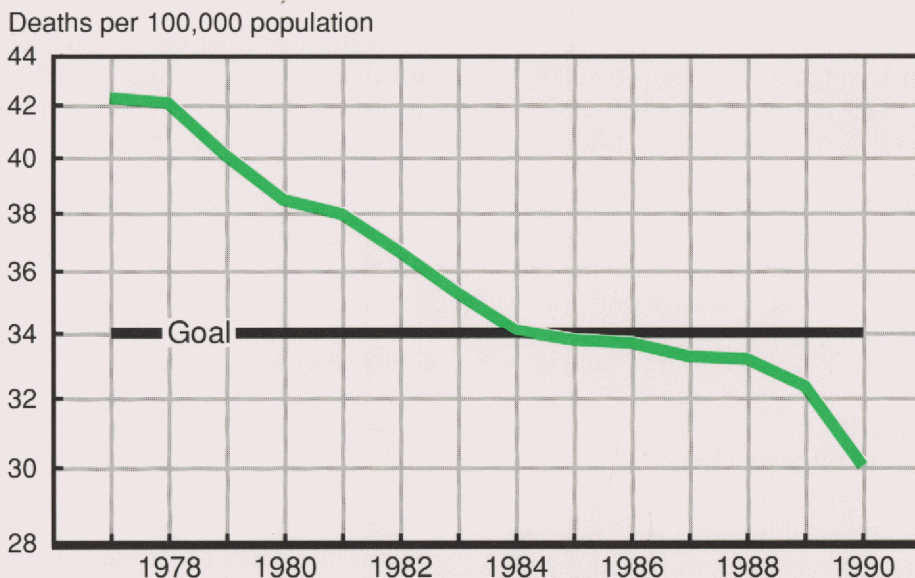
**Figure 2. Infant mortality rates, according to race of mother: United States, 1977–89**



NOTE: Related detailed tables are 18–23.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

**Figure 3. Death rates for children 1–14 years of age: United States, 1977–90 and 1990 goal**



NOTE: 1990 data are provisional. Related detailed tables are 27–29, 33–35, 39–42, 45, 47, and 48.

SOURCE: National Center for Health Statistics, National Vital Statistics System.



in the past, the leading cause of death for children is unintentional injuries, including deaths from motor vehicle crashes, drowning, fire and flames, and suffocation. Nearly half of all childhood deaths are from unintentional injuries; just less than half of these are from motor vehicle crashes, although this proportion has decreased from about 47 percent in 1978 to 42 percent in 1989. Declines in childhood deaths from motor vehicle crashes are due in part to increasing use of child safety seats and safer automobile design.

In 1989, among young children (aged 1–4 years), 18.7 per 100,000 population died from unintentional injuries; among these deaths, 6.8 per 100,000 were from motor vehicle crashes (detailed table 39). The second leading cause of death, congenital anomalies, caused 6.3 deaths per 100,000; the third leading cause of death was cancer, killing 3.4 children per 100,000 population (detailed table 35).

In 1989, among children aged 5–14 years, 11.6 per 100,000 died from unintentional injuries, of which 6.4 deaths per 100,000 were caused by motor vehicle accidents (detailed table 39). Cancer was the second leading cause of death in this age group, with 3.3 deaths per 100,000 (detailed table 35). Childhood homicides have been increasing. Homicide was the third leading cause of death in this age group in 1989, surpassing congenital anomalies as a cause of death. Homicide caused 1.5 deaths per 100,000 (detailed table 40), and congenital anomalies caused 1.4 deaths per 100,000.

The *Healthy People 2000* age-related objective for children aged 1–14 years is to reduce the death rate to no more than 28 per 100,000 population.



## Adolescents and Young Adults (15–24 years of age)

In 1977, the death rate for adolescents and young adults aged 15–24 years was 114.8 per 100,000 population. In 1981, the rate began to decline rapidly, and between 1983 and 1985, the death rate approached the 1990 goal of 93.0 deaths per 100,000 in this age group. However, the rate has leveled off and slowly increased to 99.9 in 1989, with a provisional estimate of 104.1 in 1990 (figure 4 and detailed table 48).

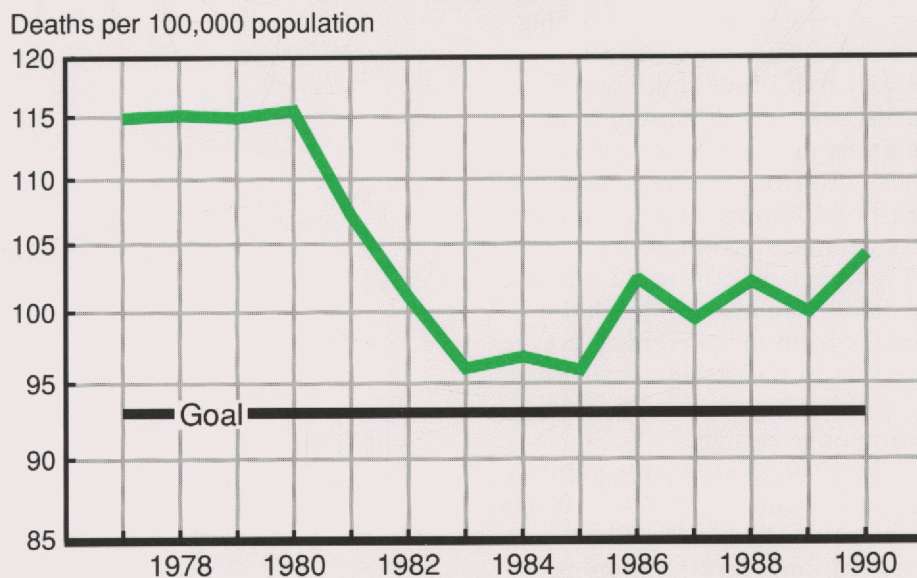
The leading cause of death in this age group was unintentional injuries, accounting for about one-half of all deaths (45.8 per 100,000); three-quarters of these deaths involved motor vehicles (35.4 deaths per 100,000 in 1989, detailed table 39). Homicide and suicide were the second and third leading causes of death to adolescents and young adults (16.9 and 13.3 per 100,000 in 1989, detailed tables 40 and 41).

The *Healthy People 2000* age-related objective is to reduce the death rate for adolescents and young adults to no more than 85 per 100,000 people aged 15–24 years.

## Adults (25–64 years of age)

In 1977, the death rate for adults 25–64 years of age was 532.9 per 100,000 population; by 1989, it had declined 30 percent to 409.8 (figure 5 and detailed table 48). Provisional data show the estimated death rate in this age group to be 400.4 in 1990, essentially reaching the 1990 goal of 400 per 100,000 population. Changes in personal lifestyle account for much of the decline in mortality. Since 1970, behaviorally related changes such as reduced rates of cigarette smoking, lower mean blood cholesterol, and increased control

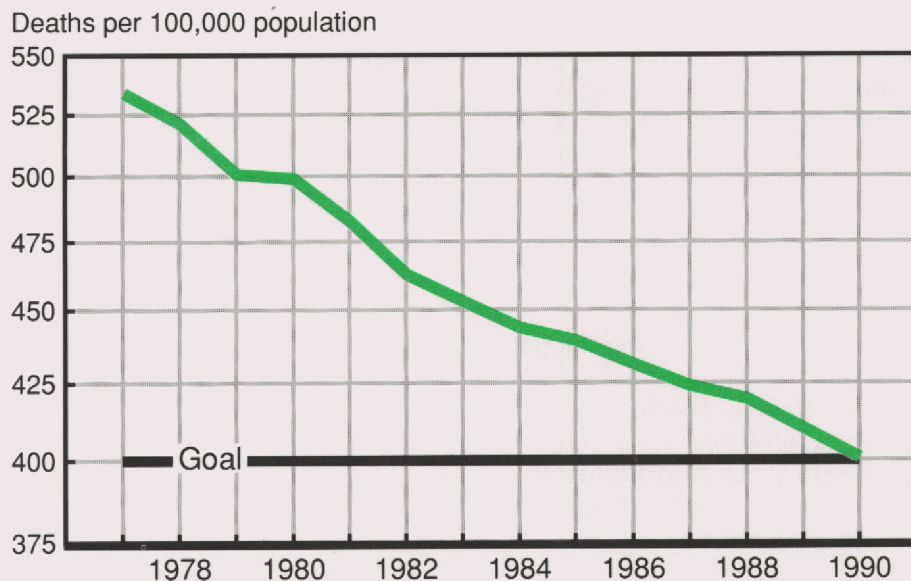
**Figure 4. Death rates for adolescents and young adults 15–24 years of age: United States, 1977–90 and 1990 goal**



NOTE: 1990 data are provisional. Related detailed tables are 39–42, 45, 47, and 48.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

**Figure 5. Death rates for adults 25–64 years of age: United States, 1977–90 and 1990 goal**



NOTE: 1990 data are provisional. Related detailed tables are 27–29, 33–37, 39–42, 45, 47, and 48.

SOURCE: National Center for Health Statistics, National Vital Statistics System.



of high blood pressure have contributed to substantial declines in mortality from heart disease and stroke. In the same period, mortality from motor vehicle crashes also declined substantially. Lower rates of alcohol use, increased seat belt use, and changes in speed limits have contributed to this reduction.

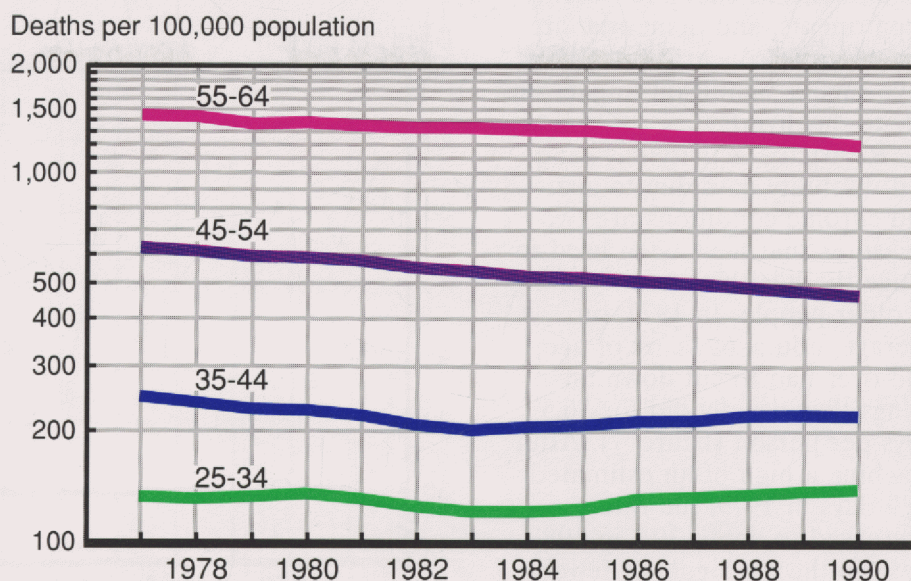
In 1978, the leading cause of death for adults 25–64 years of age was heart disease. Since 1983, however, cancer has ranked number one for this age group. This shift represents not so much a change in the death rates for cancer, but more notably a decline in the death rates for heart disease—particularly among persons 55–64 years of age (figure 6) among whom the rate dropped 41 percent (from 530.8 per 100,000 population in 1978 to 376.7 in 1989). In contrast, the death rate for cancer among persons 55–64 years of age was slightly higher in 1989 than in 1978 (445.1 compared with 440.5).

The five leading causes of death for persons aged 25–44 years in 1989 were unintentional injuries (35.4 deaths per 100,000 population), among which motor vehicle crashes accounted for 20.6 deaths per 100,000; cancer (26.2 per 100,000); HIV infections (20.3); heart disease (19.0); and suicide (14.8). As of 1989, deaths from HIV infection surpassed heart disease to become the third leading cause of death in this age group.

The five leading causes of death for persons aged 45–64 years in 1989 were cancer (290.9 deaths per 100,000); heart disease (241.5); stroke (32.5); unintentional injuries (32.4); and chronic obstructive pulmonary diseases and allied conditions (28.0 deaths per 100,000).

The *Healthy People 2000* age-related objective for adults aged 25–64 years is to reduce the death rate to no more than 340 per 100,000 population.

**Figure 6. Death rates for adults 25–64 years of age, according to age: United States, 1977–90**



NOTE: 1990 data are provisional. Related detailed tables are 27–29, 33–37, 39–42, 45, 47, and 48.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

### Elderly (65 years of age and over)

This century has seen a profound change in the proportion of the US population aged 65 and over. In 1900, people over 65 years of age constituted 4 percent of the population. By 1988, that proportion was up to 12.4 percent; by 2000 it will be 13 percent and by 2030, 22 percent (1).

People who reach the age of 65 can expect to live into their eighties. In 1978, people who

reached age 65 years could expect to live another 16.3 years. By 1989, life expectancy at age 65 years had increased to 17.2, for a total of 82.2 years (detailed table 17). However, it is likely that not all those years will be active and independent ones. Thus, improving functional independence in later life is an important element in promoting the health of older adults.

Heart disease, cancer, stroke, chronic obstructive pulmonary disease, and pneumonia and influenza are the major causes of death in people over 65 years of



age. Chronic problems, such as arthritis, osteoporosis, incontinence, visual and hearing impairments, and dementia, are also of great concern, since they have such a significant impact on day-to-day living.

Restricted-activity days and bed-disability days due to acute and chronic conditions are two measures that have been used to gauge the health and functioning of older people. In 1977, on average, adults 65 years of age and over had to cut down on things they usually did for 36.5 days per person (figure 7). After reaching a high of an estimated 41.9 days in 1979, the rate decreased to about 30.3 in 1987, close to the 1990 goal of fewer than 30 restricted-activity days per year (detailed table 48). In more recent years, however, the number of days of restricted activity spent by older adults has hovered around 31 to 32; in 1990, older people reported experiencing about 31.4 days of restricted activity per year. Because of difficulties in interpreting the meaning of restricted-activity days, the average annual number of bed-disability days per person is also tracked.

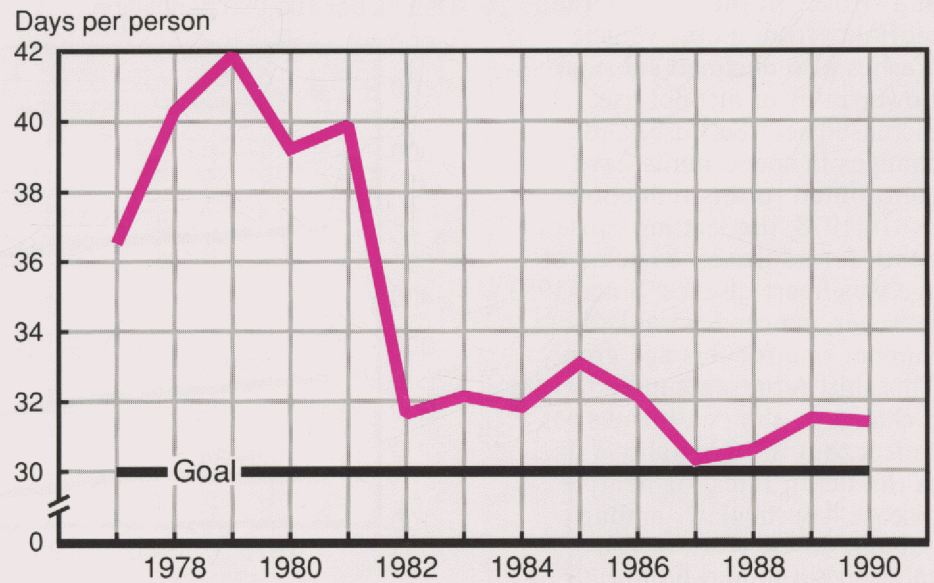
In 1977, adults aged 65 years and over spent about 14.5 days in bed due to acute and chronic conditions. In 1990, the number of days was approximately 13.6 (figure 8). Since 1977, the number of bed-disability days spent by older adults has varied between 14 and 17 days (detailed table 48).

The *Healthy People 2000* age-related objective for older adults is to reduce the proportion of people aged 65 years and over who have difficulty performing 2 or more personal care activities to 90 per 100,000 population.

## Reference

1. Institute of Medicine. *The second fifty years: Promoting health and preventing disability*. Washington, DC: National Academy Press, 1990.

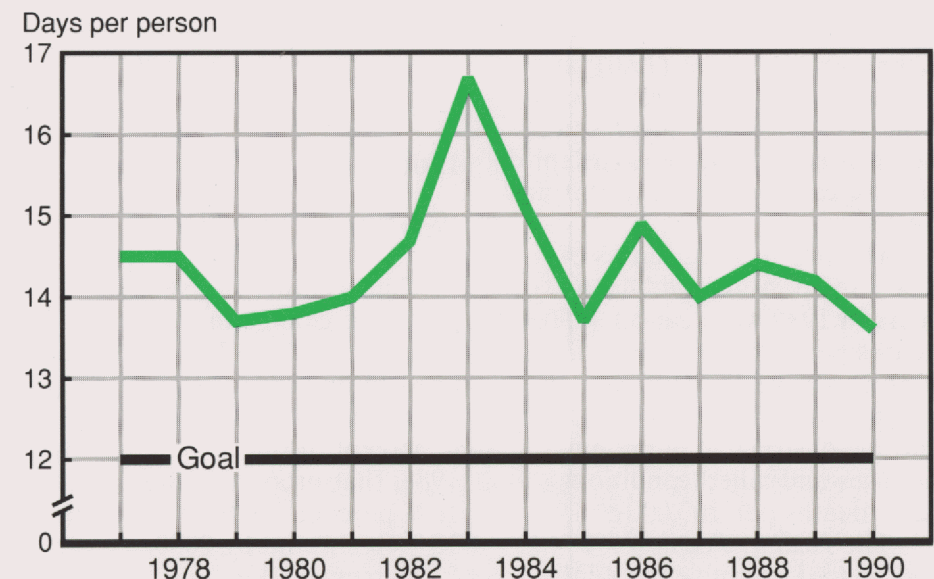
**Figure 7. Restricted-activity days for persons 65 years of age and over: United States, 1977-90 and 1990 goal**



NOTE: Data are for the civilian noninstitutionalized population. Levels of estimates for 1982-90 may not be comparable to estimates for previous years because the 1982-90 data are based on a revised questionnaire and field procedures. Related detailed tables are 48 and 60.

SOURCE: National Center for Health Statistics, National Health Interview Survey.

**Figure 8. Bed-disability days for persons 65 years of age and over: United States, 1977-90 and 1990 goal**



NOTE: Data are for the civilian, noninstitutionalized population. Levels of estimates for 1982-90 may not be comparable to estimates for previous years because the 1982-90 data are based on a revised questionnaire and field procedures. Related detailed tables are 48 and 60.

SOURCE: National Center for Health Statistics, National Health Interview Survey.



## **Year 2000 Goals**

---

The Year 2000 initiative aims to significantly improve the Nation's health in the next decade. The initiative is organized into three broad goals. The first goal, to increase the span of healthy life of Americans, reflects the essential elements of health promotion and disease prevention, including prevention of premature death, disability, and disease, and enhancement of the quality of life. The second goal, to reduce health disparities among Americans, targets disparities in death, disease, and disability rates between racial and ethnic populations, people with different income levels, and disabled people when compared with the total population. The third goal, to achieve access to preventive services for all Americans, addresses the barriers to primary health care and clinical preventive services.

### **Increase the Span of Healthy Life for Americans**

A central purpose of *Healthy People 2000* is to increase the number of Americans who live long and healthy lives. If the toll from premature death, disability, and disease can be lessened, then we can begin to realize the first goal of the Year 2000 initiative.

In the figures to follow, a number of subjects relevant to this first goal are highlighted. Americans are living longer; the average life expectancy at birth has increased to 75 years in 1989. Increasing the span of healthy life thus becomes more important as the population ages. People can accurately describe their own health status, and these descriptions are associated with other measures of health status and use of health-care services. A



major indicator of dysfunction is the inability to carry on one's major activity due to chronic conditions. Personal behaviors such as smoking, seat belt use, and weight control can affect health and longevity.

### Life Expectancy at Birth

The average life expectancy at birth has increased by 28 years since the beginning of the 20th century. Much of the early progress resulted from medical science and public health's conquering of life-threatening infectious diseases. Life-style issues have become more relevant as the population has aged. The leading causes of death have been heart disease, cancer, and stroke for about the past 50 years, and in the past 25 years these chronic diseases have been found to be responsive to prevention strategies.

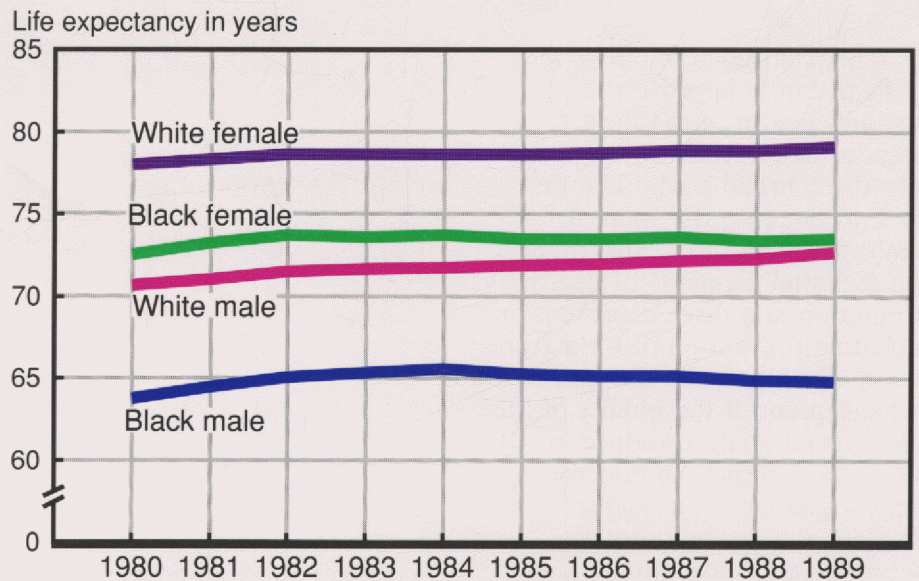
■ The average life expectancy at birth increased among all four major sex-race groups during the decade of the 80's (figure 9). However, the expected life span increased less for blacks than for whites, and has actually decreased for black American male babies born after 1984.

■ Life expectancy for blacks has remained behind that for the total population throughout this century. Since the mid-1980's the gap has widened, with the life expectancy rising to 75.3 years for the overall population while falling slightly for blacks, from a high of 69.7 years in 1984 to 69.2 in 1989.

### Self-Assessed Health Status

Self-assessed health status (figure 10 and detailed table 61) correlates with an individual's actual health status and with utilization of health-care services (1); it is also a predictor of mortality among the elderly (2). People who are black, who live in poverty, or have little education, are far more likely to describe

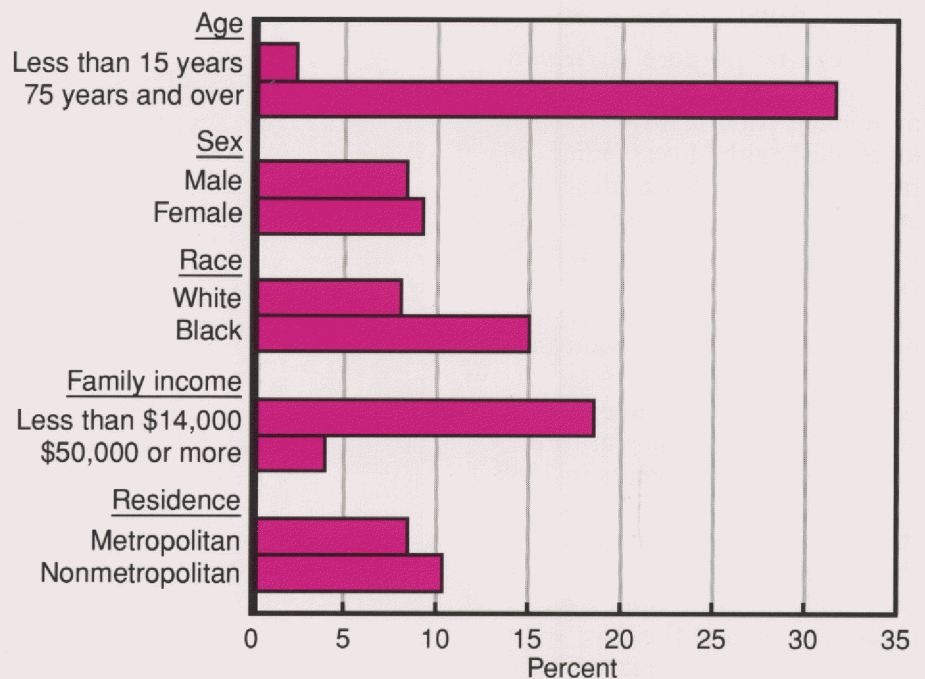
**Figure 9. Life expectancy at birth, according to race and sex: United States, 1980-89**



NOTE: Related detailed tables are 17 and 26.

SOURCE: National Center for Health Statistics, National Health Interview Survey.

**Figure 10. Fair or poor self-assessed health status, according to selected characteristics: United States, 1990**



NOTE: Percents are age adjusted. A related detailed table is 61.

SOURCE: National Center for Health Statistics, National Health Interview Survey.



their health as fair or poor than people who are white, do not live in poverty, or have more education (3).

■ Among persons aged 75 years and over in 1990, about 32 percent assessed their health to be fair or poor; about 2 percent of those aged under 15 years had their health status assessed as fair or poor.

■ Among males, about 8 percent considered themselves to be in fair or poor health compared with about 9 percent of females.

■ Black Americans were almost twice as likely to assess their health as fair or poor compared with white Americans (about 15 and 8 percent, respectively).

■ In 1990, people with annual family incomes of less than \$14,000 were about four and one-half times as likely to assess their health as fair or poor than people with incomes of \$50,000 or more (about 19 percent compared with 4 percent).

■ In 1990, about 10 percent of Americans living in nonmetropolitan areas reported their health to be fair or poor compared with about 9 percent of people living in metropolitan areas.

### **Unable to Carry on Major Activity**

Activity limitations are most common among older people, poor people, and less educated Americans. The major causes of activity limitation vary with age. People under age 18 years are most likely to have disabilities associated with mental impairment, asthma, mental illness, deafness and other ear disorders, and speech impairments. Among young adults, orthopedic impairments, such as spinal curvature and other back impairments, are most common, while at older ages degenerative diseases, led by arthritis and heart disease, predominate (4).



■ From 1983 to 1990, the percent of Americans unable to carry on their major activity remained stable, in the 4-percent range (figure 11 and detailed table 59).

■ During the past 8 years, the percent of black Americans unable to carry on their major activity remained approximately 80 to 90 percent higher than that of white Americans.

### Current Cigarette Smokers

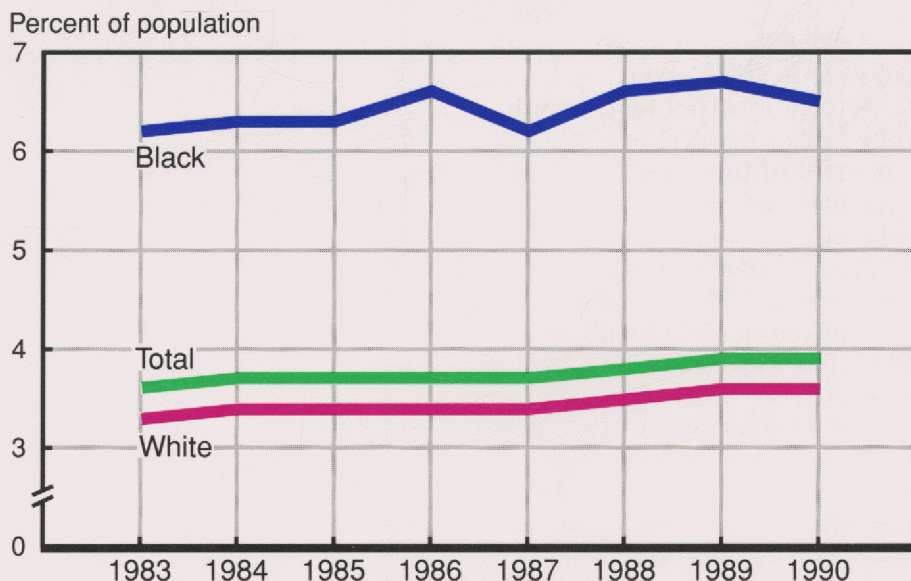
Cigarette smoking (figure 12) has been identified as the largest risk factor for mortality in the United States. Over 400,000 lives are lost each year from smoking, primarily from lung cancer, cardiovascular disease, and chronic obstructive lung disease. The adverse effects of cigarette smoking on pregnancy and infant health are also well documented.

*Healthy People 2000* objectives include reducing the prevalence of cigarette smoking to no more than 15 percent among people aged 20 years and over (objective 3.4). Among the special target populations are people aged 20 years and over with an education of 12 years or less (reduction to 20 percent), blacks aged 20 years and over (to 18 percent), Hispanics aged 20 years and over (to 18 percent), women of reproductive age (to 12 percent), and pregnant women (to 10 percent).

■ A total of about 26 percent of the American population 25 years of age and over smoked in 1990. Among men, about 28 percent smoked; among women, the percentage was about 23.

■ Current smoking is inversely related to educational attainment. Among men who did not finish high school, about 42 percent currently smoked in 1990 (no difference by race); among women who did not finish high school, 32 percent currently smoked in 1990. In comparison, among men and women who graduated from

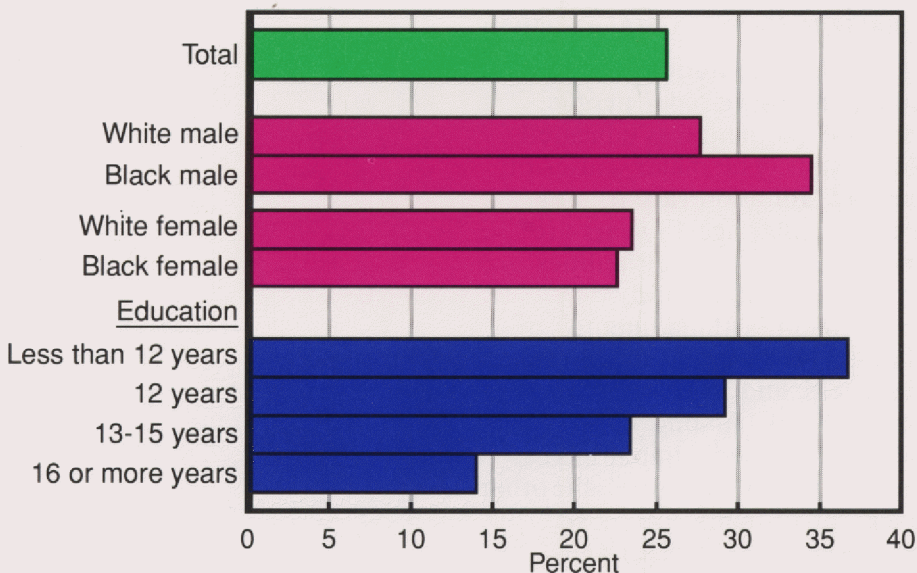
**Figure 11. Persons unable to carry on major activity because of chronic conditions, according to race: United States, 1983–90**



NOTE: Percents are age adjusted. A related detailed table is 59.

SOURCE: National Center for Health Statistics, National Health Interview Survey.

**Figure 12. Current cigarette smokers among persons 25 years of age and over, according to selected characteristics: United States, 1990**



NOTE: Percents are age adjusted. Related detailed tables are 62–65.

SOURCE: National Center for Health Statistics, National Health Interview Survey.



college, about 15 percent and 14 percent, respectively, smoked cigarettes in 1990.

■ In 1990, about 35 percent of black men smoked, compared with 28 percent of white men. Among the college-educated, the proportion of black men who smoked was about 40 percent higher than the proportion of white men who smoked (21 percent compared with 15 percent).

■ Among men in the middle years, a larger proportion of black men smoked compared with white men. About 42 percent of black men aged 35–44 years smoked, and about 37 percent of black men aged 45–64 years smoked. Comparable percents among white men were about 34 percent and 29 percent.

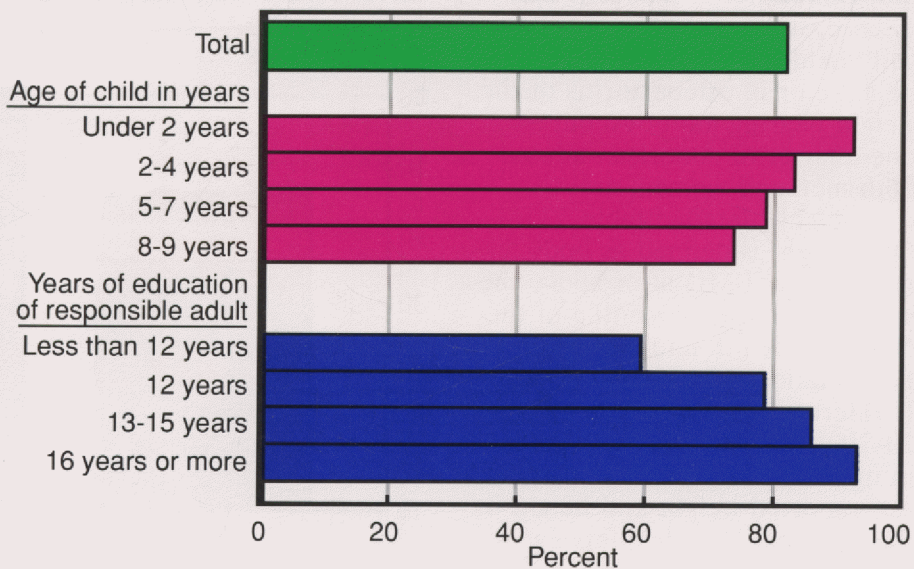
### Use of Seat Belts or Car Seats by Children Under 10 Years of Age

Nearly half of all childhood deaths are due to unintentional injuries; about half of these are from motor vehicle crashes. Increasing use of child safety seats and seat belts contributed to the decline in deaths to children from motor vehicle crashes. While all 50 States now require safety restraints for young children, many States still do not mandate child restraints for children over age 5 years, and some States have no requirement after age 3 or 4 years (4). The National Highway Traffic Safety Administration estimates that in 1990 about 15 percent of automobiles had automatic restraint protection.

*Healthy People 2000* objectives include increasing the percent of children aged 4 years and younger in occupant restraint systems to 95 percent (objective 9.12a).

■ In 1990, about 92 percent of children under age 2 years and about 83 percent of children aged 4 years and under used safety restraints (figure 13).

**Figure 13. Use of seatbelts or car seats among children under 10 years of age, according to age of child and education of responsible adult: United States, 1990**



SOURCE: National Center for Health Statistics, National Health Interview Survey.

■ In 1990, about 82 percent of children under the age of 10 years were reported to wear seat belts or use car safety seats all or most of the time. The percent of children using safety restraints declined with increasing age, however. Among children under 2 years of age, about 92 percent used safety restraints, but among children aged 8 or 9 years only about 74 percent used them.

■ The percent of children under age 10 years who use seat belts or safety seats all or most of the time

increased as the years of education of the adult responsible for the child increased. Among children whose responsible adult had not completed high school, only about 59 percent were reported to use car safety restraints all or most of the time. The percentage was about 79 percent among children whose responsible adult was a high school graduate, and was about 93 percent among children whose responsible adult had a college or higher degree.



## Overweight Adults

Being overweight is associated with high blood pressure, elevated blood cholesterol, diabetes, heart disease, stroke, some cancers, and gall bladder disease. It also may be a factor in osteoarthritis of the weight-bearing joints. About one-quarter of American adults, both men and women, are overweight (detailed table 71). Overweight is defined as body mass index (BMI) at or above the sex-specific 85th percentile of the National Health and Nutrition Examination Survey (NHANES) II reference population aged 20–29 years. The data presented in figure 14 were derived from self-reported weight and height in the National Health Interview Survey. Using self-reported weight and height to determine overweight means that some overweight men and women are likely to be incorrectly categorized as not overweight because of reporting errors.

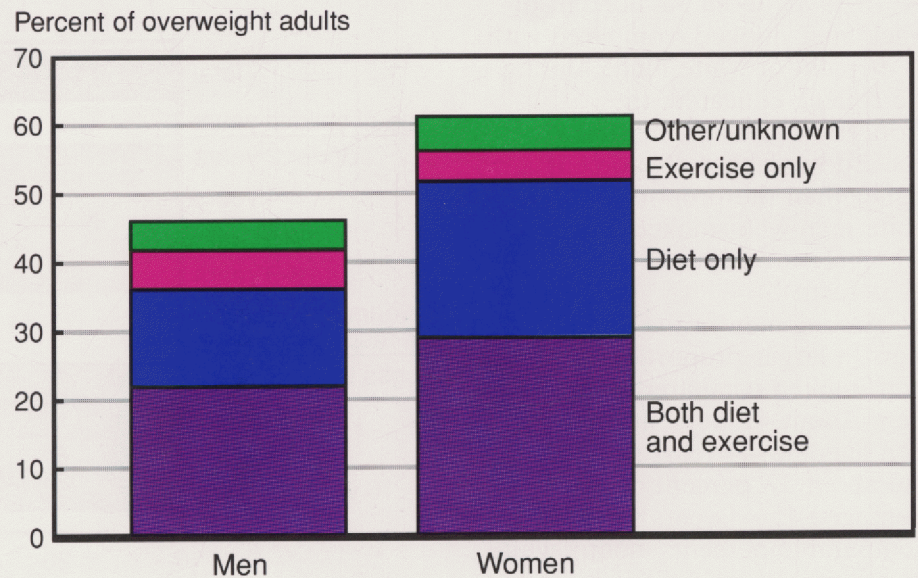
■ Although the percent of men and women who are overweight is about the same (about 26 percent), only about 46 percent of overweight men and 61 percent of overweight women reported trying to lose weight in 1990.

■ Among the overweight men trying to lose weight, about 34 percent were using diet alone and about 14 percent were only exercising to lose weight. Among overweight women trying to lose weight, about 41 percent were using diet only and about 8 percent were using exercise only to lose weight. Among all overweight adults who were trying to lose weight, about half of both men and women were both dieting and exercising (data not shown).

## Reduce Health Disparities Among Americans

Achieving a healthier America depends on significant improvements in the health of

**Figure 14. Overweight adults who are trying to lose weight, according to method of weight loss and sex: United States, 1990**



NOTE: Overweight is defined for men as body mass index greater than or equal to 27.8 kilograms/meter<sup>2</sup> and for women as 27.3 kilograms/meter<sup>2</sup>. Weights and heights were self-reported. A related detailed table is 71.

SOURCE: National Center for Health Statistics, National Health Interview Survey.

population groups that now are at highest risk of premature death, disease, and disability. In most cases and for virtually all health risks, they are members of certain racial and ethnic groups, people with low income, and people with disabilities. Birth rates for adolescent girls, death rates for selected major causes of mortality,

and years of potential life lost before age 65 years are presented in this section, comparing, for the most part, the experiences of white and black Americans. Future Prevention Profiles will extend the scope of these comparisons to other minority population groups.



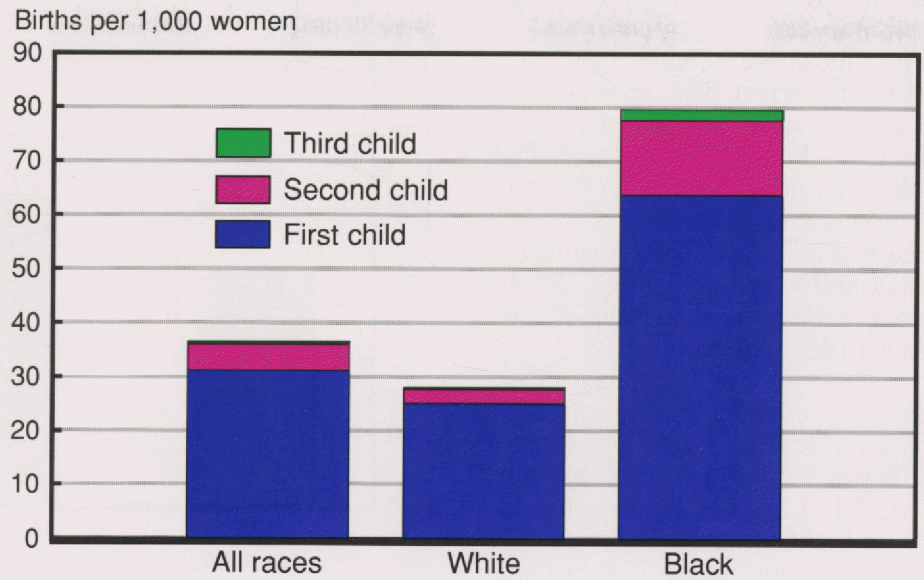
## Birth Rates for Women Ages 15–17 Years

Adolescent childbearing (figure 15) is a major concern for its social and economic consequences as much as for its health effects. There are higher risks of infant mortality and low birth weight, especially for infants born to very young mothers. Other risks indirectly threaten the health of both mother and baby because of the poverty and low educational attainment that often accompany early childbearing. Although data for girls aged 15–17 years are unavailable, of the approximately 1.1 million girls aged 15–19 years who become pregnant each year, an estimated 84 percent did not intend to get pregnant (4). Among black teenagers, rates of childbirth dropped between 1970 and the mid-1980's. However, between 1986 and 1989, the birth rate for black teenagers aged 15–17 years increased by 18 percent, as did the birth rate for white teenagers (detailed table 3).

*Healthy People 2000* objectives include reducing pregnancies among girls aged 17 years and younger to no more than 50 per 1,000 adolescents (objective 5.1). As baseline data for girls aged 15–17 years was unavailable, special population targets include black adolescent girls aged 15–19 years and Hispanic adolescent girls aged 15–19 years, with reductions in pregnancies to no more than 120 and 105 per 1,000 adolescents, respectively. A 35-percent reduction from baseline figures is targeted, should more complete data become available. Data on pregnancies will be presented in future Prevention Profiles.

■ In 1989, the birth rate for teenagers aged 15–17 years was 36.5 live births per 1,000 teenagers. Births among girls in this age group were almost 3 times as likely among black girls as among white girls (80.0

**Figure 15. Birth rates for women 15–17 years of age, according to live birth order and race of mother: United States, 1989**



NOTE: Related detailed tables are 3 and 4.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

compared with 28.3). The birth rate among black girls younger than 15 years of age was 7 times higher than the rate for white girls in 1989 (detailed table 3).

■ In 1989, black girls aged 15–17 years were almost 5 times as likely to have a second baby, and 7 times as likely to have a third

baby as were white girls in the same age group. Among white girls having their second child, the birth rate was 2.9 per 1,000 girls compared with a rate of 13.7 among black girls. Among white girls having their third child, the birth rate was 0.3, compared with a rate of 2.1 among black girls.



## Heart Disease Deaths

Despite a dramatic decline in heart disease mortality in the past two decades, about 7 million Americans are affected by coronary artery disease (4). Despite reductions in major risk factors—high blood pressure, high blood cholesterol, and smoking—heart disease is still the leading cause of death for both men and women. In 1989, 733,867 people died from diseases of the heart (detailed table 31).

*Healthy People 2000* objectives include reducing coronary heart disease deaths to no more than 100 per 100,000 people (objectives 1.1, 2.1, 3.1, and 5.1). Because of their higher rates of heart disease, the black population is a special population targeted to reduce deaths due to coronary heart disease to 115 per 100,000 population. Related objectives target a number of preventive behaviors and services (objectives 15.4–15.17).

■ In 1989 the age-adjusted death rate from diseases of the heart was 155.9 per 100,000 persons (figure 16). Black males were about one-third more likely than white males to die from heart disease, with a death rate of 272.6 per 100,000 persons compared with a death rate of 205.9 for white males.

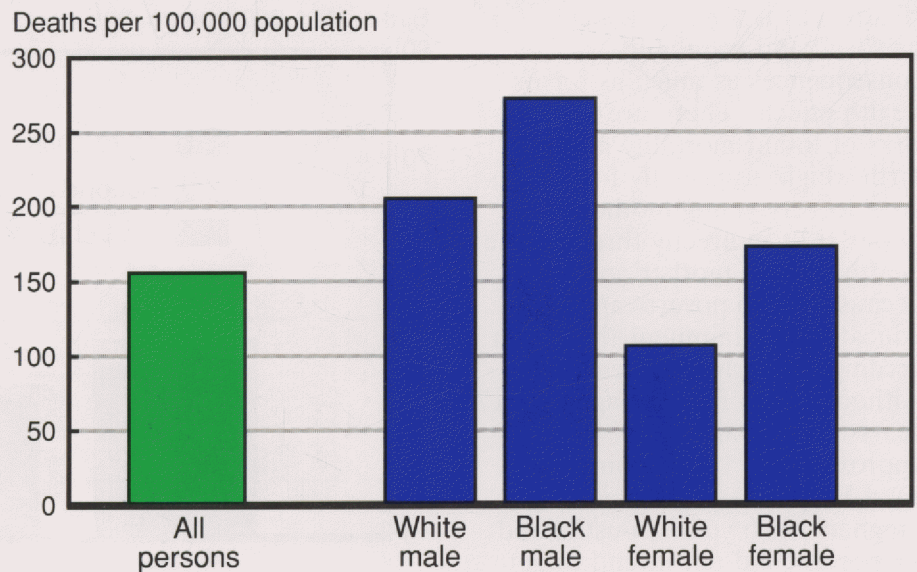
■ Black females were about 60 percent more likely to die from heart disease than white females, with a death rate of 172.9 per 100,000 persons compared with a death rate of 106.6 for white females.

## Stroke Deaths

In 1989, 145,551 Americans died from stroke, an age-adjusted death rate of 28.0 per 100,000 people (detailed table 34).

*Healthy People 2000* objectives include reducing stroke deaths to no more than 20 per 100,000 people. Because of the higher death rates for blacks, the year

**Figure 16. Death rates for heart disease, according to race and sex: United States, 1989**



NOTE: Death rates are age adjusted. Related detailed tables are 29–33, 46, and 47.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

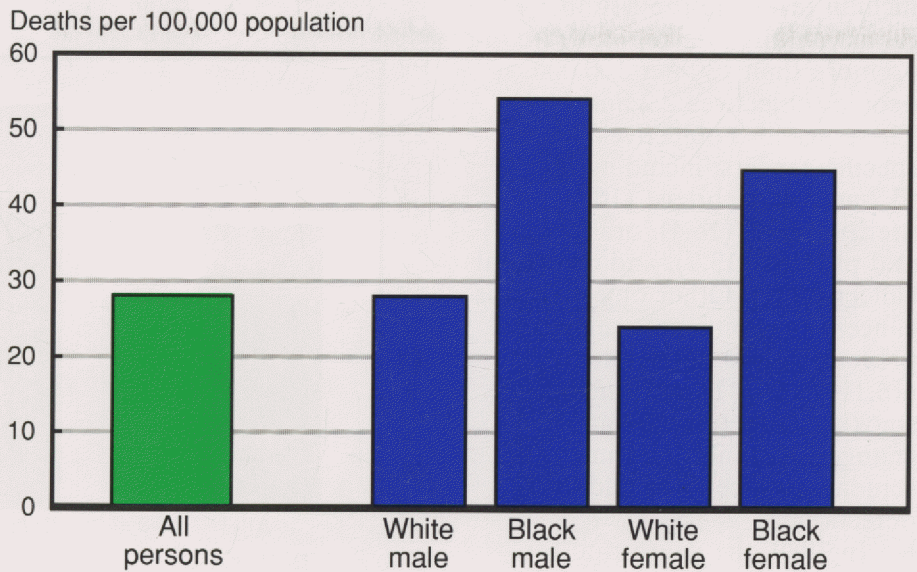


2000 target for this population is 27 deaths per 100,000 people.

■ Black males have the highest rate of stroke among all population groups (figure 17). In 1989, the stroke death rate for black males (54.1 per 100,000 persons) was almost twice as great as the rate for white males (28.0 per 100,000 persons). Black males were about 20 percent more likely to die from stroke than black females.

■ In 1989, black females were about 86 percent more likely to die from stroke than white females, with death rates of 44.9 and 24.1 per 100,000 persons, respectively.

**Figure 17. Death rates for stroke, according to race and sex: United States, 1989**



NOTE: Death rates are age adjusted. Related detailed tables are 30-32, 34, 46, and 47.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

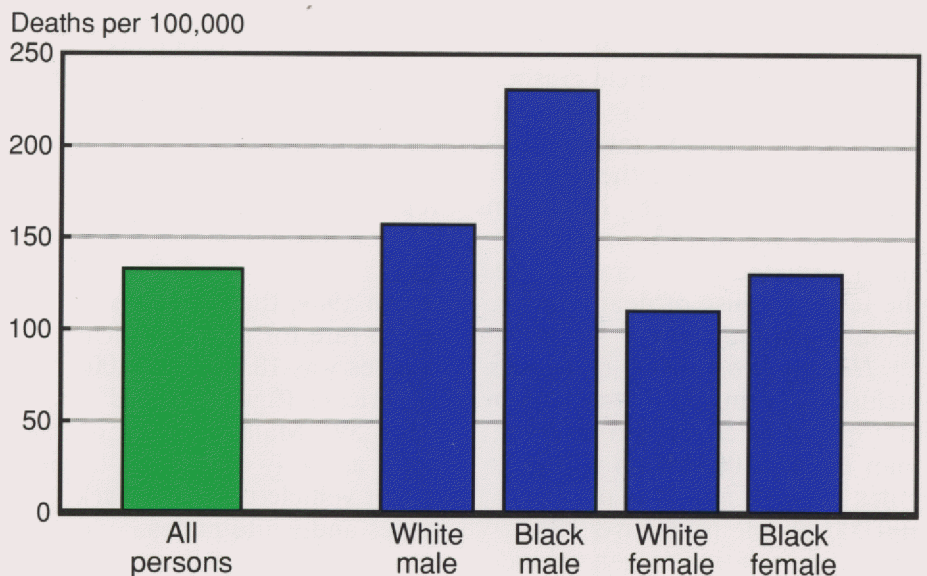
### Cancer Deaths

Cancer accounts for about one of every five deaths in the United States each year. In 1989, 496,152 Americans died from cancer; the age-adjusted death rate per 100,000 people was 133.0 (figure 18 and detailed table 35). Cancer mortality rates overall have changed little since 1950, when the death rate was 125.3 per 100,000 people.

In 1988, black males experienced an 18-percent higher risk of cancer compared with white males, and 41-percent lower 5-year survival rates (detailed tables 57 and 58). Black males had a 48-percent higher age-adjusted incidence of lung cancer, and slightly lower survival rates than did white males. Black males also had a 33-percent higher incidence of prostate cancer, with a 20-percent lower survival rate than that of white males.

Among females, although breast cancer incidence was 17 percent lower for black than for white women, 5-year relative survival rates were 24 percent lower for black than white females. Lung cancer incidence rates were almost identical for black and white females in 1988; however, relative survival rates

**Figure 18. Death rates for cancer, according to race and sex: United States, 1989**



NOTE: Death rates are age adjusted. Related detailed tables are 29-32, 35, 46, and 47.

SOURCE: National Center for Health Statistics, National Vital Statistics System.



were 25 percent lower for black than for white women.

*Healthy People 2000* objectives include reversing the rise in cancer deaths to achieve a rate of no more than 130 per 100,000 people (objectives 2.2 and 16.1). There are also objectives for specific cancers, including lung (3.2 and 16.2), breast (16.3), uterine cervix (16.4), oral cavity and pharynx (13.7), and colorectal cancer (16.1). Other objectives for cancer focus on issues related to prevention and detection (16.11–16.14). Targets include smoking reduction, dietary changes, and increases in screening procedures and early detection.

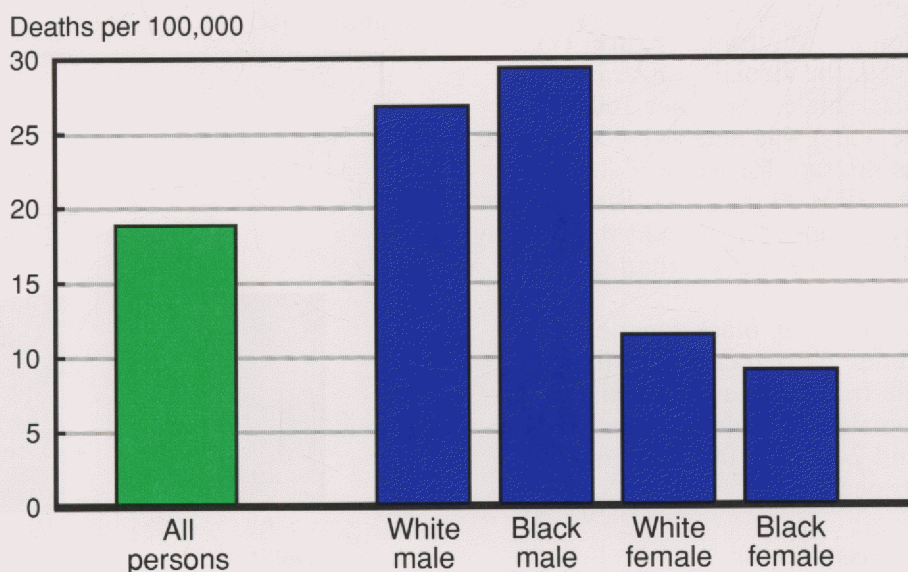
■ In 1989, the death rate for cancer for black males was higher than for any other race-sex group. Their death rate was 230.6 deaths per 100,000 persons, 47 percent higher than that for white males (157.2 deaths per 100,000), 76 percent higher than that for black females (130.9 deaths per 100,000), and more than twice as high as that for white females (110.7 deaths per 100,000).

### Motor Vehicle Crash Deaths

In 1989, 47,575 persons died, and an estimated 5.3 million persons were injured as a result of motor vehicle crashes. By themselves, motor vehicle crashes rank as the sixth leading cause of death in the United States, and approximately half of these are alcohol-related. Among Americans under the age of 25 years, alcohol-related traffic crashes are the leading cause of death and spinal cord injury (4).

*Healthy People 2000* objectives include reducing deaths caused by motor vehicle crashes to no more than 1.9 per 100 million vehicle miles traveled and 16.8 per 100,000 people (objective 9.3). Special population targets include children aged 14 years and younger (5.5 deaths per 100,000), youth aged 15–24 years (33 per

**Figure 19. Death rates for motor vehicle crashes, according to race and sex: United States, 1989**



NOTE: Death rates are age adjusted. Related detailed tables are 30, 32, 39, and 46.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

100,000), people aged 70 years and over (20 per 100,000), and American Indians/Alaskan Natives (39.2 per 100,000). Type-specific targets include motorcyclists and pedestrians. Additional objectives address reduction of nonfatal head and spinal cord injuries and related secondary disabilities (objectives 9.9–9.11), and increased use of occupant protection systems and helmets (9.12). The year 2000 objectives also call for a reduction in deaths caused by alcohol-related motor vehicle crashes to no more than 8.5 per 100,000 people (objective 4.1).

■ In 1989, the age-adjusted death rate for motor vehicle crashes was 18.9 per 100,000 Americans (figure 19 and detailed table 39). Males were more than twice as likely as females to die in motor vehicle crashes. Black males and white males experienced age-adjusted death rates for motor vehicle crashes in 1989 of 29.4 and 26.8 deaths per 100,000 persons. In contrast,

deaths per 100,000 persons were 11.5 and 9.1 for white females and black females, respectively.

### Homicide and Legal Intervention

Homicide was the 10th leading cause of death in the United States in 1989, accounting for nearly 23,000 deaths. Homicide was the second leading cause of death among all persons 15–24 years of age. The homicide rate in the United States continues to be 3–8 times higher than rates in most other industrialized countries (5). Homicide was the leading cause of death among black males 15–24 and 25–34 years of age.

Firearms were involved in 64 percent of all homicides in the United States in 1989. During that year, 81 percent of homicides among teenagers 15–19 years of age were associated with firearm use (90 percent among black males); at 20–24 years of age, 73 percent of homicides resulted from firearm use (83 percent among black males) (7).



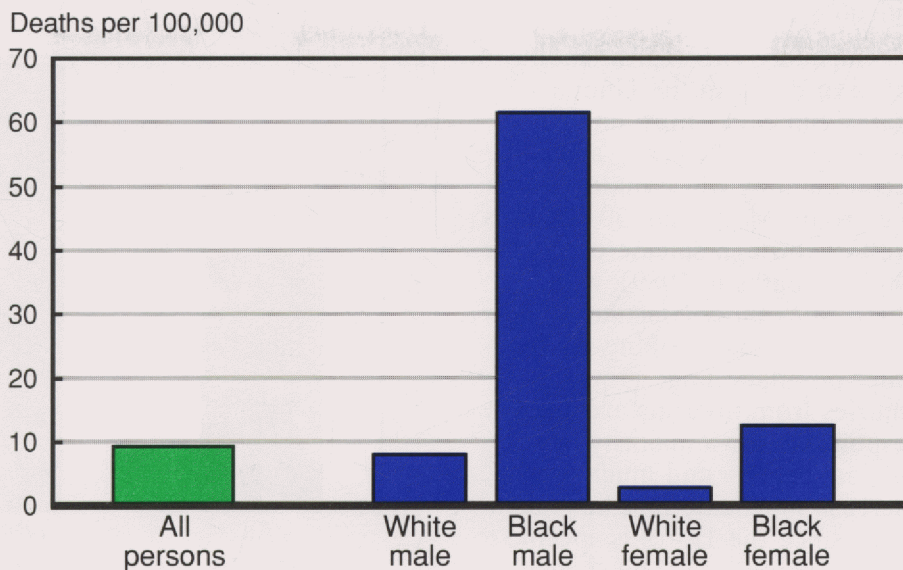
As with motor vehicle fatalities, about half of all homicides are associated with alcohol use. Nationwide, it is estimated that about 10 percent of homicides are related to the use of illegal drugs, but in many cities this rate is substantially higher (4). Over half of all homicide victims are relatives or acquaintances of the perpetrators (4).

*Healthy People 2000* objectives include reducing homicides to no more than 7.2 per 100,000 people (objective 7.1). Special population targets include children aged 3 years and younger (to 3.1 per 100,000 population), spouses aged 15–34 years (to 1.4), black men aged 15–34 years (to 72.4), Hispanic men aged 15–34 years (to 42.5), black women aged 15–34 years (to 16.0), and American Indians/Alaskan Natives in Reservation States (to 11.3 deaths per 100,000). The objectives also include reducing weapon-related deaths to no more than 12.6 per 100,000 people (objective 7.3).

■ In 1989, the age-adjusted homicide rate was 9.4 deaths per 100,000 persons in the United States (figure 20 and detailed table 40). Among black males the death rate from homicide of 61.5 per 100,000 people was almost 8 times the rate for white males (8.1). Black females died from homicide at the rate of 12.5 per 100,000, which was 1.5 times the rate among white males. Of these four race-sex groups, white females were the least likely to be homicide victims (2.8 deaths per 100,000).

■ Among all young people aged 15–24 years, the homicide rate was 16.9 per 100,000 people in 1989. This death rate masks the death rate among young black males, which was 114.8 per 100,000 in 1989, almost 9 times the homicide rate for white males in this age group (figure 21). The homicide rate among young black males increased rapidly beginning

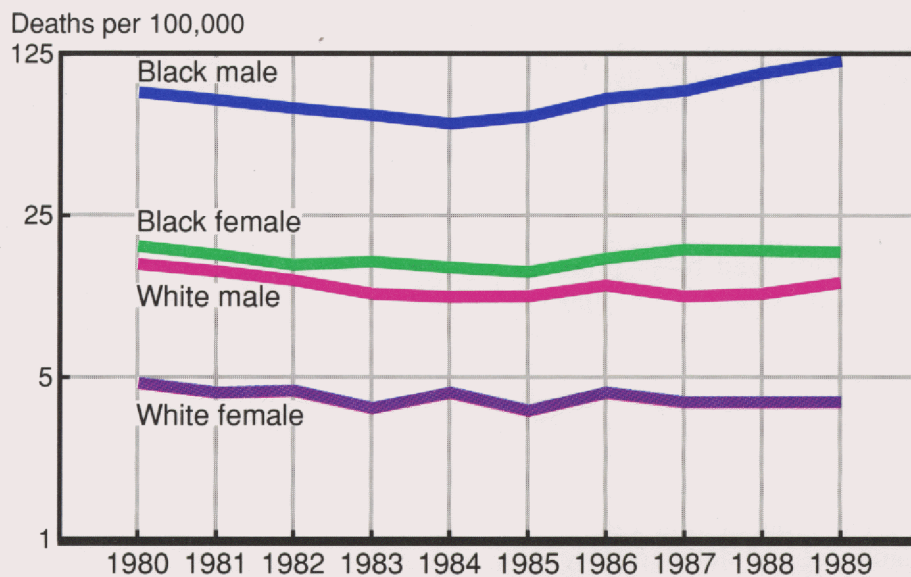
**Figure 20. Death rates for homicide and legal intervention, according to race and sex: United States, 1989**



NOTE: Death rates are age adjusted. Related detailed tables are 30–32, and 40.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

**Figure 21. Death rates for homicide and legal intervention among persons 15–24 years of age: United States, 1989**



NOTE: A related detailed table is 40.

SOURCE: National Center for Health Statistics, National Vital Statistics System.



in 1985 to the present all-time high.

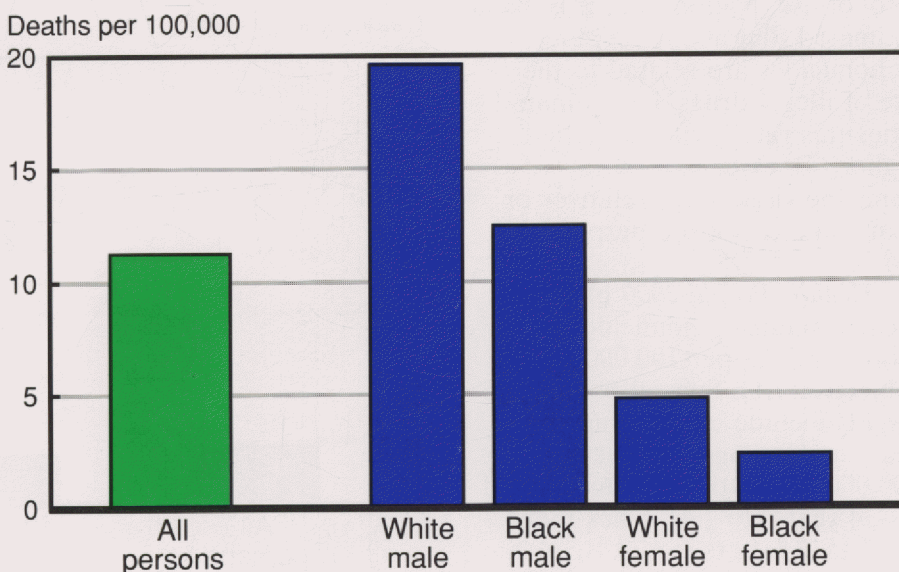
### Suicide

Suicide is the eighth leading cause of death in the United States, but ranks third among youth aged 15–24 years, and second among white males in this age group. More than 30,000 lives are lost through suicide each year (30,232 deaths in 1989), with death rates fairly constant at ages 15–64 years and peaking for the older population age groups. Injuries from firearms are directly responsible for a majority of suicidal deaths, and much of the increase in suicide that has taken place since the 1950's is specific to firearm deaths (4). The suicide rate has more than doubled since 1968 among youth aged 15 to 19 years. Firearm suicides in this age group increased by 31 percent among white males and doubled among black males between 1984 and 1988 (6).

*Healthy People 2000* objectives include reducing suicides to no more than 10.5 per 100,000 people (objectives 6.1 and 7.2). Special population targets include youth aged 15 to 19 years (a reduction to 8.2 deaths per 100,000 people), men aged 20–34 years (to 21.4), white men aged 65 years and older (to 39.2), and American Indian/Alaskan Native men in Reservation States (to 12.8 deaths per 100,000). Related objectives include reducing the incidence of injurious suicide attempts among adolescents aged 14–17 years by 15 percent (6.2 and 7.8) and establishing protocols to prevent suicide by jail inmates (6.10 and 7.18).

■ Among all Americans, the age-adjusted death rate due to suicide was 11.3 deaths per 100,000 population in 1989 (figure 22 and detailed table 41). The rate for white males (19.6 per 100,000 persons) was 1.6 times that of black males (12.5), 4 times that for white females (4.8), and

**Figure 22. Death rates for suicide, according to race and sex: United States, 1989**



NOTE: Death rates are age adjusted. Related detailed tables are 30–32, and 41.

SOURCE: National Center for Health Statistics, National Vital Statistics System.



8.2 times that for black females (2.4).

■ Among adolescents and young adults aged 15 to 24 years, the suicide rate was 13.3 per 100,000 population in 1989, 8 percent higher than in 1980 (figure 23). White males aged 15 to 24 years have been most likely to be at risk for suicide throughout the 1980's, with suicide rates exceeding 20 per 100,000 persons every year.

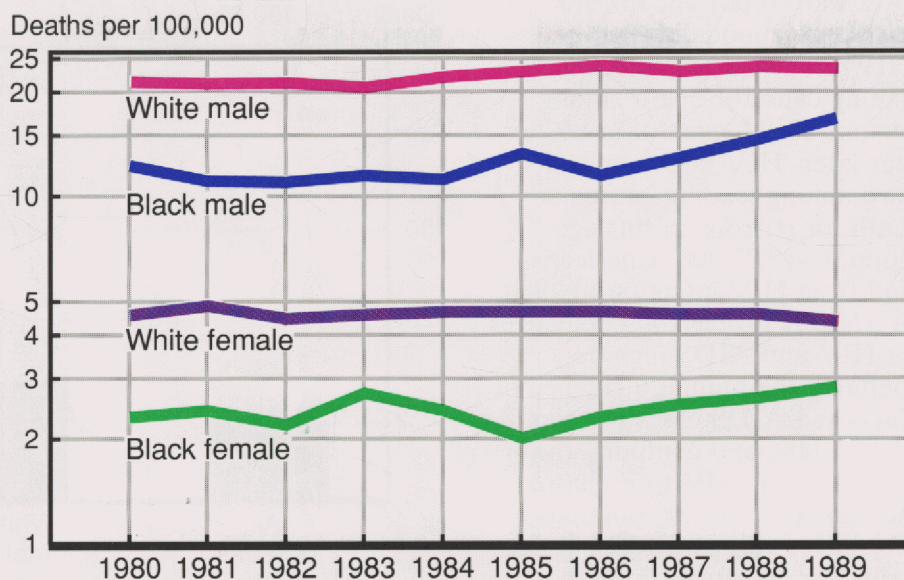
■ In 1989, among white youth aged 15–24 years the suicide rate was five times higher for males than for females (23.2 compared with 4.4 per 100,000). In this age group, the rate for suicide among black males was 5 times higher than the suicide rate among black females (16.7 compared with 2.8).

■ The suicide rate among white males aged 15 to 24 years has increased about 10 percent in the past decade, with most of the increase taking place since 1983. Among black males in this age group the suicide rate increased 49 percent from 1984 to 1989.

■ Since the mid-1980's, the suicide rate among adolescent black males has been increasing faster than the rate among adolescent white males. Whereas in 1985 the rate for white males exceeded that for black males by 70 percent, by 1989 the difference had narrowed to about 40 percent.

■ In the past decade the suicide rate for white females aged 15 to 24 years has decreased slightly, but it has increased by 40 percent among black females in this age group since 1986. Suicide rates have declined from 4.7 in 1986 to 4.4 per 100,000 people in 1989 among white females, and increased from 2.3 in 1986 to 2.8 per 100,000 in 1989 among black females.

**Figure 23. Death rates for suicide among persons 15–24 years of age: United States, 1989**



NOTE: A related detailed table is 41.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

### Human Immunodeficiency Virus (HIV) Infection Deaths

Since 1981 more than 189,000 cases of acquired immunodeficiency syndrome



(AIDS) have been reported to the Centers for Disease Control. During 1990 over 41,000 AIDS cases were reported. In 1988, human immunodeficiency virus (HIV) infection was the fourth leading cause of death among persons 25–44 years of age. One year later, HIV infection ranks third among leading causes of death for persons in this age group. Over 22,000 Americans died from HIV infection in 1989.

*Healthy People 2000* objectives for HIV and AIDS include confining the annual incidence of diagnosed AIDS cases to no more than 98,000, and confining the prevalence of HIV to no more than 800 per 100,000 population (objectives 18.1 and 18.2). Risk reduction objectives and objectives related to services and protection are also included in priority area 18. It is currently estimated that about 1 million persons in the United States are infected with HIV.

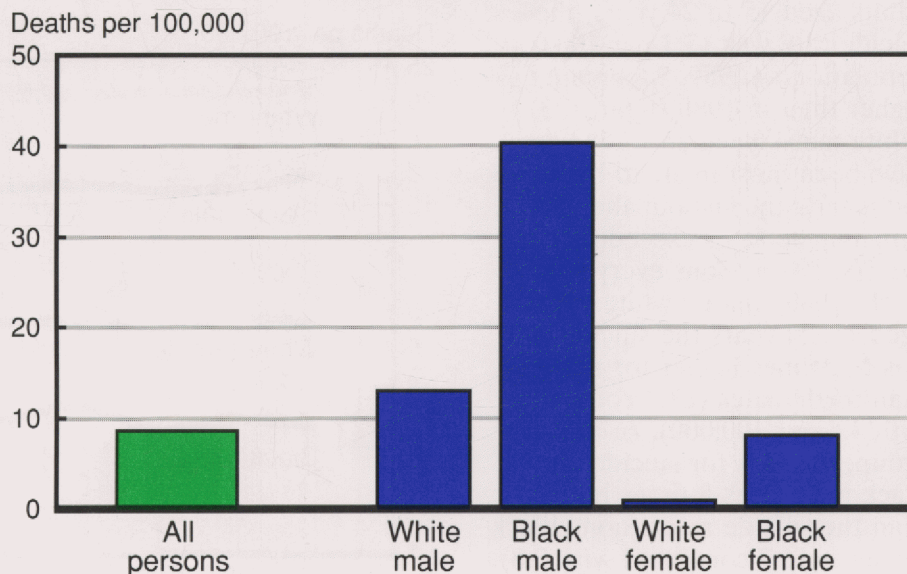
- Among the total population, the age-adjusted death rate for human immunodeficiency virus was 8.7 per 100,000 in 1989 (figure 24 and detailed table 42). Males were far more likely to die of HIV infection than females.

- The age-adjusted death rate among black males was 3 times that of white males at 40.3 deaths per 100,000 persons compared with 13.1 deaths per 100,000 among white males. Black females were nine times more likely to die from HIV infection than white females, with a death rate of 8.1 per 100,000 compared with 0.9 per 100,000 among white females.

### Years of Potential Life Lost Before Age 65 Years

Reducing health disparities among Americans is the second of the three goals set forth in the health initiative for the year 2000. One measure of the disparity in health status between population groups is years of potential life

**Figure 24. Death rates for human immunodeficiency virus (HIV) infection, according to race and sex: United States, 1989**



NOTE: Death rates are age adjusted. Related detailed tables are 30–32, and 42.

SOURCE: National Center for Health Statistics, National Vital Statistics System.



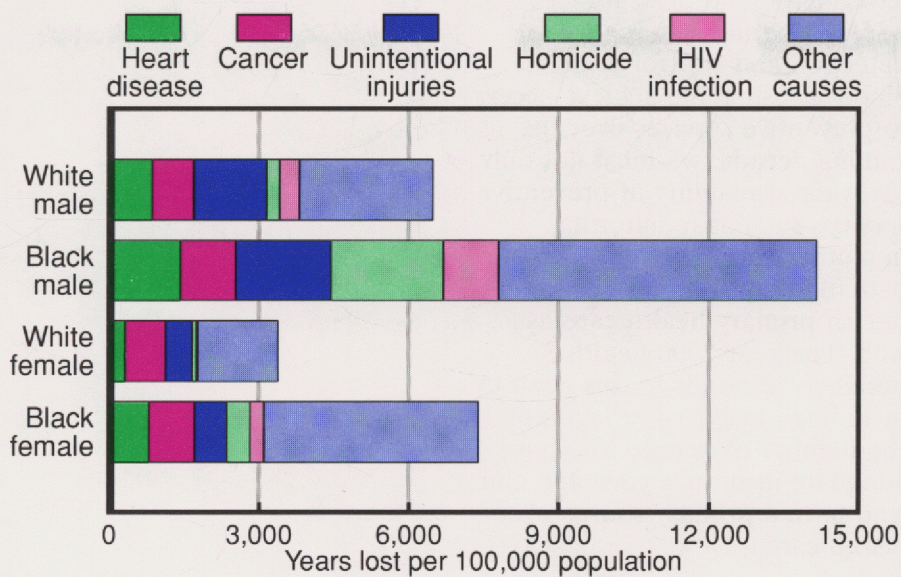
lost before age 65 years, calculated as years lost per 100,000 population (figure 25 and detailed table 32).

■ In 1989, black males lost over twice (2.2) as many years per 100,000 population as white males for all causes of death (14,186.5 compared with 6,525.1). Black females also lost 2.2 times as many years per 100,000 population as white females for all causes of death (7,431.5 compared with 3,403).

■ In 1989, years lost per 100,000 population for black males compared with white males were 65 percent higher for heart disease, 32 percent higher for cancer, and 31 percent higher for unintentional injuries. For HIV infection, years of potential life lost were 177 percent higher, and for homicide, 709 percent higher for black males than for white males.

■ For black females, lost years of life per 100,000 population before age 65 years were 154 percent higher than for white females for heart disease, 12 percent higher for cancer, and 23 percent higher for unintentional injuries. For HIV infection, years of potential life lost were 796 percent higher, and for homicide, 390 percent higher for black females compared with white females.

**Figure 25. Years of potential life lost before age 65 for selected causes of death, according to race and sex: United States, 1989**



NOTE: A related detailed table is 32.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

### Improve Access to Preventive Health Services

Prevention, a large part of the strategy for achieving the health improvements of *Healthy People 2000*, has three major components: health promotion, health protection, and preventive services. Making preventive services available to all Americans could provide the foundation for achievement of the other two parts. Prenatal health care is vital and fundamental for the birth of healthy babies. Early detection of breast cancer and cervical cancer significantly improves the chance



of survival. Approximately one-half of all heart attack victims and two-thirds of all stroke victims have high blood pressure, underlining the importance of detection and control of high blood pressure. To achieve access to preventive services over the coming decade, we must not only focus on availability of preventive services such as monitoring, immunizations, screening, and patient education and counseling, but on primary health care as well. The year 2000 health initiative responds to this need by including objectives to increase the number of people who have adequate insurance coverage and who have a primary source of health care.

### **Prenatal Care**

Numerous studies have demonstrated that early and comprehensive prenatal care reduces rates of infant death, low birth weight, and other perinatal complications. The effect of early prenatal care is particularly evident in studies of high-risk groups, such as adolescents and poor women, and can save not only thousands of medical-care dollars per each low-birth-weight baby, but also incalculable human suffering. Prenatal health care services can also serve as a resource and a reinforcer for health promotion efforts that are equally important to healthy pregnancies. While about 76 percent of women receive early prenatal care, rates are considerably lower for many minority groups.

■ *Healthy People 2000* objectives include increasing to at least 90 percent the proportion of all pregnant women who receive prenatal care in the first trimester of pregnancy (objective 14.11). There are wide variations in the percent receiving early prenatal care among mothers of different racial and ethnic groups; these differences have not changed in the past decade. Special



population targets for the year 2000 include black women, American Indian/Alaskan Native women, and Hispanic women.

■ In 1989, only about 57 percent of Mexican American mothers received early prenatal care (figure 26 and detailed table 8). Similarly, only about 58 percent of American Indian or Alaskan Native mothers, 60 percent of black mothers, 61 percent of Central and South American mothers, and 63 percent of Puerto Rican mothers received early care.

■ The proportions of American mothers who received early prenatal care were highest among Japanese mothers (about 86 percent), followed by mothers who were Cuban (83 percent), Chinese (82 percent), white (79 percent), and Filipino (78 percent).

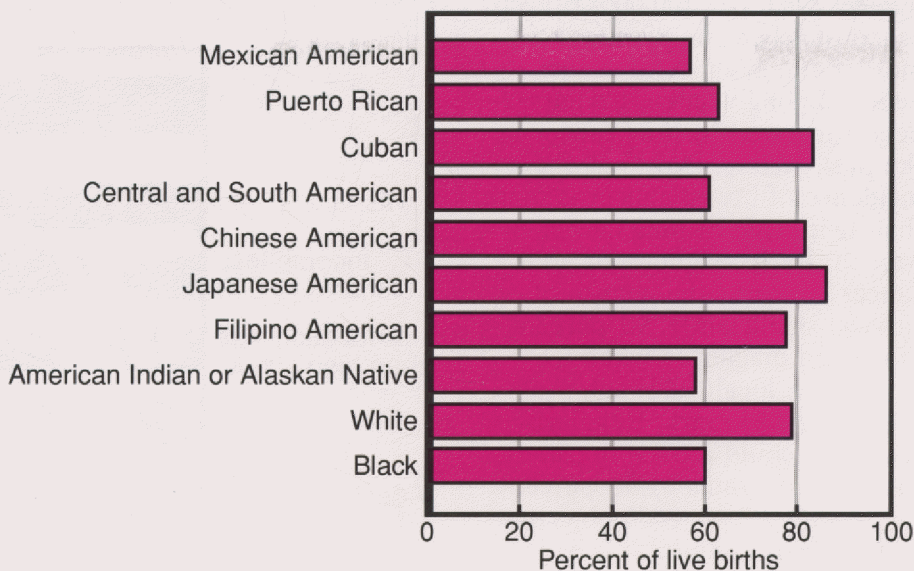
■ Mexican American mothers were most likely to receive late or no prenatal care (about 15 percent, figure 27), followed by American Indian or Alaskan Native mothers (13 percent), and black and Central and South American mothers (12 percent).

### Clinical Breast Examinations and Mammograms

In 1990, an estimated 150,000 new cases of breast cancer were diagnosed among women. Breast cancer is the leading cause of cancer for females and the third leading site overall. It is estimated that approximately 1 in 9 women will develop breast cancer in their lifetime. The incidence of breast cancer has increased more than 1 percent per year since the early 1970's (detailed table 57). The most recent increases are believed to be related, in part, to early detection of breast cancer as a result of increased use of mammography and breast self-examination (5).

In 1989, 42,837 women died of breast cancer, an age-adjusted death rate of 23.0 per 100,000

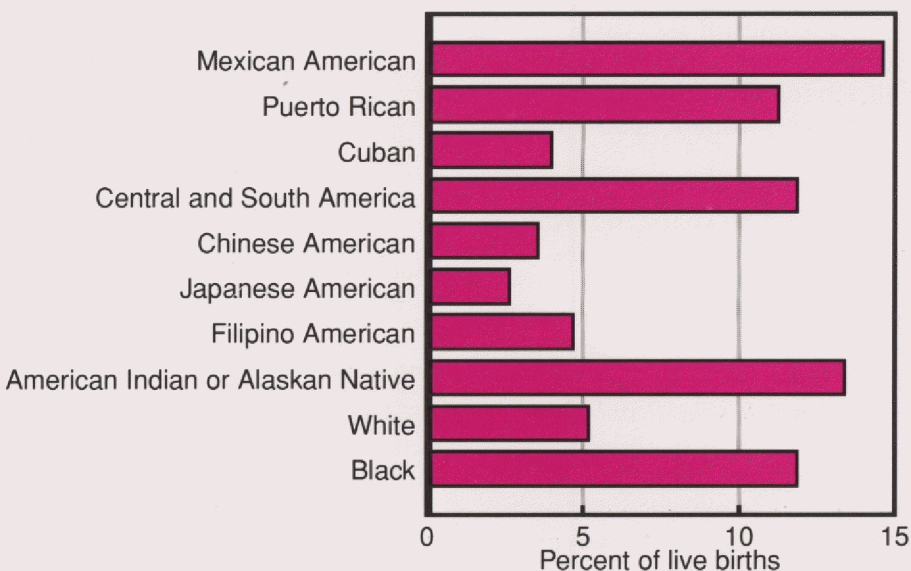
**Figure 26. Proportion of mothers with early prenatal care, according to race and ethnicity of mother: United States, 1989**



NOTE: Early prenatal care is defined as care beginning in the first trimester of pregnancy. Late prenatal care is defined as care beginning in the third trimester. Data on Hispanic origin of mother are from 30 States and the District of Columbia. A related detailed table is 8.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

**Figure 27. Proportion of mothers with late or no prenatal care, according to race and ethnicity of mother: United States, 1989**



NOTE: Early prenatal care is defined as care beginning in the first trimester of pregnancy. Late prenatal care is defined as care beginning in the third trimester. Data on Hispanic origin of mother are from 30 States and the District of Columbia. A related detailed table is 8.

SOURCE: National Center for Health Statistics, National Vital Statistics System.

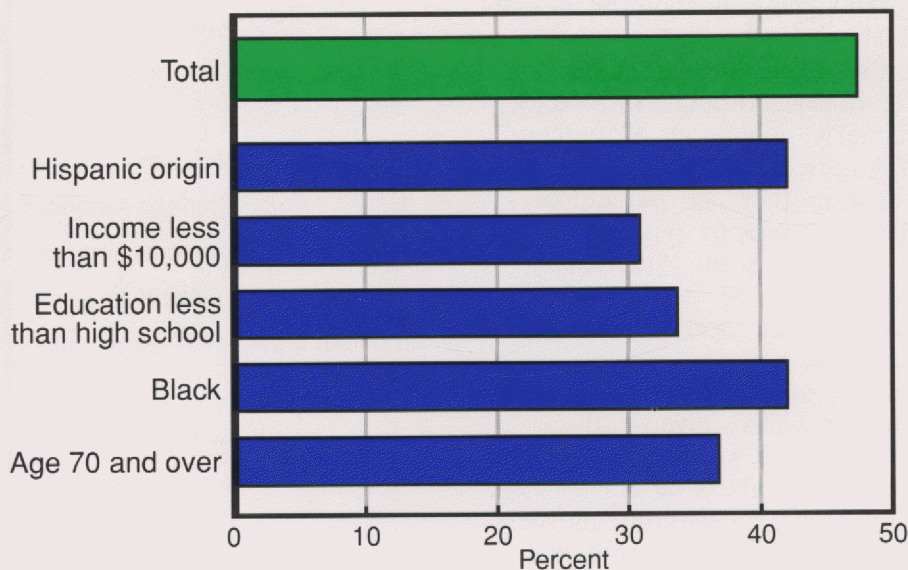


population (detailed table 37). Among white females the rate was 22.9 per 100,000 and among black females, 26.0 per 100,000. Breast cancer has become the second most common cause of cancer deaths among women, having been surpassed by lung cancer in the past decade. However, the incidence of breast cancer is more than twice that of lung cancer in women. Early diagnosis of breast cancer improves the chance of survival significantly; 90 percent of women diagnosed when the cancer was localized reach the 5-year survival mark. Regular screening could reduce breast cancer death rates by 30 percent.

*Healthy People 2000* objectives include increasing to at least 80 percent the proportion of women aged 40 years and over who have ever received a clinical breast examination and a mammogram, and to at least 60 percent those aged 50 and over who have received them within the preceding 1 to 2 years (objective 16.11). Special population subgroups with the fewest clinical breast examinations and mammograms have been targeted. These subgroups include Hispanics, women with annual family incomes of less than \$10,000 women with less than a high school education, black women, and women aged 70 years and over.

■ In 1990 about 47 percent of women aged 50 years and over had received a clinical breast examination and a mammogram within the past 2 years (figure 28). Among the population groups of women aged 50 years and over targeted by *Healthy People 2000*, about 42 percent of those of Hispanic origin, about 31 percent with annual family incomes of less than \$10,000, about 34 percent of those who had not finished high school, about 42 percent of blacks, and about 37 percent of those ages 70 years and over, had received a clinical breast

**Figure 28. Women 50 years of age and over who have received a clinical breast examination and a mammogram within the past 2 years, according to selected characteristics: United States, 1990**



SOURCE: National Center for Health Statistics, National Health Interview Survey.

examination and a mammogram within the past 2 years.

### Pap Tests

Cervical cancer can be cured if detected early. Increased use of the Pap test has contributed to a 50-percent drop in cervical cancer deaths since 1969, although 4,487 women died of this disease in 1989.

*Healthy People 2000* objectives include increasing the proportion of women ages 18 years and over

with a uterine cervix who have ever had a Pap test to at least 95 percent, and to at least 85 percent those who received one within the preceding 1 to 3 years (objective 16.12). Special population targets are Hispanic women ages 18 years and over, women ages 70 years and over, women ages 18 years and over with less than a high school education, and low-income women ages 18 years and over (annual family income less than \$10,000).



■ In 1990, about 93 percent of all women ages 18 years and over had ever had a Pap test (figure 29); about 81 percent had a Pap test within the past 3 years. This is by far the highest proportion of adults screened for any type of cancer.

■ Among the targeted population groups, about 77 percent of Hispanic women, 69 percent of women ages 70 years and over, 70 percent of women who did not finish high school, and 72 percent of women with low annual family incomes had a Pap test within the past 3 years.

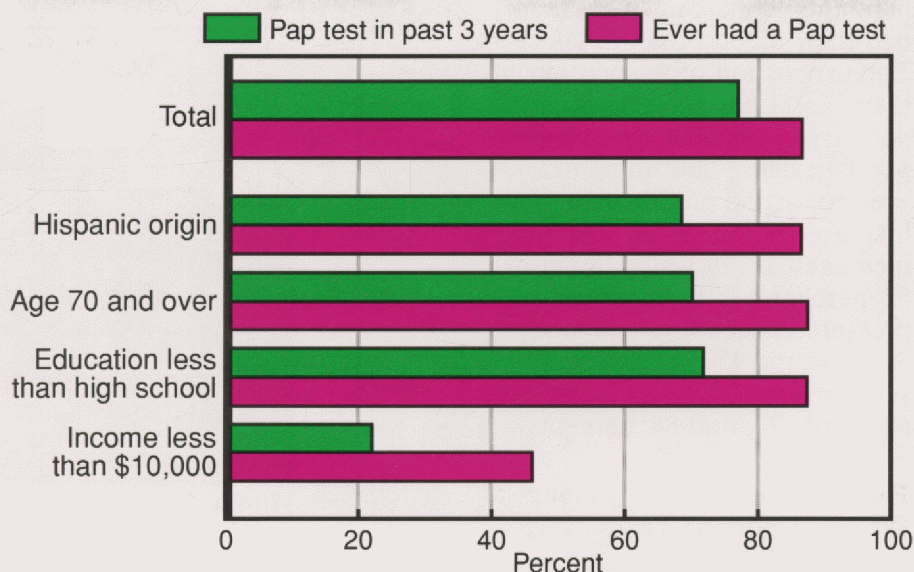
### Blood Pressure Readings

High blood pressure is a well-known risk factor for both heart disease and stroke among adults. Approximately half of all heart attack victims and two-thirds of all stroke victims have high blood pressure. People are classified as hypertensive if their average systolic blood pressure is greater than or equal to 140 mm mercury or their average diastolic blood pressure is greater than or equal to 90 mm mercury or they report taking antihypertensive medication.

About 30 percent of American adults have high blood pressure. It is about one-third more common among blacks than among whites (38 percent compared with 29 percent) (7). Severe high blood pressure (diastolic pressure greater than or equal to 115mm mercury) is present 4 times more often among black men than among white men (7). Most American adults with high blood pressure do not have it under control.

*Healthy People 2000* objectives include increasing to at least 50 percent the proportion of adults with high blood pressure whose blood pressure is under control, and to at least 90 percent the proportion of people with high

**Figure 29. Women 18 years and over who have ever received a Pap test, and who received one in the past 3 years, according to selected characteristics: United States, 1990**



SOURCE: National Center for Health Statistics, National Health Interview Survey.



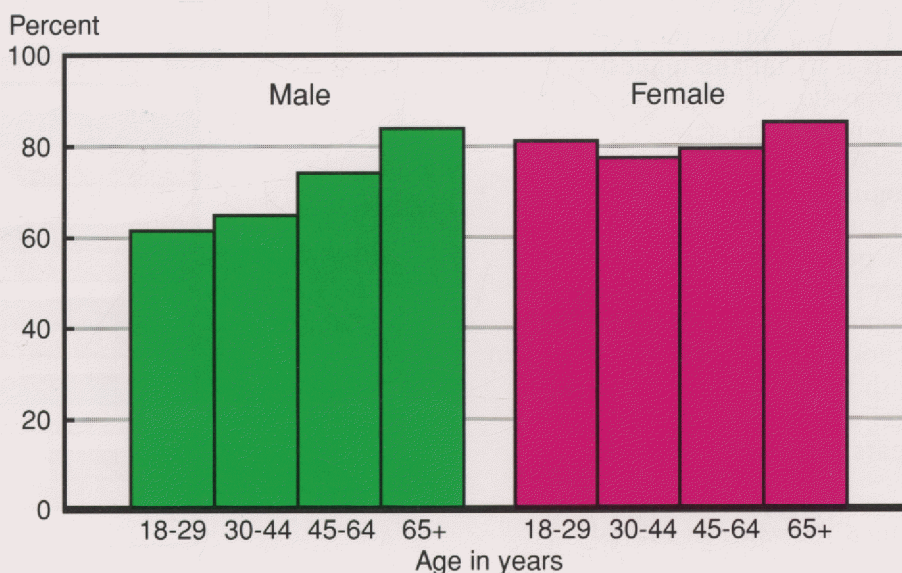
blood pressure who are taking action to help control it (objectives 15.4 and 15.5).

■ In 1990, about 69 percent of men and 80 percent of women had their blood pressure checked. The proportion of women having their blood pressure checked did not vary much with age (78–85 percent, figure 30); in contrast, the proportion among men increased with age. In 1990 among men aged 18–29 years, about 62 percent had their blood pressure checked; in age groups 30–44 years, 45–64 years, and 65 years and over, the percents were about 65, 74, and 84 percent.

### Health Care Coverage Among Persons Under 65 Years of Age

Health care coverage is associated with age, health, and socioeconomic status. Among persons under 65 years of age, those who are older, those with more education, those with higher incomes and those in better health, are more likely than others to have some form of private health insurance. In 1989, the age-adjusted percent of all Americans under the age of 65 years who had private health insurance was approximately 77 percent; about 6 percent were covered by Medicaid; and about 1 percent were covered by Medicare, the military, or had no data available (detailed table 133). Health care coverage through Medicare is available to nearly all persons 65 years of age and over (5). Between 1980 and 1989, the age-adjusted percent of persons under the age of 65 years who had no health care coverage rose from about 13 to 16 percent (detailed table 133). In 1989, the three reasons most frequently given for not having health care coverage were cost (mentioned by 70 percent of people without health insurance), unemployment (8 percent), and being healthy (5 percent) (8).

**Figure 30. Adults who had their blood pressure checked in the past year, according to sex and age: United States, 1990**



NOTE: Related detailed tables are 68 and 69.

SOURCE: National Center for Health Statistics, National Health Interview Survey.



For prevention, the issue is not only what proportion of the population is covered by health insurance, but what proportion has coverage for clinical preventive services. *Healthy People 2000* objectives target clinical preventive services and include the elimination of financial barriers to these services for all Americans (priority area 21).

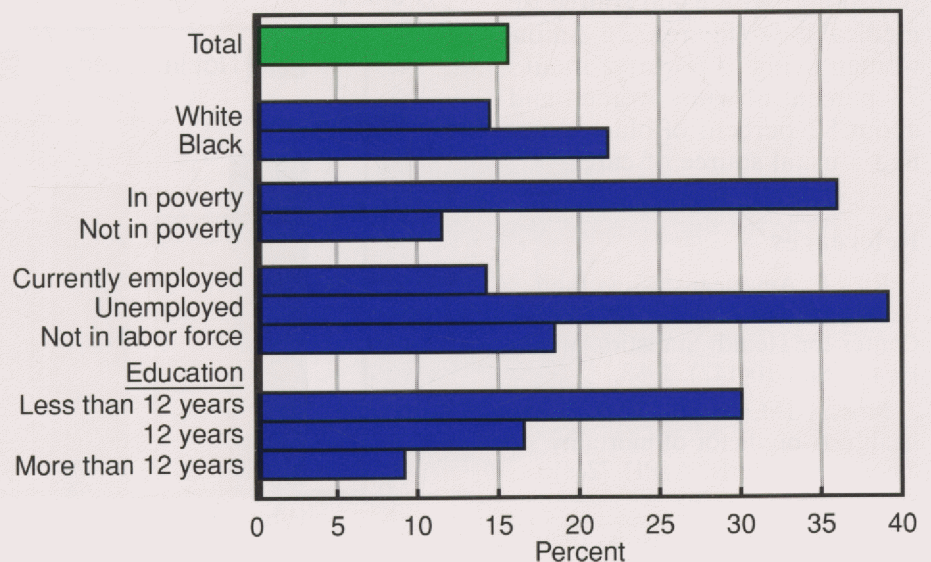
■ In 1989, about 16 percent of people under age 65 years had neither public nor private health insurance coverage (figure 31). Among those persons most likely to be uninsured were blacks (about 22 percent), people with incomes below the poverty threshold (36 percent), the unemployed (39 percent), and persons with less than 12 years of education (30 percent).

### Usual Source of Medical Care

About 78 percent of white Americans aged 18 years and over, and 76 percent of black Americans aged 18 years and over, had a usual source of medical care in 1990 (9). Men were less likely than women to have a usual source of medical care. Among white men, about 72 percent had a usual source of care whereas among black men, the proportion was about 65 percent. Among white and black females, about 85 percent had a usual source of care. Among all adults who had a usual source of medical care, about 94 percent used a doctor's office, although among Americans with incomes below the poverty threshold, about 85 percent used a doctor's office, while about 12 percent used a health center or a hospital emergency room (9).

*Healthy People 2000* objectives include increasing to at least 95 percent the proportion of people who have a specific source of ongoing primary care for coordination of their preventive and episodic health care (objective 21.3). Special population targets

**Figure 31. Persons under 65 years of age without health care coverage, according to selected characteristics: United States, 1989**



NOTE: Related detailed tables are 133 and 134.

SOURCE: National Center for Health Statistics, National Health Interview Survey.



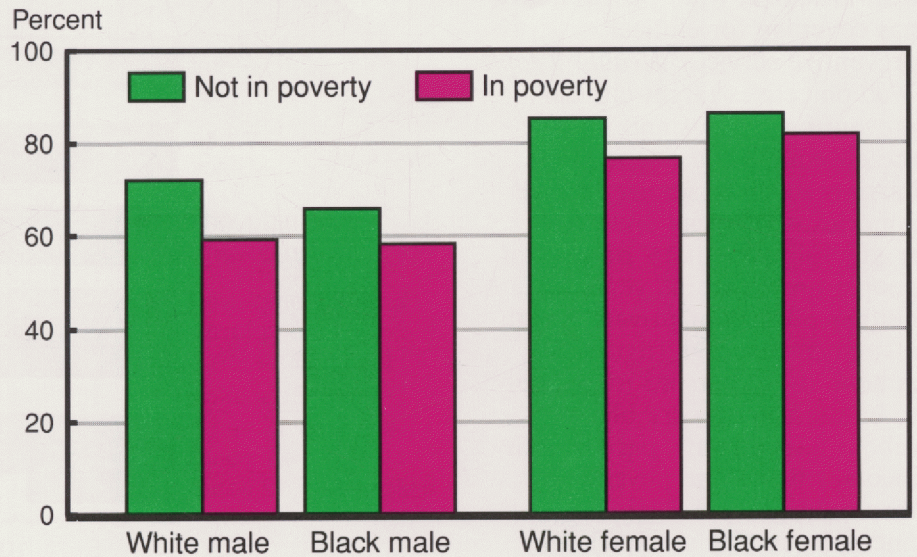
include Hispanics, blacks, and people with low incomes.

■ Only about three in five men with incomes below the poverty threshold had a usual source of medical care (figure 32). Among women living in poverty, about 77 percent of white women and about 82 percent of black women had a usual source of care.

## References

1. Ries P. Americans assess their health: United States, 1978. National Center for Health Statistics. Vital Health Stat 10(142). 1983.
2. Mossey JM, Shapiro E. Self-rated health: A predictor of mortality among the elderly. *AJPH* 72(8): 800-8. 1982.
3. Ries P. Americans assess their health: United States, 1987. National Center for Health Statistics. Vital Health Stat 10(174). 1990.
4. Department of Health and Human Services. Healthy people 2000: National health promotion and disease prevention objectives. Washington: Public Health Service. 1991.
5. National Center for Health Statistics. Health, United States, 1990. Hyattsville, Maryland: National Center for Health Statistics. 1991.
6. Fingerhut LA, Kleinman JC, Godfrey E, and Rosenberg H. Firearm mortality among children, youth, and young adults 1-34 years of age, trends and current status: United States, 1979-88. Monthly vital statistics report; vol 39 no 11, suppl. Hyattsville, Maryland: National Center for Health Statistics. 1991.
7. Subcommittee on Definition and Prevalence, 1984 Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. Hypertension prevalence and the status of awareness, treatment, and control in the United States. *Hypertension* 7(3). 1985.
8. Unpublished data from the National Center for Health Statistics. National health interview survey. 1989.
9. Unpublished data from the National Center for Health Statistics. National health interview survey. 1990.

**Figure 32. Adults with a usual source of medical care, according to race, sex and poverty status: United States, 1990**



NOTE: Related detailed tables are 76 and 77.

SOURCE: National Center for Health Statistics, National Health Interview Survey.



# 1990 Objectives for the Nation: Final Status

---

In this section, the final attainment status of each of the objectives in the fifteen subject areas of Objectives for the Nation is presented. The text of each objective is accompanied either by tables displaying data for the baseline and subsequent years where tracking data were available, or by notes providing additional data or information where tracking data were not available. For the objectives for which there were no data available, the space for text or a table is left blank. Sources for tracking data appear with the tables and notes. Provisional vital statistics data have been presented where necessary.

Following this section are three summary and information tables. Table A summarizes the final attainment status of each of the 1990 objectives. Table B compares the content of the 1990 objectives with the year 2000 objectives, and table C contains the data points used in the construction of figures 1-32.

## Background

The 1979 Surgeon General's report, *Healthy People*, delineated five broad national goals for 1990, one for each of the five major stages of life, concentrating on premature mortality and morbidity. These goals were:

- To continue to improve infant health, and, by 1990, to reduce infant mortality by at least 35 percent, to fewer than 9 deaths per 1,000 live births.
- To improve child health, foster optimal childhood development, and, by 1990, to reduce deaths among children ages 1 to 14 years by at least 20 percent, to fewer than 34 per 100,000.
- To improve the health and health habits of adolescents and young adults, and, by 1990, to reduce deaths among people ages 15 to 24 years by at least 20 percent, to fewer than 93 per 100,000.
- To improve the health of adults, and, by 1990, to reduce deaths among people 25 to 64 years by at least 25 percent, to fewer than 400 per 100,000.
- To improve the health and quality of life for older adults, and, by 1990, to reduce the average annual number of days of restricted activity due to acute and chronic conditions by 20 percent, to fewer than 30 days per year for people aged 65 years and over.

Subsequently, 15 broad areas to be given priority attention were identified in *Promoting Health/Preventing Disease: Objectives for the Nation* because they represented areas in which health promotion and disease prevention measures might be expected to achieve further gains through



public, private, and individual health promotion and disease prevention strategies. These broad areas were:

- High blood pressure control
- Family planning
- Pregnancy and infant health
- Immunization
- Sexually transmitted diseases
- Toxic agent and radiation control
- Occupational safety and health
- Injury prevention
- Fluoridation and dental health
- Surveillance and control of infectious diseases
- Smoking and health
- Alcohol and drug misuse
- Improved nutrition
- Physical fitness and exercise
- Control of stress and violent behavior

Within each of these 15 areas a set of specific and measurable objectives for 1990 was identified to provide focus for the achievement of the five *Healthy People* health promotion and disease prevention goals. The Public Health Service, other parts of the Department of Health and Human Services, other departments in the Federal Government, State and local governments, and the private sector were aggressively involved in the drive toward the attainment of these objectives. Of 266 measured targets among the 226 health objectives, 23 percent could not be evaluated because data were unavailable. Thirty-two percent of the measured targets were attained, progress was made for 34 percent of the targets, and for 11 percent of the targets the attained value was in the opposite direction of the target from the baseline.

Priority area	Percent of target attained				No data
	100 percent and greater	50-99 percent	0-49 percent	Regression	
A High blood pressure control	70	0	0	20	10
B Family planning	33	0	0	67	0
C Pregnancy and infant health	38	19	25	6	13
D Immunization	39	21	29	11	0
E Sexually transmitted diseases	25	25	0	17	33
F Toxic agent and radiation control	5	5	10	5	75
G Occupational safety and health	25	5	15	5	50
H Injury prevention	35	35	24	0	6
I Fluoridation and dental health	31	8	8	23	31
J Surveillance and control of infectious diseases	15	8	23	15	38
K Smoking and health	33	24	24	5	14
L Alcohol and drug misuse	57	13	13	4	13
M Improved nutrition	5	27	41	5	23
N Physical fitness and exercise	42	17	33	0	8
O Control of stress and violent behavior	36	0	7	21	36
Totals	32	15	19	11	23

NOTE: Percents are based on 266 measured targets among the 226 objectives, and may not add to 100 due to rounding.

It must be recognized that this was the first time national health objectives had been set. While adequate past trend data existed to set realistic attainable objectives for 1990, in many cases objectives were set in the absence of data or on idealistic expectations. Much has been learned from this



process. The objectives set forth in *Healthy People 2000* are for the most part based on a better understanding of past trends and realistic expectations of future achievements.

The pursuit of the 1990 objectives has been well-documented by the Public Health Service. A series of implementation plans that outlined the actions to be taken by agencies of the federal government was described in a special supplement (1). Prevention Profiles were published triennially from 1980–89, appearing with the *Health, United States* volumes (2–5). The results of an in depth review of the progress achieved midway toward the 1990 objectives were published (6). A continuing review of the health promotion and disease prevention activities of the Department of Health and Human Services was published periodically in the Public Health Service series *Prevention*. Other data related to the objectives can be found in other publications, such as data from the 1985 National Health Interview Survey (7). The November–December 1986 and the January–February 1987 issues of *Public Health Reports* contained a number of research reports prepared by the staffs of agencies with lead responsibility for particular 1990 objectives.

In some cases, estimates shown in the publications referenced above as well as others differ slightly from those shown in *Prevention Profile*. Minor differences in estimates for similar variables can result from differences in the conceptualization and tabulation of variables that are based on a combination of several questions, from differences in computation and rounding techniques or from computations based on different universes (as in data on smoking for persons 18 years of age and over and for persons 20 years of age and over).

## **Limitations and Qualifications of the Data**

Over the decade in which these objectives have been pursued, a number of data sources were never developed (for example, objectives identified on the following pages as Ed; Ee, Ei, Fb, Fi, Fj, Jg, Lr, Mn, and Oi); data sources have changed (such as Dj), or ceased to exist (such as Je and Jf); a new understanding of certain diseases has led to the documentation of trends which had not been foreseen when the objectives were first drawn up (for example, Eb); and new case definitions have led to increased numbers of cases (such as Ec, Ib and Ic). In some cases, the information on the attainment of an objective paints a false picture: For example, for objectives Ib and Ic, although the changes in methods of measuring periodontal diseases have resulted in the detection of more cases, the periodontal health of the U.S. population is improving.

These data contain a number of additional modifications and limitations which are detailed below.

■ Baseline data for some of the objectives as they appear in *Prevention Profile* have been modified from those in *Objectives for the Nation*. In some instances, population figures from the 1980 decennial census have been used to recompute rates that had been computed from earlier population estimates.



- More appropriate data sources have been found for some areas, and in others the earlier baseline data have been modified.
- The profile includes objectives for which no data, baseline or otherwise, are available. The nature of the problem and possible approaches have been discussed at some length (8).
- The data used for tracking the objectives are essentially national in nature and may mask regional differences.
- In some cases the objectives were specified using age or other classifications different from those commonly used in collecting and displaying certain types of data.
- Because of limitations imposed by the periodicity cycles within which different data are collected, the year for which the most current data are available may vary from objective to objective.

## References

1. U.S. Department of Health and Human Services. Promoting health/preventing disease: Public health service implementation plans for attaining the objectives for the Nation. Public Health Rep. 98(5) suppl. 1983.
2. National Center for Health Statistics. Health, United States, 1980. Hyattsville, Maryland: National Center for Health Statistics. 1981.
3. National Center for Health Statistics. Health, United States, 1983. Hyattsville, Maryland: National Center for Health Statistics. 1984.
4. National Center for Health Statistics. Health, United States, 1986. Hyattsville, Maryland: National Center for Health Statistics. 1987.
5. National Center for Health Statistics. Health, United States, 1989. Hyattsville, Maryland: National Center for Health Statistics. 1990.
6. Office of Disease Prevention and Health Promotion. The 1990 health objectives for the Nation: A midcourse review. Public Health Service. 1986.
7. Thornberry OT, Wilson RW, Golden PM. Health promotion data for the 1990 objectives: Estimates from the national health interview survey of health promotion and disease prevention, United States, 1985. Advance data from vital and health statistics; no 126. Hyattsville, Maryland: National Center for Health Statistics. 1986.
8. Green LW, Wilson RW, Bauer KG. Data requirements to measure progress on the objectives for the Nation in health promotion and disease prevention. Am J Public Health 73(1): 18-24. 1983.



# High Blood Pressure Control

## Improved Health Status

**A.a.** By 1990, at least 60 percent of the estimated population having definite high blood pressure should have attained successful long-term blood pressure control, that is, a blood pressure at or below 140/90 mmHg for 2 years or more.<sup>1</sup> (Based on 1979 data, high blood pressure control rates vary among communities and States, with a general range from 25 to 60 percent.)

<sup>1</sup>At the time this objective was written, high blood pressure was defined as a measurement of 160/95 mmHg or higher. The results of the Hypertension Detection and Follow-up Program, released since this objective was written, demonstrated the value of treating mild hypertension, as did a number of subsequent clinical trials. As a result, the definition of high blood pressure was changed to a measurement of 140/90 mmHg or higher. It also should be noted that the term "definite" high blood pressure is no longer used.

*The 1976–80 National Health and Nutrition Examination Survey found that 11 percent of people with a blood pressure equal to or greater than 140/90 mmHg had their high blood pressure under control. Approximately one-third of people with a blood pressure equal to or greater than 160/95 mmHg had their high blood pressure under control. Data from the 1982–84 Hispanic Health and Nutrition Examination Survey show noticeable differences between Mexican Americans, Cuban Americans and Puerto Ricans with hypertension.<sup>2</sup>*

Percent with blood pressure under control, 1982–84					
Mexican American		Cuban American		Puerto Rican	
Male	Female	Male	Female	Male	Female
10.2	28.4	15.7	22.5	7.5	29.4

<sup>2</sup>Blood pressure equal to or greater than 140 over 90 or on anti-hypertensive medication.

## Reduced Risk Factors

**A.b.** By 1990, the average daily sodium ingestion (as measured by excretion) for adults should be reduced at least to the 3–6-gram range.<sup>3,4</sup> (Baseline data unavailable.)

<sup>3</sup>Same objective in Improved Nutrition.  
<sup>4</sup>3–6 grams of salt correspond roughly to 1.2–2.4 grams of sodium.

**A.c.** By 1990, the prevalence of significant overweight (120 percent of "desired" weight) among the U.S. adult population should be decreased to 10 percent of men and 17 percent of women, without nutritional impairment.<sup>5,6</sup> (In 1971–74, 23.7 percent of men and 26.0 percent of women 20–74 years of age were overweight.)

<sup>5</sup>Same objective in Improved Nutrition.  
<sup>6</sup>Overweight is defined for men as body mass index (BMI) greater than or equal to 27.8 kilograms/meter<sup>2</sup> and for women, as 27.3 kilograms/meter<sup>2</sup>. These cut points were used because they represent the sex-specific 85th percentiles of BMI based on measured weight and height for persons 20–29 years of age in the 1976–80 National Health and Nutrition Examination Survey. The language for this objective in terms of BMI would be: By 1990, the prevalence of overweight (BMI of 27.8 or higher for men and 27.3 or higher for women) among the U.S. adult population should be reduced, without impairment of nutritional status, to approximately 18 percent of men and 21 percent of women.

*Data from the first 4 years of the revised FDA Total Diet Study (1982–86) indicate that average sodium intakes for adults, excluding salt added at the table, were within the Established Safe and Adequate Daily Dietary Intake range of 1,100–3,300 milligrams established by the National Academy of Sciences in 1980.*

Race	Percent of persons 18 years and over who are overweight, 1990 <sup>a</sup>	
	Male	Female
Total <sup>b</sup>	25.7	25.9
White	25.5	24.3
Black	31.8	40.1

<sup>a</sup>Data are calculated from self-reported height and weight in the 1990 National Health Interview Survey.

<sup>b</sup>Includes persons of races other than white or black.



## Increased Public and Professional Awareness

**A.d.** By 1990, at least 50 percent of adults should be able to state the principal risk factors for coronary heart disease and stroke, that is, high blood pressure, cigarette smoking, elevated blood cholesterol levels, and diabetes. (Data from the survey *The Public and High Blood Pressure*, conducted in 1979, show that 24 percent of the public knew that high blood pressure is a likely cause of heart trouble, 32 percent reported that cigarette smoking is a cause, and 11 percent cited cholesterol and fatty foods as a cause of heart trouble.)

Risk factor	Percent who report the following as definitely or probably risk factors for heart disease		
	1985	1990	1990 objective
High blood pressure	91	89	50
Cigarette smoking	90	91	50
Cholesterol	86	90	50
Diabetes	61	61	50
Overweight	—	94	—
High fat diet	—	89	—
Family history	—	87	—

SOURCE: Data from National Center for Health Statistics, National Health Interview Survey.

**A.e.** By 1990, at least 90 percent of adults should be able to state whether their current blood pressure is normal (below 140/90 mmHg) or elevated, based on a reading taken at the most recent visit to a medical or dental professional or other trained reader. (Of persons 17 years of age and over interviewed in 1974, 47 percent reported that their blood pressure was normal, high, low, or other based on a reading taken within the past year; 21 percent had not been told; and 32 percent had not had their blood pressure taken.)

*The 1990 National Health Interview Survey estimated that about 97 percent of adults could state whether their blood pressure was normal, high, or low based on the most recent visit to a medical professional. Among all adults, about 76 percent had their blood pressure taken by a physician within the past year, and about 89 percent had their blood pressure measured within the past 24 months. Of those whose blood pressure was taken within the past 24 months, 76 percent (or approximately 74 percent of the total population) were given the numbers measuring systolic and diastolic pressure.*

## Improved Services and Protection

**A.f.** By 1990, no geopolitical area of the United States should be without an effective public program to identify persons with high blood pressure and to follow up on their treatment. (Baseline data unavailable.)

*As of 1985, all State health departments had coordinated hypertension control programs.*

**A.g.** By 1985, at least 50 percent of processed food sold in grocery stores should be labeled to inform the consumer of sodium and caloric content, employing understandable, standardized, quantitative terms. (In 1979, labeling for sodium was rare; the extent of calorie labeling was about 50 percent in the marketplace.)

*Based on sales dollars, it is estimated that in 1983, 30 percent of processed food sold in grocery stores had sodium labeling. This increased to 60 percent in 1986 and 65 percent in 1988, according to the Food and Drug Administration's Food Label and Package Survey.*

## Improved Surveillance and Evaluation Systems

**A.h.** By 1985, a system should be developed to determine the incidence of high blood pressure, coronary heart disease, congestive heart failure, and hemorrhagic and occlusive strokes. After demonstrated feasibility, by 1990, ongoing sets of these data should be developed.

*Data from the National Health and Nutrition Examination Survey Epidemiologic Followup Study are being used to estimate the incidence of hypertension, heart disease, stroke, and associated health effects.*

**A.i.** By 1985, a methodology should be developed to assess categories of high blood pressure control, and a national baseline study of this status should be completed. Five categories are suggested: (1) Unaware; (2) aware, not under care; (3) aware, under care, not controlled; (4) aware, under care, controlled; and (5) aware, monitored without therapy.

*The methodology is being developed and data are being collected in the National Health and Nutrition Examination Survey (1988-93), using the five suggested categories.*



# Family Planning

## Reduced Risk Factors

**B.a.** By 1990, there should be virtually no unintended births to girls 14 years of age and under. Fulfilling this objective would probably reduce births to this age group to near zero. (In 1978, there were 10,772 births in this age group.)

Year	Births
1978	10,772
1979	10,699
1980	10,169
1981	9,632
1982	9,773
1983	9,752
1984	9,965
1985	10,220
1986	10,176
1987	10,311
1988	10,588
1989	11,486
1990 objective	0

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**B.b.** By 1990, the birth rate<sup>1</sup> for girls 15 years of age should be reduced to 10 per 1,000. (In 1978, there were 14.0 births per 1,000 for this age group.)

Year	Birth rate
1978	14.0
1979	14.0
1980	14.2
1981	14.1
1982	14.0
1983	14.0
1984	13.4
1985	13.6
1986	13.8
1987	14.7
1988	15.6
1989	16.7
1990 objective	10.0

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**B.c.** By 1990, the birth rate<sup>2</sup> for girls 16 years of age should be reduced to 25 per 1,000. (In 1978, there were 31.0 births per 1,000 for this age group.)

Year	Birth rate
1978	31.0
1979	30.9
1980	30.9
1981	30.4
1982	31.1
1983	30.6
1984	30.1
1985	29.7
1986	29.5
1987	30.1
1988	31.9
1989	35.0
1990 objective	25.0

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

<sup>1</sup>The birth rate is the number of children born alive to women in an age group per 1,000 women in the age group.

<sup>2</sup>The birth rate is the number of children born alive to women in an age group per 1,000 women in the age group.



**B.d.** By 1990, the birth rate<sup>3</sup> for girls 17 years of age should be reduced to 45 per 1,000. (In 1978, there were 51.0 births per 1,000 for this age group.)

<sup>3</sup>The birth rate is the number of children born alive to women in an age group expressed as a rate per 1,000 women in the age group.

Year	Birth rate
1978	51.0
1979	51.4
1980	51.8
1981	49.8
1982	50.2
1983	50.6
1984	49.8
1985	50.8
1986	49.4
1987	49.6
1988	51.4
1989	56.4
1990 objective	45.0

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**B.e.** By 1990, reductions in unintended births among single American women (15–44 years of age) should reduce the birth rate<sup>4</sup> in this group to 18 per 1,000. (In 1978, there were 25.7 births per 1,000 unmarried women<sup>5</sup> 15–44 years of age.)

<sup>4</sup>The birth rate for unmarried women is the number of children born alive to unmarried women, regardless of age of mother, per 1,000 unmarried women aged 15–44 years.

<sup>5</sup>Women unmarried at the birth of the child include single, widowed, and divorced women.

Year	Birth rate
1978	25.7
1979	27.2
1980 <sup>a</sup>	28.4
1980	29.4
1981	29.6
1982	30.0
1983	30.4
1984	31.0
1985	32.8
1986	34.3
1987	36.1
1988	38.6
1989	41.8
1990 objective	18.0

<sup>a</sup>The method of deriving data by marital status of the mother was changed in 1980. The rate of 28.4 represents the rate that would be obtained using the same methodology as 1978 and 1979.

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**B.f.** By 1990, the availability of family-planning information and methods (education, counseling, and medical services) to all women and men should have sufficiently increased to reduce by 50 percent the disparity between Americans of different economic levels in their ability to avoid unplanned births. (In 1976, 52.5 percent of births that occurred during the previous 5 years reported by ever-married women with family incomes below the poverty level were unintended compared with 29.6 percent for women with family incomes of 150 percent of poverty level or higher.)

Poverty status	Percent of unintended births to ever-married women			
	1976	1982	1988	1990 obj.
Below poverty level	52.5	43.4	55.0	41.1
100–149 percent of poverty	41.4	46.1	46.4	35.5
150 percent of poverty or more	29.6	26.5	29.6	29.6

SOURCE: Data from National Center for Health Statistics, National Survey of Family Growth.

### Increased Public and Professional Awareness

**B.g.** By 1990, at least 75 percent of men and women over 14 years of age should be able to describe accurately the various contraceptive methods, including the relative safety and effectiveness of one method versus the others. (Baseline data unavailable.)

Race and marital status	Percent of women 15–44 years of age who identified the oral contraceptive pill as the most effective contraceptive method, 1988	
	1976	1988
Total	78.6	
Race		
White		81.3
Black		69.5
Marital status		
Never married		74.3
Currently married		82.7
Formerly married		75.0

SOURCE: Data from National Center for Health Statistics, 1988 National Survey of Family Growth.



## Improved Services and Protection

**B.h.** By 1985, sales of oral contraceptives containing more than 50 micrograms of estrogen should have been reduced to 15 percent of total sales. (In 1978, 23.9 percent of tablets dispensed contained this level.)

<i>Year</i>	<i>Percent of tablets dispensed</i>	<i>Percent of prescriptions filled</i>
1978	23.9	---
1979	20.6	---
1980	17.1	---
1981	13.6	---
1982	10.6	---
1983	---	8.8
1984	---	7.1
1985	---	5.5
1986	---	3.8
1987	---	2.7
1990 objective	---	15.0

SOURCE: Data from Food and Drug Administration. Based on data from the National Prescription Audit, IMS America, Ambler, Pa.

**B.i.** By 1985, 100 percent of federally funded family-planning programs should have an established routine for providing an initial infertility assessment, either directly or through referral. (Baseline data unavailable.)

*Federally funded programs authorized by Title X of the Public Health Service Act are required to make basic infertility services available to clients desiring such services. (Office of Assistant Secretary for Health, Office of Population Affairs.)*



# Pregnancy and Infant Health

## Improved Health Status

**C.a.** By 1990, the infant mortality rate<sup>1</sup> should be reduced to no more than 9 deaths per 1,000 live births. (In 1978, the infant mortality rate was 13.8 per 1,000 live births.)

<sup>1</sup>The infant mortality rate is the number of deaths of infants under 1 year of age expressed as a rate per 1,000 live births.

**C.b.** By 1990, no county and no racial or ethnic group of the population (for example, black people, American Indians, people of Hispanic origin) should have an infant mortality rate in excess of 12 deaths per 1,000 live births. (In 1978, the infant mortality rate for white people was 12.0 per 1,000 live births; for black people, 23.1 per 1,000 live births; for American Indians, 13.7 per 1,000 live births;<sup>2</sup> and the rate for people of Hispanic origin was not available separately.)

<sup>2</sup>The American Indian infant mortality rate of 13.7 per 1,000 live births in 1978 is too low due to inconsistencies between birth and death certificates in classifying race and origin.

Year	Infant mortality rate
1978	13.8
1979	13.1
1980	12.6
1981	11.9
1982	11.5
1983	11.2
1984	10.8
1985	10.6
1986	10.4
1987	10.1
1988	10.0
1989	9.8
1990 <sup>a</sup>	9.1
1990 objective	9.0

<sup>a</sup>Provisional data.

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

Year	Infant mortality rate			
	White <sup>a</sup>	Black <sup>a</sup>	American Indian <sup>b</sup>	Hispanic <sup>b,c</sup>
1978	12.0	23.1	---	---
1979	11.4	21.8	---	---
1980	11.0	21.4	---	---
1981	10.5	20.0	---	---
1982	10.1	19.6	---	---
1983	9.7	19.2	15.2	9.5
1984	9.4	18.4	13.4	9.3
1985	9.3	18.2	13.1	8.8
1986	8.9	18.0	13.9	8.4
1987	8.6	17.9	---	---
1988	8.5	17.6	---	---
1989	8.2	17.7	---	---
1990 obj.	12.0	12.0	12.0	12.0

<sup>a</sup>Rates for white and black infant deaths are by race of child. Detailed tables 18 and 19 show data by race of mother (see Appendix II). Detailed table 19 shows rates according to race and Hispanic origin of mother based on the national linked files of births and infant deaths.

<sup>b</sup>Data for American Indians and Hispanics are from the national linked files of births and infant deaths and are tabulated by race and Hispanic origin of mother.

<sup>c</sup>Data for people of Hispanic origin are available only for States with an Hispanic origin item on their birth certificates. In 1983 and 1984, there were 15 reporting States and the District of Columbia; in 1988, there were 23 reporting States and the District of Columbia, and in 1989, 43 reporting States and the District of Columbia.

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.



**C.c.** By 1990, the neonatal mortality rate<sup>3</sup> should be reduced to no more than 6.5 deaths per 1,000 live births. (In 1978, the neonatal mortality rate was 9.5 per 1,000 live births.)

<sup>3</sup>The neonatal mortality rate is the number of deaths of infants under 28 days of age expressed as a rate per 1,000 live births.

Year	Neonatal mortality rate
1978	9.5
1979	8.9
1980	8.5
1981	8.0
1982	7.7
1983	7.3
1984	7.0
1985	7.0
1986	6.7
1987	6.5
1988	6.3
1989	6.2
1990 <sup>a</sup>	5.7
1990 objective	6.5

<sup>a</sup>Provisional data.

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**C.d.** By 1990, the perinatal mortality rate<sup>4</sup> should be reduced to no more than 5.5 per 1,000. (In 1977, the perinatal mortality rate was 15.4 per 1,000.)

<sup>4</sup>The perinatal mortality rate is the number of fetal deaths at 28 weeks' gestation or more (late fetal deaths) plus the number of infant deaths at under 7 days old expressed as a rate per 1,000 live births plus late fetal deaths.

Year	Perinatal mortality rate
1977	15.4
1978	14.6
1979	13.8
1980	13.2
1981	12.6
1982	12.3
1983	11.5
1984	11.0
1985	10.7
1986	10.3
1987	10.0
1988	9.7
1989	9.6
1990 objective	5.5

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**C.e.** By 1990, the maternal mortality rate<sup>5</sup> should not exceed 5 per 100,000 live births for any county or for any racial or ethnic group (for example, black people, American Indians, people of Hispanic origin). (In 1978, the overall rate was 9.6, the rate for white people was 6.4, the rate for black people was 25.0, the rate for American Indians was 12.1,<sup>6</sup> and the rate for people of Hispanic origin was not available separately.)

<sup>5</sup>The maternal mortality rate is the number of deaths to women from complications of pregnancy, childbirth, and the puerperium expressed as a rate per 100,000 live births.

<sup>6</sup>This rate and other previously published rates are not considered to be accurate due to inconsistencies between birth and death certificates in classifying race and origin. Additionally, rates were based on very small frequencies.

Year	Maternal mortality rate			
	Total	White	Black	Hispanic <sup>a</sup>
1978	9.6	6.4	25.0	---
1979	9.6	6.4	25.1	---
1980	9.2	6.7	21.5	---
1981	8.5	6.3	20.4	---
1982	7.9	5.8	18.2	---
1983	8.0	5.9	18.3	---
1984	7.8	5.4	19.7	---
1985	7.8	5.2	20.4	8.8
1986	7.2	4.9	18.8	8.9
1987	6.6	5.1	14.2	8.0
1988	8.4	5.9	19.5	8.7
1989	7.9	5.6	18.4	9.2
1990 <sup>b</sup>	7.9	---	---	---
1990 obj.	5.0	5.0	5.0	5.0

<sup>a</sup>Data for people of Hispanic origin available only for States with an Hispanic origin item on their birth and death certificates. In 1985-1987, there were 18 reporting States and the District of Columbia; in 1988, there were 23 reporting States and the District of Columbia, and in 1989, 43 reporting States and the District of Columbia.

<sup>b</sup>Provisional data.

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.



**C.f.** By 1990, the incidence of the two major forms of neural tube defects, anencephaly and spina bifida without anencephaly, should be reduced to 0.60 per 1,000 live births. (In 1979, the rate was 0.90 per 1,000.) (Baseline and objective revised from those originally published.)

<i>Incidence rate of major neural tube defects</i>			
<i>Year</i>	<i>Total</i>	<i>Anencephaly</i>	<i>Spina bifida without anencephaly</i>
1979	0.90	---	---
1980	0.85	0.33	0.52
1981	0.86	0.35	0.51
1982	0.81	0.33	0.48
1983	0.77	0.30	0.47
1984	0.76	0.26	0.50
1985	0.72	0.27	0.45
1986	0.71	0.26	0.45
1987	0.63	0.20	0.43
1988	0.68	0.31	0.37
1989	0.57	0.17	0.40
1990	0.53	0.11	0.42
1990 objective	0.60	...	...

SOURCE: Data from National Center for Environmental Health and Injury Control, Division of Birth Defects and Developmental Disabilities.

**C.g.** By 1990, Rhesus hemolytic disease of the newborn should be reduced to below a rate of 1.3 per 1,000 live births. (In 1977, the rate was 1.8 per 1,000.)

<i>Year</i>	<i>Rate</i>
1980	1.8
1981	1.4
1982	1.5
1983	1.6
1984	1.8
1985	1.6
1986	1.4
1987	1.4
1988	1.4
1989	1.3
1990	1.1
1990 objective	1.3

SOURCE: Data from National Center for Environmental Health and Injury Control, Division of Birth Defects and Developmental Disabilities.

**C.h.** By 1990, the incidence of infants born with fetal alcohol syndrome should be reduced by 25 percent.<sup>7</sup> (In 1977, the rate was 1 per 2,000 births, or approximately 1,650 cases.<sup>8</sup>)

<i>Year</i>	<i>Incidence rate of fetal alcohol syndrome<sup>a</sup></i>
1980	0.12
1981	0.12
1982	0.12
1983	0.17
1984	0.17
1985	0.19
1986	0.23
1987	0.22
1988	0.30
1989	0.32
1990	0.40
1990 objective	0.38

<sup>a</sup>Rates are per 1,000 live births and reflect over time both improved diagnostic and assessment techniques and increased familiarity with the ICD code.

SOURCE: Data from National Center for Environmental Health and Injury Control, Division of Birth Defects and Developmental Disabilities.

<sup>7</sup>Same objective in Alcohol and Drug Misuse.

<sup>8</sup>Baseline data are estimated; the ICD code for fetal alcohol syndrome was introduced in 1979.



## Reduced Risk Factors

**C.i.** By 1990, low-birth-weight babies (weighing less than 2,500 grams) should constitute no more than 5 percent of all live births. (In 1978, the proportion was 7.1 percent of all births.)

Year	Percent low birth weight
1978 <sup>a</sup>	7.1
1979	6.9
1980	6.8
1981	6.8
1982	6.8
1983	6.8
1984	6.7
1985	6.8
1986	6.8
1987	6.9
1988	6.9
1989	7.0
1990 objective	5.0

<sup>a</sup>Includes babies weighing 2,500 grams.

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**C.j.** By 1990, no county and no racial or ethnic group of the population (for example, black people, American Indians, people of Hispanic origin) should have a rate of low-birth-weight infants (weighing less than 2,500 grams) that exceeds 9 percent of all live births. (In 1978, the rate for white people was 5.9 percent; for black people, 12.9 percent; for American Indians, 6.7 percent; and for people of Hispanic origin, 6.7 percent.<sup>8</sup>)

Year	Percent low birth weight			
	White	Black	American Indian	Hispanic
1978 <sup>a</sup>	5.9	12.9	6.7	6.7
1979	5.8	12.6	6.4	6.1
1980	5.7	12.5	6.5	6.1
1981	5.7	12.5	6.3	6.1
1982	5.6	12.4	6.2	6.2
1983	5.7	12.6	6.4	6.3
1984	5.6	12.4	6.2	6.2
1985	5.6	12.4	5.9	6.2
1986	5.6	12.5	6.2	6.1
1987	5.7	12.7	6.2	6.2
1988	5.6	13.0	6.1	6.2
1989	5.7	13.2	6.4	6.2
1990 obj.	9.0	9.0	9.0	9.0

<sup>a</sup>Includes babies weighing 2,500 grams.

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**C.k.** By 1990, the majority of infants should leave hospitals in car safety carriers. (Baseline data unavailable.)

*In 1990, 91 percent of children under 5 years of age had been brought home from the hospital in car safety seats after birth. This figure was 61 percent in 1985. (National Center for Health Statistics, National Health Interview Survey.)*



## Increased Public and Professional Awareness

**C.i.** By 1990, 85 percent of women of childbearing age should be able to choose foods wisely (state special nutritional needs of pregnancy) and understand the hazards of smoking, alcohol, pharmaceutical products, and other drugs during pregnancy and lactation. (Baseline data unavailable.)

Condition	Percent of women 18–44 years of age who state that heavy drinking during pregnancy is a risk factor		
	1985	1990	1990 objective
Birth defects	54	64	85
Low birth weight	52	60	85
Mental retardation	52	61	85
Miscarriage	51	57	85

Condition	Percent of women 18–44 years of age who state that smoking during pregnancy is a risk factor		
	1985	1990	1990 objective
Low birth weight	52	60	85
Stillbirth	30	37	85
Premature birth	38	48	85
Miscarriage	36	43	85

*In 1985, 62 percent of women 18–44 years of age had ever heard of fetal alcohol syndrome; in 1990, this increased to 71 percent. (National Center for Health Statistics, National Health Interview Survey.)*

## Improved Services and Protection

**C.m.** By 1990, virtually all women and infants should be served at levels appropriate to their need by a regionalized system of primary, secondary, and tertiary care for prenatal, maternal, and perinatal health services.

**C.n.** By 1990, the proportion of women in any county or racial or ethnic group (for example, white people, black people, American Indians, people of Hispanic origin) who obtain no prenatal care during the first trimester of pregnancy should not exceed 10 percent. (In 1978, 21.8 percent of white mothers, 39.8 percent of black mothers, 43.7 percent of American Indian mothers, and 43.0 percent of Hispanic mothers<sup>9</sup> received no prenatal care during the first trimester.)

<sup>9</sup>Data for people of Hispanic origin available only for States with an Hispanic-origin item on their birth certificates. In 1978, there were 17 States; in 1979, 19 States; in 1980, 22 States; in 1982, 23 States; in 1983–87, 23 States and the District of Columbia; in 1988, 30 States and the District of Columbia; and in 1989, 47 States and the District of Columbia.

Year	Percent with no prenatal care during 1st trimester			
	White	Black	American Indian	Hispanic
1978	21.8	39.8	43.7	43.0
1979	20.9	38.4	41.3	39.5
1980	20.7	37.3	41.3	39.8
1981	20.6	37.6	40.7	39.4
1982	20.7	38.5	39.5	39.0
1983	20.6	38.5	40.3	39.0
1984	20.4	37.8	40.0	38.6
1985	20.6	38.2	39.7	38.8
1986	20.8	38.4	39.3	39.7
1987	20.6	38.9	39.8	39.0
1988	20.6	38.8	39.4	38.8
1989	21.0	39.6	42.1	40.5
1990 obj.	10.0	10.0	10.0	10.0

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**C.o.** By 1990, virtually all pregnant women at high risk of having a fetus with a condition diagnosable *in utero* should have access to counseling and information on amniocentesis and prenatal diagnosis, as well as therapy as indicated. (In 1978, about 10 percent of women 35 years of age and over received amniocentesis. Baseline data are unavailable for other high-risk groups.)

Year	Percent of women 35 years of age and over who had amniocentesis		
	All races	White	Black
1980	29.0	30.0	16.7

SOURCE: National Center for Health Statistics, Division of Vital Statistics.



**C.p.** By 1990, virtually all women who give birth should have appropriately attended safe delivery provided in ways acceptable to them and their families. (In 1977, less than 0.2 percent of all births were out of hospital and unattended by a physician or midwife.)

Year	Percent of births out-of-hospital and unattended
1977	0.2
1978	0.3
1979	0.3
1980	0.3
1981	0.3
1982	0.3
1983	0.3
1984	0.3
1985	0.3
1986	0.3
1987	0.3
1988	0.3
1989	0.3
1990 objective	0.0

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**C.q.** By 1990, virtually all newborns should be provided neonatal screening for metabolic disorders for which effective and efficient tests and treatments are available (for example, phenylketonuria (PKU) and congenital hypothyroidism). (In 1978, about 75 percent of newborns were screened for PKU; about 3 percent were screened for hypothyroidism in the early 1970's.)

Genetic or metabolic disorder	Jurisdictions providing screening, 1990
Phenylketonuria (PKU)	52
Hypothyroidism	52
Hemoglobinopathy	42
Galatosemia	38
Maple syrup urine disease	22
Homocystinuria	21
Biotinidase deficiency	14
Adrenal hyperplasia	8
Tyrosinemia	5
Cystic fibrosis	3
Toxoplasmosis	2

SOURCE: Data from Council of Regional Networks for Genetic Services.

**C.r.** By 1990, virtually all infants should be able to participate in primary health care that includes well-child care; growth development assessment; immunization; screening, diagnosis, and treatment for conditions requiring special services; appropriate counseling regarding nutrition, automobile safety, and prevention of other accidents such as poisonings. (Baseline data unavailable.)

### Improved Surveillance and Evaluation Systems

**C.s.** By 1990, a system should be in place for comprehensive and longitudinal assessment of the impact of a range of prenatal factors (for example, maternal exposure to radiation, ultrasound, dramatic temperature change, toxic agents, smoking, use of alcohol or drugs, exercise, or stress) on infant and child physical and psychological development. (Baseline data unavailable.)

*The National Maternal and Infant Health Survey (NMIHS) addresses maternal smoking, drinking, and drug use, as well as maternal exposure to ultrasound. In combination with the Longitudinal Followup, which collects information on child development through the first 3 years of life, some assessment of the impact of prenatal factors on child development can be made. A 1996 NMIHS is being planned with subsequent followups at 2-to-3-year intervals.*



# Immunization

---

## Improved Health Status

**D.a.** By 1990, reported measles incidence should be reduced to less than 500 cases per year—all imported or within two generations of importation. (In 1979, 13,597 measles cases were reported.)

<i>Year</i>	<i>Cases of measles</i>
1979	13,597
1980	13,506
1981	3,124
1982	1,714
1983	1,497
1984	2,587
1985	2,822
1986	6,282
1987	3,655
1988	3,396
1989	18,193
1990	27,786
1990 objective	500

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.

**D.b.** By 1990, reported mumps incidence should be reduced to less than 1,000 cases per year. (In 1979, 14,225 mumps cases were reported.)

<i>Year</i>	<i>Cases of mumps</i>
1979	14,225
1980	8,576
1981	4,941
1982	5,270
1983	3,355
1984	3,021
1985	2,982
1986	7,790
1987	12,848
1988	4,866
1989	7,712
1990	5,292
1990 objective	1,000

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.

**D.c.** By 1990, reported rubella incidence should be reduced to less than 1,000 cases per year. (In 1979, 11,795 rubella cases were reported.)

<i>Year</i>	<i>Cases of rubella</i>
1979	11,795
1980	3,904
1981	2,077
1982	2,325
1983	970
1984	752
1985	630
1986	551
1987	306
1988	225
1989	396
1990	1,125
1990 objective	1,000

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.



**D.d.** By 1990, reported congenital rubella syndrome incidence should be reduced to less than 10 cases per year. (In 1979, 62 new cases of congenital rubella syndrome were reported.)

<i>Year</i>	<i>New cases of congenital rubella syndrome</i>
1979	62
1980	50
1981	19
1982	7
1983	22
1984	5
1985	0
1986	14
1987	5
1988	6
1989	3
1990	11
1990 objective	10

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.

**D.e.** By 1990, reported diphtheria incidence should be reduced to less than 50 cases per year. (In 1979, 59 diphtheria cases were reported.)<sup>1</sup>

<i>Year</i>	<i>Cases of diphtheria</i>
1979	159
1980	3
1981	5
1982	2
1983	5
1984	1
1985	3
1986	0
1987	3
1988	2
1989	3
1990	4
1990 objective	50

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.

**D.f.** By 1990, reported pertussis incidence should be reduced to less than 1,000 cases per year. (In 1979, 1,623 pertussis cases were reported.)

<i>Year</i>	<i>Cases of pertussis</i>
1979	1,623
1980	1,730
1981	1,248
1982	1,895
1983	2,463
1984	2,276
1985	3,589
1986	4,195
1987	2,823
1988	3,450
1989	4,157
1990	4,570
1990 objective	1,000

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.

**D.g.** By 1990, reported tetanus incidence should be reduced to less than 50 cases per year. (In 1979, 81 tetanus cases were reported.)

<i>Year</i>	<i>Cases of tetanus</i>
1979	81
1980	95
1981	72
1982	88
1983	91
1984	74
1985	83
1986	64
1987	48
1988	53
1989	53
1990	64
1990 objective	50

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.



**D.h.** By 1990, reported polio incidence should be less than 10 cases per year. (In 1979, 26 paralytic polio cases were reported.)

<i>Year</i>	<i>Cases of paralytic polio</i>
1979	26
1980	8
1981	6
1982	8
1983	15
1984	8
1985	7
1986	10
1987	6
1988	9
1989	5
1990	4
1990 objective	10

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.

### Increased Public and Professional Awareness

**D.i.** By 1990, all mothers of newborns should receive instruction prior to leaving the hospital or after home births on immunization schedules for their babies. (Of 52 reporting areas in fiscal year 1981, 14 had projects with education programs in which mothers receive such instruction. These projects cover mothers receiving services from public programs.)

<i>Fiscal year</i>	<i>Federally funded projects</i>
1981	14
1982	35
1983	43
1984	44
1985	46
1986	51
1987	51
1988	51
1989	51
1990	51
1990 objective	52

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.

### Improved Services and Protection

**D.j.** By 1990, at least 90 percent of all children should have completed their basic immunization series by age 2—measles, mumps, rubella, polio, diphtheria, tetanus, and pertussis. (In 1979 over 50 percent of children 2 years of age had received vaccinations for each of the diseases.<sup>2</sup>)

Data not available for 1986–1990. Data for 1991 are currently being collected by the National Center for Health Statistics, Health Interview Survey. These data will be available in Autumn 1992.

<sup>2</sup>Data for each disease are collected independently.

<i>Year</i>	<i>Percent vaccinated<sup>a</sup></i>				
	<i>Measles</i>	<i>Rubella</i>	<i>Mumps</i>	<i>Polio<sup>b</sup></i>	<i>DTP<sup>b</sup></i>
1979	80.8	80.0	70.1	76.3	82.1
1980	83.0	83.2	80.2	80.7	87.0
1981	81.5	83.9	79.1	80.9	87.6
1982	84.3	81.1	79.0	78.6	88.4
1983	83.9	81.9	78.1	78.6	88.4
1984	81.7	76.7	78.4	74.2	85.8
1985	81.7	77.3	78.9	76.7	85.8
1990 obj.	90.0	90.0	90.0	90.0	90.0

<sup>a</sup>Based on a subsample of respondents in the U.S. Immunization Survey of 1979–1985. The subsample includes only respondents stating that they used immunization records as a reference. The subsample size is approximately one-third of the total sample size.

<sup>b</sup>3 or more vaccinations.

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.



**D.k.** By 1990, at least 95 percent of children attending licensed day care facilities and kindergarten through 12th grade should be fully immunized. (Based on data collected during the 1978–79 school year, the immunization level for measles, rubella, polio, and DTP was about 90 percent for first school entrants and lower overall.<sup>3</sup>)

<sup>3</sup>Data for each disease are collected independently; however, because of current school laws the percents probably reflect the general level of fully immunized students at the kindergarten and first grade levels.

**D.l.** By 1990, at least 60 percent of people in high-risk populations<sup>4</sup> as defined by the Immunization Practices Advisory Committee of the Public Health Service should be receiving annual immunization against influenza. (In 1979, about 19 percent of people in high-risk populations were immunized.)

<sup>4</sup>The high-risk population includes older persons, particularly those 65 years of age and over, and others, including children, with certain predisposing chronic conditions.

**D.m.** By 1990, at least 60 percent of high-risk populations<sup>5</sup> as defined by the Immunization Practices Advisory Committee of the Public Health Service should have received vaccination against pneumococcal pneumonia. (Baseline data unavailable.)

<sup>5</sup>The high-risk population includes children under 2 years of age with splenic dysfunction or anatomic asplenia and adults and children over 2 years of age with certain predisposing chronic conditions.

**D.n.** By 1990, at least 50 percent of people in populations designated as targets by the Immunization Practices Advisory Committee of the Public Health Service should be immunized within 5 years of licensure of new vaccines for routine clinical use.<sup>6,7</sup>

<sup>6</sup>Vaccines may be developed for people at risk of getting hepatitis A; otitis media (*S. pneumoniae* and *H. influenzae*); selected respiratory and enteric viruses; meningitis (group B *N. meningitides*, *S. pneumoniae*, *H. influenzae*).

<sup>7</sup>Same objective in Surveillance and Control of Infectious Diseases.

**D.o.** By 1985, the Nation should have a plan in place to mount mass immunization programs in the face of possible epidemics of influenza or other epidemic diseases for which vaccines may exist.

School year	Percent of new entrants vaccinated <sup>a</sup>				
	Measles	Rubella	Mumps	Polio	DTP
1978–79	93	91	83	92	92
1979–80	94	93	86	93	94
1980–81	96	96	92	95	96
1981–82	97	97	95	96	96
1982–83	97	97	96	97	96
1983–84	98	98	97	97	97
1984–85	98	98	97	97	97
1985–86	97	97	96	96	96
1986–87	97	97	97	97	97
1987–88	98	98	98	97	97
1988–89	98	98	98	97	97
1989–90	98	98	98	97	97
1990–91	98	98	98	97	97
1990–91 obj.	95	95	95	95	95

<sup>a</sup>Kindergarten or first grade.

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.

Year	Percent of high-risk population immunized
1979	19
1980	17
1981	17
1982	18
1983	17
1984	17
1985	18
1989 <sup>a</sup>	30
1990 objective	60

<sup>a</sup>Data are for persons 65 years of age and over; there are no current estimates for high-risk persons under 65 years of age.

SOURCE: Centers for Disease Control, National Center for Prevention Services.

*An estimated 10.3 percent of the entire high-risk population had ever received pneumococcal polysaccharide vaccine by 1985. In addition, an estimated 14.1 percent of persons 65 years of age and older had ever received pneumococcal polysaccharide vaccine by 1989. (Centers for Disease Control, National Center for Prevention Services.)*

*Data indicate that coverage for high-risk groups varies from 2–50 percent. (Centers for Disease Control.)*

*A plan for controlling influenza pandemics has been developed as has a Mass Immunization Guide. (Centers for Disease Control.)*



**D.p.** By 1990, no comprehensive health insurance policies should exclude immunizations. (Baseline data unavailable.)

*Financial coverage for immunizations were included in 45 percent of employment-based insurance plans with conventional insurance; 62 percent with Preferred Provider Organization plans; and 98 percent with Health Maintenance Organization plans in 1989. Medicaid covered basic immunizations for eligible children, and Medicare covered pneumococcal immunizations for eligible older adults in 1990. (Centers for Disease Control.)*

## **Improved Surveillance and Evaluation Systems**

**D.q.** By 1990, at least 95 percent of all children 18 years of age and under should have up-to-date official immunization records in a uniform format using common guidelines for completion of immunization. (Baseline data unavailable.)

*Standardized immunization records are now available in all States. The definition of "complete series" may vary due to varying school immunization requirements. (Centers for Disease Control.)*

**D.r.** By 1990, surveillance systems should be sufficiently improved so that (1) at least 90 percent of those hospitalized and 50 percent of those not hospitalized with vaccine-preventable diseases of childhood are reported, and (2) uniform case definitions are used nationwide. (Baseline data unavailable.)

*(1) The target for reporting vaccine preventable childhood diseases was not met. Although probably 100 percent of infrequent severe diseases, including tetanus, diphtheria, and acute paralytic illness suspected to be poliomyelitis, are reported, the more common milder diseases, including pertussis, rubella, and mumps, are probably reported less than half the time. A 1985–88 study found that 32 percent of pertussis hospitalizations were reported. Unpublished data from New York City indicate that about 46 percent of all patients seen in emergency rooms and outpatients clinics for measles were reported to the Centers for Disease Control. (2) Uniform case definitions exist for measles, mumps, rubella, congenital rubella syndrome, poliomyelitis, diphtheria, tetanus, pertussis, and Haemophilus influenzae type b. (Centers for Disease Control, National Center for Preventive Services.)*



# Sexually Transmitted Diseases

## Improved Health Status

**E.a.** By 1990, reported gonorrhea incidence should be reduced to a rate of 280 cases per 100,000 population. (In 1979, the reported incidence was 459 cases per 100,000 population.)

Year	Reported incidence of gonorrhea
1978	459.7
1979	450.3
1980	445.1
1981	435.2
1982	417.9
1983	387.6
1984	374.8
1985	384.3
1986	370.1
1987	329.4
1988	300.3
1989	295.7
1990	276.6
1990 objective	280.0

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.

**E.b.** By 1990, reported incidence of gonococcal pelvic inflammatory disease should be reduced to a rate of 60 cases per 100,000 females. (In 1978, the estimated incidence was 133.8 cases per 100,000 females.)

Year	Estimated incidence of pelvic inflammatory disease	
	Gonococcal	Total <sup>a</sup>
1978	133.9	---
1979	131.7	---
1980	127.1	---
1981	123.1	---
1982	116.0	---
1983	106.0	---
1984	103.7	768.0
1985	107.3	691.6
1986	106.3	624.8
1987	94.6	628.2
1988	84.1	511.6
1989	81.7	484.6
1990 <sup>b</sup>	79.4	473.0
1990 objective	60.0	560.0

<sup>a</sup>Total pelvic inflammatory disease (PID) is also shown because gonococcal PID accounts for less than half of all PID. In some areas, *Chlamydia trachomatis* infection accounts for the majority of all symptomatic PID cases occurring each year. Additionally, current data indicate that the initial measure of gonococcal pelvic inflammatory disease was underestimated. In 1985 the original emphasis of this objective was broadened to include all diagnosed cases of PID, and a target of 560 total cases was set.

<sup>b</sup>Provisional data.

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.



**E.c.** By 1990, reported incidence of primary and secondary syphilis should be reduced to a rate of 7 cases per 100,000 population per year, with a reduction in congenital syphilis to 1.5 cases per 100,000 live births. (In 1979, the reported incidence of primary and secondary syphilis was 11 cases per 100,000 population and of congenital syphilis, 3.5 cases per 100,000 live births.)

Year	Reported incidence of—	
	Primary and secondary syphilis	Congenital syphilis
1979	11.2	3.5
1980	12.1	3.0
1981	13.7	4.4
1982	14.6	4.3
1983	14.1	4.3
1984	12.2	6.7
1985	11.5	7.0
1986	11.5	9.5
1987	14.8	11.6
1988	16.5	16.8
1989 <sup>a</sup>	18.5	43.4
1990	20.1	68.6
1990 objective	7.0	1.5

<sup>a</sup>Changes in the case definition during 1989 which were designed to more accurately reflect congenital syphilis prevalence account for the vast majority of the increase of congenital syphilis cases in 1989 and 1990. The new case definition identifies births to women with untreated syphilis. Investigations have shown that previous surveillance underestimated the number of cases by four- to fivefold. The increases noted reflect both the rising incidence of syphilis in reproductive-age women and a more sensitive case definition.

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.

*An accurate system to measure this objective is not available. (Centers for Disease Control, National Center for Prevention Services.)*

**E.d.** By 1990, the incidence of serious neonatal infection from sexually transmitted agents, especially herpes and chlamydia, should be reduced to a rate of 8.5 cases of neonatal disseminated herpes per 100,000 children under 1 year of age and a rate of 360 cases of chlamydial pneumonia per 100,000 children under 1 year of age. (In 1979, about 16.8 cases of neonatal disseminated herpes per 100,000 children under 1 year of age and about 720 cases of chlamydial pneumonia per 100,000 children under 1 year of age were estimated to have occurred.)

*Results from the National Disease and Therapeutic Index indicate that there were approximately 350,000 visits to physician offices for nonspecific urethritis. Other national estimates are not available. (Centers for Disease Control, National Center for Prevention Services.)*

**E.e.** By 1990, the incidence of nongonococcal urethritis and chlamydial infections should be reduced to a rate of 770 cases per 100,000 population. (In 1979, the case rate was estimated to be 1,140 per 100,000 population.)

## Reduced Risk Factors

**E.f.** By 1990, the proportion of sexually active men and women protected by properly used condoms should increase to 25 percent of those at high risk of acquiring sexually transmitted diseases. (In 1979, the estimated proportion was less than 10 percent.)

*Results from the National Survey of Family Growth showed that in 1988 the use of condoms among sexually active, unmarried women ages 15–44 years (by their partners) was 19 percent; among sexually active young women ages 15–19 (by their partners) it was 25 percent; and among sexually active young men ages 15–19 it was reported to be 57 percent.*



## Increased Public and Professional Awareness

**E.g.** By 1990, every junior and senior high school student in the United States should receive accurate, timely education about sexually transmitted diseases. (Currently, 70 percent of school systems provide some information about sexually transmitted diseases, but the quality and timing of the communication varies greatly.)

*Due to the concern about AIDS and HIV, expanded sex education curricula have been developed, introduced, evaluated, and “mainstreamed” in many American communities. A recent survey of high school administrators found 95 percent offered at least one class on STD as part of their standard curricula. However, in a 1988 survey of teenagers, only 77 percent reported having received STD education by age 18. In addition, awareness by students of STD symptoms, signs, and approaches to prevention is relatively low, especially compared with their knowledge of AIDS and HIV. (Centers for Disease Control, National Center for Prevention Services.)*

**E.h.** By 1985, at least 95 percent of health care providers seeing suspected cases of sexually transmitted diseases should be capable of diagnosing and treating all currently recognized sexually transmitted diseases, including genital herpes diagnosis by culture, therapy (if available), and patient education; hepatitis B diagnosis among homosexual men, prevention through a vaccine, and patient education; and nongonococcal urethritis diagnosis, therapy, and patient education. (Baseline data unavailable.)

*To effectively prevent the spread of sexually transmitted diseases, clinicians must be skilled in sexual history-taking, diagnostic procedures, and current treatment regimens. Although the proficiency of health care providers in STD management has improved in recent years, it is far short of the necessary quality and scope to provide adequate clinical services. A CDC survey found that nearly half of medical schools offered no clinical curricula on sexually transmitted diseases. Efforts to improve the training of clinicians during the 1980’s include the development of STD curricula in medical schools and of instructional packages and the establishment of STD Prevention/Training Centers. (Centers for Disease Control, National Center for Prevention Services.)*

## Improved Services and Protection

**E.i.** By 1990, at least 50 percent of major industries and governmental agencies offering screening and health promotion programs at the worksite should be providing sexually transmitted disease services (education and appropriate testing) within those programs. (Baseline data unavailable.)

## Improved Surveillance and Evaluation Systems

**E.j.** By 1985, data should be available in adequate detail (but in statistical aggregates to preserve confidentiality) to determine the occurrence of nongonococcal urethritis, genital herpes, and other sexually transmitted diseases in each local area and to recommend approaches for preventing sexually transmitted diseases and their complications.

*In 1984, CDC began implementation of a surveillance system for collecting and monitoring reported cases of a variety of STD. In August 1989, a national STD conference was conducted to redefine and solidify surveillance systems for collecting and monitoring reported cases of a variety of STD by each State.*

**E.k.** By 1990, surveillance systems should be sufficiently improved so that at least 25 percent of sexually transmitted diseases diagnosed in medical facilities are reported and uniform definitions are used nationwide. (Baseline data unavailable.)

*Centers for Disease Control data indicate that at least 25 percent of treated STD is being reported. In 1990 uniform surveillance case definitions for sexually transmitted diseases were published by CDC and the Council of State and Territorial Epidemiologists.*



# Toxic Agent and Radiation Control

---

## Improved Health Status

**F.a.** By 1990, 80 percent of communities should experience a prevalence rate of lead toxicity of less than 500 per 100,000 among children 1–5 years of age. (In 1976–80, the estimated prevalence of lead toxicity among children 6 months–5 years of age was 4,000 per 100,000 nationally.)

*The 1976–80 data from the National Health And Nutrition Examination Survey II, showed 8.4 million children with blood lead levels greater than 15 micrograms per deciliter and 1.5 million children with levels greater than 25 micrograms per deciliter. The Agency for Toxic Substances and Disease Registry's report "The Nature and Extent of Lead Poisoning in Children" used these data, as well as data from lead screening programs, to project the 1984 prevalence of more than 3 million and 200,000, respectively. This 1988 report states that these are underestimates because they are for black and white children only and exclude sizable national population segments of Hispanics, Asian, and other ethnic origin children for which no reliable prevalences could be calculated.*

**F.b.** By 1990, significant progress should have been made toward preventing birth defects or miscarriages resulting from exposure to toxic substances through environmental interventions based on current information and expansion of the knowledge base related to hazardous substances and their effects on reproduction. (Baseline data unavailable.)

## Reduced Risk Factors

**F.c.** By 1990, virtually all communities should experience no more than 1 day per year when air quality exceeds ambient air quality standards for sulfur dioxide, nitrous dioxide, carbon monoxide, lead, hydrocarbons, and particulate matter. (In 1979, the level was estimated at about 50 percent.)

*In 1989, 65.3 percent of the U.S. population lived in counties that had not exceeded any Environmental Protection Agency standard for air quality in the past year. (Environmental Protection Agency, Office of Air Quality.)*

**F.d.** By 1990, at least 95 percent of the population should be served by community water systems that meet Federal and State standards for safe drinking water. (In 1979, the level was 85–90 percent for the National Interim Primary Drinking Water Standards.)

*In 1988, 80 percent of the population was served by community water systems that met safe drinking water standards established by the Environmental Protection Agency. (Environmental Protection Agency, Office of Drinking Water.)*

**F.e.** By 1990, there should be virtually no preventable contamination of ground water, surface water, or the soil from industrial toxins associated with wastewater management systems established after 1980. (Baseline data unavailable.)



**F.f.** By 1990, there should be no pesticides, herbicides, fungicides, or rodenticides available for sale that are known to be carcinogenic, teratogenic, or mutagenic in humans, unless determined to be vital to the national interest under certain conditions. (Baseline data unavailable.)

*As mandated under the provisions of the Federal Insecticide, Fungicide, and Rodenticide Act of 1972, the Environmental Protection Agency considers both the risks and benefits of a new or existing product when evaluating whether it should be approved for use or continued use. Although risk and benefit assessments are continually being made, comprehensive data are not available to evaluate the final attainment status of this objective.*

**F.g.** By 1990, inhalation of fumes from toxic materials during transport should be eliminated. (Baseline data unavailable.)

**F.h.** By 1990, the number of medically unnecessary diagnostic x-ray examinations should be reduced by some 50 million examinations annually. (In 1980, the number of diagnostic x-ray examinations performed in the United States was 260 million, of which 80 million were estimated to be medically unnecessary.)

### **Increased Public and Professional Awareness**

**F.i.** By 1990, at least 75 percent of all city council members in urban communities should be able to report accurately whether the quality of their air and water has improved or worsened over the decade and to identify the principal substances of concern. (Baseline data unavailable.)

**F.j.** By 1990, at least half of all adults should be able to accurately report an accessible source of information on toxic substances to which they may be exposed, including information on interactions with other factors such as smoking and medications. (Baseline data unavailable.)

**F.k.** By 1990, at least half of all people 15 years of age and over should be able to identify the major categories of environmental threats to health and note some of the health consequences of those threats. (Baseline data unavailable.)

**F.l.** By 1990, at least 70 percent of all primary care physicians should be able to identify the principal health consequences of exposure to each of the major categories of environmental threats to health. (Baseline data unavailable.)

### **Improved Services and Protection**

**F.m.** By 1990, at least 90 percent of all children 1–5 years of age identified with lead toxicity should have been brought under medical and environmental management. (Baseline data unavailable.)

**F.n.** By 1990, the Toxic Substances Control Act and the Resource Conservation and Recovery Act should be fully implemented to protect the U.S. population against hazards resulting from production, use, and disposal of toxic chemicals. (Baseline data unavailable.)

*By 1990, 1,000 health assessments had been made among 1,082 National Priority List hazardous waste sites. The two acts stated in the objective as well as additional ones enacted during the 1980's have served to minimize public risk from exposure to toxic substances. (Agency for Toxic Substances and Disease Registry.)*



**F.o.** By 1990, individuals purchasing a potentially toxic product sold commercially or used industrially should be protected by clear labeling as to content, direction for proper use and disposal, and factors that may make that individual especially susceptible (health status, age, sex, medications, genetic traits). (Baseline data unavailable.)

**F.p.** By 1990, every individual should have access to an acute care facility with the capability to provide or make appropriate referrals for screening, diagnosis, and treatment of suspected exposure to toxic agents. (Baseline data unavailable.)

**F.q.** By 1990, every individual residing in an area of a population density greater than 20 per square mile, or in an area of particularly high risk, should be protected by an early warning system designed to detect the most serious environmental hazards posing imminent threats to health. (Baseline data unavailable.)

**F.r.** By 1990, every populated area of the country should be able to be reached within 6 hours by an emergency response team in the event of exposure to an environmental hazard posing acute threats to health from a toxic agent, chemical, and/or radiation. (Baseline data unavailable.)

*A 24-hour notification system is in place (telephone number 404/639-0615) and an emergency response team can be on site of an environmental hazard within 6–8 hours of notification within the continental United States. (Centers for Disease Control, National Center for Environmental Health and Injury Control.)*

### **Improved Surveillance and Evaluation Systems**

**F.s.** By 1990, a broad scale surveillance and monitoring system should have been planned to discern and measure known environmental hazards of a continuing nature as well as those resulting from isolated incidents. Such activities should be continuously carried out at both Federal and State levels.

*This objective has not been met. However, the Environmental Protection Agency has made considerable progress establishing systems to track certain hazardous substances, including polychlorinated byphenyls (PCB's) and pesticides. (Office of Disease Prevention and Health Promotion.)*

**F.t.** By 1990, a central clearinghouse for observations of agent-disease relationships and host susceptibility factors should be fully operational, as well as a national environmental data registry to collect and catalog information on concentrations of hazardous agents in air, food, and water.

*This objective has not yet been reached; the issues involved in the attainment of this objective are not technical, however, but administrative, involving a number of disparate sources at the federal, State, and local levels. (National Library of Medicine, Office of Hazardous Substances Information.)*



# Occupational Safety and Health

## Improved Health Status

**G.a.** By 1990, workplace accident deaths for firms or employers with 11 or more employees should be reduced to less than 3,750 per year. (In 1978, there were 4,590 work-related deaths for firms or employers with 11 or more employees.)

<i>Year</i>	<i>Work-related deaths</i>
1978	4,590
1979	4,950
1980	4,400
1981	4,370
1982	4,090
1983	3,100
1984	3,740
1985	3,750
1986	3,610
1987	3,400
1988	3,300
1989	3,600
1990 objective	3,750

SOURCE: Data from Bureau of Labor Statistics.

**G.b.** By 1990, the rate of work-related injuries should be reduced to 8.3 cases per 100 full-time workers. (In 1978, there were 9.2 cases per 100 workers.)

<i>Year</i>	<i>Work-related injuries rate</i>
1978	9.2
1979	9.2
1980	8.5
1981	8.1
1982	7.6
1983	7.5
1984	7.8
1985	7.7
1986	7.7
1987	8.0
1988	8.3
1989	8.2
1990 objective	8.3

SOURCE: Data from Bureau of Labor Statistics.

**G.c.** By 1990, lost workdays from injuries should be reduced to 55 per 100 workers annually. (In 1978, 62.1 days per 100 workers were lost.)

<i>Year</i>	<i>Lost workdays rate</i>
1978	62.1
1979	66.2
1980	63.7
1981	60.4
1982	57.5
1983	57.2
1984	61.8
1985	63.3
1986	63.9
1987	67.3
1988	72.5
1989	74.2
1990 objective	55.0

SOURCE: Data from Bureau of Labor Statistics.



**G.d.** By 1990, the incidence of compensable occupational dermatitis should be reduced to about 60,000 cases. (In 1978, there were approximately 65,900 cases of occupation-related skin diseases or disorders.<sup>1</sup>)

<sup>1</sup>Data include all cases of occupation-related skin diseases or disorders, regardless of whether compensation was involved.

Year	Cases of occupation-related skin disease or disorders
1978	65,900
1979	67,900
1980	56,200
1981	51,200
1982	41,900
1983	39,500
1984	42,500
1985	41,800
1986	41,900
1987	54,200
1988	58,000
1989	62,100
1990 objective	60,000

SOURCE: Data from Bureau of Labor Statistics.

**G.e.** By 1990, among workers newly exposed after 1985, there should be virtually no new cases of four preventable occupational diseases— asbestosis, byssinosis, silicosis, and coal workers’ pneumoconiosis. (In 1979, there were an estimated 5,000 cases of asbestosis; in 1977, an estimated 84,000 cases of byssinosis were expected in active workers; in 1979, an estimated 60,000 cases of silicosis were expected among active workers in mining, foundries, stone, clay and glass products, and abrasive blasting; in 1974, there were an estimated 19,400 cases of coal workers’ pneumoconiosis. (Baseline data on incidence unavailable.)

**G.f.** By 1990, the prevalence of occupational noise-induced hearing loss should be reduced to 415,000 cases. (In 1975, there were an estimated 462,000 cases of work-related hearing loss.)

**G.g.** By 1990, occupational heavy metal poisoning (lead, arsenic, zinc) should be virtually eliminated. (Baseline data unavailable.)

*The Bureau of Labor Statistics Supplementary Data System reports 1,791 cases in 1988 for 14 States, based on Workers’ Compensation First Reports.*

## Reduced Risk Factors

**G.h.** By 1985, 50 percent of all firms with more than 500 employees should have an approved plan of hazard control for all new processes, new equipment, and new installations. (Baseline data unavailable.)

**G.i.** By 1990, all firms with more than 500 employees should have an approved plan of hazard control for all new processes, new equipment, and new installations. (Baseline data unavailable.)

## Increased Public and Professional Awareness

**G.j.** By 1990, at least 25 percent of workers should be able, prior to employment, to state the nature of their occupational health and safety risks and their potential consequences, as well as be informed of changes in these risks while employed. (In 1979, an estimated 5 percent of workers were fully informed.)

*In 1985, 40 percent of currently employed workers perceived exposure to risk of injuries, 35 percent perceived exposure to health-endangering work conditions, and 34 percent perceived exposure to health-endangering substances. (National Center for Health Statistics, National Health Interview Survey.)*



**G.k.** By 1985, workers should be routinely informed of lifestyle behaviors and health factors that interact with factors in the work environment to increase risks of occupational illness and injuries. (Baseline data unavailable.)

**G.l.** By 1985, all workers should receive routine notification in a timely manner of all health examinations or personal exposure measurements taken on work environments directly related to them. (Baseline data unavailable.)

**G.m.** By 1990, all managers of industrial firms should be fully informed about the importance of and methods for controlling human exposure to the important toxic agents in their work environments. (Baseline data unavailable.)

**G.n.** By 1990, at least 70 percent of primary health care providers should routinely elicit occupational health exposures as part of patient history and should know how to interpret the information for patients in an understandable manner. (Baseline data unavailable.)

**G.o.** By 1990, at least 70 percent of all graduate engineers should be skilled in the design of plants and processes that incorporate occupational safety and health control technologies. (Baseline data unavailable.)

### **Improved Services and Protection**

**G.p.** By 1990, generic standards and other forms of technology transfer should be established, where possible, for standardized employer attention to such major common problems as chronic lung hazards, neurological hazards, carcinogenic hazards, mutagenic hazards, teratogenic hazards, and medical monitoring requirements.

*Beginning in August 1988, the National Institute for Occupational Safety and Health worked closely with the Occupational Safety and Health Administration (OSHA) in updating permissible exposure limits (PELs). On January 19, 1989, OSHA published, in the Federal Register, an update of the OSHA PELs. The approach was different from the past substance by substance approach through the new use of generic rulemaking. The amendment made 212 PELs more protective and set new PELs for 164 substances not previously regulated by OSHA bringing the total to 595 PELs. A wide variety of health effects were considered during this rulemaking including cancer, cardiovascular, liver and kidney damage, as well as lung diseases, central nervous system damage, narcosis, respiratory effects, and sensory irritation.*



**G.q.** By 1990, the number of health hazard evaluations being performed annually should increase tenfold; the number of industrywide studies being performed annually should increase threefold. (In 1979, the National Institute for Occupational Safety and Health performed approximately 152 general industry health hazard evaluations.)

Year	Health hazard evaluations <sup>b</sup>	
	Total <sup>a</sup>	Mining
1979	152	8
1980	277	15
1981	390	28
1982	464	32
1983	460	29
1984	509	20
1985	536	17
1986	544	12
1987	436	5
1988	394	14
1989	380	7
1990	396	6
1990 objective	1,500	80

<sup>a</sup>Excludes mining.

<sup>b</sup>These numbers do not include requests for technical assistance or information which are received from employers, workers, or others, and for which a site visit is not required. The NIOSH Health Hazard Evaluation and Technical Assistance Program responds to approximately 600 such requests each year, in addition to the numbers shown.

SOURCE: Data from National Institute for Occupational Safety and Health.

## Improved Surveillance and Evaluation Systems

**G.r.** By 1985, an ongoing occupational health hazard-illness-injury coding scheme, survey, and surveillance capability should be developed, including identification of workplace hazards and related health effects, including cancer, coronary heart disease, and reproductive effects. This system should include adequate measurements of the severity of work-related disabling injuries.

**G.s.** By 1985, at least one question about lifetime work history and known exposures to hazardous substances should be added to all appropriate existing health data reporting systems, for example, cancer registries, hospital discharge abstracts, and death certificates.<sup>2</sup>

<sup>2</sup>Usual occupation has been on the Standard Death Certificate since 1939, but this information is currently not coded by all States.

**G.t.** By 1985, a program should be developed to (1) follow up individual findings from health hazard and health evaluation, reports from unions and management, and other existing surveillance sources of clinical and epidemiological data; and (2) use the findings to determine the etiology, natural history, and mechanisms of suspected occupational disease and injury.

*In 1987 and 1988, the National Institute for Occupational Safety and Health evaluated and published strategies for surveillance and prevention of 10 leading work-related diseases and injuries.*

*This objective was not achieved by 1985. However, inclusion of occupational information in hospital records remains a high priority and a number of efforts have been undertaken to gather data on exposure to health hazards via death certificates. The 1986 National Mortality Followback Survey and the 1986 National Health Interview Survey contained questions about the subject's longest job. (Office of Disease Prevention and Health Promotion.)*

*This objective, as it relates to injuries, was achieved in 1985. A computerized tracking system for new information on emerging health problems was developed by the National Institute for Occupational Safety and Health (NIOSH). Also in operation is a NIOSH project on Occupational Sentinel Health Events. In response to the specific problem of occupational fatalities, the Fatal Accident Circumstances and Epidemiology (FACE) project was developed and implemented. (Office of Disease Prevention and Health Promotion.)*



# Injury Prevention

---

## Improved Health Status

**H.a.** By 1990, the motor vehicle death rate should be reduced to no greater than 18 per 100,000 population. (In 1978, it was 23.6 per 100,000 population.)

<i>Year</i>	<i>Death rate</i>
1978	23.6
1979	23.8
1980	23.5
1981	22.4
1982	19.8
1983	19.0
1984	19.6
1985	19.2
1986	19.9
1987	19.8
1988	20.0
1989	19.2
1990 <sup>a</sup>	19.1
1990 objective	18.0

<sup>a</sup>Provisional data.

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**H.b.** By 1990, the motor vehicle death rate for children under 15 years of age should be reduced to no greater than 5.5 per 100,000 children. (In 1978, it was 9.0 per 100,000.)

<i>Year</i>	<i>Death rate</i>
1978	9.0
1979	8.6
1980	8.1
1981	7.5
1982	7.0
1983	6.7
1984	6.6
1985	6.8
1986	6.8
1987	6.8
1988	6.9
1989	6.5
1990 objective	5.5

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**H.c.** By 1990, the home accident death rate for children under 15 years of age should be no greater than 5.0 per 100,000 children. (In 1978, it was 6.0 per 100,000.)

<i>Year</i>	<i>Death rate</i>
1978	6.0
1979	5.7
1980	5.7
1981	---
1982	---
1983	5.0
1984	4.9
1985	4.8
1986	5.0
1987	5.0
1988	5.0
1989	4.9
1990 objective	5.0

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.



**H.d.** By 1990, the death rate from falls should be reduced to no more than 2 per 100,000 population. (In 1978, it was 6.2 per 100,000 population.)

Year	Death rate
1978	6.2
1979	5.9
1980	5.9
1981	5.5
1982	5.2
1983	5.1
1984	5.0
1985	5.0
1986	4.7
1987	4.8
1988	4.9
1989	4.9
1990 objective	2.0

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**H.e.** By 1990, the death rate from drowning should be reduced to no more than 1.5 per 100,000 population. (In 1978, it was 2.6 per 100,000 population.)

Year	Death rate
1978	2.6
1979	2.5
1980	2.7
1981	2.3
1982	2.3
1983	2.2
1984	1.9
1985	1.8
1986	2.0
1987	1.8
1988	1.7
1989	1.6
1990 objective	1.5

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**H.f.** By 1990, the number of tapwater scald injuries requiring hospital care should be reduced to no more than 2,000 per year. (In 1978, there were 4,000 tapwater scald injuries per year.)

*1990 estimates from the National Electronic Injury Surveillance System indicate that about 2,940 scald injuries requiring hospital care were related to faucet water heaters, bathtubs or showers, sinks, faucets, or spigots.*

**H.g.** By 1990, residential fire deaths should be reduced to no more than 4,500 per year. (In 1978, there were 5,401 deaths.)

Year	Residential fire deaths
1978	5,401
1979	5,299
1980	5,083
1981	---
1982	---
1983	4,512
1984	4,466
1985	4,385
1986	4,364
1987	4,274
1988	4,464
1989	---
1990 objective	4,500

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**H.h.** By 1990, the number of accidental deaths from firearms should be held to no more than 1,700. (In 1978, there were 1,806.)

Year	Unintentional deaths from firearms <sup>a</sup>
1978	1,806
1979	2,004
1980	1,955
1981	1,871
1982	1,756
1983	1,695
1984	1,668
1985	1,649
1986	1,452
1987	1,440
1988	1,501
1989	1,489
1990 objective	1,700

<sup>a</sup>Excludes deaths with intention unknown.

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

### Reduced Risk Factors

**H.i.** By 1990, the proportion of automobiles containing automatic restraint protection should be greater than 75 percent. (In 1979, the proportion was 1 percent.)

*The National Highway Traffic Safety Administration estimates that in 1990 about 15 percent of automobiles had automatic restraint protection.*

**H.j.** By 1990, all birthing centers, physicians, and hospitals should ensure that at least 50 percent of newborns return home in certified child passenger carriers. (Baseline data unavailable.)

*No data on newborns are available. In 1990, 83 percent of infants were restrained in safety seats. (National Highway Traffic Safety Administration.)*

**H.k.** By 1990, at least 75 percent of residential units should have a properly placed and functioning smoke detector. (In 1979, there were approximately 30 million systems.)

*In 1990, 76 percent of persons 18 years of age and over reported at least one working smoke detector in their homes. In 1985 this figure was 60 percent. (National Center for Health Statistics, National Health Interview Survey.)*

### Increased Public and Professional Awareness

**H.l.** By 1990, the proportion of parents of children under 10 years of age who can identify appropriate measures to address the three major risks for serious injury to their children (motor vehicle accidents, burns, poisonings) should be greater than 80 percent. (Baseline data unavailable.)

Measure	Percent of children under 10 years of age	
	1985	1990
Have telephone number of a poison control center	62	58
Have ipecac syrup	27	31

Measure	Percent of children under 5 years of age	
	1985	1990
Wear seatbelts or carseats all or most of the time	82	87
Came home from hospital in carseats after birth	61	91

SOURCE: Data from National Center for Health Statistics, National Health Interview Survey.



**H.m.** By 1990, virtually all primary health care providers should advise patients about the importance of safety belts and should include instruction about use of child restraints to prevent injuries from motor vehicle accidents as part of their routine interaction with parents. (Baseline data unavailable.)

*In 1985, 45 percent of families with children under 5 years of age were advised by health professionals of the importance of using seatbelts. (National Center for Health Statistics, National Health Interview Survey.)*

### Improved Services and Protection

**H.n.** By 1990, at least 75 percent of communities with a population over 10,000 should have the capability for ambulance response and transport within 20 minutes of a call. (Baseline data unavailable.)

*The only available data are for 28 States reporting through the Fatal Accident Reporting System. In 1989, the average response time for urban accidents was 5.70 minutes and for rural accidents, 11.27 minutes. (National Highway Traffic Safety Administration.)*

*According to several past presidents of the National Association for State Emergency Medical System Directors, a 20-minute response time is a very modest standard and no longer acceptable. In each State, a variety of public and private entities, such as cities, counties, fire departments, ambulance companies, volunteer groups, and hospitals, provide prehospital personnel and services. There are over 17,000 network provider organizations and one-half million paid and volunteer emergency medical technicians across the country. Although the standard response times vary among States and localities, the average response time in urban areas is less than 6 minutes; in suburban and small town areas, it is 6–10 minutes, and in rural and frontier areas, it is 10–15 minutes.*

**H.o.** By 1990, virtually all injured persons in need should have access to regionalized systems of trauma centers, burn centers, and spinal cord injury centers. (In 1979, about 25 percent of the population lived in areas served by regionalized trauma centers.)

*The Office of Emergency Preparedness, Health Resources and Services Administration, reports that there are at least 408 trauma centers representing all 50 States; there are 179 burn centers in 38 States and 53 spinal cord injury centers in 23 States.*

**H.p.** By 1990, at least 90 percent of the population should be living in areas with access to regionalized or metropolitan area poison control centers<sup>1</sup> that provide information on the clinical management of toxic substance exposures in the home or work environment. (In 1979, about 30 percent of the population lived in such areas.)

*In 1988 there were 36 regional poison control centers certified by the American Association of Poison Control Centers, compared with fewer than 10 in 1980.*

Year	Percent of population
1979	30
1982	40
1984	55
1988	59
1990 objective	90

<sup>1</sup>Data limited to poison control centers certified by the American Association of Poison Control Centers.

SOURCE: Data from American Association of Poison Control Centers, National Data Collection System.

## Improved Surveillance and Evaluation Systems

**H.q.** By 1990, at least 75 percent of the States should have developed a detailed plan for the uniform reporting of injuries. (In 1981, there were seven States with detailed plans for the uniform reporting of injuries.)

*In 1987, 22 States had developed not only detailed plans for the uniform reporting of injuries, but also injury-reporting surveillance systems.*

<i>Year</i>	<i>States</i>
1981	7
1982	9
1987	22
1990 objective	38

SOURCE: Data from Harvard University School of Public Health, Injury Prevention Research Center.



# Fluoridation and Dental Health

## Improved Health Status

**I.a.** By 1990, the proportion of 9-year-old children who have experienced dental caries in their permanent teeth should decrease to 60 percent. (In 1971–74, 71 percent of 9-year-old children had at least one filled, missing due to caries, or untreated decayed tooth.)<sup>1</sup>

<sup>1</sup>In 9-year-olds, the permanent first molars are generally the only permanent teeth at significant risk of decay.

**I.b.** By 1990, the prevalence of gingivitis in children 6–17 years of age should decrease to 18 percent. (In 1971–74, prevalence was about 23 percent.)

**I.c.** By 1990, in adults the prevalence of gingivitis and destructive periodontal disease should decrease to 20 percent and 21 percent, respectively. (In 1971–74, for adults 18–74 years of age, 25 percent had gingivitis and 23 percent had destructive periodontal disease.)

Year	Percent of children with dental caries		
	9 years	12 years	17 years
1979–80	49.4	73.1	89.3
1986–87	34.5	58.3	84.4

SOURCE: Data from Centers for Disease Control, National Center for Preventive Services.

*National data are insufficient to assess progress on this objective as written. (Baseline data were determined by observation only.) A 1986–87 national survey of the oral health of school children 14–17 years of age determined the presence or absence of gingival bleeding on gentle probing of gums. Prevalence of gingival bleeding was estimated to be about 58.8 percent. (National Institute of Dental Research.)*

*Changing methods of measuring gingivitis infections and the results of these infections make it impossible to make direct comparisons between the baseline and data from the most recent survey (1985–86). Results from this survey, which used measures which detected even early evidence of the disease, showed the estimated prevalence of overall gingival bleeding to be about 43.6 percent among adults. Prevalence of periodontal pockets measuring greater than 4 millimeters was about 14.3 percent; prevalence of pockets greater than 6 millimeters was about 1.7 percent. Although no trend data exist, the general impression among dental researchers is that the more serious types of periodontal infection are not as wide spread as previously believed (National Institute of Dental Research.)*

## Reduced Risk Factors

**I.d.** By 1990, no public elementary or secondary school (and no medical facility) should offer highly cariogenic foods or snacks in vending machines or in school breakfast or lunch programs.

*Some recent data suggest that oral trauma during sports is more prevalent than previously reported and that mouth guard use could reduce such injuries significantly. A 3-year study of 2,470 adolescent athletes, who participated in varying forms of sports activity, found that 9 percent experienced some form of oral injury. In 75 percent of these injuries, mouth guards were not worn. Mandatory football and ice hockey mouth guard rules exist through the National High School Federation, National Collegiate Athletic Association (which also requires them for men's lacrosse), and the Amateur Hockey Association of the United States. Mouthguards are also required in organized amateur boxing. In 1986–87, the proportion of cranial/facial injuries relative to all bodily injuries sustained from seven reported sports was 5.5–16.5 percent. (Centers for Disease Control, National Center for Prevention Services.)*

**I.e.** By 1990, virtually all students in secondary schools and colleges who participate in organized contact sports should routinely wear proper mouth guards. (Baseline data unavailable.)

## Increased Public and Professional Awareness

**I.f.** By 1990, at least 95 percent of school children and their parents should be able to identify the principal risk factors related to dental diseases and be aware of the importance of fluoridation and other measures in controlling these diseases. (Baseline data unavailable.)

*In 1990, 69 percent of the population 18 years of age and over said that brushing and flossing the teeth was the one best method for preventing tooth decay; 11 percent said that visiting the dentist every 6 months was the one best method, and 8 percent said that limiting sugary snacks was the one best method for preventing tooth decay. In 1985, 78 percent of respondents said that fluoridated water, and 89 percent said that fluoride toothpaste or rinse were “definitely” or “probably” important in preventing tooth decay. (National Center for Health Statistics, National Health Interview Survey.)*

**I.g.** By 1990, at least 75 percent of adults should be aware of the necessity for both thorough personal oral hygiene and regular professional care in the prevention and control of periodontal disease. (In 1972, only 52 percent knew of the need for personal oral hygiene, and only 28 percent were aware of the need for dental checkups.)

*In 1985, 88 percent of the population 18 years of age and over thought that regular brushing and flossing of teeth was “definitely” important to preventing gum disease, and 82 percent thought that seeing a dentist regularly was definitely important. (National Center for Health Statistics, National Health Interview Survey.)*



## Improved Services and Protection

**I.h.** By 1990, at least 95 percent of the population on community water systems should be receiving the benefits of optimally fluoridated water. (In 1975, the proportion of the population on community water systems who were receiving fluoridated water was 60 percent.)

Year	Percent on fluoridated community water systems
1975	60.0
1980	59.3
1984	61.4
1985	61.3
1988	61.0
1990 objective	95.0

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.

**I.i.** By 1990, at least 50 percent of school children living in fluoride-deficient areas that do not have community water systems should be served by an optimally fluoridated school water supply. (In 1977, it was about 6 percent.)

*Over the past several years, the number of schools with fluoridated water systems has declined, mainly due to their incorporation into public water systems. (National Institute of Dental Research.)*

**I.j.** By 1990, at least 65 percent of school children should be proficient in personal oral hygiene practices and should receive other needed preventive dental services in addition to fluoridation. (Baseline data unavailable.)

*Two-thirds of school-age children brush their teeth twice a day; an additional 26 percent brush once a day. In 1986, 9 of 10 children aged 2–16 years used fluoride toothpaste. About 8 percent used fluoride supplements (about 13 percent among children aged 2–8). About 13 percent reported using a fluoride mouthrinse at home and about 10 percent reported using one at school. (National Center for Health Statistics, National Health Interview Survey.) Of school children examined in 1986–87, 7.6 percent had had sealants applied. (National Institute of Dental Research.)*

## Improved Surveillance and Evaluation Systems

**I.k.** By 1990, a comprehensive and integrated system should be in place for periodic determination of the oral health status, dental treatment needs, and utilization of dental services (including reasons for and costs of dental visits) of the U.S. population.

*Numerous oral health surveys conducted by Federal, State, and private agencies and organizations monitor oral health status, treatment needs, care utilization, and costs. Continuing efforts at the Federal level are needed to coordinate information from these surveys.*

**I.l.** By 1985, systems should be in place for determining coverage of all major dental public health preventive measures and activities to reduce consumption of highly cariogenic foods.

*Specific national reporting systems and surveys provide public health programs with an indication of the extent of preventive dental activities. The focus on reduction of cariogenic foods has been deemphasized because of the complexity of issues involved and the difficulty in quantifying the cariogenicity of foods.*

# Surveillance and Control of Infectious Diseases

## Improved Health Status

**J.a.** By 1990, the annual estimated incidence of hepatitis B should be reduced to 20 per 100,000 population. (In 1978, the estimated incidence was 41 cases per 100,000 population.)

**J.b.** By 1990, the annual reported incidence of tuberculosis should be reduced to 8 per 100,000 population. (In 1978, the reported incidence was 13.1 cases per 100,000 population.)

*Hepatitis B vaccine was licensed in 1982.*

Year	Estimated incidence of hepatitis B
1978	41
1979	42
1980	50
1981	55
1982	57
1983	63
1984	67
1985	69
1986	67
1987	64
1988	56
1989	56
1990 <sup>a</sup>	48
1990 objective	20

<sup>a</sup>Provisional data.

SOURCE: Data from Centers for Disease Control, National Center for Infectious Diseases.

*In 1990 about 36 percent of reported tuberculosis cases occurred in people 55 years of age and older; about 33 percent of total cases were in people under age 35, and less than 9 percent occurred in people under 20 years of age. In 1987 more than 40 percent of cases occurred in people 55 years of age and over.*

Year	Reported incidence of tuberculosis
1978	13.1
1979	12.6
1980	12.3
1981	11.9
1982	11.0
1983	10.2
1984	9.4
1985	9.3
1986	9.4
1987	9.3
1988	9.1
1989	9.5
1990	10.3
1990 objective	8.0

SOURCE: Data from Centers for Disease Control, National Center for Prevention Services.



**J.c.** By 1990, the annual estimated incidence of pneumococcal pneumonia should be reduced to 115 per 100,000 population, and the estimated incidence of pneumococcal bacteremia should be reduced to 7 per 100,000. (In 1979, the incidence of pneumococcal bacteremia was estimated to be 9 cases per 100,000 population.)<sup>1</sup>

<sup>1</sup>The incidence of pneumococcal bacteremia is used as an indicator of the incidence of pneumococcal pneumonia. Therefore, the objective and baseline have been revised from those previously published.

**J.d.** By 1990, the annual reported incidence of bacterial meningitis should be reduced to 2 per 100,000 population.<sup>2</sup> (In 1979, the reported incidence was 3 cases per 100,000 population.)

<sup>2</sup>Objective and baseline revised from those previously published. The 1990 goal was not achieved because licensure of a vaccine to prevent *Haemophilus influenzae* type b disease in infants did not occur until the end of 1990.

**J.e.** By 1990, the incidence of nosocomial infection in acute care hospitals should be reduced by 20 percent of what otherwise would pertain in the absence of hospital control programs. (In 1976, an estimated 6 percent of hospital infections were prevented.)

**J.f.** By 1990, the annual estimated incidence of legionellosis should be reduced to 17 per 100,000 population. (In 1980, it was estimated to be 20 per 100,000 population.)<sup>3</sup>

<sup>3</sup>Objective added since publication of *Objectives for the Nation*. Although data on the estimated incidence of legionellosis were previously published, rates used in the past were crude estimates. Studies have recently begun to determine a more accurate baseline rate.

Year	Estimated incidence of pneumococcal bacteremia
1979	9
1980	9
1981	9
1982	9
1983	9
1984	9
1985	9
1986	9
1987	<sup>a</sup> 19
1988	19
1989	19
1990 <sup>b</sup>	19
1990 objective	7

<sup>a</sup>Increased use of blood cultures beginning in the late 1980's increased the diagnosis of pneumococcal bacteremia.

<sup>b</sup>Provisional data.

SOURCE: Data from Centers for Disease Control, National Center for Infectious Diseases.

Year	Reported incidence of bacterial meningitis
1979	3.0
1980	3.0
1981	3.0
1982	3.0
1983	3.0
1984	3.9
1985	3.0
1986	3.0
1987	3.0
1988	3.0
1989	3.0
1990	3.0
1990 objective	2.0

SOURCE: Data from Centers for Disease Control, National Center for Infectious Diseases.

*No data exist since 1983 for the objective as written. In 1987, 90 hospitals submitted data to the Centers for Disease Control through a surveillance component system. Each component is a self-contained surveillance protocol that focuses on a particular group of patients. These components now allow collection of data on both infected and uninfected patients.*

Year	Percent reduction
1976	6
1983	9
1990 objective	20

SOURCE: Data from Centers for Disease Control, National Center for Infectious Diseases.

## Improved Services and Protection

**J.g.** By 1990, 95 percent of licensed patient care facilities should be applying the recommended practices for controlling nosocomial infections. (Baseline data unavailable.)

**J.h.** By 1990, surveillance and control systems should be capable of responding to and containing (1) newly recognized diseases and unexpected epidemics of public health significance; and (2) infections introduced from foreign countries.

**J.i.** By 1990, at least 50 percent of people in populations designated as targets by the Immunization Practices Advisory Committee of the Public Health Service should be immunized within 5 years of licensure of new vaccines for routine clinical use.<sup>4</sup>

<sup>4</sup>Same objective in Immunization.

*The Centers for Disease Control (CDC) Division of Surveillance and Epidemiology National Electronic Telecommunication System for Surveillance is operational in all States to respond to and contain newly recognized disease and unexpected epidemics. Within the CDC National Center for Infectious Diseases, systems are capable of responding to infections introduced from foreign countries. (Centers for Disease Control, Epidemiology Program Office.)*

*Three recently licensed vaccines are: hepatitis B vaccine (licensed in 1982), Haemophilus influenzae type b polysaccharide vaccine (HbPV, licensed in 1985), and Haemophilus influenzae type b conjugate vaccine (HbCV, licensed in 1987). Hepatitis B vaccine is recommended for persons who are at risk of contact with blood or blood products (primarily health care and public safety workers), homosexual men, and heterosexually active persons with multiple partners or other sexually transmitted diseases, household contacts of carriers of hepatitis B surface antigen, and users of illicit injectable drugs. Available data suggest that coverage for at-risk groups varies from less than 1 percent to 50 percent for different risk groups. With the development of the Occupational Safety and Health Administration regulations for prevention of blood-borne diseases in the workplace, which mandates hepatitis B vaccine be offered to all exposed health care and public safety workers, the objective of at least 50 percent coverage is likely to be met for these groups. However, it is unlikely to be met for most of the other high risk groups. HbCV is recommended for all children with a 3 or 4 dose series beginning at 2 months of age and has replaced HbPV. Evaluating progress toward the objective for HbCV is not possible at this time because of a lack of national data on vaccine coverage. Such data will be collected during the 1991 Health Interview Survey. Nevertheless, data from purchase of HbCV through the federal consolidated contract suggest marked increases in use. In 1990, 1.5 million doses were purchased compared to 0.3 million doses in 1988. (Centers for Disease Control, National Center for Prevention Services.)*

## Improved Surveillance and Evaluation Systems

**J.j.** By 1990, data-reporting systems in all States should be able to monitor trends of common infectious agents not now subject to traditional public health surveillance (respiratory illnesses, gastrointestinal illnesses, otitis media).



**J.k.** By 1990, the extent of epidemics of respiratory and enteric viral illnesses should be determined within 2 weeks after they appear, through communitywide sentinel surveillance systems.

*Respiratory and enteric viral illnesses are winter and spring diseases of local distribution; they are not notifiable and are generally identified through laboratory tests rather than by physicians. Surveillance of respiratory syncytial viruses, parainfluenza viruses, and adenoviruses is accomplished weekly through computerized telephone reports (National Respiratory Virus Surveillance System) from participating laboratories in 12 to 48 States, varying with the virus and the technique of detection or isolation. Surveillance of enteric viral illnesses is less wide spread. (Centers for Disease Control, National Center for Infectious Diseases.)*

**J.l.** By 1990, all State health departments and appropriate Federal health agencies should have a computer-based telecommunications capacity for routine collection, analysis, and dissemination of surveillance data; rapid communication of messages; and epidemic aid investigations. (As of June 1983, three demonstration systems had been established.)

*The National Electronic Telecommunications System for Surveillance links all 50 States, the Virgin Islands, Puerto Rico, New York City, and the District of Columbia with the Centers for Disease Control. (Centers for Disease Control, Epidemiology Program Office.)*

**J.m.** By 1990, laboratories throughout the country should be linked for monitoring infectious agents and antibiotic resistance patterns and for disseminating information.

# Smoking and Health

## Reduced Risk Factors

**K.a.** By 1990, the proportion of adults who smoke should be reduced to below 25 percent. (In 1979, 34 percent of the population 18 years of age and over smoked.)

Year	Percent smokers
1979	33.5
1980	33.2
1983	32.1
1985	30.1
1987	28.8
1990	25.5
1990 objective	25.0

SOURCE: Data from National Center for Health Statistics, National Health Interview Survey.

**K.b.** By 1990, the proportion of women who smoke during pregnancy should be no greater than one-half the proportion of all women who smoke. (Baseline data unavailable.)

*In 1990, approximately 26 percent of women aged 18–44 years smoked cigarettes, compared with 31 percent in 1985. In 1990, 24 percent of women who had given birth in the preceding 5 years reported smoking in the 12 months preceding the birth; 23 percent of these mothers who smoked reported that they quit after learning they were pregnant. Of the 32 percent of women who in 1985 reported smoking in the 12 months preceding the birth of their child, 21 percent said they quit after learning they were pregnant. This indirect evidence indicates that the smoking prevalence among pregnant women was greater than half the prevalence among nonpregnant women in the 1980's.*

**K.c.** By 1990, the proportion of children and youth 12–18 years of age who smoke should be reduced to below 6 percent. (In 1979, 11.7 percent smoked.)

Year	Percent smokers aged—			
	12–17 years	12–13 years	14–15 years	16–17 years
1982	15	<sup>a</sup> 3	10	30
1985	15	6	14	25
1988	12	3	11	20
1990	12	2	14	18
1990 obj.	6	6	6	6

<sup>a</sup>Relative standard error greater than 30 percent.

SOURCE: Data from Alcohol, Drug Abuse, and Mental Health Administration.

**K.d.** By 1990, the sales-weighted average tar yield of cigarettes should be reduced to below 10 milligrams. The other components of cigarette smoke known to cause disease should also be reduced proportionately. (In 1978, the sales-weighted average yield was 16.1 milligrams.)

Year	Milligrams of tar
1978	16.1
1979	15.1
1980	14.1
1981	13.2
1982	13.5
1983	13.4
1984	13.0
1985	13.2
1986	13.4
1987	13.3
1990 objective	10.0

SOURCE: Data from Federal Trade Commission and the Office of Smoking and Health.



## Increased Public and Professional Awareness

**K.e.** By 1990, the proportion of the adult population aware that smoking is one of the major risk factors for heart disease should be increased to at least 85 percent. (In 1975, the proportion was 53 percent.)

Year	Percent aware of risk factors
1975	53
1977	68
1981	74
1985	90
1990	91
1990 objective	85

SOURCE: Data from Federal Trade Commission; 1985 and 1990 data from National Center for Health Statistics, National Health Interview Survey.

**K.f.** By 1990, at least 90 percent of the adult population should be aware that smoking is a major cause of lung cancer, as well as multiple other cancers including laryngeal, esophageal, and bladder cancer. (Baseline data unavailable.)

Condition	Percent of adults 18 years of age and over who state that cigarette smoking definitely or probably increases the risk of getting—		
	1985	1990	1990 objective
Lung cancer	95	95	90
Cancer of larynx	88	90	90
Cancer of esophagus	80	86	90
Bladder cancer	36	36	90

SOURCE: Data from National Center for Health Statistics, National Health Interview Survey.

**K.g.** By 1990, at least 85 percent of the adult population should be aware of the special risk of developing and worsening chronic obstructive lung disease, including bronchitis and emphysema, among smokers. (Baseline data unavailable.)

*In 1990, 92 percent of adults 18 years of age and over stated that cigarette smoking definitely or probably increases the risk of getting emphysema, compared with 91 percent in 1985. In 1990 the percent of the population who said that cigarette smoking definitely or probably increases the risk of developing chronic bronchitis was 89 percent, compared with 86 percent in 1985. (National Center for Health Statistics, National Health Interview Survey.)*

**K.h.** By 1990, at least 85 percent of women should be aware of the special health risks for women who smoke, including the effect on outcomes of pregnancy and the excess risk of cardiovascular disease with oral contraceptive use. (Baseline data unavailable.)

Condition	Percent of women 18–44 years of age who state that smoking during pregnancy is a risk factor for—		
	1985	1990	1990 objective
Low birth weight	52	60	85
Stillbirth	30	37	85
Premature birth	38	48	85
Miscarriage	36	43	85

*In 1990, 73 percent of women 18–44 years of age said that smoking while taking birth control pills increases the risk of stroke. (National Center for Health Statistics, National Health Interview Survey.)*

**K.i.** By 1990, at least 65 percent of children 12 years of age should be able to identify smoking cigarettes with increased risk of serious disease of the heart and lungs. (Baseline data unavailable.)

## Improved Services and Protection

**K.j.** By 1990, at least 35 percent of all workers should be offered smoking cessation programs sponsored or supported by employers—employees, either at the worksite or in the community. (In 1979, 15 percent of U.S. business firms had programs to encourage or assist their employees to stop smoking.)

**K.k.** By 1985, tar, nicotine, and carbon monoxide yields should be prominently displayed on each cigarette package and on promotional material. (Tar and nicotine yields appear in advertising as a result of a voluntary agreement between the Federal Trade Commission and the cigarette manufacturing industry; tar, nicotine, and carbon monoxide levels are currently not required on packaging.)

**K.l.** By 1985, the present cigarette warning should be strengthened to increase its visibility and impact and to give the consumer additional needed information on the specific multiple health risks of smoking. Special consideration should be given to rotational warnings and to identification of especially vulnerable groups.

**K.m.** By 1990, laws should exist in all 50 States and all jurisdictions prohibiting smoking in enclosed public places and establishing separate smoking areas at work and in dining establishments. (In 1978, 31 States had some form of smoking restriction laws.)

**K.n.** By 1990, major health and life insurers should offer differential insurance premiums to smokers and nonsmokers. (In 1979 approximately 30 major companies were offering differential premiums.)

## Improved Surveillance and Evaluation Systems

**K.o.** By 1985, insurance companies should have collected, reviewed, and made public their actuarial experience on the differential life experience and hospital utilization by specific cause and sex of smokers and nonsmokers.

**K.p.** By 1990, continuing epidemiologic research should have delineated the unanswered research questions regarding low-yield cigarettes, and preliminary partial answers to these questions should have been generated by research efforts.

**K.q.** By 1990, in addition to biomedical hazard surveillance, continuing examination of the changing tobacco product and the sociologic phenomena resulting from those changes should have been accomplished.

*In 1985, approximately 36 percent of worksites with 50 or more employees (approximately 58 percent of the U.S. workforce) offered some kind of smoking cessation program. (Office of Disease Prevention and Health Promotion.)*

*Disclosure of tar and nicotine content on cigarette packages is often made voluntarily for cigarettes yielding 8 milligrams or less of tar, but rarely for higher tar brands. The level of carbon monoxide is not disclosed on packages nor in advertisements. (Centers for Disease Control, Office on Smoking and Health.)*

*The Comprehensive Smoking Education Act of 1984 requires that the single health warning be replaced with four rotating labels on cigarette packages and in cigarette advertising. The rotating warnings do not provide consolidated information regarding the major health effects of smoking, nor is basic information provided on the health effects of exposure to tobacco smoke.*

*By the end of 1990, 45 States and the District of Columbia had laws restricting smoking in at least one public place. (Centers for Disease Control, Office on Smoking and Health.)*

*In 1987, smoker-nonsmoker premium differentials were offered by about 9 in 10 life insurance companies for individual policies and about 1 in 7 for group policies. Only about one in seven health insurers offered nonsmoker discounts on individual policies; only a few commercial health insurance carriers offered discounts on group policies. (American Council of Life Insurance and the National Association of Insurance Commissioners.)*

*In 1983, a Society of Actuaries task force examined the smoking-related mortality data of life insurance companies. In 1987, the National Association of Insurance Commissioners compiled smoking-related health insurance claims data.*



# Alcohol and Drug Misuse

## Improved Health Status

**L.a.** By 1990, the alcohol-related death rate from motor vehicle accidents should be reduced to less than 9.5 per 100,000 population per year. (In 1977, there were 11.5 deaths per 100,000 population.)

**L.b.** By 1990, deaths from accidents other than motor vehicle (for example, falls, fires, drownings, skimobile, and aircraft accidents) indirectly attributable to alcohol use should be reduced to 5 per 100,000 population per year. (In 1975, there were 7 per 100,000 population.)

**L.c.** By 1990, the cirrhosis<sup>1</sup> death rate should be reduced to 12 per 100,000 population per year. (In 1978, the rate was 13.5 per 100,000 population.)

<sup>1</sup>Effective in 1979, the cause-of-death category is "chronic liver disease and cirrhosis."

Year	Death rate	Percent of fatalities alcohol related <sup>a</sup>
1977	11.5	---
1978	11.5	---
1979	11.5	---
1980	11.5	---
1981	10.5	---
1982	10.8	57.3
1983	10.1	55.5
1984	10.0	53.7
1985	9.5	51.8
1986	10.0	52.2
1987	9.7	50.9
1988	9.6	50.2
1989	9.0	49.2
1990 objective	9.5	---

<sup>a</sup>Since 1984, the Fatal Accident Reporting System of the National Highway Traffic Safety Administration has used an additional methodology to track alcohol-related traffic fatalities. Data for 1982 and 1983 were calculated for comparison purposes.

SOURCE: Data from National Highway Traffic Safety Administration.

*In 1987, there were an estimated 4.1 fatalities indirectly attributable to alcohol use per 100,000 population.*

SOURCE: National Institute on Alcohol Abuse and Alcoholism.

Year	Chronic liver disease and cirrhosis death rate
1978	13.5
1979	13.2
1980	13.5
1981	12.8
1982	11.9
1983	11.7
1984	11.6
1985	11.2
1986	10.9
1987	10.8
1988	10.7
1989	10.8
1990 <sup>a</sup>	10.2
1990 objective	12.0

<sup>a</sup>Provisional data.

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**L.d.** By 1990, the incidence of infants born with fetal alcohol syndrome should be reduced by 25 percent.<sup>2</sup> (In 1977, the rate was 1 per 2,000 births, or approximately 1,650 cases.<sup>3</sup>)

<sup>2</sup>Same objective in Pregnancy and Infant Health.

<sup>3</sup>Baseline data are estimated; the ICD code for fetal alcohol syndrome was introduced in 1979.

Year	Incidence rate of Fetal Alcohol Syndrome <sup>a</sup>
1980	0.12
1981	0.12
1982	0.12
1983	0.17
1984	0.17
1985	0.19
1986	0.23
1987	0.22
1988	0.30
1989	0.32
1990	0.40
1990 objective	0.38

<sup>a</sup>Rates are per 1,000 live births and reflect over time both improved diagnostic and assessment techniques and increased familiarity using the ICD code.

SOURCE: Data from National Center for Environmental Health and Injury Control, Division of Birth Defects and Development Disabilities.

**L.e.** By 1990, drug-related deaths should be reduced to 2 per 100,000 population per year. (In 1978, the rate was 2.7 per 100,000 population.)<sup>4</sup>

<sup>4</sup>Drug-related mortality excludes deaths from alcohol. The definition, however, is affected by a revision in the *International Classification of Diseases*. The 1978 data are defined by categories in the Eighth Revision, Adapted for Use in the United States. The 1979 data are defined by categories in the Ninth Revision. The change in the death rate for these causes between 1978 and 1979 reflects, to a degree, the change in the classification of diseases between these two years. The baseline has also been revised to take into account calculation results from the 1980 Census.

Year	Death rate
1978	2.7
1979	3.2
1980	3.0
1981	3.1
1982	3.2
1983	3.2
1984	3.3
1985	3.6
1986	4.1
1987	4.0
1988	4.4
1989	4.3
1990 objective	2.0

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**L.f.** By 1990, adverse reactions from medical drug use sufficiently severe to require hospital admission should be reduced to 25 percent fewer admissions per year. (In 1979, estimates ranged from 105,000 to 350,000 admissions per year.)

### Reduced Risk Factors

**L.g.** By 1990, per capita consumption of alcohol should not exceed current levels. (In 1978, about 2.71 gallons of absolute alcohol per capita were consumed by persons 14 years of age and over.)

Year	Per capita consumption in gallons
1978	2.71
1979	2.75
1980	2.76
1981	2.76
1982	2.72
1983	2.69
1984	2.65
1985	2.62
1986	2.58
1987	2.54
1988	2.49
1990 objective	2.71

SOURCE: Data from National Institute on Alcohol Abuse and Alcoholism.



**L.h.** By 1990, the proportion of adolescents 12–17 years of age who abstain from using alcohol or other drugs<sup>5</sup> should not fall below 1977 levels. (In 1977, the proportion of abstainers was 69 percent for alcohol; for other drugs, the proportion ranged from 83 percent for marijuana to 99.9 percent for heroin.)

<sup>5</sup>A person is considered as not using alcohol or other drugs if he or she has never used the substance or if the last use of the substance was more than 1 month prior to the survey in which the data were collected.

**L.i.** By 1990, the proportion of adolescents 14–17 years of age who report acute drinking-related problems<sup>6</sup> during the past year should be reduced to below 17 percent. (In 1978, the estimate was 19 percent based on 1974 survey data.)

<sup>6</sup>Acute drinking-related problems have been defined as problems such as episodes of drunkenness, driving while intoxicated, or drinking-related problems with school authorities.

**L.j.** By 1990, the proportion of problem drinkers among all adults 18 years of age and over should be reduced to 8 percent. (In 1979, it was about 10 percent.)

**L.k.** By 1990, the proportion of young adults 18–25 years of age reporting frequent use<sup>7</sup> of drugs other than alcohol should not exceed 1977 levels. (In 1977, it was less than 1 percent for drugs other than marijuana and 19 percent for marijuana.)

<sup>7</sup>Frequent use of other drugs means the nonmedical use of any specific drug on 5 days or more during the previous month.

**L.l.** By 1990, the proportion of adolescents 12–17 years of age reporting frequent use<sup>8</sup> of drugs other than alcohol should not exceed 1977 levels. (In 1977, the percentages were less than 1 percent for drugs other than marijuana and 9 percent for marijuana.)

<sup>8</sup>Frequent use of other drugs means the nonmedical use of any specific drug on 5 days or more during the previous month.

Year	Percent of abstainers in past month		
	Alcohol	Marijuana	Cocaine
1977 <sup>a</sup>	69	83	99.2
1979	63	83	98.6
1982	74	89	98.4
1985	69	88	98.5
1988	75	94	98.9
1990	76	95	99.4
1990 objective	69	83	99.2

<sup>a</sup>In 1979, the design of the questionnaire was changed. Consequently, 1977 data are not comparable to those of later years.

SOURCE: Data from National Institute on Drug Abuse.

*The proportion of problem drinkers remains at about 10 percent according to 1988 estimates. (National Institute on Alcohol Abuse and Alcoholism.)*

Year	Percent reporting frequent use	
	Marijuana	Other drugs <sup>a</sup>
1977	19	0.8
1979	22	2.4
1982	16	2.3
1985	11	1.8
1988	7	1.3
1990	5	0.6
1990 objective	19	0.8

<sup>a</sup>Cocaine.

SOURCE: Data from National Institute on Drug Abuse.

Year	Percent reporting frequent use	
	Marijuana	Other drugs <sup>b</sup>
1977	9	( <sup>a</sup> )
1979	8	( <sup>a</sup> )
1982	6	0.9
1985	5	1.2
1988	2	0.8
1990	1	( <sup>a</sup> )
1990 objective	9	( <sup>a</sup> )

<sup>a</sup>Quantity more than zero but less than 0.5.

<sup>b</sup>Cocaine.

SOURCE: Data from National Institute on Drug Abuse.

## Increased Public and Professional Awareness

**L.m.** By 1990, the proportion of women of childbearing age aware of risks associated with pregnancy and drinking, in particular, the fetal alcohol syndrome, should be greater than 90 percent. (In 1979, it was 73 percent.)

Condition	Percent of women 18–44 years of age who said that heavy drinking during pregnancy is a risk factor		
	1985	1990	1990 objective
Birth defects	54	64	90
Low birthweight	52	60	90
Mental retardation	52	61	90
Miscarriage	51	57	90

*In 1985, 62 percent of women 18–44 years of age had ever heard of fetal alcohol syndrome; in 1990 this increased to 71 percent. (National Center for Health Statistics, National Health Interview Survey.)*

**L.n.** By 1990, the proportion of adults who are aware of the added risk of head and neck cancers for people with excessive alcohol consumption should exceed 75 percent. (Baseline data unavailable.)

Condition	Percent of adults who said that heavy alcohol use definitely or probably increases risk		
	1985	1990	1990 objective
Throat cancer	40	43	75
Cancer of mouth	32	39	75

SOURCE: Data from National Center for Health Statistics, National Health Interview Survey.

**L.o.** By 1990, 80 percent of high school seniors should state that they perceive great risk associated with frequent regular cigarette smoking, marijuana use, barbiturate use, or alcohol intoxication. (In 1979, 63 percent of high school seniors perceived great risk from one or two packs of cigarettes smoked daily, 42 percent from regular marijuana use, 72 percent from regular barbiturate use, and only 35 percent from having five or more drinks per occasion once or twice each weekend.)

Year	Percent perceiving great risk with frequent use			
	Cigarettes	Marijuana	Barbiturates	Alcohol <sup>a</sup>
1979	63	42	72	35
1980	64	50	72	36
1981	63	58	70	36
1982	61	60	68	36
1983	61	63	68	39
1984	64	67	69	42
1985	67	70	68	43
1986	66	71	67	39
1987	69	74	69	42
1988	68	77	70	43
1989	67	78	71	44
1990	68	78	70	47
1990 obj	80	80	80	80

<sup>a</sup>5 or more drinks once or twice each weekend.

SOURCE: Data from National Institute on Drug Abuse.

**L.p.** By 1990, pharmacists filling prescriptions should routinely counsel patients on the proper use of drugs designated as high priority by the Food and Drug Administration, with particular attention to prescriptions for pediatric and geriatric patients and to the problems of drinking alcoholic beverages while taking certain prescription drugs. (Baseline data unavailable.)



## Improved Services and Protection

**L.q.** By 1990, the proportion of major firms that provide a substance abuse prevention and referral program should be greater than 70 percent. (In 1976, 50 percent of a sample of the Fortune 500 firms offered some type of employee assistance program.)

Year	Percent of firms
1976	50
1979	57
1988	70
1990 objective	70

SOURCE: Data from National Institute on Alcohol Abuse and Alcoholism, and from Association of Labor Management Consultants and Administrators.

**L.r.** By 1990, standard medical and pharmaceutical practice should include drug profiles on 90 percent of adults covered under the Medicare program and on 75 percent of other patients with acute and chronic illnesses being cared for in all private and organized medical settings. (Baseline data unavailable.)

*Drug profiles are not yet included in standard medical and pharmaceutical practice. Demonstration projects involving Medicaid recipients and automated prospective drug utilization review at the pharmacy are scheduled to begin operation by January 1, 1992. (National Council for Prescription Drug Programs.)*

## Improved Surveillance and Evaluation Systems

**L.s.** By 1990, a comprehensive data capability should be established to monitor and evaluate the status and impact of misuse of alcohol and drugs on health status, motor vehicle accidents, accidental injuries in addition to those from motor vehicles, interpersonal aggression and violence, sexual assault, vandalism and property damage, pregnancy outcomes, and emotional and physical development of infants and children.

*The National Institute on Alcohol Abuse and Alcoholism's Alcohol Epidemiologic Data System (AEDS) contains 14 national survey data sets as of 1990.*

# Improved Nutrition

## Improved Health Status

**M.a.** By 1990, the proportion of pregnant women with iron deficiency anemia (as estimated by hemoglobin concentrations early in pregnancy) should be reduced to 3.5 percent. (In 1971–74, the proportion of pregnant women with low hemoglobin levels was 31.9; the proportion with low hemoglobin levels and low transferrin saturation was 6.5.)

**M.b.** By 1990, growth retardation of infants and children caused by inadequate diets should have been eliminated in the United States as a public health problem. (In 1972–73, an estimated 10–15 percent of infants and children among migratory workers and certain poor rural populations suffered growth retardation from dietary inadequacies.)

## Reduced Risk Factors

**M.c.** By 1990, the prevalence of significant overweight (120 percent of “desired” weight) among the U.S. adult population should be decreased to 10 percent of men and 17 percent of women, without nutritional impairment.<sup>1,2</sup> (In 1971–74, 23.7 percent of men and 26.0 percent of women 20–74 years of age were overweight.)

<sup>1</sup>Same objective in High Blood Pressure Control.

<sup>2</sup>Overweight is defined for men as body mass index (BMI) greater than or equal to 27.8 kilograms/meter<sup>2</sup> and for women as 27.3 kilograms/meter<sup>2</sup>. These cut points were used because they represent the sex-specific 85th percentiles of BMI based on measured weight and height for persons 20–29 years of age in the 1976–80 National Health and Nutrition Examination Survey. The language for this objective in terms of BMI would be: By 1990, the prevalence of overweight (BMI of 27.8 or higher for men and 27.3 or higher for women) among the U.S. adult population should be reduced, without impairment of nutritional status, to approximately 18 percent of men and 21 percent of women.

**M.d.** By 1990, 50 percent of the overweight population should have adopted weight loss regimens, combining an appropriate balance of diet and physical activity. (Baseline data unavailable.)

Race	Percent of persons 18 years of age and over who are overweight, 1990 <sup>a</sup>	
	Male	Female
Total <sup>b</sup>	25.7	25.9
White	25.5	24.3
Black	31.8	40.1

<sup>a</sup>Data are calculated from self-reported height and weight in the 1990 National Health Interview Survey.

<sup>b</sup>Includes persons of races other than white or black.

*In 1990, 30 percent of women 18 years of age and over who were overweight and 22 percent of men who were overweight were both dieting and exercising to lose weight. In 1985, the corresponding percents were 27 and 21, respectively. (Based on body mass index calculated from self-reported height and weight in the 1990 and 1985 National Health Interview Surveys.)*



**M.e.** By 1990, the mean serum cholesterol level in the adult population 18–74 years of age should be at or below 200 milligrams per deciliter. (In 1971–74, for adults 20–74 years of age, the mean serum cholesterol level was 214 milligrams/deciliter for men and 217 milligrams/deciliter for women.)<sup>3</sup>

<sup>3</sup>All values referenced to Abell-Kendall method. Abell, L. L., et al.: A simplified method for the estimation of total cholesterol in serum and demonstration of its specificity. *J. Biol. Chem.* 195:357–66, 1952.

**M.f.** By 1990, the mean serum cholesterol level in children 1–14 years of age should be at or below 150 milligrams/deciliter. (In 1971–74, for children 1–17 years of age, the mean serum cholesterol level was 176 milligrams/deciliter.)

**M.g.** By 1990, the average daily sodium ingestion (as measured by excretion) for adults should be reduced at least to the 3–6-gram range.<sup>4,5</sup> (Baseline data unavailable.)

<sup>4</sup>Same objective in High Blood Pressure Control.  
<sup>5</sup>3–6 grams of salt correspond roughly to 1.2–2.4 grams of sodium.

**M.h.** By 1990, the proportion of women who breast feed their babies should be increased to 75 percent at hospital discharge and to 35 percent at 6 months of age. (In 1978, the proportion of infants breast fed<sup>6</sup> at 1 week was 45.1; the proportion of infants breast fed at 6 months was 18.9.)

<sup>6</sup>Data include infants who may receive formulas in addition to breast feeding. Excludes unwed mothers.

Race or ethnicity	Mean serum cholesterol level for adults 20–74 years of age <sup>a</sup>	
	Male	Female
Total	211	214
Non-Hispanic white	211	214
Non-Hispanic black	208	213
Mexican-American	207	207
Cuban	204	199
Puerto Rican	203	209

<sup>a</sup>Data are age adjusted. Total and Non-Hispanic data cover 1976–80; Hispanic data cover 1982–84.

SOURCE: Data from National Center for Health Statistics, Division of Health Examination Statistics.

*Data from the first 4 years of the revised FDA Total Diet Study (1982–86) indicate that average sodium intakes for adults, excluding salt added at the table, were within the Established Safe and Adequate Daily Dietary Intake range of 1,100–3,300 milligrams established by the National Academy of Sciences in 1980.*

*Data from the 1990 National Health Interview Survey show that of all children under the age of 5 years, 52 percent were ever breastfed. (National Center for Health Statistics, National Health Interview Survey.)*

Year	Percent of infants	
	1 week	6 months
1978	45.1	18.9
1979	49.7	21.3
1980	54.0	23.2
1981	56.4	25.1
1982	60.5	27.1
1983	57.0	23.3
1984	58.0	23.8
1985	56.4	22.1
1986	55.4	21.6
1987	54.1	20.2
1988	52.7	19.5
1990 objective	75.0	35.0

SOURCE: Data from Ross Laboratories, National Mothers' Surveys. (Copyright; used with permission.)

## Increased Public and Professional Awareness

**M.i.** By 1990, the proportion of the population able to identify the principal dietary factors known or strongly suspected to be related to disease should exceed 75 percent for each of the following diseases: heart disease, high blood pressure, dental caries, and cancer. (Baseline data largely unavailable. About 12 percent of adults are aware of the relationship between high blood pressure and sodium intake.)

*In 1988, 74 percent of the population 12 years of age and older were aware of the relationship between fat and heart disease; 70 percent were aware of the relationship between cholesterol and heart disease; 64 percent, the relationship between sodium and hypertension; and 25 percent, the relationship between fiber and cancer. In 1985, 88 percent identified avoiding between-meal sweets as being important to preventing tooth decay. (Food and Drug Administration; National Center for Health Statistics, National Health Interview Survey.)*

*In 1990, 92 percent of adults 18 years and over reported that sodium or salt intake was strongly or somewhat associated with hypertension; 76 percent said that alcohol was strongly or somewhat associated with hypertension; and 83 percent said that cholesterol was strongly or somewhat associated with hypertension. (National Center for Health Statistics, National Health Interview Survey.)*

**M.j.** By 1990, 70 percent of adults should be able to identify the major foods that are: low in fat content, low in sodium content, high in calories, good sources of fiber. (Baseline data unavailable.)

*In 1988, less than half of the population 12 years of age and older correctly mentioned specific foods as good sources of fiber. (Food and Drug Administration, Health and Diet Survey.)*

**M.k.** By 1990, 90 percent of adults should understand that to lose weight people must either consume foods that contain fewer calories or increase physical activity or both. (Baseline data unavailable.)

*In 1990, 69 percent of the population 18 years of age and over reported "eating fewer calories" as one of the two best ways to lose weight; 76 percent said "increasing physical activity," and 54 percent said both. In 1985, 73 percent cited either "eating fewer calories" or "increasing physical activity" as one of the two best ways to lose weight; 55 percent cited both. (National Center for Health Statistics, National Health Interview Survey.)*

## Improved Services and Protection

**M.l.** By 1990, the labels of all packaged foods should contain useful calorie and nutrient information to enable consumers to select diets that promote and protect good health. Similar information should be displayed where nonpackaged foods are obtained or purchased. (In 1978, 7.5 percent of the national sales from FDA regulated foods bore sodium labeling.)

Year	Percent of sales dollars for products <sup>a</sup> with—	
	Sodium labeling	Nutrition labeling
1978	7.5	41.9
1980	13.9	44.3
1982	18.9	54.5
1983	30.1	55.2
1984	40.0	55.0
1986	59.0	55.0
1988	65.0	61.0
1990 objective	100.0	100.0

<sup>a</sup>Based on national sales volume of brands in a sample of approximately 1,700 packaged-processed foods regulated by the Food and Drug Administration and sold in grocery stores in the United States. Excludes fresh and processed meat, bread, fluid milk, ice cream, chip-type snacks, cookies, and carbonated soft drinks.

SOURCE: Data from Food and Drug Administration, Division of Consumer Studies.



**M.m.** By 1990, sodium levels in processed food should be reduced by 20 percent from present levels. (Baseline data unavailable.)

*Among established food product lines declaring sodium content, there has been no reduction of sodium after the 1981 implementation of FDA's voluntary sodium initiative. However, the greater availability of sodium-reduced foods since 1981, in conjunction with the mandatory addition of sodium to the nutrition label in 1984, has resulted in a 20 percent reduction in declared sodium content among foods bearing sodium labeling. (Food and Drug Administration's Food Label and Package Survey.)*

**M.n.** By 1985, the proportion of employee and school cafeteria managers who are aware of and actively promoting U.S. Department of Agriculture and Department of Health and Human Services dietary guidelines should be greater than 50 percent. (Baseline data unavailable.)

**M.o.** By 1990, all States should include nutrition education as part of required comprehensive school health education at elementary and secondary levels. (In 1979, only 10 States mandated nutrition as a core content area in school health education.)

*In 1989, 19 States mandated nutrition as a core content area in school health education. (American School Health Association.)*

**M.p.** By 1990, virtually all routine health contacts with health professionals should include some element of nutrition education and nutrition counseling. (Baseline data unavailable.)

Frequency	Percent of adults reporting nutrition counseling during routine care		
	1985	1990	1990 objective
Often	10	12	100
Sometimes	16	20	100

SOURCE: National Center for Health Statistics, National Health Interview Survey.

### Improved Surveillance and Evaluation Systems

**M.q.** Before 1990, a comprehensive national nutrition status monitoring system should have the capability for detecting nutritional problems in special population groups, as well as for obtaining baseline data for decisions on national nutrition policies.

*In 1988, a governmentwide Interagency Committee on Nutrition Monitoring (ICNM), co-chaired by the Assistant Secretary for Health, U.S. Department of Health and Human Services, and the Assistant Secretary for Food and Consumer Services, U.S. Department of Agriculture, was established with oversight responsibility for implementation of the National Nutrition Monitoring System activities.*

# Physical Fitness and Exercise

---

## Reduced Risk Factors

**N.a.** By 1990, the proportion of children and adolescents 10–17 years of age participating regularly in appropriate physical activities, particularly cardiorespiratory fitness programs that can be carried into adulthood, should be greater than 90 percent. (Baseline data unavailable.)

**N.b.** By 1990, the proportion of children and adolescents 10–17 years of age participating in daily school physical education programs should be greater than 60 percent. (In 1974–75, the proportion was 33 percent.)

**N.c.** By 1990, the proportion of adults 18–64 years of age participating regularly in vigorous physical exercise should be greater than 60 percent. (In 1978, the proportion who regularly exercise was estimated at more than 35 percent.)

**N.d.** By 1990, 50 percent of adults 65 years of age and over should be engaging in appropriate physical activity, for example, regular walking, swimming, or other aerobic activity. (In 1975, about 36 percent took regular walks.)

## Increased Public and Professional Awareness

**N.e.** By 1990, the proportion of adults who can accurately identify the variety and duration of exercise thought to promote cardiovascular fitness most effectively should be greater than 70 percent. (Baseline data unavailable.)

**N.f.** By 1990, the proportion of primary care physicians who include a careful exercise history as part of their initial examination of new patients should be greater than 50 percent. (Baseline data unavailable.)

## Improved Services and Protection

**N.g.** By 1990, the proportion of employees of companies and institutions with more than 500 employees and offering employer-sponsored fitness programs should be greater than 25 percent. (In 1979, about 2.5 percent of companies had formally organized fitness programs.)

*In 1984, the National Children and Youth Fitness Study found that about 66 percent of children and adolescents, ages 10 to 17, report that they participate 3 or more times per week year-round for at least 20 minutes per session, in activities presumed to require 60 percent or more of maximal cardiorespiratory capacity, and that are considered to be activities that can be carried into adulthood. (Office of Disease Prevention and Health Promotion.)*

*In 1984, the percent of children in grades 5 through 12 participating in daily school physical education programs was estimated to be 36 percent. (National Children and Youth Fitness Study, Office of Disease Prevention and Health Promotion.)*

*In 1990, 41 percent of adults 18–64 years of age reported they exercised regularly. An estimated 42 percent regularly exercised in 1985. (National Center for Health Statistics, National Health Interview Survey.)*

*In 1990, 32 percent exercised or played sports regularly. This figure was 29 percent in 1985. (National Center for Health Statistics, National Health Interview Survey.)*

*In 1990, 5.2 percent of adults 18 years and over reported that exercise needs to be performed three times per week and maintained for 20 minutes each time to promote cardiovascular fitness. In 1985, 5.1 percent of the population knew the duration, frequency, and intensity of exercise needed to promote cardiovascular fitness most effectively. (National Center for Health Statistics, National Health Interview Survey.)*

*In 1985, 32.4 percent of worksites with 250–749 employees and 53.7 percent of worksites with 750 or more employees offered exercise or fitness activities. (Office of Disease Prevention and Health Promotion.)*



## Improved Surveillance and Evaluation Systems

**N.h.** By 1990, a methodology for systematically assessing the physical fitness of children should be established, with at least 70 percent of children and adolescents 10–17 years of age participating in such an assessment.

*This objective has two targets: 1) the development of methods to assess the fitness of children, and 2) widespread participation by children in the assessment. The first target has been achieved. At least three tests of youth physical fitness, including national norms, are available. However, reliable estimates of the number of children participating in such tests are not available. (Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion.)*

**N.i.** By 1990, data should be available with which to evaluate the short- and long-term health effects of participation in programs of appropriate physical activity.

*Since this objective was formulated in 1978, data have increased substantially regarding the effects of physical activity on cardiovascular disease, hypertension, osteoporosis, diabetes, colon cancer, weight management, and depression. Many remaining questions about the health effects of physical activity continue to be investigated. (Centers for Disease Control, National Center for Chronic Disease Prevention and Health Promotion.)*

**N.j.** By 1990, data should be available to evaluate the effects of participation in programs of physical fitness on job performance and health care costs.

*National Resource Center on Worksite Health Promotion files indicate that one-sixth of the major studies on worksite health promotion programs have specifically addressed effects of physical fitness programs in the workplace as of January 1992. According to the National Center for Chronic Disease Prevention and Health Promotion, although studies have been conducted to assess the effects of physical fitness on job performance and health-care costs, concerns about study design, lack of standard operational definitions for job performance and health-care costs, and lack of comparability between measures constrain firm conclusions. What evidence there is shows a positive correlation between physical fitness programs and job performance and lowered health-care costs.*

**N.k.** By 1990, data should be available for regular monitoring of national trends and patterns of participation in physical activity, including participation in public recreation programs in community facilities.

*Data on national trends and patterns of physical activity are regularly collected by the National Health Interview Survey.*

# Control of Stress and Violent Behavior

## Improved Health Status

**O.a.** By 1990, the death rate from homicide among black males 15–24 years of age should be reduced to below 60 per 100,000. (In 1978, the homicide rate for this group was 70.7 per 100,000.)

Year	Homicide rate
1978	70.7
1979	76.5
1980	84.3
1981	78.2
1982	72.0
1983	66.8
1984	61.5
1985	66.1
1986	79.2
1987	85.6
1988	101.8
1989	114.8
1990 objective	60.0

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

**O.b.** By 1990, injuries and deaths to children inflicted by abusing parents should be reduced by at least 25 percent. (Baseline data unavailable.)

*The incidence rate of child injury or impairment for children from birth to 18 years of age was estimated at 9.8 per 1,000 in 1980 and 16.3 in 1986. (Data from the Office of Human Development Services, Administration for Children, Youth and Families, the Study of National Incidence and Prevalence of Child Abuse and Neglect.)*

**O.c.** By 1990, the rate of suicide among people 15–24 years of age should be below 11 per 100,000. (In 1978, the suicide rate for this age group was 12.1 per 100,000.)

Year	Suicide rate
1978	12.1
1979	12.4
1980	12.3
1981	12.3
1982	12.1
1983	11.9
1984	12.5
1985	12.9
1986	13.1
1987	12.9
1988	13.2
1989	13.3
1990 <sup>a</sup>	13.6
1990 objective	11.0

<sup>a</sup>Provisional data.

SOURCE: Data from National Center for Health Statistics, Division of Vital Statistics.

## Reduced Risk Factors

**O.d.** By 1990, the number of handguns in private ownership should decline by 25 percent. (In 1978, the total number of handguns in private ownership was estimated to be 30 million to 40 million.)

*There is no central source for compiling data on private ownership of handguns. Several surveys suggest that there is some type of gun in about 50 percent of households in the United States; this is a consistent figure across the surveys. The percent with handguns is estimated to be slightly less. (Centers for Disease Control, National Center for Environmental Health and Injury Control.)*



## Increased Public and Professional Awareness

**O.e.** By 1990, the proportion of the population 15 years of age and over that can identify an appropriate community agency to assist in coping with a stressful situation should be greater than 50 percent. (Baseline data unavailable.)

**O.f.** By 1990, the proportion of young people 15–24 years of age who can identify an accessible suicide prevention “hotline” should be greater than 60 percent. (Baseline data unavailable.)

**O.g.** By 1990, the proportion of the primary care physicians who take a careful history related to personal stress and psychological coping skills should be greater than 60 percent. (Baseline data unavailable.)

## Improved Services and Protection

**O.h.** By 1990, to reduce the gap in mental health services, the number of persons reached by mutual support or self-help groups should double from 1978 baseline figures. (In 1978, estimates ranged from 2.5 million to 5 million, depending on the definition of such groups.)

*In 1984, 12 to 14 million persons were reached by mutual support or self-help groups. (Office of Disease Prevention and Health Promotion.)*

**O.i.** By 1990, stress identification and control should become integral components of the continuum of health services offered by organized health programs (Baseline data unavailable.)

**O.j.** By 1990, of the 500 largest U.S. firms, the proportion offering work-based stress reduction programs should be greater than 30 percent. (Baseline data unavailable.)

*In 1985, 60.8 percent of worksites with 750 or more employees offered stress management activities to their employees. (Office of Disease Prevention and Health Promotion.)*

## Improved Surveillance and Evaluation Systems

**O.k.** By 1985, surveys should show what percentage of the U.S. population perceives stress as adversely affecting their health, and what proportion of these are trying to use appropriate stress-control techniques.

*In 1990, 41 percent of the population 18 years of age and over indicated that stress had at least some effect on their health; 13 percent had sought help from family, friends, professionals, or self-help groups. The corresponding percents for 1985 were 44 percent and 11 percent, respectively. (National Center for Health Statistics, National Health Interview Survey.)*

**O.l.** By 1985, a methodology should have been developed to rate the environmental stress loads of major categories of occupations.

*This objective has not been met. However, efforts are underway to develop a generic questionnaire for job stress and strain and to establish norms. (National Institute for Occupational Safety and Health, Division of Biomedical and Behavioral Science.)*

**O.m.** By 1990, the existing knowledge base through scientific inquiry about stress effects and stress management should be greatly enlarged.

*This objective has been met. Significant gains have occurred in expanding the knowledge base about stress effects and stress management. (National Institute for Occupational Safety and Health, Division of Biomedical and Behavioral Science.)*

**O.n.** By 1990, the reliability of data on the incidence and prevalence of child abuse and other forms of family violence should be greatly increased.

*Pursuant to Public Law (P.L.) 93-247 (1974) as amended, P.L. 98-457 (1984), and P.L. 100-294 (1988) as amended, the National Center on Child Abuse and Neglect was created to develop a national data collection system which coordinates State reports of officially reported cases of child abuse. The Study of National Incidence and Prevalence of Child Abuse and Neglect, conducted in 1980 and again in 1986, surveyed representative samples of child protective services agencies and professionals located in schools, hospitals, juvenile courts, and other settings. The third study of the incidence of substantiated reported child abuse cases is scheduled for 1992. (National Center on Child Abuse and Neglect, Administration for Children, Youth and Families.)*



# Summary and Information Tables

Table A. Relative status of 1990 health promotion and disease prevention objectives

1990 objective identifier	Summary of progress <sup>a</sup>	Percent of target attained			
		100 percent and greater	50-99 percent	0-49 percent	Regression
High blood pressure control					
Aa	---				
Ab	100%	X			
Ac Men	-15%				X
Women	-1%				X
Ad High blood pressure	206%	X			
Cigarette smoking	(b)				
Cholesterol	(b)				
Diabetes	(b)				
Ae	116%	X			
Af	100%	X			
Ag Sodium	115%	X			
Calories	(b)				
Ah	100%	X			
Ai	100%	X			
Family planning					
Ba	-7%				X
Bb	-68%				X
Bc	-67%				X
Bd	-90%				X
Be	-209%				X
Bg	-22%				X
Bh	105%	X			
Bi	238%	X			
Bj	100%	X			
Pregnancy and infant health					
Ca	83%		X		
Cb White	146%		X		
Black	49%			X	
American Indian (1983 Baseline)	41%			X	
Hispanic (1983 Baseline)	143%	X			
Cc	110%	X			
Cd	59%		X		
Ce White	57%		X		
Black	33%			X	
American Indian	---				
Hispanic	54%		X		
Cf	123%	X			
Cg	140%	X			
Ch	83%		X		
Ci	5%			X	
Cj White	158%	X			
Black	-8%				X
American Indian	141%	X			
Hispanic	145%	X			
Ck	178%	X			
Cl Birth defects	63%		X		
Low birth weight	(b)				
Mental retardation	(b)				
Miscarriage	(b)				
Low birth weight	(b)				
Stillbirth	(b)				
Premature birth	(b)				
Miscarriage	(b)				
Cm	---				
Cn White	7%			X	
Black	1%			X	
American Indian	5%			X	
Hispanic	8%			X	
Co	---				
Cp	-53%				X
Cq Phenylketonuria	100%	X			
Hypothyroidism	100%	X			
Cr	---				
Cs	100%	X			

Table A. Relative status of 1990 health promotion and disease prevention objectives—Con.

1990 objective identifier	Summary of progress <sup>a</sup>	Percent of target attained			Regression
		100 percent and greater	50–99 percent	0–49 percent	
Immunization					
Da . . . . .	-108%				X
Db . . . . .	68%		X		
Dc . . . . .	99%		X		
Dd . . . . .	98%		X		
De . . . . .	611%	X			
Df . . . . .	-473%				X
Dg . . . . .	55%		X		
Dh . . . . .	113%	X			
Di . . . . .	97%		X		
Dj Measles . . . . .	69%		X		
Rubella . . . . .	-27%				X
Mumps . . . . .	44%			X	
Polio . . . . .	3%			X	
DTP . . . . .	47%			X	
Dk Measles . . . . .	250%	X			
Rubella . . . . .	175%	X			
Mumps . . . . .	125%	X			
Polio . . . . .	167%	X			
DTP . . . . .	167%	X			
Dl . . . . .	27%			X	
Dm . . . . .	17%			X	
Dn . . . . .	48%			X	
Do . . . . .	100%	X			
Dp Employment-based insurance . . . . .	45%			X	
Medicaid . . . . .	100%	X			
Dq . . . . .	100%	X			
Dr Reporting . . . . .	0%			X	
Case definitions . . . . .	100%	X			
Sexually transmitted diseases					
Ea . . . . .	102%	X			
Eb Gonococcal . . . . .	74%		X		
Ec Primary/secondary syphilis . . . . .	-212%				X
Congenital syphilis . . . . .	-3255%				X
Ed . . . . .	---				
Ee . . . . .	---				
Ef Sexually active 15–44 years of age . . . . .	60%		X		
Eg . . . . .	83%		X		
Eh . . . . .	---				
Ei . . . . .	---				
Ej . . . . .	100%	X			
Ek . . . . .	100%	X			
Toxic agent and radiation control					
Fa . . . . .	---				
Fb . . . . .	---				
Fc . . . . .	---				
Fd . . . . .	-50%				X
Fe . . . . .	---				
Ff . . . . .	---				
Fg . . . . .	---				
Fh . . . . .	---				
Fi . . . . .	---				
Fj . . . . .	---				
Fk . . . . .	---				
Fl . . . . .	---				
Fm . . . . .	---				
Fn . . . . .	92%		X		
Fo . . . . .	---				
Fp . . . . .	---				
Fq . . . . .	---				
Fr . . . . .	100%	X			
Fs . . . . .	0%			X	
Ft . . . . .	0%			X	



Table A. Relative status of 1990 health promotion and disease prevention objectives—Con.

1990 objective identifier	Summary of progress <sup>a</sup>	Percent of target attained			Regression
		100 percent and greater	50–99 percent	0–49 percent	
Occupational safety and health					
Ga	118%	X			
Gb	111%	X			
Gc	-170%				X
Gd	64%		X		
Ge	---				
Gf	---				
Gg	---				
Gh	---				
Gi	---				
Gj	175%	X			
Gk	---				
Gl	---				
Gm	---				
Gn	---				
Go	---				
Gp	100%	X			
Gq	18%			X	
Gr	0%			X	
Gs	0%			X	
Gt	100%	X			
Injury prevention					
Ha	79%		X		
Hb	71%		X		
Hc	110%	X			
Hd	31%			X	
He	91%		X		
Hf	53%		X		
Hg	104%	X			
Hh	299%	X			
Hi	19%			X	
Hj	166%	X			
Hk	101%	X			
Hi Poison control center	91%		X		
Use seatbelts or carsats	( <sup>b</sup> )				
Hm	---				
Hn	100%	X			
Ho Trauma centers	74%		X		
Burn centers	( <sup>b</sup> )				
Spinal cord injury centers	( <sup>b</sup> )				
Hp	48%			X	
Hq	48%			X	
Fluoridation and dental health					
Ia	332%	X			
Ib	---				
Ic Gingivitis	-372%( <sup>c</sup> )				X
Destructive periodontal disease	-2685%( <sup>c</sup> )				X
Id	---				
Ie	---				
If Brush and floss	83%		X		
Fluoridated water	( <sup>b</sup> )				
Fluoride toothpaste/rinse	( <sup>b</sup> )				
Ig Personal oral hygiene	136%	X			
Dental checkups	( <sup>b</sup> )				
Ih	3%			X	
Ii	-14%				X
Ij Brushing 2X daily	121%	X			
Fluoride toothpaste	( <sup>b</sup> )				
Ik	100%	X			
Il	---				

Table A. Relative status of 1990 health promotion and disease prevention objectives—Con.

1990 objective identifier	Summary of progress <sup>a</sup>	Percent of target attained			Regression
		100 percent and greater	50–99 percent	0–49 percent	
<b>Surveillance/control of infectious diseases</b>					
Ja	–33%				X
Jb	55%		X		
Jc	–500%				X
Jd	0%			X	
Je	21%			X	
Jf	---				
Jg	---				
Jh	100%	X			
Ji	---				
Jj	---				
jk	0%			X	
Jl	100%	X			
Jm	---				
<b>Smoking and health</b>					
Ka	94%		X		
Kb	0%			X	
Kc	–5%				X
Kd	46%			X	
Ke	119%	X			
Kf Lung cancer	106%	X			
Cancer of larynx	100%	X			
Cancer of esophagus	96%		X		
Bladder cancer	40%			X	
Kg Emphysema	106%	X			
Chronic bronchitis	<sup>(b)</sup>				
Kh Low birthweight	71%		X		
Birth control/stroke	86%		X		
Ki	---				
Kj	166%	X			
Kk	0%			X	
Kl	100%	X			
Km	74%		X		
Kn	0%			X	
Ko	100%	X			
Kp	---				
Kq	---				
<b>Alcohol and drug misuse</b>					
La	125%	X			
Lb	145%	X			
Lc	180%	X			
Ld	83%		X		
Le	–229%				X
Lf	---				
Lg	109%	X			
Lh Alcohol	110%	X			
Marijuana	115%	X			
Cocaine	100%	X			
Li	---				
Lj	0%			X	
Lk Marijuana	359%	X			
Other drugs	133%	X			
Ll Marijuana	750%	X			
Other drugs	100%	X			
Lm Birth defects	71%		X		
Ln Throat cancer	55%		X		
Mouth cancer	<sup>(b)</sup>				
Lo Cigarettes	29%			X	
Marijuana	<sup>(b)</sup>				
Barbiturates	<sup>(b)</sup>				
Alcohol	<sup>(b)</sup>				
Lp	---				
Lq	100%	X			
Lr	0%			X	
Ls	100%	X			



Table A. Relative status of 1990 health promotion and disease prevention objectives—Con.

1990 objective identifier	Summary of progress <sup>a</sup>	Percent of target attained			Regression
		100 percent and greater	50–99 percent	0–49 percent	
Improved nutrition					
Ma	---				
Mb	---				
Mc Men	-15%				X
Women	1%				X
Md Men	44%				X
Women	60%		X		
Me Men	21%				X
Women	18%				X
Mf	---				
Mg	100%	X			
Mh Hospital discharge (1 week)	25%				X
6 months	4%				X
Mi Heart disease	90%		X		
Cholesterol	(b)				
High blood pressure	(b)				
Sodium	(b)				
Alcohol	(b)				
Cholesterol	(b)				
Dental caries	(b)				
Snacks	(b)				
Cancer	(b)				
Fiber	(b)				
Mj Fat	70%		X		
Sodium	(b)				
Calories	(b)				
Fiber	(b)				
Mk Eating fewer calories	74%		X		
Physical activity	(b)				
Both	(b)				
MI Sodium labeling	62%		X		
Nutrition labeling	33%				X
Mm	---				
Mn	---				
Mo	23%				X
Mp Often	32%				X
Sometimes	(b)				
Mq	50%		X		
Physical fitness and exercise					
Na	73%		X		
Nb	11%				X
Nc	24%				X
Nd	64%		X		
Ne	7%				X
Nf	---				
Ng	133%	X			
Nh Methods	100%	X			
Participation	0%				X
Ni	100%	X			
Nj	100%	X			
Nk	100%	X			
Control of stress and violent behavior					
Oa	-412%				X
Ob	-464%				X
Oc	-109%	X			
Od	---				
Oe	---				
Of	---				
Og	---				
Oh	380%	X			
Oi	---				
Oj	100%	X			
Ok	100%	X			
Ol	0%				X
Om	100%	X			
On	100%	X			

<sup>a</sup>In the majority of cases where the baseline and target values were numeric, the summary measure was obtained by the following formula: (Baseline–Achieved)/(Baseline–Target). The column headed "100 percent and greater" indicates objective targets that were fully met. If progress towards the target was made but the target was not attained, the summary value range is 1 to 99 percent. If the achieved value was in the opposite direction of the target from the baseline, the summary percent is negative. Progress towards targets that could not be quantified was summarized as 100 percent if met, and 0 percent if not met.

<sup>b</sup>Included in the objective summary measure.

<sup>c</sup>Baseline and target measures do not reflect current state-of-the-art measures.

**Table B. 1990 health promotion/disease prevention objectives similar to the year 2000**

Priority area	1990 objective identifier	Year 2000 objectives similar or identical to 1990 objectives			Brief description	
High blood pressure control . . .	Aa	15.4			Controlled high blood pressure	
	Ab	2.9			Sodium intake	
	Ac	*2.3			Overweight	
	Ad	(a)			Knowledge of CHD/stroke risks	
	Ae	15.13			Blood pressure screening	
	Af	(a)			Public programs for blood pressure	
	Ag	2.14			Nutrition labeling	
	Ah	(a)			Surveillance	
	Ai	(a)			Methodology to assess HBP control	
	Family planning . . . . .	Ba	5.1			Births to girls 14 & under
Bb		5.1			Fertility rate (15 year olds)	
Bc		5.1			Fertility rate (16 year olds)	
Bd		5.1			Fertility rate (17 year olds)	
Be		5.2			Unintended births (unmarried women)	
Bg		(a)			Family planning information/education	
Bh		5.7			Knowledge of contraceptive methods	
Bi		(a)			High estrogen oral contraceptive use	
Bj		(a)			Infertility assessments	
Pregnancy and infant health . . .		Ca	14.1			Infant mortality
	Cb	14.1			Infant mortality	
	Cc	14.1			Neonatal mortality	
	Cd	(a)			Perinatal mortality	
	Ce	14.3			Maternal mortality	
	Cf	(a)			Anencephaly & spina bifida	
	Cg	(a)			Rh disease of newborn	
	Ch	14.4			Fetal alcohol syndrome	
	Ci	14.5			Low birth weight	
	Cj	14.5			Low birth weight	
	Ck	9.12			Certified car carriers (infants)	
	Cl	14.10			Knowledge of risks during pregnancy	
	Cm	14.11	14.14	14.16	Appropriate prenatal, maternal, & perinatal care	
	Cn	14.11			First trimester prenatal care	
	Co	14.13			Prenatal counseling/screening	
	Cp	14.14			Appropriate maternal care	
Cq	14.15			Neonatal screening for metabolic disorders		
Cr	14.16			Appropriate infant care		
Cs				Surveillance		
Immunization . . . . .	Da	20.1			Measles	
	Db	20.1			Mumps	
	Dc	20.1			Rubella	
	Dd	20.1			Congenital rubella syndrome	
	De	20.1			Diphtheria	
	Df	20.1			Pertussis	
	Dg	20.1			Tetanus	
	Dh	20.1			Polio	
	Di	(a)			Immunization information	
	Dj	20.11			Immunizations	
	Dk	20.11			Immunizations	
	Dl	20.11			Immunizations	
	Dm	20.11			Immunizations	
	Dn	(a)			New vaccines	
	Do	(a)			Mass immunization program plan	
	Dp	20.15			Barriers to immunizations	
	Dq	(a)			Immunization records	
Dr	(a)			Surveillance		
Sexually transmitted diseases . . .	Ea	19.1			Gonorrhea	
	Eb	19.6			GPID	
	Ec	19.3	19.4		Primary & secondary syphilis/congenital syphilis	
	Ed	(a)			Neonatal infection due to STDs	
	Ee	19.2			Nongonococcal urethritis & chlamydia	
	Ef	*19.10			Condom use	
	Eg	19.12			STD education in schools	
	Eh	*18.9	*19.11	19.13	19.15	Correct management of STDs
	Ei	(a)			Worksite STD services	
	Ej	(a)			Surveillance	
	Ek	(a)			Surveillance	
Toxic agent and radiation control . . . . .	Fa	11.4			Lead toxicity in children	
	Fb	(a)			Birth defects & miscarriages	
	Fc	11.5			Criteria air pollutants	
	Fd	11.9			Safe drinking water	
	Fe	11.7			Contaminated ground/surface water & soil	
	Ff	11.7			Toxic pesticides, herbicides, etc.	
	Fg	11.7			Inhalation of toxic fumes during transportation	
	Fh	(a)			Medically unnecessary diagnostic x rays	
	Fi	11.7			Knowledge of local environmental conditions	
	Fj	11.7			Knowledge of exposure to toxins	
	Fk	(a)			Knowledge of environmental health threats	



**Table B. 1990 health promotion/disease prevention objectives similar to the year 2000—Con.**

<i>Priority area</i>	<i>1990 objective identifier</i>	<i>Year 2000 objectives similar or identical to 1990 objectives</i>		<i>Brief description</i>
Toxic agent and radiation control—Con. . . . .	Fl	10.15		Provider environmental health threat assessments
	Fm	(a)		Management of lead toxicity in children
	Fn	11.14		Protection against hazards of toxic chemicals
	Fo	(a)		Clear labeling of toxic products
	Fp	(a)		Access to facilities managing toxic exposure
	Fq	(a)		Early warning system for environ. health hazards
	Fr	(a)		Emergency response to environmental hazards
	Fs	11.16		Surveillance for environmental health hazards
	Ft	(a)		Clearinghouse & data registry
Occupational safety and health. . . . .	Ga	10.1		Workplace accident deaths
	Gb	10.2		Work-related disabling injuries
	Gc	(a)		Workdays lost due to injuries
	Gd	10.4		Occupational dermatitis
	Ge	10.11		Preventable occupational diseases
	Gf	10.7		Occupational noise-induced hearing loss
	Gg	10.8		Occupational heavy metal poisoning
	Gh	(a)		Worksite hazard control plan
	Gi	(a)		Worksite hazard control plan
	Gj	(a)		Knowledge of occupational health & safety risks
	Gk	10.12		Worksite education for occupational risks to health
	Gl	(a)		Routine notification of worksite exposures
	Gm	(a)		Manager knowledge of safety & health principles
	Gn	10.15		Provider occupational health threat assessments
	Go	(a)		Occupational safety/health technologies
	Gp	(a)		Standards for health & safety issues
Gq	(a)		Health hazard evaluations	
Gr	10.10		Surveillance	
Gs	(a)		Surveillance	
Gt	(a)		Tracking system for emerging health problems	
Injury prevention . . . . .	Ha	9.3		Motor vehicle deaths
	Hb	9.3		Child motor vehicle deaths
	Hc	(a)		Child home injury deaths
	Hd	9.4		Fall-related deaths
	He	9.5		Drowning deaths
	Hf	(a)		Tap water scald injuries
	Hg	9.6		Residential fire deaths
	Hh	(a)		unintentional firearm deaths
	Hi	9.12		Motor vehicle automatic restraint protection
	Hj	9.12		Certified car carriers (infants)
	Hk	9.17		Functional smoke alarm systems
	Hi	9.21		Parental knowledge of childhood health risks
	Hm	9.21		Injury prevention counseling by clinicians
	Hn	9.22		Ambulance response & transport
	Ho	9.22		Access to trauma centers
	Hp	9.22		Access to poison control centers
Hq	(a)		Uniform injury reporting	
Fluoridation and dental health . . . . .	Ia	13.1		Dental caries (children)
	Ib	(a)		Gingivitis (children)
	Ic	13.5	13.6	Gingivitis & periodontal disease
	Id	(a)		Availability of highly cariogenic food in schools
	Ie	*9.19		Protective mouth gear during contact sports
	If	13.5	13.6	Knowledge of risks for dental disease
	Ig	(a)		Knowledge about oral hygiene
	Ih	13.9		Water fluoridation
	Ii	13.10		Fluoridated school water supply
	Ij	13.12		Dental services (children)
Surveillance/control of infectious diseases . . . . .	Ik	(a)		Surveillance
	Il	(a)		Surveillance
	Ja	*20.3		Hepatitis b
	Jb	20.4		Tuberculosis
	Jc	20.10		Pneumococcal pneumonia
	Jd	20.7		Bacterial meningitis
	Je	20.5		Nosocomial infections
	Jf	20.5		Nosocomial infection reduction plan
	Jg	(a)		Surveillance
	Jh	(a)		New vaccines
Ji	(a)		Surveillance	
Jj	(a)		Surveillance	
Jk	(a)		Surveillance	
Jl	(a)		Laboratory monitoring of infectious agents	
Jm	(a)		Legionellosis	
Smoking and health. . . . .	Ka	*3.4		Cigarette smoking
	Kb	*3.4	3.7 14.10	Cigarette smoking (pregnant women)
	Kc	3.5		Cigarette smoking (students)
	Kd	(a)		Mg of tar and nicotine per cigarette
	Ke	(a)		Knowledge of risks from smoking
	Kf	(a)		Knowledge of risks from smoking
	Kg	(a)		Knowledge of risks from smoking

**Table B. 1990 health promotion/disease prevention objectives similar to the year 2000 – Con.**

Priority area	1990 objective identifier	Year 2000 objectives similar or identical to 1990 objectives			Brief description
Smoking and health—Con. . . . .	Kh	(a)			Knowledge of risks from smoking (women)
	Ki	3.10			Knowledge of risks from smoking (children)
	Kj	3.11			Worksite/community smoking cessation programs
	kk	(a)			Cigarette contents listed on packages
	Kl	(a)			Strengthened warning on cigarette packages
	Km	3.12			Clean indoor air laws
	Kn	(a)			Differential insurance premiums
	Ko	(a)			Research by insurance companies
	Kp	(a)			Research on low yield cigarettes
	Kq	(a)			Research on the changing tobacco product
Alcohol and drug misuse . . . . .	La	4.1			Alcohol-related motor vehicle deaths
	Lb	(a)			Alcohol-related accident deaths
	Lc	4.2			Cirrhosis deaths
	Ld	14.4			Fetal alcohol syndrome
	Le	4.3			Drug-related deaths
	Lf	12.5	12.6		Adverse prescription drug reactions
	Lg	4.8			Alcohol consumption
	Lh	4.5	4.6	4.7	Adolescent drug and alcohol use
	Li	4.5	4.6	4.7	Adolescent drinking-related problems.
	Lj	4.8			Problem drinkers
	Lk	4.6			Frequent drug use (young adults)
	Li	4.6			Adolescents reporting frequent use of drugs
	Lm	14.10			Knowledge of risks of alcohol during pregnancy
	Ln	(a)			Knowledge of cancer risks from alcohol
	Lo	4.10			Knowledge of risks from alcohol (youth)
Lp	12.5	12.6		Counseling for use of prescription drugs	
Lq	4.14			Worksite substance abuse prevention programs	
Lr	12.5	12.6		Patient drug profile systems	
Ls	(a)			Surveillance	
Improved nutrition . . . . .	Ma	2.10			Iron deficiency anemia
	Mb	2.4			Growth retardation
	Mc	*2.3			Overweight
	Md	*2.7			Weight loss practices
	Me	15.6			Mean serum cholesterol level
	Mf	(a)			Mean serum cholesterol level (children)
	Mg	2.9			Sodium intake
	Mh	*14.9			Breastfeeding
	Mi	(a)			Knowledge of dietary risk factors
	Mj	(a)			Knowledge of health benefits from good nutrition
	Mk	(a)			Knowledge about effective weight loss
	Ml	2.14			Nutrition labeling
	Mm	(a)			Sodium levels in processed foods
	Mn	2.17			Nutritious school/worksite food services
	Mo	2.19			Nutrition education in schools
	Mp	2.21			Nutrition education/counseling by clinicians
Mq	(a)			Development national nutrition monitoring system	
Physical fitness and exercise . . .	Na	*1.3			Regular physical activity (children)
	Nb	1.8			Daily school physical education
	Nc	1.4			Vigorous physical activity
	Nd	*1.3			Regular physical activity
	Ne	(a)			Knowledge of health benefits from activity
	Nf	1.12			Activity profiles by clinicians
	Ng	1.10			Worksite fitness programs
	Nh	(a)			Surveillance
	Ni	(a)			Data to evaluate health effects of activity
	Nj	(a)			Data to evaluate health effects
	Nk	(a)			Surveillance
Control of stress and violent behavior . . . . .	Oa	7.1			Homicide deaths
	Ob	7.4			Child abuse
	Oc	*6.1			Suicide deaths
	Od	7.11			Handguns in private ownership
	Oe	6.8			Knowing where to seek help for stress
	Of	(a)			Youth knowledge of suicide prevention programs
	Og	6.13	6.14		Stress-related services by clinicians
	Oh	6.12			mental health services
	Oi	(a)			Stress identification and control
	Oj	6.11			Worksite stress reduction programs
	Ok	(a)			Surveillance
	Ol	(a)			Methodology for occupational stress loads
	Om	(a)			Research base
	On	(a)			Surveillance

Number of 1990 objectives similar or identical to year 2000 objectives: 139

\*Primary objective among duplicate objectives.  
 aNo similar year 2000 objective.



**Table C. Data tables for figures 1–32**

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	Goal
<b>Figure 1</b>															
Infant mortality rates . . . . .	14.1	13.8	13.1	12.6	11.9	11.5	11.2	10.8	10.6	10.4	10.1	10.0	9.8	9.1	9.0
<b>Figure 2</b>															
White . . . . .	12.2	11.9	11.3	10.9	10.3	9.9	9.6	9.3	9.2	8.8	8.5	8.4	8.1	---	---
Black . . . . .	24.4	23.9	22.6	22.2	20.8	20.5	20.0	19.2	19.0	18.9	18.8	18.5	18.6	---	---
<b>Figure 3</b>															
Ages 1–14 years . . . . .	42.3	42.1	40.1	38.5	38.0	36.7	35.3	34.1	33.8	33.7	33.3	33.2	32.4	30.1	34.0
<b>Figure 4</b>															
Ages 15–24 years . . . . .	114.8	115.0	114.8	115.4	107.1	101.0	96.0	96.8	95.9	102.3	99.4	102.1	99.9	104.1	93.0
<b>Figure 5</b>															
Ages 25–64 years . . . . .	532.9	520.3	500.2	498.0	482.1	462.3	452.8	443.5	438.7	431.0	423.4	419.3	409.8	400.4	400.0
<b>Figure 6</b>															
Ages 25–34 years . . . . .	132.8	131.7	133.0	135.5	132.1	125.2	121.4	121.1	123.4	132.1	133.2	135.4	138.1	139.6	---
Ages 35–44 years . . . . .	247.3	238.7	229.8	227.9	221.3	207.4	201.9	204.8	207.2	212.9	214.1	219.6	221.7	221.1	---
Ages 45–54 years . . . . .	621.2	610.4	589.7	584.0	573.5	549.7	535.7	521.1	516.3	504.8	498.0	486.2	475.0	463.1	---
Ages 55–64 years . . . . .	1,408.5	1,387.1	1,338.0	1,346.3	1,322.1	1,297.9	1,299.5	1,287.8	1,282.7	1,255.1	1,241.3	1,235.6	1,204.4	1175.6	---
<b>Figure 7</b>															
Restricted-activity days . . . . .	36.5	40.3	41.9	39.2	39.9	31.6	32.1	31.8	33.1	32.1	30.3	30.6	31.5	31.4	30.0
<b>Figure 8</b>															
Bed-disability days . . . . .	14.5	14.5	13.7	13.8	14.0	14.7	16.7	15.1	13.7	14.9	14.0	14.4	14.2	13.6	12.0
<b>Figure 9</b>															
White male . . . . .	---	---	---	70.7	71.1	71.5	71.7	71.8	71.9	72.0	72.2	72.3	72.7	---	---
White female . . . . .	---	---	---	78.1	78.4	78.7	78.7	78.7	78.7	78.8	78.9	78.9	79.2	---	---
Black male . . . . .	---	---	---	63.8	64.5	65.1	65.4	65.6	65.3	65.2	65.2	64.9	64.8	---	---
Black female . . . . .	---	---	---	72.5	73.2	73.7	73.6	73.7	73.5	73.5	73.6	73.4	73.5	---	---
<b>Percent</b>															
<b>Figure 10</b>															
Age:															
Under 15 years . . . . .	2.4														
75 years and over . . . . .	31.7														
Sex:															
Male . . . . .	8.4														
Female . . . . .	9.3														
Race:															
White . . . . .	8.1														
Black . . . . .	15.1														
Income:															
Less than \$14,000 . . . . .	18.6														
\$50,000 or more . . . . .	4.0														
Location:															
Metropolitan . . . . .	8.5														
Nonmetropolitan . . . . .	10.4														

**Table C. Data tables for figures 1–32 – Con.**

	1983	1984	1985	1986	1987	1988	1989	1990
Figure 11								
Total . . . . .	3.6	3.7	3.7	3.7	3.7	3.8	3.9	3.9
White . . . . .	3.3	3.4	3.4	3.4	3.4	3.5	3.6	3.6
Black . . . . .	6.2	6.3	6.3	6.6	6.2	6.6	6.7	6.5
Percent								
Figure 12								
Total . . . . .	25.6							
Race and sex:								
White male . . . . .	27.7							
Black male . . . . .	34.5							
White female . . . . .	23.6							
Black female . . . . .	22.6							
Education:								
Less than 12 years . . . . .	36.7							
12 years . . . . .	29.3							
13–15 years . . . . .	23.5							
16 years and over . . . . .	14.1							
Figure 13								
Total . . . . .	81.9							
Age of child:								
Under 2 years . . . . .	92.4							
2–4 years . . . . .	83.1							
5–7 years . . . . .	78.6							
8–9 years . . . . .	73.7							
Education of responsible adult:								
Less than 12 years . . . . .	59.3							
12 years . . . . .	78.5							
13–15 years . . . . .	85.9							
16 years and over . . . . .	93.0							
Figure 14								
	Trying to lose	Diet only	Exercise only	Both	Other and unknown			
Men . . . . .	46.3	14.2	5.8	22.0	4.3			
Women . . . . .	61.3	22.8	4.5	29.0	5.0			
Figure 15								
	All births	First child	Second child	Third child				
All races . . . . .	36.5	31.3	4.7	0.6				
White . . . . .	28.3	25.1	2.9	0.3				
Black . . . . .	80.0	64.0	13.7	2.1				
Figure 16								
Heart disease . . . . .	155.9	205.9	272.6	106.6	172.9			
Figure 17								
Stroke . . . . .	28.0	28.0	54.1	24.1	44.9			
Figure 18								
Cancer . . . . .	133.0	157.2	230.6	110.7	130.9			
Figure 19								
Motor vehicle crashes . . . . .	18.9	26.8	29.4	11.5	9.1			
Figure 20								
Homicide and legal intervention . . . . .	9.4	8.1	61.5	2.8	12.5			



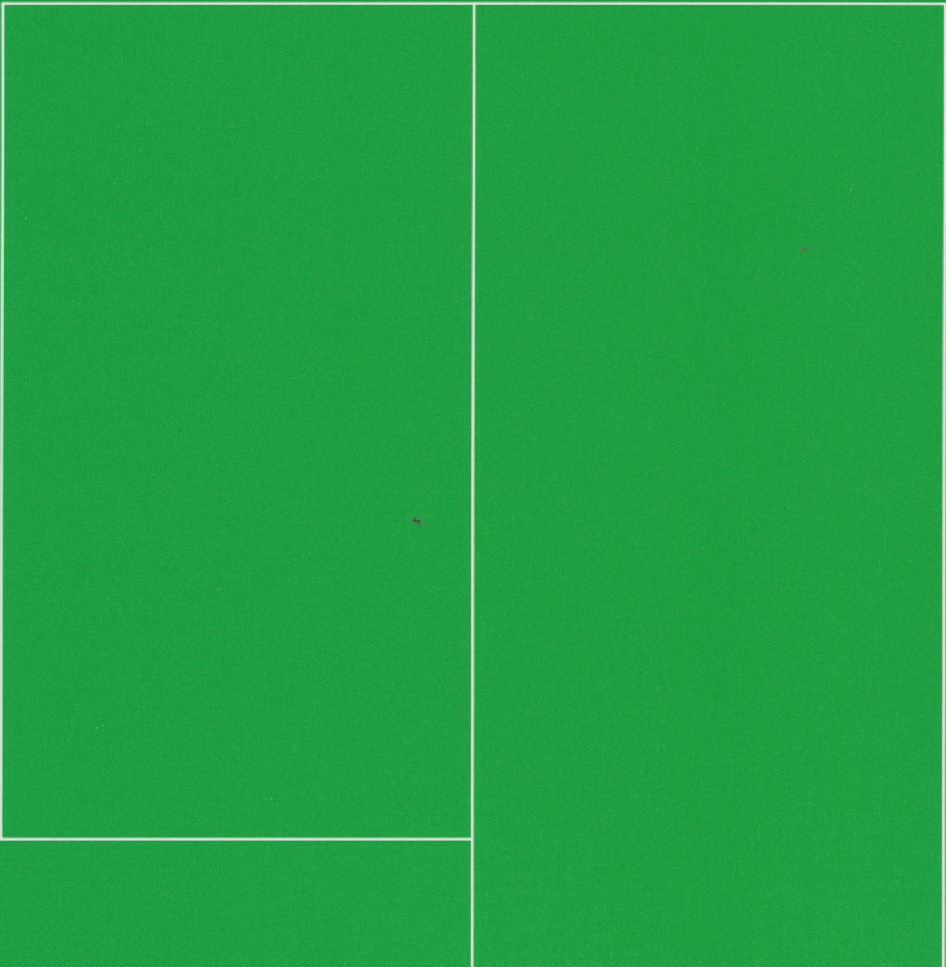
**Table C. Data tables for figures 1–32 – Con.**

	All persons	White male	Black male	White female	Black female					
<b>Figure 21</b>										
1980.....	15.6	15.5	4.7	84.3	18.4					
1981.....	14.7	14.4	4.3	78.2	16.9					
1982.....	13.7	13.1	4.4	72.0	15.3					
1983.....	12.4	11.5	3.7	66.8	15.7					
1984.....	12.0	11.1	4.3	61.5	14.8					
1985.....	12.1	11.2	3.6	66.1	14.2					
1986.....	14.2	12.5	4.3	79.2	16.2					
1987.....	14.0	11.2	3.9	85.6	17.7					
1988.....	15.4	11.5	3.9	101.8	17.4					
1989.....	16.9	12.8	3.9	114.8	17.3					
<b>Figure 22</b>										
Suicide.....	11.3	19.6	12.5	4.8	2.4					
<b>Figure 23</b>										
1980.....	12.3	21.4	4.6	12.3	2.3					
1981.....	12.3	21.1	4.9	11.1	2.4					
1982.....	12.1	21.2	4.5	11.0	2.2					
1983.....	11.9	20.6	4.6	11.5	2.7					
1984.....	12.5	22.0	4.7	11.2	2.4					
1985.....	12.9	22.7	4.7	13.3	2.0					
1986.....	13.1	23.6	4.7	11.5	2.3					
1987.....	12.9	22.7	4.6	12.9	2.5					
1988.....	13.2	23.4	4.6	14.5	2.6					
1989.....	13.3	23.2	4.4	16.7	2.8					
<b>Figure 24</b>										
HIV infection.....	8.7	13.1	40.3	0.9	8.1					
<b>Figure 25</b>										
Heart diseases.....	---	870.0	1,435.9	314.6	799.6					
Cancer.....	---	838.4	1,107.3	824.6	926.0					
Unintentional injuries.....	---	1,461.1	1,951.3	530.2	652.5					
Homicide.....	---	278.4	2,251.8	96.7	474.3					
HIV.....	---	399.6	1,106.6	30.9	276.8					
Other.....	---	2,677.6	6,369.6	1,606.8	4,302.3					
	Mexican American	Puerto Rican	Cuban	Central and South American	Chinese	Japanese	Filipino	American Indian or Alaskan Native	White	Black
<b>Figure 26</b>										
1st Trimester.....	56.7	62.7	83.2	60.8	81.5	86.2	77.6	57.9	78.9	60.0
<b>Figure 27</b>										
3rd Trimester or no prenatal care.....	14.6	11.3	4.0	11.9	3.6	2.7	4.7	13.4	5.2	11.9
	Total	Hispanic origin	Income less than \$10,000	Education less than high school	Black	70 years of age and over				
<b>Figure 28</b>										
Clinical breast examination and mammogram.....	47.4	42.0	30.9	33.7	42.0	36.8				
<b>Figure 29</b>										
Ever had Pap test.....	93.2	86.6	87.4	87.5	---	86.5				
Pap test in past 3 years.....	80.7	77.1	71.9	70.2	---	68.6				
	18 years and over	18–29 years	30–44 years	45–64 years	65 years and over					
<b>Figure 30</b>										
Total.....	75.1	71.7	71.4	77.1	84.8					
Male.....	69.3	61.5	64.9	74.3	84.0					
Female.....	80.4	81.2	77.6	79.6	85.3					

**Table C. Data tables for figures 1–32 – Con.**

	Percent		
Figure 31			
Total .....			15.7
Race:			
White .....			14.5
Black .....			21.9
Poverty status:			
In poverty .....			36.0
Not in poverty .....			11.5
Employment:			
Currently employed .....			14.3
Unemployed .....			39.2
Not in labor force .....			18.5
Education:			
Less than 12 years .....			30.1
12 years .....			16.6
More than 12 years .....			9.2
	Usual source	Not in poverty	In poverty
Figure 32			
White male .....	71.6	72.3	59.4
Black male .....	64.6	66.0	58.3
White female .....	84.6	85.4	76.8
Black female .....	85.0	86.3	81.9





# Health United States 1991



# List of Detailed Tables

## Health Status and Determinants

### Population

1. **Resident population**, according to age, sex, race, and Hispanic origin: United States, selected years 1950-89\_\_\_\_\_ 121
2. Persons and families below **poverty** level, according to selected characteristics, race, and Hispanic origin: United States, selected years 1973-90\_\_\_\_\_ 122

### Fertility and Natality

3. Live births, crude **birth rates**, and birth rates by age of mother, according to race: United States, selected years 1950-90\_\_\_\_\_ 123
4. **Fertility rates**, according to live-birth order and race: United States, selected years 1950-90\_\_\_\_\_ 125
5. **Completed fertility rates** and parity distribution for women 50-54 years of age at the beginning of selected years 1930-90, according to race of child and birth cohort: United States, selected birth cohorts 1876-80 to 1936-40\_\_\_\_\_ 126
6. **Lifetime births expected** by currently married women and percent of expected births already born, according to age and race: United States, selected years 1967-90\_\_\_\_\_ 127
7. **Low birth weight** live births, according to race and Hispanic origin of mother: United States, 1970 and 1980-89\_\_\_\_\_ 128
8. **Prenatal care and maternal education** for live births, according to race and Hispanic origin of mother: United States, 1970 and 1980-89\_\_\_\_\_ 130
9. **Maternal age and marital status** for live births, according to race and Hispanic origin of mother: United States, 1970 and 1980-89\_\_\_\_\_ 132
10. **Low birth weight** live births, according to race of mother, geographic division, and State: United States, average annual 1977-79, 1982-84, and 1987-89\_\_\_\_\_ 133
11. **Very low birth weight** live births, according to race of mother, geographic division, and State: United States, average annual 1977-79, 1982-84, and 1987-89\_\_\_\_\_ 134
12. Legal **abortion ratios**, according to selected patient characteristics: United States, selected years 1973-89\_\_\_\_\_ 135
13. Legal **abortions**, according to selected characteristics: United States, selected years 1973-89\_\_\_\_\_ 136
14. Legal abortions, **abortion-related deaths**, and abortion-related death rates, according to period of gestation: United States, 1974-76, 1977-79, 1980-82, and 1983-85\_\_\_\_\_ 137
15. Methods of **contraception** for ever-married women 15-44 years of age, according to race and age: United States, 1973, 1982, and 1988\_\_\_\_\_ 138
16. Methods of **contraception** for women 15-44 years of age, according to race and marital status: United States, 1982 and 1988\_\_\_\_\_ 139

### Mortality

17. **Life expectancy** at birth and at 65 years of age, according to race and sex: United States, selected years 1900-1990\_\_\_\_\_ 140

18. **Infant mortality rates**, fetal death rates, and perinatal mortality rates, according to race: United States, selected years 1950-90\_\_\_\_\_ 141
19. **Infant, neonatal, and postneonatal mortality rates**, according to race and Hispanic origin of mother: United States, 1960 and 1983-86 birth cohorts\_\_\_\_\_ 143
20. **Infant mortality rates**, according to birthweight, race, and Hispanic origin of mother: United States, 1960 and 1983-86 birth cohorts\_\_\_\_\_ 144
21. **Infant mortality rates**, according to race, geographic division, and State: United States, average annual 1977-79, 1982-84, and 1987-89\_\_\_\_\_ 145
22. **Neonatal mortality rates**, according to race, geographic division, and State: United States, average annual 1977-79, 1982-84, and 1987-89\_\_\_\_\_ 146
23. **Postneonatal mortality rates**, according to race, geographic division, and State: United States, average annual 1977-79, 1982-84, and 1987-89\_\_\_\_\_ 147
24. **Fetal death rates**, according to race, geographic division, and State: United States, average annual 1977-79, 1982-84, and 1987-89\_\_\_\_\_ 148
25. **Infant mortality rates**, feto-infant mortality rates, and postneonatal mortality rates, and average annual percent change: Selected countries, 1983 and 1988\_\_\_\_\_ 149
26. **Life expectancy** at birth and at 65 years of age, according to sex: Selected countries, 1983 and 1988\_\_\_\_\_ 150
27. **Death rates** for all causes, according to sex, race, and age: United States, selected years 1950-89\_\_\_\_\_ 152
28. **Death rates** for all causes, according to age, race, and Hispanic origin: United States, 1987-89\_\_\_\_\_ 154
29. **Death rates** for selected causes, according to age, race, and Hispanic origin: United States, 1987-89\_\_\_\_\_ 155
30. **Age-adjusted death rates** for selected causes of death, according to sex and race: United States, selected years 1950-89\_\_\_\_\_ 156
31. **Numbers of deaths and rank** for selected causes of death, according to sex and race: United States, 1985-89\_\_\_\_\_ 158
32. **Years of potential life lost** before age 65 for selected causes of death, according to sex and race: United States, selected years 1970-89\_\_\_\_\_ 161
33. Death rates for **diseases of heart**, according to sex, race, and age: United States, selected years 1950-89\_\_\_\_\_ 163
34. Death rates for **cerebrovascular diseases**, according to sex, race, and age: United States, selected years 1950-89\_\_\_\_\_ 165
35. Death rates for **malignant neoplasms**, according to sex, race, and age: United States, selected years 1950-89\_\_\_\_\_ 167
36. Death rates for **malignant neoplasms of respiratory system**, according to sex, race, and age: United States, selected years 1950-89\_\_\_\_\_ 169
37. Death rates for **malignant neoplasm of breast** for females, according to race and age: United States, selected years 1950-89\_\_\_\_\_ 171
38. **Maternal mortality rates** for complications of pregnancy, childbirth, and the puerperium, according to race and age: United States, selected years 1950-89\_\_\_\_\_ 172
39. Death rates for **motor vehicle accidents**, according to sex, race, and age: United States, selected years 1950-89\_\_\_\_\_ 173
40. Death rates for **homicide** and legal intervention, according to sex, race, and age: United States, selected years 1950-89\_\_\_\_\_ 175



41. Death rates for <b>suicide</b> , according to sex, race, and age: United States, selected years 1950–89_____	177
42. Death rates for human immunodeficiency virus (HIV) infection, according to sex, race, and age: United States, 1987, 1988, and 1989_____	179
43. Deaths for selected <b>occupational diseases</b> for males, according to age: United States, selected years 1970–89_____	180
44. <b>Occupational injury deaths</b> , according to industry: United States, 1980–86_____	181
45. <b>Provisional death rates</b> for all causes, according to race, sex, and age: United States, 1988–90_____	182
46. <b>Provisional death rates</b> for selected causes of death: United States, 1988–90_____	183
47. <b>Provisional death rates</b> for the 3 leading causes of death, according to age: United States, 1988–90_____	184

## Determinants and Measures of Health

48. Progress toward <b>1990 health promotion goals</b> : United States, selected years 1977–90_____	185
49. <b>Vaccinations</b> of children 1–4 years of age for selected diseases, according to race and residence in metropolitan statistical area (MSA): United States, 1970, 1976, and 1983–85_____	186
50. Selected <b>notifiable disease rates</b> , according to disease: United States, selected years 1950–90_____	187
51. Acquired immunodeficiency syndrome (AIDS) cases, according to age at diagnosis, sex, race, and Hispanic origin: United States, 1984–91_____	188
52. Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to age at diagnosis, sex, race, and Hispanic origin: United States, 1984–91_____	189
53. Acquired immunodeficiency syndrome (AIDS) cases, according to race, Hispanic origin, sex, and transmission category for persons 13 years of age and over: United States, 1984–91_____	190
54. Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to race, Hispanic origin, sex, and transmission category for persons 13 years of age and over: United States, 1984–91_____	192
55. Acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1983–91_____	194
56. Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1983–91_____	196
57. Age-adjusted <b>cancer incidence rates</b> for selected cancer sites, according to sex and race: Selected years 1973–89_____	198
58. Five-year relative <b>cancer survival rates</b> for selected sites, according to race and sex: 1974–76, 1977–79, 1980–82, and 1983–88_____	199
59. <b>Limitation of activity</b> caused by chronic conditions, according to selected characteristics: United States, 1985 and 1990_____	200
60. <b>Disability days</b> associated with acute conditions and incidence of acute conditions, according to age: United States, 1983–90_____	201
61. <b>Self-assessment of health</b> , according to selected characteristics: United States, 1985 and 1990_____	202

62. Current <b>cigarette smoking</b> by persons 18 years of age and over, according to sex, race, and age: United States, selected years 1965–90_____	203
63. Age-adjusted prevalence of current <b>cigarette smoking</b> by persons 25 years of age and over, according to sex, race, and education: United States, selected years 1974–90_____	204
64. <b>Use of selected substances</b> in the past month by youths 12–17 years of age and young adults 18–25 years of age, according to age, sex, race, and Hispanic origin: United States, selected years 1974–91_____	205
65. <b>Use of selected substances</b> in the past month by high school seniors, according to sex, race, Hispanic origin, and average parental education: United States, 1980–90_____	207
66. <b>Cocaine-related emergency room episodes</b> , according to age, sex, race, and Hispanic origin: Selected metropolitan areas, 1985–90_____	208
67. <b>Alcohol consumption</b> status of persons 18 years of age and over, according to sex: United States, selected years 1971–88_____	209
68. <b>Elevated blood pressure</b> among persons 20–74 years of age, according to race, sex, and age: United States, 1960–62, 1971–74, and 1976–80_____	210
69. <b>Hypertension</b> among persons 20–74 years of age, according to race, sex, and age: United States, 1960–62, 1971–74, and 1976–80_____	212
70. Borderline high and high <b>serum cholesterol levels</b> among persons 20–74 years of age, according to race, sex, and age: United States, 1960–62, 1971–74, and 1976–80_____	213
71. <b>Overweight persons</b> 20–74 years of age, according to race, sex, and age: United States, 1960–62, 1971–74, and 1976–80_____	214
72. <b>Air pollution</b> , according to source and type of pollutant: United States, selected years 1970–89_____	215
73. <b>Occupational injuries</b> with lost workdays in the private sector, according to industry: United States, 1978–89_____	216
74. Production employees with potential <b>exposure to elemental lead or to continuous noise</b> , according to industry and size of facility: United States, 1972–74 and 1981–83_____	217
75. <b>Health and safety services</b> available in nonagricultural industries, according to size of facility: United States, 1972–74 and 1981–83_____	218

## Utilization of Health Resources

### Ambulatory Care

76. <b>Physician contacts</b> , according to place of contact and selected patient characteristics: United States, 1985 and 1990_____	219
77. <b>Interval since last physician contact</b> , according to selected patient characteristics: United States, 1964, 1985, and 1990_____	220
78. <b>Office visits</b> to physicians, according to physician specialty and selected patient characteristics: United States, 1985 and 1989_____	221
79. <b>Office visits</b> to physicians, according to selected patient and visit characteristics and physician specialty: United States, 1985 and 1989_____	222



80. **Dental visits** and interval since last visit, according to selected patient characteristics: United States, 1964, 1983, and 1989\_\_\_\_\_ 223

## Inpatient Care

81. **Discharges**, days of care, and average length of stay in short-stay hospitals, according to selected characteristics: United States, 1964, 1985, and 1990\_\_\_\_\_ 224

82. **Discharges**, days of care, and average length of stay in non-Federal short-stay hospitals, according to selected characteristics: United States, 1980-90\_\_\_\_\_ 225

83. **Discharges**, days of care, and average length of stay in non-Federal short-stay hospitals for patients discharged with the diagnosis of human immunodeficiency virus (**HIV**) and for all patients: United States, 1984-90\_\_\_\_\_ 226

84. Rates of **discharges** and days of care in non-Federal short-stay hospitals, according to sex, age, and selected first-listed diagnosis: United States, 1980, 1988, 1989, and 1990\_\_\_\_\_ 227

85. **Discharges** and average length of stay in non-Federal short-stay hospitals, according to sex, age, and selected first-listed diagnosis: United States, 1980, 1988, 1989, and 1990\_\_\_\_\_ 229

86. **Operations** for inpatients discharged from non-Federal short-stay hospitals, according to sex, age, and surgical category: United States, 1980, 1988, 1989, and 1990\_\_\_\_\_ 231

87. Diagnostic and other **nonsurgical procedures** for inpatients discharged from non-Federal short-stay hospitals, according to sex, age, and procedure category: United States, 1980, 1988, 1989, and 1990\_\_\_\_\_ 233

88. Admissions, average length of stay, outpatient visits, and percent **outpatient surgery** in short-stay hospitals, according to type of ownership and size of hospital: United States, selected years 1960-89\_\_\_\_\_ 235

89. **Nursing home** and personal care home **residents** 65 years of age and over and rate per 1,000 population, according to age, sex, and race: United States, 1963, 1973-74, 1977, and 1985\_\_\_\_\_ 236

90. **Nursing home residents**, according to selected functional status and age: United States, 1977 and 1985\_\_\_\_\_ 237

91. **Admissions to mental health organizations** and rate per 100,000 civilian population, according to type of service and organization: United States, selected years 1969-88\_\_\_\_\_ 238

92. Inpatient and residential treatment **episodes in mental health organizations**, rate per 100,000 civilian population, and inpatient days, according to type of organization: United States, selected years 1969-88\_\_\_\_\_ 239

93. **Admissions to selected inpatient psychiatric organizations** and rate per 100,000 civilian population, according to sex, age, and race: United States, 1975, 1980, and 1986\_\_\_\_\_ 240

94. **Admissions to selected inpatient psychiatric organizations**, according to selected primary diagnoses and age: United States, 1975, 1980, and 1986\_\_\_\_\_ 241

## Health Care Resources

### Personnel

95. **Persons employed** in health service sites: United States, selected years 1970-90\_\_\_\_\_ 242

96. Active non-Federal **physicians** per 10,000 civilian population, according to geographic division, State, and primary specialty: United States, 1975, 1985, 1987, and 1989\_\_\_\_\_ 243

97. Active **physicians**, according to type of physician, and number per 10,000 population: United States and outlying U.S. areas, selected 1950-89 estimates and 2000 projections\_\_\_\_\_ 245

98. **Physicians**, according to activity and place of medical education: United States and outlying U.S. areas, selected years 1970-89\_\_\_\_\_ 246

99. Active **health personnel** and number per 100,000 population, according to occupation and geographic region: United States, 1970, 1980, and 1989\_\_\_\_\_ 247

100. Full-time equivalent **employment** in selected occupations for **community hospitals**: United States, 1981 and 1986-89\_\_\_\_\_ 248

101. Full-time equivalent patient care **staff in mental health organizations**, according to type of organization and staff discipline: United States, selected years 1978-88\_\_\_\_\_ 249

102. First-year enrollment and **graduates of health professions schools** and number of schools, according to profession: United States, selected 1950-90 estimates and 2000 projections\_\_\_\_\_ 251

103. First-year and total **enrollment of minorities** in schools for selected health occupations, according to race and Hispanic origin: United States, academic years 1979-80 and 1989-90\_\_\_\_\_ 252

104. First-year and total **enrollment of women** in schools for selected health occupations, according to race and Hispanic origin: United States, academic years 1971-72, 1979-80, and 1989-90\_\_\_\_\_ 254

### Facilities

105. **Short-stay hospitals**, beds, and occupancy rates, according to type of ownership and size of hospital: United States, selected years 1960-89\_\_\_\_\_ 255

106. **Long-term hospitals**, beds, and occupancy rates, according to type of hospital and ownership: United States, selected years 1970-89\_\_\_\_\_ 256

107. Inpatient and residential treatment **beds in mental health organizations** and rate per 100,000 civilian population, according to type of organization: United States, selected years 1970-88\_\_\_\_\_ 257

108. **Community hospital beds** per 1,000 population and average annual percent change, according to geographic division and State: United States, selected years 1940-89\_\_\_\_\_ 258

109. **Occupancy rates** in community hospitals and average annual percent change, according to geographic division and State: United States, selected years 1940-89\_\_\_\_\_ 260

110. Full-time equivalent **employees** per 100 average daily patients in community hospitals and average annual percent change, according to geographic division and State: United States, selected years 1960-89\_\_\_\_\_ 262

111. **Nursing homes** with 25 or more beds, beds, and bed rates, according to geographic division and State: United States, 1976, 1982, and 1986\_\_\_\_\_ 264



## Health Care Expenditures

### National Health Expenditures

112. Gross national product, **national health expenditures**, and Federal government expenditures: United States, selected years 1929-90\_\_\_\_\_ 266
113. **Total health expenditures** as a percentage of gross domestic product and per capita expenditures in dollars: Selected countries, and years 1960-90\_\_\_\_\_ 267
114. **National health expenditures**, percent distribution, and average annual percent change, according to type of expenditure: United States, selected years 1960-90\_\_\_\_\_ 268
115. **Personal health care expenditures** average annual percent change and percent distribution of factors affecting growth: United States, 1960-90\_\_\_\_\_ 269
116. **Consumer Price Index** and average annual percent change for all items and selected items: United States, selected years 1950-90\_\_\_\_\_ 270
117. **Consumer Price Index** and average annual percent change for all items and medical care components: United States, selected years 1950-90\_\_\_\_\_ 271

### Sources and Types of Payment

118. **Hospital expenses** and personnel and average annual percent change in non-Federal short-stay hospitals: United States, 1971-89\_\_\_\_\_ 272
119. **Hospital expenses** and average annual percent change in short-stay hospitals, according to type of ownership and size of hospital: United States, selected years 1970-89\_\_\_\_\_ 273
120. **National health expenditures** and average annual percent change, according to source of funds: United States, selected years 1929-90\_\_\_\_\_ 274
121. **Personal health care expenditures** and percent distribution, according to source of funds: United States, selected years 1929-90\_\_\_\_\_ 275
122. **Expenditures for health services** and supplies and percent distribution, by type of payer: United States, selected calendar years 1965-90\_\_\_\_\_ 276
123. **Expenditures** on hospital care, nursing home care, physician services, and all other personal health care expenditures and percent distribution, according to source of funds: United States, selected years 1960-90\_\_\_\_\_ 278
124. **Nursing home average monthly charges** per resident and percent of residents, according to primary source of payments and selected facility characteristics: United States, 1977 and 1985\_\_\_\_\_ 279
125. **Nursing home average monthly charges** per resident and percent of residents, according to selected facility and resident characteristics: United States, 1964, 1973-74, 1977, and 1985\_\_\_\_\_ 280
126. **National funding for health research** and development and average annual percent change, according to source of funds: United States, selected years 1960-90\_\_\_\_\_ 281
127. **Federal funding for health research** and development and percent distribution, according to agency: United States, selected fiscal years 1970-90\_\_\_\_\_ 282

128. Federal spending for human immunodeficiency virus (HIV)-related activities according to agency and type of activity: United States, fiscal years 1982-90\_\_\_\_\_ 283

129. **Public health expenditures** by State and territorial health agencies, according to source of funds and program area: United States, selected fiscal years 1976-89\_\_\_\_\_ 284

130. **Personal health care per capita expenditures** and average annual percent change, according to geographic division and State: United States, selected years 1966-82\_\_\_\_\_ 285

131. **Hospital care per capita expenditures** and average annual percent change, according to geographic division and State: United States, selected years 1966-82\_\_\_\_\_ 287

132. **Nursing home care per capita expenditures** and average annual percent change, according to geographic division and State: United States, selected years 1966-82\_\_\_\_\_ 289

### Health Care Coverage and Major Federal Programs

133. **Health care coverage** for persons under 65 years of age, according to type of coverage and selected characteristics: United States, 1980, 1984, and 1989\_\_\_\_\_ 291

134. **Health care coverage** for persons 65 years of age and over, according to type of coverage and selected characteristics: United States, 1980, 1984, and 1989\_\_\_\_\_ 292

135. **Health maintenance organizations** and enrollment, according to model type, geographic region, and Federal program: United States, selected years 1976-91\_\_\_\_\_ 293

136. **Medicare** enrollees and expenditures and percent distribution, according to type of service: United States, selected years 1967-90\_\_\_\_\_ 294

137. **Medicare** enrollment, persons served, and payments for Medicare enrollees 65 years of age and over, according to selected characteristics: United States and other areas, selected years 1967-89\_\_\_\_\_ 295

138. Hospital utilization and benefit payments for aged and disabled **Medicare** enrollees in non-Federal short-stay hospitals, according to geographic division: United States, 1980, 1985, and 1989\_\_\_\_\_ 296

139. **Medicaid** recipients and medical vendor payments, according to basis of eligibility: United States, selected fiscal years 1972-90\_\_\_\_\_ 297

140. **Medicaid** recipients and medical vendor payments, according to type of service: United States, selected fiscal years 1972-90\_\_\_\_\_ 298

141. **Department of Veterans Affairs** health care expenditures and use, and persons treated according to selected characteristics: United States, selected fiscal years 1965-90\_\_\_\_\_ 300

142. **Mental health expenditures**, percent distribution, and per capita expenditures, according to type of mental health organization: United States, selected years 1969-88\_\_\_\_\_ 301

143. **State mental health agency** per capita expenditures for mental health services, and average annual percent change, according to State: United States, selected fiscal years 1981-87\_\_\_\_\_ 302



**Table 1. Resident population, according to age, sex, race, and Hispanic origin: United States, selected years 1950–89**

[Data are based on decennial census updated by data from multiple sources]

Sex, race, Hispanic origin, and year	Total resident population	Under 1 year	1–4 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75–84 years	85 years and over
All persons												
Number in thousands												
1950	150,697	3,147	13,017	24,319	22,098	23,759	21,450	17,343	13,370	8,340	3,278	577
1960	179,323	4,112	16,209	35,465	24,020	22,818	24,081	20,485	15,572	10,997	4,633	929
1970	203,212	3,485	13,669	40,746	35,441	24,907	23,088	23,220	18,590	12,435	6,119	1,511
1980	226,546	3,534	12,815	34,942	42,487	37,082	25,635	22,800	21,703	15,581	7,729	2,240
1987	243,400	3,771	14,481	34,146	38,252	43,315	34,305	23,276	22,019	17,668	9,301	2,867
1988	245,807	3,859	14,597	34,655	37,398	43,675	35,264	24,162	21,831	17,897	9,522	2,948
1989	248,239	3,945	14,807	35,162	36,514	43,834	36,503	24,896	21,593	18,182	9,761	3,042
White male												
1950	67,129	1,400	5,845	10,860	9,689	10,430	9,529	7,836	6,180	3,736	1,406	218
1960	78,367	1,784	7,065	15,659	10,483	9,940	10,564	9,114	6,850	4,702	1,875	331
1970	86,721	1,501	5,873	17,667	15,232	10,775	9,979	10,090	7,958	4,916	2,243	487
1980	94,976	1,487	5,402	14,773	18,123	15,940	11,010	9,774	9,151	6,096	2,600	621
1987	100,589	1,567	6,000	14,108	15,902	18,384	14,690	9,851	9,180	7,028	3,154	723
1988	101,389	1,599	6,031	14,296	15,478	18,491	15,063	10,240	9,087	7,124	3,240	739
1989	102,223	1,623	6,093	14,477	15,058	18,527	15,571	10,549	8,978	7,250	3,336	761
White female												
1950	67,813	1,341	5,599	10,431	9,821	10,851	9,719	7,868	6,168	4,031	1,669	314
1960	80,465	1,714	6,795	15,068	10,596	10,204	11,000	9,364	7,327	5,428	2,441	527
1970	91,028	1,434	5,615	16,912	15,420	11,004	10,349	10,756	8,853	6,366	3,429	890
1980	99,835	1,412	5,127	14,057	17,653	15,896	11,232	10,285	10,325	7,951	4,457	1,440
1987	105,231	1,487	5,700	13,377	15,479	18,024	14,783	10,217	10,202	8,788	5,284	1,887
1988	105,988	1,517	5,732	13,552	15,065	18,126	15,134	10,600	10,064	8,867	5,389	1,940
1989	106,738	1,541	5,794	13,725	14,643	18,142	15,604	10,913	9,901	8,973	5,502	2,000
Black male												
1950	7,300	---	---	1,442	1,162	1,105	1,003	772	460	299	---	---
1960	9,114	281	1,082	2,185	1,305	1,120	1,086	891	617	382	137	29
1970	10,748	245	975	2,784	2,041	1,226	1,084	979	739	461	169	46
1980	12,585	269	967	2,614	2,807	1,967	1,235	1,024	854	567	228	53
1987	14,103	289	1,104	2,697	2,740	2,549	1,663	1,117	961	647	268	69
1988	14,325	300	1,123	2,739	2,712	2,598	1,736	1,145	969	660	272	70
1989	14,545	314	1,155	2,785	2,673	2,631	1,817	1,170	975	676	278	72
Black female												
1950	7,745	---	---	1,446	1,300	1,260	1,112	796	443	322	---	---
1960	9,758	283	1,085	2,191	1,404	1,300	1,229	974	663	430	160	38
1970	11,832	243	970	2,773	2,196	1,456	1,309	1,134	868	582	230	71
1980	14,046	266	951	2,578	2,937	2,267	1,488	1,258	1,059	776	360	106
1987	15,633	283	1,069	2,620	2,812	2,855	1,990	1,375	1,164	871	442	152
1988	15,877	293	1,086	2,656	2,781	2,906	2,074	1,412	1,170	886	454	158
1989	16,115	305	1,116	2,696	2,737	2,940	2,170	1,448	1,175	901	464	165
Hispanic male												
1980	7,280	173	675	1,530	1,646	1,255	761	570	364	201	86	19
1987	9,637	220	830	1,877	1,872	2,008	1,197	713	514	260	117	28
1988	9,973	223	858	1,928	1,889	2,104	1,277	740	528	275	120	30
1989	10,317	236	895	1,976	1,901	2,185	1,361	773	542	291	123	32
Hispanic female												
1980	7,329	166	648	1,482	1,547	1,249	805	615	411	257	116	30
1987	9,535	212	799	1,802	1,760	1,823	1,218	771	583	339	178	50
1988	9,857	215	827	1,850	1,779	1,898	1,287	802	603	356	186	54
1989	10,188	228	864	1,897	1,796	1,962	1,360	837	620	373	194	59

NOTES: The race groups, white and black, include persons of both Hispanic and non-Hispanic origin. Conversely, persons of Hispanic origin may be of any race. Population figures are census counts as of April 1 for 1950, 1960, 1970, and 1980 and estimates as of July 1 for other years.

SOURCES: U.S. Bureau of the Census: 1950 Nonwhite Population by Race. Special Report P-E, No. 3B. Washington. U.S. Government Printing Office, 1951; Population estimates and projections. Current Population Reports. Series P-25, Nos. 499, 1022, 1045, 1046, and 1057. Washington. U.S. Government Printing Office, May 1973, Mar. 1988, Sept. 1989, Jan. 1990, and Mar. 1990; U.S. Bureau of the Census, U.S. Census of Population: 1960, Number of Inhabitants, PC(1)-A1, United States Summary, 1964. U.S. Bureau of the Census, U.S. Census of Population: 1970, Number of Inhabitants, Final Report PC(1)-A1, United States Summary, 1971; Unpublished data from the U.S. Bureau of the Census.



**Table 2. Persons and families below poverty level, according to selected characteristics, race, and Hispanic origin: United States, selected years 1973–90**

[Data are based on household interviews of the civilian noninstitutionalized population]

<i>Selected characteristics, race, and Hispanic origin</i>	1973	1980 <sup>1</sup>	1985	1986	1987	1988	1989	1990
Percent below poverty								
All persons								
All races . . . . .	11.1	13.0	14.0	13.6	13.4	13.0	12.8	13.5
White . . . . .	8.4	10.2	11.4	11.0	10.4	10.1	10.0	10.7
Black . . . . .	31.4	32.5	31.3	31.1	32.4	31.3	30.7	31.9
Hispanic . . . . .	21.9	25.7	29.0	27.3	28.0	26.7	26.2	28.1
Related children under 18 years of age in families								
All races . . . . .	14.2	17.9	20.1	19.8	19.7	19.0	19.0	19.9
White . . . . .	9.7	13.4	15.6	15.3	14.7	14.0	14.1	15.6
Black . . . . .	40.6	42.1	43.1	42.7	44.4	42.8	43.2	44.7
Hispanic . . . . .	27.8	33.0	39.6	37.1	38.9	37.3	35.5	38.2
Families with female householder, no husband present, and children under 18 years of age								
All races . . . . .	43.2	42.9	45.4	46.0	45.5	44.7	42.8	44.5
White . . . . .	35.2	35.9	38.7	39.8	38.3	38.2	36.1	37.9
Black . . . . .	58.8	56.0	58.9	58.0	58.6	56.2	53.9	56.1
Hispanic . . . . .	---	57.3	64.0	59.5	60.9	59.2	57.9	58.2
Number below poverty in thousands								
All persons								
All races . . . . .	22,973	29,272	33,064	32,370	32,221	31,745	31,528	33,585
White . . . . .	15,142	19,699	22,860	22,183	21,195	20,715	20,785	22,326
Black . . . . .	7,388	8,579	8,926	8,983	9,520	9,356	9,302	9,837
Hispanic . . . . .	2,366	3,491	5,236	5,117	5,422	5,357	5,430	6,006
Related children under 18 years of age in families								
All races . . . . .	9,453	11,114	12,483	12,257	12,275	11,935	12,001	12,715
White . . . . .	5,462	6,817	7,838	7,714	7,398	7,095	7,164	8,084
Black . . . . .	3,822	3,906	4,057	4,037	4,234	4,148	4,257	4,528
Hispanic . . . . .	1,364	1,718	2,512	2,413	2,606	2,576	2,496	2,827
Families with female householder, no husband present, and children under 18 years of age								
All races . . . . .	1,987	2,703	3,131	3,264	3,281	3,294	3,190	3,426
White . . . . .	1,053	1,433	1,730	1,812	1,742	1,740	1,671	1,814
Black . . . . .	905	1,217	1,336	1,384	1,437	1,452	1,415	1,513
Hispanic . . . . .	---	288	493	489	527	510	491	536

<sup>1</sup>Data for Hispanic families with female householder, no husband present, and children under 18 years are for 1979.

NOTES: The race groups, white and black, include persons of both Hispanic and non-Hispanic origin. Conversely, persons of Hispanic origin may be of any race.

SOURCE: U.S. Bureau of the Census: Poverty in the United States 1990. Current Population Reports. Series P-60, No. 175. Washington. U.S. Government Printing Office, Aug. 1991.

**Table 3 (page 1 of 2). Live births, crude birth rates, and birth rates by age of mother, according to race: United States, selected years 1950–90**

[Data are based on the National Vital Statistics System]

Race and year	Live births	Crude birth rate <sup>1</sup>	Age								
			10–14 years	15–17 years	18–19 years	20–24 years	25–29 years	30–34 years	35–39 years	40–44 years	45–49 years
All races			Live births per 1,000 women								
1950	3,632,000	24.1	1.0	40.7	132.7	196.6	166.1	103.7	52.9	15.1	1.2
1960	4,257,850	23.7	0.8	43.9	166.7	258.1	197.4	112.7	56.2	15.5	0.9
1970	3,731,386	18.4	1.2	38.8	114.7	167.8	145.1	73.3	31.7	8.1	0.5
1975	3,144,198	14.6	1.3	36.1	85.0	113.0	108.2	52.3	19.5	4.6	0.3
1980	3,612,258	15.9	1.1	32.5	82.1	115.1	112.9	61.9	19.8	3.9	0.2
1981	3,629,238	15.8	1.1	32.1	81.7	111.8	112.0	61.4	20.0	3.8	0.2
1982	3,680,537	15.9	1.1	32.4	80.7	111.3	111.0	64.2	21.1	3.9	0.2
1983	3,638,933	15.5	1.1	32.0	78.1	108.3	108.7	64.6	22.1	3.8	0.2
1984	3,669,141	15.5	1.2	31.1	78.3	107.3	108.3	66.5	22.8	3.9	0.2
1985	3,760,561	15.8	1.2	31.1	80.8	108.9	110.5	68.5	23.9	4.0	0.2
1986	3,756,547	15.6	1.3	30.6	81.0	108.2	109.2	69.3	24.3	4.1	0.2
1987	3,809,394	15.7	1.3	31.8	80.2	108.9	110.8	71.3	26.2	4.4	0.2
1988	3,909,510	15.9	1.3	33.8	81.7	111.5	113.4	73.7	27.9	4.8	0.2
1989	4,040,958	16.3	1.4	36.5	86.4	115.4	116.6	76.2	29.7	5.2	0.2
Provisional data:											
1988 <sup>2</sup>	3,913,000	15.9	---	---	---	---	---	---	---	---	---
1989 <sup>2</sup>	4,021,000	16.2	---	---	---	---	---	---	---	---	---
1990 <sup>2</sup>	4,179,000	16.7	---	---	---	---	---	---	---	---	---
Race of child <sup>3</sup> : White											
1950	3,108,000	23.0	0.4	31.3	120.5	190.4	165.1	102.6	51.4	14.5	1.0
1960	3,600,744	22.7	0.4	35.5	154.6	252.8	194.9	109.6	54.0	14.7	0.8
1970	3,091,264	17.4	0.5	29.2	101.5	163.4	145.9	71.9	30.0	7.5	0.4
1975	2,551,996	13.6	0.6	28.0	74.0	108.2	108.1	51.3	18.2	4.2	0.2
1980	2,898,732	14.9	0.6	25.2	72.1	109.5	112.4	60.4	18.5	3.4	0.2
1981	2,908,669	14.8	0.5	25.1	71.9	106.3	111.3	60.2	18.7	3.4	0.2
1982	2,942,054	14.9	0.6	25.2	70.8	105.9	110.3	63.3	20.0	3.5	0.2
1983	2,904,250	14.6	0.6	24.8	68.3	102.6	108.0	64.0	21.0	3.5	0.2
1984	2,923,502	14.5	0.6	23.9	68.1	101.4	107.7	66.1	21.7	3.5	0.2
1985	2,991,373	14.8	0.6	24.0	70.1	102.8	110.0	68.1	22.7	3.6	0.2
1986	2,970,439	14.5	0.6	23.4	69.8	101.5	108.3	68.9	23.3	3.7	0.2
1987	2,992,488	14.5	0.6	24.1	68.6	101.1	109.5	70.8	25.2	4.0	0.2
1988	3,046,162	14.7	0.6	25.5	69.2	102.5	111.6	72.9	26.9	4.4	0.2
1989	3,131,991	15.0	0.7	27.5	72.6	105.7	114.3	75.3	28.8	4.8	0.2
Race of mother <sup>4</sup> : White											
1989	3,192,355	15.3	0.7	28.3	74.7	108.0	116.1	76.6	29.3	4.9	0.2
Race of child <sup>3</sup> : Black											
1960	602,264	31.9	4.3	---	---	295.4	218.6	137.1	73.9	21.9	1.1
1970	572,362	25.3	5.2	101.4	204.9	202.7	136.3	79.6	41.9	12.5	1.0
1975	511,581	20.7	5.1	85.6	152.4	142.8	102.2	53.1	25.6	7.5	0.5
1980	589,616	22.1	4.3	73.6	138.8	146.3	109.1	62.9	24.5	5.8	0.3
1981	587,797	21.6	4.1	70.6	135.9	141.2	108.3	60.4	24.2	5.6	0.3
1982	592,641	21.4	4.1	71.2	133.3	139.1	106.9	60.4	24.4	5.4	0.4
1983	586,027	20.9	4.1	70.1	130.4	137.7	103.4	59.2	24.7	5.2	0.3
1984	592,745	20.8	4.3	69.7	132.0	137.9	103.2	59.5	24.8	5.1	0.2
1985	608,193	21.1	4.5	69.8	137.1	140.8	105.1	60.7	25.5	4.9	0.3
1986	621,221	21.2	4.6	70.0	141.0	143.7	105.9	62.2	25.5	5.1	0.3
1987	641,567	21.6	4.7	72.9	142.2	149.5	109.0	63.5	26.3	5.3	0.2
1988	671,976	22.2	4.8	76.6	150.5	157.5	112.8	66.0	27.5	5.6	0.3
1989	709,395	23.1	5.0	82.4	160.8	165.5	119.0	69.4	28.7	6.0	0.3

See footnotes at end of table.



**Table 3 (page 2 of 2). Live births, crude birth rates, and birth rates by age of mother, according to race: United States, selected years 1950–90**

[Data are based on the National Vital Statistics System]

Race and year	Live births	Crude birth rate <sup>1</sup>	Age								
			10–14 years	15–17 years	18–19 years	20–24 years	25–29 years	30–34 years	35–39 years	40–44 years	45–49 years
Race of mother <sup>4</sup> : Black			Live births per 1,000 women								
1989 .....	673,124	22.0	5.0	80.0	153.2	157.1	112.6	65.1	26.8	5.5	0.3

<sup>1</sup>Live births per 1,000 population.

<sup>2</sup>Includes births of nonresidents of the United States.

<sup>3</sup>Live births are tabulated by race of child.

<sup>4</sup>Live births are tabulated by race of mother.

NOTE: Data are based on births adjusted for underregistration for 1950 and on registered births for all other years. Beginning in 1970, births to nonresidents of the United States are excluded.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, 1989, Vol. I, Natality. Public Health Service, Washington. U.S. Government Printing Office, 1991; and Births, marriages, divorces, and deaths for 1990. Monthly Vital Statistics Report. Vol. 39, No. 12. DHHS Pub. No. (PHS) 91-1120. April 8, 1991. Public Health Service. Hyattsville, Md.

**Table 4. Fertility rates, according to live-birth order and race: United States, selected years 1950–90**

[Data are based on the National Vital Statistics System]

Race and year	Total	Live-birth order				
		1	2	3	4	5 or higher
All races						
Live births per 1,000 women 15–44 years of age						
1950	106.2	33.3	32.1	18.4	9.2	13.2
1960	118.0	31.1	29.2	22.8	14.6	20.3
1970	87.9	34.2	24.2	13.6	7.2	8.7
1975	66.0	28.1	20.9	9.4	3.9	3.7
1980	68.4	29.5	21.8	10.3	3.9	2.9
1981	67.4	29.0	21.6	10.2	3.8	2.8
1982	67.3	28.6	22.0	10.2	3.8	2.6
1983	65.8	27.8	21.5	10.1	3.7	2.6
1984	65.4	27.4	21.7	10.1	3.7	2.6
1985	66.2	27.6	22.0	10.4	3.8	2.5
1986	65.4	27.2	21.6	10.3	3.8	2.5
1987	65.7	27.2	21.6	10.5	3.9	2.5
1988	67.2	27.6	22.0	10.9	4.1	2.6
1989	69.2	28.4	22.4	11.3	4.3	2.8
Provisional data:						
1988 <sup>1</sup>	67.3	---	---	---	---	---
1989 <sup>1</sup>	68.8	---	---	---	---	---
1990 <sup>1</sup>	71.1	---	---	---	---	---
Race of child <sup>2</sup> : White						
1950	102.3	33.3	32.3	17.9	8.4	10.4
1960	113.2	30.8	29.2	22.7	14.1	16.4
1970	84.1	32.9	23.7	13.3	6.8	7.4
1975	62.5	26.7	20.3	8.8	3.5	3.1
1980	64.7	28.4	21.0	9.5	3.4	2.4
1981	63.9	28.1	20.9	9.4	3.3	2.3
1982	63.9	27.7	21.3	9.5	3.3	2.2
1983	62.4	26.8	20.9	9.4	3.3	2.1
1984	62.2	26.4	21.1	9.4	3.2	2.0
1985	63.0	26.5	21.4	9.7	3.3	2.0
1986	61.9	26.0	20.9	9.6	3.3	1.9
1987	62.0	25.9	20.9	9.8	3.4	1.9
1988	63.0	26.2	21.1	10.1	3.6	2.1
1989	64.7	26.9	21.4	10.5	3.7	2.2
Race of mother <sup>3</sup> : White						
1989	66.0	27.5	21.8	10.7	3.8	2.2
Race of child <sup>2</sup> : Black						
1960	153.5	33.6	29.3	24.0	18.6	48.0
1970	115.4	43.3	27.1	16.1	10.0	18.9
1975	87.9	36.9	24.2	12.6	6.3	8.0
1980	88.1	35.2	25.7	14.5	6.7	6.0
1981	85.4	33.8	25.2	14.3	6.6	5.7
1982	84.1	33.0	24.9	14.2	6.5	5.4
1983	81.7	32.3	24.1	13.7	6.3	5.2
1984	81.4	32.2	24.1	13.7	6.3	5.1
1985	82.2	32.4	24.5	13.9	6.3	5.1
1986	82.4	32.5	24.5	14.1	6.3	4.9
1987	83.8	32.8	24.9	14.5	6.5	5.0
1988	86.6	33.5	25.8	15.1	6.9	5.3
1989	90.4	34.7	26.7	15.9	7.4	5.7
Race of mother <sup>3</sup> : Black						
1989	85.8	32.7	25.3	15.2	7.1	5.5

<sup>1</sup>Includes births of nonresidents of the United States.

<sup>2</sup>Live births are tabulated by race of child.

<sup>3</sup>Live births are tabulated by race of mother.

NOTE: Data are based on births adjusted for underregistration for 1950 and on registered births for all other years. Beginning in 1970, births to nonresidents of the United States are excluded. Figures for live-birth order not stated are distributed.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, 1989, Vol. I, Natality. Public Health Service. Washington. U.S. Government Printing Office, 1991; and Births, marriages, divorces, and deaths for 1990. Monthly Vital Statistics Report. Vol. 39, No. 12. DHHS Pub. No. (PHS) 91-1120. April 8, 1991. Public Health Service. Hyattsville, Md.



**Table 5. Completed fertility rates and parity distribution for women 50–54 years of age at the beginning of selected years 1930–90, according to race of child and birth cohort: United States, selected birth cohorts 1876–80 to 1936–40**

[Data are based on the National Vital Statistics System]

Race of child and birth cohort of mother	Age 50–54 as of January 1, —	Completed fertility rate <sup>1</sup>	Parity (number of children born alive)								
			Total	0	1	2	3	4	5	6	7 or more
All races			Distribution of women <sup>2</sup>								
1876–80	1930	3,531.9	1,000.0	216.8	123.2	132.0	114.0	93.0	72.0	64.5	184.5
1886–90	1940	3,136.8	1,000.0	210.4	148.5	153.2	129.7	99.5	68.0	55.4	135.3
1896–1900	1950	2,675.9	1,000.0	194.6	200.7	195.2	136.6	87.8	53.5	41.5	90.1
1906–10	1960	2,285.8	1,000.0	215.6	225.1	218.7	131.4	77.5	44.6	29.2	57.9
1916–20	1970	2,574.0	1,000.0	149.0	179.0	251.7	174.6	102.8	55.8	32.0	55.1
1921–25	1975	2,857.0	1,000.0	108.5	152.1	248.7	197.0	123.5	68.0	39.5	62.7
1926–30	1980	3,079.2	1,000.0	105.5	113.7	226.5	209.6	143.5	81.9	47.6	71.7
1927–31	1981	3,118.0	1,000.0	104.1	107.3	222.4	212.0	147.6	84.6	49.2	72.8
1928–32	1982	3,152.7	1,000.0	101.1	102.2	219.7	214.7	151.3	87.0	50.8	73.2
1929–33	1983	3,182.8	1,000.0	96.3	98.9	218.0	217.7	154.9	89.2	52.0	73.0
1930–34	1984	3,199.6	1,000.0	91.5	96.8	217.8	220.9	157.9	90.7	52.6	71.8
1931–35	1985	3,201.4	1,000.0	87.2	96.3	218.8	224.0	160.0	91.4	52.5	69.8
1932–36	1986	3,182.4	1,000.0	84.8	97.0	221.0	226.9	160.8	91.3	51.7	66.5
1933–37	1987	3,146.4	1,000.0	84.0	98.7	224.4	229.5	160.6	90.2	50.2	62.4
1934–38	1988	3,092.6	1,000.0	85.0	100.8	229.7	232.0	159.2	87.7	48.1	57.5
1935–39	1989	3,026.3	1,000.0	86.9	103.8	236.6	234.2	156.6	84.2	45.6	52.1
1936–40	1990	2,949.7	1,000.0	89.6	107.1	245.7	236.1	152.6	79.9	42.4	46.6
White											
1876–80	1930	3,444.4	1,000.0	218.2	121.9	136.1	116.9	94.8	74.0	64.2	173.9
1886–90	1940	3,092.9	1,000.0	209.1	144.3	160.3	132.4	100.2	70.3	54.8	128.6
1896–1900	1950	2,631.5	1,000.0	193.1	192.1	205.9	141.4	89.0	55.2	41.1	82.2
1906–10	1960	2,248.9	1,000.0	207.9	218.0	233.2	138.8	79.6	44.7	28.0	49.8
1916–20	1970	2,526.7	1,000.0	134.6	175.9	268.7	185.1	106.5	55.3	30.3	43.6
1921–25	1975	2,793.7	1,000.0	94.2	150.6	264.6	208.8	127.9	67.9	36.9	49.1
1926–30	1980	2,986.0	1,000.0	94.1	114.1	240.2	222.3	148.8	81.2	44.5	54.8
1927–31	1981	3,022.6	1,000.0	92.5	108.2	236.8	223.9	153.1	83.9	46.0	55.6
1928–32	1982	3,057.9	1,000.0	89.5	103.2	232.9	227.6	157.2	86.5	47.2	55.9
1929–33	1983	3,087.2	1,000.0	85.0	99.8	231.2	230.5	161.1	88.6	48.2	55.6
1930–34	1984	3,102.5	1,000.0	81.2	97.6	230.5	233.6	164.1	90.0	48.5	54.5
1931–35	1985	3,101.2	1,000.0	78.5	96.8	231.1	236.4	166.0	90.5	48.2	52.5
1932–36	1986	3,080.0	1,000.0	77.9	97.0	232.9	239.2	166.3	89.9	47.3	49.5
1933–37	1987	3,042.3	1,000.0	78.6	98.5	236.2	241.6	165.5	88.1	45.5	46.0
1934–38	1988	2,990.0	1,000.0	80.7	100.6	241.2	243.9	163.3	85.2	43.1	42.0
1935–39	1989	2,926.9	1,000.0	83.2	103.6	248.4	245.7	159.8	81.3	40.3	37.7
1936–40	1990	2,854.7	1,000.0	86.3	107.1	257.6	247.1	154.9	76.5	37.2	33.3
All other											
1876–80	1930	4,254.7	1,000.0	207.7	134.0	99.5	87.4	79.9	54.7	64.8	272.0
1886–90	1940	3,451.4	1,000.0	231.9	175.9	105.9	96.6	93.3	52.4	58.0	186.0
1896–1900	1950	2,967.7	1,000.0	227.4	255.0	114.1	97.5	74.3	38.8	42.6	150.3
1906–10	1960	2,529.1	1,000.0	287.5	266.6	114.5	73.2	60.1	43.5	35.6	119.0
1916–20	1970	2,924.2	1,000.0	266.2	202.0	120.9	91.2	72.5	57.8	44.9	144.5
1921–25	1975	3,316.0	1,000.0	217.7	163.5	131.7	108.2	89.0	68.7	56.4	164.8
1926–30	1980	3,718.9	1,000.0	187.4	110.8	130.2	121.0	106.4	85.7	69.3	189.2
1927–31	1981	3,756.0	1,000.0	185.7	102.5	129.1	123.0	109.1	88.1	71.5	191.0
1928–32	1982	3,779.4	1,000.0	181.6	96.7	129.4	126.5	111.4	90.2	73.5	190.7
1929–33	1983	3,805.1	1,000.0	172.4	93.2	132.3	130.1	114.4	93.1	75.1	189.4
1930–34	1984	3,822.2	1,000.0	160.3	92.2	136.0	135.3	117.5	95.5	76.9	186.3
1931–35	1985	3,836.2	1,000.0	145.1	93.4	140.8	140.4	121.8	98.2	78.4	181.9
1932–36	1986	3,830.3	1,000.0	131.0	96.4	145.5	145.5	125.9	100.5	79.9	175.3
1933–37	1987	3,805.9	1,000.0	119.4	99.8	150.3	150.2	129.9	102.4	80.6	167.4
1934–38	1988	3,745.8	1,000.0	113.8	102.8	154.9	155.3	132.7	102.7	80.6	157.2
1935–39	1989	3,661.6	1,000.0	111.5	105.4	160.6	160.4	135.3	102.4	79.2	145.2
1936–40	1990	3,556.1	1,000.0	111.8	107.6	168.2	165.6	137.2	101.3	76.9	131.4

<sup>1</sup>Number of children born alive to each 1,000 women who have completed their reproductive histories (women 50–54 years of age).

<sup>2</sup>Proportional distribution of each 1,000 women in the cohort by the number of children born alive to them.

NOTES: Example of use of table—For every 1,000 women 50–54 years of age in 1981, an average of 3,118.0 children were born alive (about 3 children per woman). About 10 percent of the women in this cohort reached 50–54 years of age having had no children, about 11 percent had 1 child, and about 12 percent had 6 children or more. There is a small discontinuity between 1980 and 1981 in the central birth rates, which are the basis for the completed fertility rates, because of a change in the population bases. The impact of this change on the completed rates is negligible.

SOURCES: National Center for Health Statistics: Fertility Tables for Birth Cohorts by Color, United States, 1917–73 by R. Heuser. DHEW Pub. No. (HRA) 76–1152. Health Resources Administration. Washington. U.S. Government Printing Office, Apr. 1976; Data computed from Vital Statistics of the United States, 1989, Vol. I, Natality. Public Health Service. Washington. U.S. Government Printing Office, 1991.

**Table 6. Lifetime births expected by currently married women and percent of expected births already born, according to age and race: United States, selected years 1967–90**

[Data are based on reporting of birth expectations by currently married women of the civilian noninstitutionalized population]

<i>Race and year</i>	<i>All ages 18–34 years</i>	<i>18–19 years</i>	<i>20–21 years</i>	<i>22–24 years</i>	<i>25–29 years</i>	<i>30–34 years</i>
<b>Expected births per currently married woman</b>						
<b>All races</b>						
1967.....	3.1	2.7	2.9	2.9	3.0	3.3
1971.....	2.6	2.3	2.4	2.4	2.6	3.0
1975.....	2.3	2.2	2.2	2.2	2.3	2.6
1980.....	2.2	2.1	2.2	2.1	2.2	2.2
1985.....	2.2	2.1	2.2	2.2	2.2	2.2
1986.....	2.3	2.2	2.2	2.3	2.3	2.2
1987.....	2.2	2.1	2.2	2.2	2.2	2.2
1988.....	2.2	2.1	2.2	2.2	2.3	2.2
1990.....	2.3	2.1	2.2	2.3	2.3	2.3
<b>White</b>						
1967.....	3.0	2.7	3.0	2.8	3.0	3.2
1971.....	2.6	2.3	2.4	2.4	2.6	2.9
1975.....	2.3	2.2	2.1	2.1	2.2	2.6
1980.....	2.2	2.1	2.2	2.1	2.1	2.2
1985.....	2.2	2.0	2.2	2.2	2.2	2.1
1986.....	2.2	2.1	2.2	2.3	2.2	2.2
1987.....	2.2	2.0	2.2	2.2	2.2	2.2
1988.....	2.2	2.1	2.2	2.2	2.3	2.2
1990.....	2.3	2.1	2.2	2.3	2.3	2.3
<b>Black</b>						
1967.....	3.5	*	2.5	3.0	3.4	4.3
1971.....	3.1	*	2.4	2.8	3.1	3.7
1975.....	2.8	*	2.6	2.5	2.6	3.2
1980.....	2.4	*	2.2	2.1	2.4	2.5
1985.....	2.4	*	*	2.3	2.3	2.5
1986.....	2.4	*	*	2.4	2.3	2.6
1987.....	2.3	*	*	2.2	2.3	2.3
1988.....	2.3	*	*	2.2	2.3	2.3
1990.....	2.5	2.1	2.4	2.6	2.4	2.6
<b>Percent of expected births already born</b>						
<b>All races</b>						
1967.....	70.2	26.9	33.2	47.8	76.1	92.7
1971.....	69.4	25.3	32.5	46.7	74.4	93.7
1975.....	68.8	27.5	30.7	43.9	70.9	93.0
1980.....	67.0	29.5	32.9	44.9	64.7	89.7
1985.....	64.2	27.0	30.9	41.8	60.2	84.4
1986.....	64.7	29.0	30.4	41.8	59.5	84.8
1987.....	66.5	27.8	36.4	43.0	62.0	83.8
1988.....	65.3	25.0	33.4	40.9	58.9	83.6
1990.....	64.5	29.9	33.1	44.2	57.5	81.1
<b>White</b>						
1967.....	68.9	24.2	30.1	46.2	75.1	92.9
1971.....	68.9	23.7	31.4	45.3	74.1	93.8
1975.....	68.2	24.9	29.4	42.3	70.5	93.2
1980.....	66.3	28.6	31.8	43.5	64.0	90.0
1985.....	63.3	25.7	30.6	40.4	59.4	84.1
1986.....	63.8	28.6	28.7	40.5	58.6	84.8
1987.....	65.6	27.0	36.0	42.0	60.9	83.6
1988.....	64.4	24.0	32.6	38.9	58.2	83.2
1990.....	63.6	26.8	30.0	43.1	56.2	80.8
<b>Black</b>						
1967.....	82.8	*	65.7	67.9	87.9	92.3
1971.....	74.8	*	43.0	57.5	81.0	93.4
1975.....	76.4	*	43.3	61.0	78.2	91.8
1980.....	74.7	*	46.1	58.9	73.8	90.9
1985.....	77.1	*	*	62.3	72.8	91.4
1986.....	75.7	*	*	59.7	70.2	90.0
1987.....	77.8	*	*	55.4	76.6	89.7
1988.....	75.5	*	*	61.4	70.1	89.9
1990.....	74.1	49.0	54.8	56.6	71.9	85.0

NOTE: Data for 1989 are not available.

SOURCE: U.S. Bureau of the Census: Population characteristics. Current Population Reports. Series P-20, Nos. 301, 375, 406, 421, 427, 436, and 454. Washington. U.S. Government Printing Office, Nov. 1976, Oct. 1982, June 1986, Dec. 1987, May 1988, May 1989, and Oct. 1991.



**Table 7 (page 1 of 2). Low birth weight live births, according to race and Hispanic origin of mother: United States, 1970 and 1980–89**

[Data are based on the National Vital Statistics System]

<i>Race, and Hispanic origin of mother</i>	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total number of live births <sup>1</sup>											
All mothers . . . . .	3,731,386	3,612,258	3,629,238	3,680,537	3,638,933	3,669,141	3,760,561	3,756,547	3,809,394	3,909,510	4,040,958
White . . . . .	3,109,956	2,936,351	2,947,679	2,984,817	2,946,468	2,967,100	3,037,913	3,019,175	3,043,828	3,102,083	3,192,355
Black. . . . .	561,992	568,080	564,955	568,506	562,624	568,138	581,824	592,910	611,173	638,562	673,124
American Indian or Alaskan Native . . . . .	22,264	29,389	29,688	32,436	32,881	33,256	34,037	34,169	35,322	37,088	39,478
Asian or Pacific Islander . . . . .	27,706	74,355	84,553	93,193	95,713	98,926	104,606	107,797	116,560	129,035	133,075
Chinese . . . . .	7,044	11,671	12,628	12,552	13,193	14,725	16,405	16,701	17,818	21,322	20,982
Japanese . . . . .	7,744	7,482	7,589	7,211	7,190	7,625	8,035	7,938	8,054	8,658	8,689
Filipino . . . . .	8,066	13,968	15,040	15,419	16,413	18,680	20,058	21,237	22,134	23,207	24,585
Other Asian or Pacific Islander <sup>2</sup> . . . . .	4,852	41,234	49,296	58,011	58,917	57,896	60,108	61,921	68,554	75,848	78,819
Hispanic origin <sup>3,4</sup> . . . . .	---	307,163	321,954	337,390	336,833	346,986	372,814	389,048	406,153	449,604	532,249
Mexican American . . . . .	---	215,439	222,143	227,558	221,788	225,767	242,976	246,174	251,189	271,170	327,233
Puerto Rican . . . . .	---	33,671	33,376	34,108	33,856	34,219	35,147	36,588	38,139	46,232	56,229
Cuban . . . . .	---	7,163	8,369	9,603	9,709	9,477	10,024	9,924	9,987	10,189	10,842
Central and South American . . . . .	---	21,268	24,380	28,958	31,043	36,401	40,985	45,026	50,350	57,610	72,443
Other and unknown Hispanic . . . . .	---	29,622	33,686	37,163	40,437	41,122	43,682	51,336	56,488	64,403	65,502
Non-Hispanic white <sup>3</sup> . . . . .	---	1,245,221	1,258,739	1,363,237	1,358,303	1,361,814	1,394,729	1,388,251	1,399,129	1,664,239	2,526,367
Non-Hispanic black <sup>3</sup> . . . . .	---	299,646	298,938	321,508	321,787	325,754	336,029	342,179	355,644	434,843	611,269
Low birth weight (less than 2,500 grams)											
Percent of live births											
All mothers . . . . .	7.93	6.84	6.81	6.75	6.82	6.72	6.75	6.81	6.90	6.93	7.05
White . . . . .	6.85	5.72	5.69	5.64	5.69	5.61	5.65	5.66	5.70	5.67	5.72
Black. . . . .	13.90	12.69	12.72	12.61	12.82	12.58	12.65	12.77	12.98	13.26	13.51
American Indian or Alaskan Native . . . . .	7.97	6.44	6.27	6.06	6.17	6.15	5.86	5.94	6.15	6.00	6.26
Asian or Pacific Islander . . . . .	8.77	6.68	6.74	6.74	6.57	6.57	6.16	6.47	6.41	6.31	6.51
Chinese . . . . .	6.67	5.21	5.55	5.26	5.07	5.05	4.98	4.85	5.02	4.63	4.89
Japanese . . . . .	9.03	6.60	6.22	6.09	6.05	5.91	6.21	6.03	6.49	6.69	6.67
Filipino . . . . .	10.02	7.40	7.50	7.15	7.28	7.78	6.95	7.42	7.30	7.15	7.35
Other Asian or Pacific Islander <sup>2</sup> . . . . .	9.36	6.87	6.89	7.03	6.77	6.65	6.22	6.64	6.47	6.48	6.66
Hispanic origin <sup>3,4</sup> . . . . .	---	6.12	6.12	6.23	6.29	6.15	6.16	6.13	6.24	6.17	6.18
Mexican American . . . . .	---	5.62	5.61	5.72	5.77	5.68	5.77	5.62	5.74	5.60	5.60
Puerto Rican . . . . .	---	8.95	9.01	9.11	8.90	8.88	8.69	9.22	9.30	9.42	9.50
Cuban . . . . .	---	5.62	5.83	5.76	5.65	5.86	6.02	5.46	5.89	5.94	5.77
Central and South American . . . . .	---	5.76	5.73	5.61	6.20	5.81	5.68	5.69	5.74	5.58	5.81
Other and unknown Hispanic . . . . .	---	6.96	7.00	7.30	7.23	6.89	6.83	6.87	6.91	6.85	6.74
Non-Hispanic white <sup>3</sup> . . . . .	---	5.67	5.63	5.62	5.64	5.53	5.60	5.58	5.63	5.62	5.62
Non-Hispanic black <sup>3</sup> . . . . .	---	12.71	12.79	12.60	12.83	12.54	12.61	12.85	13.10	13.28	13.61
Very low birth weight (less than 1,500 grams)											
All mothers . . . . .	1.17	1.15	1.16	1.18	1.19	1.19	1.21	1.21	1.24	1.24	1.28
White . . . . .	.95	.90	.91	.92	.93	.93	.94	.93	.94	.93	.95
Black. . . . .	2.40	2.48	2.52	2.56	2.60	2.60	2.71	2.73	2.79	2.86	2.95
American Indian or Alaskan Native . . . . .	.98	.92	.89	1.06	1.07	1.02	1.01	.99	1.13	1.00	1.00
Asian or Pacific Islander . . . . .	1.17	.92	.93	.91	.88	.93	.85	.86	.83	.84	.90
Chinese . . . . .	.80	.66	.68	.70	.77	.70	.57	.63	.65	.57	.61
Japanese . . . . .	1.48	.94	.75	.94	.63	.81	.84	.86	.80	.92	.86
Filipino . . . . .	1.08	.99	1.03	.89	.98	.97	.86	.87	.94	.91	1.12
Other Asian or Pacific Islander <sup>2</sup> . . . . .	1.37	.97	.99	.95	.90	.98	.92	.92	.84	.89	.91

See footnotes at end of table.





**Table 8 (page 1 of 2). Prenatal care and maternal education for live births, according to race and Hispanic origin of mother: United States, 1970 and 1980–89**

[Data are based on the National Vital Statistics System]

<i>Prenatal care, education, race, and Hispanic origin of mother</i>	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Prenatal care began during 1st trimester											
	Percent of live births										
All mothers . . . . .	68.0	76.3	76.3	76.1	76.2	76.5	76.2	75.9	76.0	75.9	75.5
White . . . . .	72.3	79.2	79.3	79.2	79.3	79.6	79.3	79.1	79.3	79.3	78.9
Black . . . . .	44.2	62.4	62.1	61.1	61.2	61.9	61.5	61.2	60.8	60.7	60.0
American Indian or Alaskan Native . . . . .	38.2	55.8	56.6	57.7	56.6	57.4	57.5	58.2	57.6	58.1	57.9
Asian or Pacific Islander . . . . .	67.3	73.7	73.2	73.3	73.9	74.7	74.1	74.9	75.0	75.5	74.8
Chinese . . . . .	71.8	82.6	82.6	81.9	80.4	81.5	82.0	82.2	81.5	82.3	81.5
Japanese . . . . .	78.1	86.1	85.2	85.6	86.6	87.0	84.7	85.7	86.6	86.3	86.2
Filipino . . . . .	60.6	77.3	77.5	76.8	77.4	77.8	76.5	78.2	77.9	78.4	77.6
Other Asian or Pacific Islander <sup>1</sup> . . . . .	54.9	67.6	67.4	68.9	69.9	70.2	69.7	70.3	71.0	71.5	70.8
Hispanic origin <sup>2,3</sup> . . . . .	---	60.2	60.6	61.0	61.0	61.5	61.2	60.3	61.0	61.3	59.5
Mexican American . . . . .	---	59.6	60.1	60.7	60.2	60.4	60.0	58.9	60.0	58.3	56.7
Puerto Rican . . . . .	---	55.1	54.2	54.5	55.1	57.4	58.3	57.2	57.4	63.2	62.7
Cuban . . . . .	---	82.7	80.1	79.3	81.2	82.2	82.5	81.8	83.1	83.4	83.2
Central and South American . . . . .	---	58.8	58.3	58.5	59.3	61.1	60.6	58.8	59.1	62.8	60.8
Other and unknown Hispanic . . . . .	---	66.4	66.9	66.0	66.6	66.7	65.8	66.6	65.5	67.3	66.0
Non-Hispanic white <sup>2</sup> . . . . .	---	81.2	81.3	81.1	81.3	81.6	81.4	81.5	81.7	81.8	82.7
Non-Hispanic black <sup>2</sup> . . . . .	---	60.7	60.7	59.7	59.9	60.6	60.1	60.1	60.0	60.4	59.9
Prenatal care began during 3d trimester or no prenatal care											
All mothers . . . . .	7.9	5.1	5.2	5.5	5.6	5.6	5.7	6.0	6.1	6.1	6.4
White . . . . .	6.3	4.3	4.3	4.5	4.6	4.7	4.8	5.0	5.0	5.0	5.2
Black . . . . .	16.6	8.9	9.2	9.7	9.8	9.7	10.2	10.7	11.2	11.0	11.9
American Indian or Alaskan Native . . . . .	28.9	15.2	14.7	14.0	14.4	13.8	12.9	12.9	13.1	13.2	13.4
Asian or Pacific Islander . . . . .	6.8	6.5	6.6	6.6	6.5	6.4	6.5	6.2	6.3	5.9	6.1
Chinese . . . . .	6.5	3.7	3.8	3.5	4.6	4.2	4.4	4.2	4.2	3.4	3.6
Japanese . . . . .	4.1	2.1	2.5	2.5	2.4	2.6	3.1	3.1	2.8	3.3	2.7
Filipino . . . . .	7.2	4.0	3.6	3.8	4.1	4.3	4.8	4.5	4.9	4.8	4.7
Other Asian or Pacific Islander <sup>1</sup> . . . . .	10.7	9.0	9.0	8.5	8.2	8.1	8.1	7.8	7.8	7.3	7.6
Hispanic origin <sup>2,3</sup> . . . . .	---	12.0	11.6	12.1	12.5	12.6	12.4	13.0	12.7	12.1	13.0
Mexican American . . . . .	---	11.8	11.6	12.0	12.7	13.0	12.9	13.4	13.0	13.9	14.6
Puerto Rican . . . . .	---	16.2	15.8	17.2	17.4	16.3	15.5	17.4	17.1	10.2	11.3
Cuban . . . . .	---	3.9	4.2	4.9	4.0	4.0	3.7	4.2	3.9	3.6	4.0
Central and South American . . . . .	---	13.1	12.4	13.4	13.3	12.6	12.5	13.8	13.5	9.9	11.9
Other and unknown Hispanic . . . . .	---	9.2	8.3	9.3	9.0	9.1	9.4	9.0	9.3	8.8	9.3
Non-Hispanic white <sup>2</sup> . . . . .	---	3.5	3.6	3.8	3.9	3.9	4.0	4.1	4.1	4.1	3.7
Non-Hispanic black <sup>2</sup> . . . . .	---	9.7	9.9	10.6	10.7	10.6	10.9	11.4	11.8	11.0	12.0
Education of mother less than 12 years											
All mothers . . . . .	30.8	23.7	22.9	22.3	21.7	20.9	20.6	20.4	20.2	20.4	23.2
White . . . . .	27.1	20.8	19.9	19.3	18.7	18.1	17.8	17.7	17.4	17.6	21.6
Black . . . . .	51.2	36.4	35.7	35.1	34.5	33.4	32.6	31.9	31.6	31.4	30.4
American Indian or Alaskan Native . . . . .	60.5	44.2	43.0	41.8	41.3	40.0	39.0	39.2	38.5	37.9	37.2
Asian or Pacific Islander . . . . .	22.0	21.0	23.0	23.3	21.7	20.2	19.4	17.9	17.9	17.9	19.5
Chinese . . . . .	23.0	15.2	16.1	17.3	18.2	18.2	15.5	12.3	13.5	14.2	14.9
Japanese . . . . .	11.8	5.0	4.7	4.3	4.0	3.5	4.8	4.0	3.1	3.5	3.3
Filipino . . . . .	26.4	16.4	16.0	15.6	15.0	13.4	13.9	12.6	12.3	11.8	10.2
Other Asian or Pacific Islander <sup>1</sup> . . . . .	28.6	26.4	29.3	29.3	26.6	24.8	23.5	22.2	21.7	21.7	26.1
Hispanic origin <sup>2,3</sup> . . . . .	---	51.1	49.5	48.0	46.5	44.9	44.5	43.4	42.8	42.5	52.8
Mexican American . . . . .	---	62.8	61.9	60.5	59.4	58.7	59.0	58.9	58.4	56.9	61.3
Puerto Rican . . . . .	---	55.3	53.9	52.9	50.0	48.2	46.6	44.8	44.3	45.2	43.7
Cuban . . . . .	---	24.1	26.9	27.0	24.6	22.4	21.1	19.7	18.7	18.1	17.9
Central and South American . . . . .	---	41.2	39.3	39.2	39.5	37.1	37.0	35.9	34.1	31.8	43.6
Other and unknown Hispanic . . . . .	---	40.1	39.5	38.7	38.9	36.0	36.5	33.7	34.3	34.1	34.5
Non-Hispanic white <sup>2</sup> . . . . .	---	18.3	17.4	17.3	16.7	15.9	15.8	15.7	15.3	16.7	15.3
Non-Hispanic black <sup>2</sup> . . . . .	---	37.4	36.6	36.4	35.4	34.2	33.5	32.6	32.2	31.8	29.9

See footnotes at end of table.

**Table 8 (page 2 of 2). Prenatal care and maternal education for live births, according to race and Hispanic origin of mother: United States, 1970 and 1980–89**

[Data are based on the National Vital Statistics System]

<i>Prenatal care, education, race, and Hispanic origin of mother</i>	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Education of mother 16 years or more											
All mothers. . . . .	8.6	14.0	14.8	15.3	15.8	16.4	16.7	17.1	17.6	17.7	17.4
White. . . . .	9.6	15.5	16.4	16.9	17.6	18.3	18.6	19.2	19.8	20.1	19.2
Black. . . . .	2.8	6.2	6.5	6.7	6.7	6.9	7.0	7.1	7.1	7.1	7.2
American Indian or Alaskan Native. . . . .	2.7	3.5	3.7	3.6	3.4	3.6	3.7	3.8	3.7	3.7	4.3
Asian or Pacific Islander . . . . .	20.9	30.8	29.4	29.3	30.0	30.4	30.3	31.4	32.0	31.7	31.2
Chinese . . . . .	34.0	41.5	40.8	38.2	38.0	36.4	35.2	36.8	36.8	36.4	40.5
Japanese . . . . .	20.7	36.8	35.2	38.4	38.8	39.8	38.1	41.3	41.8	42.3	43.6
Filipino . . . . .	28.1	37.1	36.8	36.6	35.8	35.8	35.2	35.4	36.9	35.5	36.0
Other Asian or Pacific Islander <sup>1</sup> . . . . .	3.1	25.5	24.2	24.2	25.6	26.4	27.1	28.0	28.8	28.6	25.3
Hispanic origin <sup>2,3</sup> . . . . .	---	4.2	4.6	5.0	5.2	5.7	6.0	6.5	6.6	7.0	5.1
Mexican American . . . . .	---	2.2	2.4	2.8	2.8	2.9	3.0	3.3	3.2	3.7	3.2
Puerto Rican . . . . .	---	3.0	3.4	3.7	3.9	4.3	4.6	4.9	5.4	5.3	6.3
Cuban . . . . .	---	11.6	10.7	11.2	12.4	13.7	15.0	15.4	17.3	18.2	19.2
Central and South American . . . . .	---	6.1	6.8	7.1	6.6	7.6	8.1	8.4	8.8	10.1	8.2
Other and unknown Hispanic . . . . .	---	5.5	6.0	6.0	6.4	7.0	7.2	8.7	7.6	8.0	7.7
Non-Hispanic white <sup>2</sup> . . . . .	---	16.4	17.2	17.6	18.3	18.9	19.3	19.8	20.4	20.4	22.0
Non-Hispanic black <sup>2</sup> . . . . .	---	5.7	6.1	6.3	6.3	6.5	6.7	6.9	6.8	6.9	7.2

<sup>1</sup>Includes Hawaiians and part Hawaiians.

<sup>2</sup>Data shown only for States with an Hispanic-origin item on their birth certificates.

<sup>3</sup>Includes mothers of all races.

NOTES: Excludes births that occurred in States not reporting education and/or prenatal care (see Appendix I). The race groups, white and black, include persons of both Hispanic and non-Hispanic origin. Conversely, persons of Hispanic origin may be of any race.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.



**Table 9. Maternal age and marital status for live births, according to race and Hispanic origin of mother: United States, 1970 and 1980–89**

[Data are based on the National Vital Statistics System]

<i>Age, marital status, race, and Hispanic origin of mother</i>	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Age of mother less than 18 years											
	Percent of live births										
All mothers. . . . .	6.3	5.8	5.4	5.2	5.0	4.8	4.7	4.8	4.8	4.8	4.8
White. . . . .	4.8	4.5	4.3	4.1	3.9	3.7	3.7	3.7	3.7	3.7	3.6
Black. . . . .	14.8	12.5	11.7	11.4	11.2	10.8	10.6	10.6	10.7	10.6	10.5
American Indian or Alaskan Native. . . . .	7.5	9.4	9.1	8.5	8.7	7.9	7.6	8.0	7.9	7.8	7.5
Asian or Pacific Islander. . . . .	3.1	1.5	1.6	1.7	1.6	1.6	1.6	1.7	1.8	1.8	2.0
Chinese. . . . .	1.1	.3	.2	.3	.3	.2	.3	.2	.2	.3	.3
Japanese. . . . .	2.0	1.0	1.0	1.3	.7	.8	.9	.9	.9	.8	.9
Filipino. . . . .	3.7	1.6	1.6	1.6	1.8	2.0	1.6	1.7	1.8	1.7	1.9
Other Asian or Pacific Islander <sup>1</sup> . . . . .	7.0	1.8	2.0	2.0	1.9	2.0	2.1	2.2	2.3	2.4	2.6
Hispanic origin <sup>2,3</sup> . . . . .	---	7.4	7.3	7.2	7.0	6.7	6.4	6.5	6.6	6.6	6.7
Mexican American. . . . .	---	7.7	7.7	7.5	7.5	7.2	6.9	6.9	7.0	7.0	6.9
Puerto Rican. . . . .	---	10.0	9.8	9.9	9.3	8.5	8.5	8.4	8.7	9.2	9.4
Cuban. . . . .	---	3.8	3.6	3.2	2.6	2.5	2.2	2.3	2.1	2.2	2.7
Central and South American. . . . .	---	2.4	2.4	2.6	2.6	2.4	2.4	2.4	2.7	2.7	3.0
Other and unknown Hispanic. . . . .	---	6.5	6.5	6.9	7.1	7.0	7.0	7.3	7.7	7.6	8.0
Non-Hispanic white <sup>2</sup> . . . . .	---	4.0	3.8	3.6	3.4	3.2	3.2	3.2	3.2	3.2	3.0
Non-Hispanic black <sup>2</sup> . . . . .	---	12.7	11.9	11.6	11.2	10.9	10.7	10.6	10.7	10.8	10.5
Age of mother 18–19 years											
All mothers. . . . .	11.3	9.8	9.4	9.0	8.7	8.3	8.0	7.8	7.6	7.7	8.1
White. . . . .	10.4	9.0	8.6	8.2	7.9	7.4	7.1	7.0	6.8	6.9	7.2
Black. . . . .	16.6	14.5	14.1	13.7	13.6	13.3	12.9	12.6	12.2	12.3	12.9
American Indian or Alaskan Native. . . . .	12.8	14.6	13.9	13.8	13.3	13.1	12.4	12.1	11.8	11.4	12.1
Asian or Pacific Islander. . . . .	6.6	3.9	4.1	4.1	3.7	3.4	3.4	3.4	3.3	3.4	3.7
Chinese. . . . .	3.9	1.0	1.0	.8	.6	.5	.6	.5	.6	.5	.7
Japanese. . . . .	4.1	2.3	2.6	2.5	2.3	2.3	1.9	1.9	1.6	1.8	1.8
Filipino. . . . .	7.1	4.0	3.9	4.3	3.8	3.5	3.7	3.4	3.4	3.8	4.0
Other Asian or Pacific Islander <sup>1</sup> . . . . .	13.8	4.9	5.2	4.9	4.5	4.3	4.2	4.3	4.1	4.3	4.6
Hispanic origin <sup>2,3</sup> . . . . .	---	11.6	11.2	11.1	10.6	10.3	10.1	9.9	9.7	9.8	10.0
Mexican American. . . . .	---	12.0	11.7	11.5	10.9	10.8	10.6	10.5	10.3	10.3	10.5
Puerto Rican. . . . .	---	13.3	13.3	13.1	13.2	12.8	12.4	12.5	11.8	12.2	12.6
Cuban. . . . .	---	9.2	9.2	8.2	6.8	5.7	4.9	4.5	4.1	3.9	4.3
Central and South American. . . . .	---	6.0	5.8	6.4	6.0	5.7	5.8	5.7	5.3	5.4	5.6
Other and unknown Hispanic. . . . .	---	10.8	10.4	11.3	11.2	10.9	10.5	10.0	10.5	10.8	11.2
Non-Hispanic white <sup>2</sup> . . . . .	---	8.5	8.1	7.8	7.4	6.8	6.6	6.4	6.2	6.6	6.5
Non-Hispanic black <sup>2</sup> . . . . .	---	14.7	14.1	13.9	13.5	13.4	12.9	12.6	12.2	12.4	13.0
Unmarried mothers											
All mothers. . . . .	10.7	18.4	18.9	19.4	20.3	21.0	22.0	23.4	24.5	25.7	27.1
White. . . . .	5.5	11.2	11.8	12.3	12.9	13.6	14.7	15.9	16.9	18.0	19.2
Black. . . . .	37.5	56.1	56.9	57.7	59.2	60.3	61.2	62.4	63.4	64.7	65.7
American Indian or Alaskan Native. . . . .	22.4	39.2	41.2	42.6	45.3	46.1	46.8	48.8	51.1	51.7	52.7
Asian or Pacific Islander. . . . .	8.7	7.3	7.0	7.9	8.6	9.2	9.5	10.0	11.0	11.5	12.4
Chinese. . . . .	3.0	2.7	2.4	2.5	3.3	3.4	3.0	3.5	4.5	3.9	4.2
Japanese. . . . .	4.6	5.2	6.2	7.1	7.2	6.9	7.9	7.9	7.9	8.8	9.4
Filipino. . . . .	9.1	8.6	9.1	9.9	10.3	10.8	11.4	12.0	12.7	13.6	14.8
Other Asian or Pacific Islander <sup>1</sup> . . . . .	16.5	8.5	7.7	8.7	9.5	10.4	10.9	11.4	12.4	13.2	14.2
Hispanic origin <sup>2,3</sup> . . . . .	---	23.6	24.5	25.6	27.5	28.3	29.5	31.6	32.6	34.0	35.5
Mexican American. . . . .	---	20.3	20.7	21.9	23.7	24.2	25.7	27.9	28.9	30.6	31.7
Puerto Rican. . . . .	---	46.3	48.0	49.0	49.5	50.8	51.1	52.6	53.0	53.3	55.2
Cuban. . . . .	---	10.0	14.3	15.9	16.1	16.2	16.1	15.8	16.1	16.3	17.5
Central and South American. . . . .	---	27.1	29.0	30.2	33.0	34.0	34.9	38.0	37.1	36.4	38.9
Other and unknown Hispanic. . . . .	---	22.4	25.0	26.3	28.2	30.0	31.1	31.9	34.2	35.5	37.0
Non-Hispanic white <sup>2</sup> . . . . .	---	9.6	10.0	10.5	11.0	11.5	12.4	13.5	14.3	15.2	16.1
Non-Hispanic black <sup>2</sup> . . . . .	---	57.3	58.0	59.0	60.5	61.5	62.1	63.3	64.2	64.8	66.0

<sup>1</sup>Includes Hawaiians and part Hawaiians.

<sup>2</sup>Data shown only for States with an Hispanic-origin item on their birth certificates (see Appendix I).

<sup>3</sup>Includes mothers of all races.

NOTES: For 1970 excludes births that occurred in States not reporting marital status (see Appendix I). The race groups, white and black, include persons of both Hispanic and non-Hispanic origin. Conversely, persons of Hispanic origin may be of any race.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.

**Table 10. Low birth weight live births, according to race of mother, geographic division, and State: United States, average annual 1977-79, 1982-84, and 1987-89**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1977-79	1982-84	1987-89	1977-79	1982-84	1987-89	1977-79	1982-84	1987-89
Percent of live births weighing less than 2,500 grams									
United States . . . . .	7.02	6.76	6.96	5.89	5.65	5.70	12.86	12.67	13.26
New England . . . . .	6.36	5.97	5.93	5.93	5.51	5.36	12.91	12.45	12.40
Maine . . . . .	5.35	5.37	5.03	5.34	5.35	5.02	*	*	*
New Hampshire . . . . .	5.76	5.08	4.96	5.74	5.07	4.94	*	*	*
Vermont . . . . .	6.47	5.96	5.25	6.42	5.96	5.23	*	*	*
Massachusetts . . . . .	6.33	5.89	5.88	5.98	5.46	5.30	11.74	11.65	11.53
Rhode Island . . . . .	6.67	6.19	6.10	6.19	5.69	5.60	*13.68	*12.38	*11.09
Connecticut . . . . .	6.93	6.60	6.77	6.00	5.70	5.75	14.03	13.36	13.86
Middle Atlantic . . . . .	7.35	6.96	7.35	6.09	5.72	5.78	13.30	12.67	13.92
New York . . . . .	7.67	7.16	7.67	6.34	5.87	6.00	12.99	12.07	13.72
New Jersey . . . . .	7.42	7.03	7.11	5.88	5.60	5.51	13.69	13.00	13.62
Pennsylvania . . . . .	6.83	6.61	6.97	5.85	5.58	5.64	13.72	13.96	14.71
East North Central . . . . .	6.87	6.64	6.97	5.72	5.43	5.56	13.43	13.53	13.97
Ohio . . . . .	6.84	6.59	6.83	5.89	5.63	5.74	13.14	12.82	13.07
Indiana . . . . .	6.46	6.35	6.55	5.77	5.67	5.85	12.35	12.15	12.50
Illinois . . . . .	7.42	7.17	7.53	5.69	5.39	5.55	13.86	13.93	14.34
Michigan . . . . .	7.12	6.96	7.36	5.87	5.56	5.63	13.55	14.26	14.80
Wisconsin . . . . .	5.52	5.19	5.54	5.07	4.63	4.74	12.76	12.72	13.39
West North Central . . . . .	5.87	5.63	5.82	5.35	5.09	5.19	13.16	12.74	13.04
Minnesota . . . . .	5.20	4.98	4.97	5.03	4.76	4.58	*12.32	*12.43	13.66
Iowa . . . . .	5.21	4.89	5.32	5.06	4.73	5.14	*12.20	*11.89	*11.55
Missouri . . . . .	6.84	6.66	6.91	5.69	5.55	5.73	13.41	12.99	13.08
North Dakota . . . . .	5.23	4.77	4.90	5.03	4.66	4.75	*	*	*
South Dakota . . . . .	5.29	5.11	5.07	5.17	4.80	4.90	*	*	*
Nebraska . . . . .	5.62	5.42	5.60	5.29	5.04	5.14	*12.77	*12.44	*13.41
Kansas . . . . .	6.42	6.13	6.20	5.88	5.56	5.57	12.98	12.52	13.09
South Atlantic . . . . .	8.06	7.81	7.95	6.14	5.93	5.93	12.68	12.52	12.97
Delaware . . . . .	7.73	7.27	7.17	5.96	5.72	5.42	13.74	12.46	12.84
Maryland . . . . .	7.72	7.52	7.99	5.77	5.47	5.74	12.52	12.42	13.07
District of Columbia . . . . .	13.08	12.99	14.65	*6.72	6.02	5.59	14.43	14.70	17.27
Virginia . . . . .	7.36	7.21	7.03	5.94	5.66	5.45	11.98	12.23	12.02
West Virginia . . . . .	6.87	6.77	6.71	6.64	6.57	6.50	*12.76	*11.78	*12.05
North Carolina . . . . .	8.03	7.89	8.01	6.17	6.04	6.05	12.39	12.42	12.69
South Carolina . . . . .	8.89	8.76	8.92	6.12	6.19	6.31	13.03	12.82	13.09
Georgia . . . . .	8.60	8.39	8.32	6.22	6.04	6.03	12.85	12.74	12.60
Florida . . . . .	7.84	7.44	7.67	6.21	5.95	6.00	12.46	12.03	13.05
East South Central . . . . .	7.92	7.85	7.97	6.29	6.22	6.28	12.26	12.26	12.43
Kentucky . . . . .	7.02	6.91	6.80	6.44	6.41	6.28	12.89	12.11	11.85
Tennessee . . . . .	7.99	7.95	8.08	6.60	6.44	6.47	12.94	13.27	13.30
Alabama . . . . .	8.08	7.92	8.12	5.94	5.81	6.02	12.06	11.91	12.15
Mississippi . . . . .	8.74	8.78	9.04	5.88	5.99	6.30	11.85	11.94	12.15
West South Central . . . . .	7.49	7.17	7.29	6.20	5.97	6.04	12.84	12.75	12.81
Arkansas . . . . .	7.61	7.58	8.07	6.02	5.98	6.54	12.31	12.60	13.07
Louisiana . . . . .	8.74	8.51	8.86	6.20	5.75	6.00	12.71	13.13	13.06
Oklahoma . . . . .	6.89	6.60	6.59	6.30	6.07	6.03	12.79	12.38	11.74
Texas . . . . .	7.20	6.86	6.92	6.20	5.99	5.99	13.09	12.54	12.70
Mountain . . . . .	6.79	6.56	6.68	6.60	6.39	6.44	14.02	12.57	14.04
Montana . . . . .	5.91	5.69	5.68	5.87	5.61	5.58	*	*	*
Idaho . . . . .	5.43	5.33	5.43	5.38	5.29	5.38	*	*	*
Wyoming . . . . .	7.79	7.09	7.34	7.70	7.05	7.32	*	*	*
Colorado . . . . .	8.23	7.76	7.84	7.93	7.45	7.46	15.24	13.82	14.42
New Mexico . . . . .	8.48	7.66	7.10	8.44	7.75	7.14	*15.15	*12.31	*12.61
Arizona . . . . .	6.12	6.04	6.34	5.92	5.86	6.11	*12.62	11.99	13.52
Utah . . . . .	5.47	5.58	5.70	5.44	5.49	5.63	*	*	*
Nevada . . . . .	7.33	6.70	7.22	6.62	6.18	6.38	*13.54	*11.19	14.73
Pacific . . . . .	5.94	5.78	5.94	5.32	5.13	5.20	11.90	11.78	13.37
Washington . . . . .	5.39	5.13	5.41	5.16	4.81	5.02	10.90	11.00	12.22
Oregon . . . . .	5.16	5.02	5.28	5.01	4.86	5.04	*12.25	*11.39	*13.10
California . . . . .	6.07	5.91	6.05	5.39	5.22	5.25	12.01	11.91	13.53
Alaska . . . . .	5.54	4.81	4.91	5.07	4.37	4.53	*	*7.15	*9.77
Hawaii . . . . .	7.15	7.21	7.02	5.68	6.09	5.67	*	*10.47	*9.92

\*Data for States with fewer than 5,000 live births for the 3-year period are considered unreliable. Data for States with fewer than 1,000 live births are considered highly unreliable and are not shown.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.



**Table 11. Very low birth weight live births, according to race of mother, geographic division, and State: United States, average annual 1977-79, 1982-84, and 1987-89**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1977-79	1982-84	1987-89	1977-79	1982-84	1987-89	1977-79	1982-84	1987-89
	Percent of live births weighing less than 1,500 grams								
United States . . . . .	1.15	1.18	1.26	0.90	0.93	0.94	2.43	2.59	2.87
New England . . . . .	1.06	1.07	1.08	0.95	0.95	0.94	2.74	2.80	2.87
Maine . . . . .	0.84	0.93	0.79	0.83	0.92	0.78	*	*	*
New Hampshire . . . . .	0.92	0.94	0.90	0.92	0.93	0.89	*	*	*
Vermont . . . . .	1.03	0.90	0.81	1.02	0.90	0.80	*	*	*
Massachusetts . . . . .	1.02	1.03	1.06	0.92	0.94	0.92	2.37	2.41	2.57
Rhode Island . . . . .	1.27	1.09	1.15	1.11	0.96	1.05	*3.67	*2.89	*2.46
Connecticut . . . . .	1.20	1.26	1.32	0.98	1.00	1.04	2.96	3.21	3.36
Middle Atlantic . . . . .	1.21	1.23	1.39	0.95	0.95	1.00	2.48	2.56	3.11
New York . . . . .	1.27	1.27	1.45	0.98	0.97	1.02	2.44	2.41	3.02
New Jersey . . . . .	1.22	1.24	1.37	0.90	0.94	0.97	2.51	2.53	3.07
Pennsylvania . . . . .	1.12	1.17	1.33	0.92	0.92	0.97	2.54	2.98	3.40
East North Central . . . . .	1.18	1.21	1.28	0.93	0.93	0.94	2.63	2.83	3.02
Ohio . . . . .	1.15	1.17	1.20	0.95	0.95	0.94	2.50	2.66	2.68
Indiana . . . . .	1.09	1.08	1.17	0.93	0.91	0.99	2.51	2.62	2.67
Illinois . . . . .	1.33	1.34	1.42	0.95	0.94	0.97	2.75	2.90	3.00
Michigan . . . . .	1.22	1.29	1.43	0.94	0.97	0.94	2.63	2.99	3.54
Wisconsin . . . . .	0.92	0.95	0.99	0.83	0.84	0.80	2.42	2.65	2.76
West North Central . . . . .	0.95	0.97	1.00	0.85	0.86	0.86	2.45	2.53	2.71
Minnesota . . . . .	0.86	0.89	0.86	0.83	0.85	0.78	*2.46	*2.50	2.98
Iowa . . . . .	0.89	0.81	0.88	0.86	0.78	0.83	*2.39	*2.11	*2.36
Missouri . . . . .	1.08	1.14	1.23	0.85	0.89	0.94	2.42	2.62	2.72
North Dakota . . . . .	1.00	0.83	0.79	0.91	0.79	0.79	*	*	*
South Dakota . . . . .	0.77	0.88	0.89	0.78	0.83	0.85	*	*	*
Nebraska . . . . .	0.90	0.91	0.93	0.83	0.83	0.84	*2.28	*2.42	*2.45
Kansas . . . . .	1.01	1.05	1.08	0.88	0.94	0.93	2.55	2.46	2.77
South Atlantic . . . . .	1.41	1.49	1.56	0.98	1.02	1.02	2.47	2.68	2.91
Delaware . . . . .	1.22	1.45	1.59	0.89	1.09	1.05	2.33	2.61	3.36
Maryland . . . . .	1.46	1.55	1.76	0.98	1.01	1.09	2.64	2.88	3.28
District of Columbia . . . . .	2.77	3.19	3.66	*1.01	1.41	1.09	3.13	3.63	4.39
Virginia . . . . .	1.29	1.34	1.32	0.96	0.96	0.92	2.37	2.61	2.62
West Virginia . . . . .	1.09	1.08	1.12	1.04	1.03	1.05	*2.35	*2.28	*2.94
North Carolina . . . . .	1.42	1.47	1.61	0.94	1.00	1.07	2.54	2.64	2.92
South Carolina . . . . .	1.50	1.70	1.71	0.94	1.12	1.12	2.36	2.61	2.66
Georgia . . . . .	1.46	1.65	1.61	0.93	1.06	1.03	2.40	2.73	2.70
Florida . . . . .	1.37	1.35	1.42	1.04	1.00	0.98	2.34	2.44	2.83
East South Central . . . . .	1.23	1.34	1.44	0.91	0.98	1.03	2.08	2.31	2.52
Kentucky . . . . .	1.04	1.14	1.16	0.93	0.99	1.03	2.19	2.66	2.37
Tennessee . . . . .	1.23	1.36	1.49	0.95	1.02	1.08	2.24	2.56	2.84
Alabama . . . . .	1.29	1.38	1.52	0.87	0.92	1.02	2.07	2.26	2.48
Mississippi . . . . .	1.38	1.49	1.57	0.84	0.93	0.90	1.97	2.11	2.33
West South Central . . . . .	1.16	1.18	1.25	0.87	0.92	0.94	2.38	2.42	2.61
Arkansas . . . . .	1.17	1.25	1.34	0.83	0.92	0.97	2.18	2.27	2.59
Louisiana . . . . .	1.44	1.47	1.66	0.91	0.89	0.96	2.30	2.45	2.69
Oklahoma . . . . .	1.00	1.07	1.05	0.89	0.94	0.93	2.13	2.38	2.21
Texas . . . . .	1.10	1.11	1.17	0.86	0.92	0.94	2.53	2.44	2.61
Mountain . . . . .	0.89	0.94	0.96	0.85	0.89	0.90	2.60	2.50	2.72
Montana . . . . .	0.80	0.81	0.84	0.80	0.77	0.80	*	*	*
Idaho . . . . .	0.71	0.77	0.89	0.70	0.75	0.88	*	*	*
Wyoming . . . . .	0.97	1.00	0.88	0.92	0.98	0.87	*	*	*
Colorado . . . . .	1.01	1.00	1.00	0.95	0.94	0.92	2.71	2.40	2.42
New Mexico . . . . .	1.05	1.04	0.94	1.02	1.04	0.91	*3.53	*2.28	*2.66
Arizona . . . . .	0.90	1.00	1.03	0.86	0.92	0.97	*2.18	2.61	3.06
Utah . . . . .	0.69	0.77	0.78	0.68	0.76	0.76	*	*	*
Nevada . . . . .	1.13	1.05	1.18	0.96	0.92	0.96	*2.57	*2.59	3.00
Pacific . . . . .	0.94	0.99	1.02	0.82	0.86	0.87	2.21	2.49	2.83
Washington . . . . .	0.81	0.87	0.87	0.76	0.82	0.79	1.94	2.04	2.55
Oregon . . . . .	0.81	0.85	0.83	0.80	0.84	0.79	*1.36	*1.58	*2.03
California . . . . .	0.98	1.02	1.05	0.84	0.87	0.89	2.25	2.55	2.87
Alaska . . . . .	0.85	0.88	0.96	0.82	0.80	0.85	*	*2.08	*2.60
Hawaii . . . . .	0.86	1.02	1.04	0.66	0.87	1.00	*	*1.92	*2.23

\*Data for States with fewer than 5,000 live births for the 3-year period are considered unreliable. Data for States with fewer than 1,000 live births are considered highly unreliable and are not shown.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.

**Table 12. Legal abortion ratios, according to selected patient characteristics: United States, selected years 1973–89**

[Data are based on reporting by State health departments and by facilities]

<i>Characteristic</i>	1973	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 <sup>1</sup>
	Abortions per 100 live births											
Total . . . . .	19.6	27.2	35.9	35.8	35.4	34.9	36.4	35.4	35.4	35.6	35.2	34.6
Age												
Under 15 years . . . . .	74.3	101.5	122.7	126.4	120.0	133.6	145.8	141.2	130.5	131.3	90.5	83.5
15–19 years . . . . .	31.7	46.4	66.4	66.8	66.5	67.3	71.4	71.7	70.2	72.6	61.2	54.8
20–24 years . . . . .	17.9	25.0	37.5	37.9	38.0	38.1	41.2	40.4	41.0	42.0	36.9	36.1
25–29 years . . . . .	12.3	16.6	23.0	23.2	23.5	23.0	23.9	23.2	24.0	23.9	21.1	20.9
30–34 years . . . . .	16.5	22.1	23.3	23.7	23.0	22.0	22.3	21.4	21.5	21.4	18.6	18.4
35–39 years . . . . .	26.7	37.5	40.3	40.3	37.1	35.4	35.2	33.4	33.4	31.7	27.7	26.8
40 years and over . . . . .	40.2	59.9	78.3	77.6	75.0	69.1	66.7	63.8	59.8	56.2	51.3	49.4
Race												
White . . . . .	17.5	22.7	31.3	31.2	30.4	29.5	30.8	29.6	30.0	30.0	25.7	24.8
All other . . . . .	28.9	46.5	54.7	54.4	55.6	56.0	58.2	57.6	55.8	55.7	45.5	46.1
Marital status												
Married . . . . .	6.2	8.3	10.2	9.8	9.7	9.3	9.6	8.7	9.3	9.8	8.1	7.8
Unmarried . . . . .	109.8	141.1	149.9	147.5	142.2	135.2	137.1	129.5	120.6	114.9	97.1	88.4
Number of previous live births <sup>2</sup>												
0 . . . . .	23.0	30.2	48.6	48.6	48.2	46.9	49.3	47.7	47.1	46.3	37.4	37.2
1 . . . . .	12.1	17.3	21.9	21.9	22.0	22.1	23.0	22.8	23.8	24.7	21.0	21.2
2 . . . . .	19.6	29.7	32.8	32.6	32.4	32.5	34.0	33.0	33.5	34.5	29.3	28.6
3 . . . . .	25.8	39.8	33.5	33.5	32.2	31.9	32.8	32.1	32.4	33.2	27.7	27.8
4 or more . . . . .	26.4	40.8	27.3	26.6	25.4	24.8	24.9	23.7	24.2	24.2	20.2	19.9

<sup>1</sup>Preliminary data.

<sup>2</sup>For 1973–75, data indicate number of living children.

NOTE: Ratios exclude cases for which selected characteristic was unknown and are based on abortions reported to the Centers for Disease Control.

SOURCES: Centers for Disease Control: Abortion Surveillance, 1973–75. Public Health Service, DHHS, Atlanta, Ga., May 1977–Nov. 1980; Abortion Surveillance, 1980. Public Health Service, DHHS, Atlanta, Ga., May 1983; CDC Surveillance Summaries. Abortion Surveillance, United States, 1984–85. Vol. 38, No. SS-2. Public Health Service, DHHS, Atlanta, Ga., Sept. 1989; Abortion Surveillance: Preliminary Analysis, United States, 1986 and 1987. Vol. 38, No. 38. Public Health Service, DHHS, Atlanta, Ga., Sept. 1989; Abortion Surveillance, United States, 1988. Public Health Service, DHHS, Atlanta, Ga., July 1991; and Abortion Surveillance: Preliminary Analysis, United States, 1989. Public Health Service, DHHS, Atlanta, Ga., Dec. 1991.



**Table 13. Legal abortions, according to selected characteristics: United States, selected years 1973–89**

[Data are based on reporting by State health departments and by facilities]

Characteristic	1973	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 <sup>1</sup>
Number of legal abortions reported in thousands												
Centers for Disease Control . . . . .	616	855	1,298	1,301	1,304	1,269	1,334	1,329	1,328	1,354	1,371	1,397
Alan Guttmacher Institute <sup>2</sup> . . . . .	745	1,034	1,554	1,577	1,574	1,575	1,577	1,589	1,574	1,559	1,591	---
Percent distribution												
Total . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Period of gestation												
Under 9 weeks . . . . .	36.1	44.6	51.7	51.2	50.6	49.7	50.5	50.3	51.0	50.4	48.7	49.8
9–10 weeks . . . . .	29.4	28.4	26.2	26.8	26.7	26.8	26.4	26.6	25.8	26.0	26.4	25.8
11–12 weeks . . . . .	17.9	14.9	12.2	12.1	12.4	12.8	12.6	12.5	12.2	12.4	12.7	12.6
13–15 weeks . . . . .	6.9	5.0	5.2	5.2	5.3	5.8	5.8	5.9	6.1	6.2	6.6	6.6
16–20 weeks . . . . .	8.0	6.1	3.9	3.7	3.9	3.9	3.9	3.9	4.1	4.2	4.5	4.2
21 weeks and over . . . . .	1.7	1.0	0.9	1.0	1.1	1.0	0.8	0.8	0.8	0.8	1.1	1.0
Type of procedure												
Curettage . . . . .	88.4	90.9	95.5	96.1	96.4	96.8	96.8	97.5	97.0	97.2	98.6	98.7
Intrauterine instillation . . . . .	10.4	6.2	3.1	2.8	2.5	2.1	1.9	1.7	1.4	1.3	1.1	0.9
Hysterotomy or hysterectomy . . . . .	0.7	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other . . . . .	0.6	2.4	1.3	1.0	1.0	1.1	1.3	0.8	1.6	1.5	0.3	0.4
Location of facility												
In State of residence . . . . .	74.8	89.2	92.6	92.5	92.9	93.3	92.0	92.4	92.3	91.7	91.4	91.0
Out of State of residence . . . . .	25.2	10.8	7.4	7.5	7.1	6.7	8.0	7.6	7.7	8.3	8.6	9.0
Previous induced abortions												
0 . . . . .	---	81.9	67.6	65.3	63.7	62.4	60.5	60.1	59.3	58.5	57.8	58.1
1 . . . . .	---	14.9	23.5	24.3	24.9	25.0	25.7	25.7	26.3	26.5	26.9	26.5
2 . . . . .	---	2.5	6.6	7.5	8.2	9.0	9.4	9.8	9.6	10.3	10.4	9.9
3 or more . . . . .	---	0.7	2.3	2.9	3.2	3.7	4.3	4.4	4.8	4.7	4.9	5.5

<sup>1</sup>Preliminary data.

<sup>2</sup>Data for 1986 is projected.

NOTE: For a discussion of the differences in reported legal abortions between the Centers for Disease Control and the Alan Guttmacher Institute, see Appendix I. Percent distributions exclude cases for which selected characteristic was unknown and are based on abortions reported to the Centers for Disease Control.

SOURCES: Centers for Disease Control: Abortion Surveillance, 1980. Public Health Service, DHHS, Atlanta, Ga., May 1983; CDC Surveillance Summaries. Abortion Surveillance, United States, 1984–85. Vol. 38, No. SS-2. Public Health Service, DHHS, Atlanta, Ga., Sept. 1989; Abortion Surveillance: Preliminary Analysis, United States, 1986 and 1987. Vol. 38, No. 38. Public Health Service, DHHS, Atlanta, Ga., Sept. 1989; Abortion Surveillance, United States, 1988. Public Health Service, DHHS, Atlanta, Ga., July 1991; and Abortion Surveillance: Preliminary Analysis, United States, 1989. Public Health Service, DHHS, Atlanta, Ga., Dec. 1991; Sullivan, E., Tietze, C., and Dryfoos, J.: Legal abortions in the United States, 1975–1976. Fam. Plann. Perspect. 9(3):116–129, May–June 1977; Henshaw, S. K., Forrest, J. D., and Blaine, E.: Abortion services in the United States, 1981 and 1982. Fam. Plann. Perspect. 16(3), May–June 1984; Henshaw, S. K., Forrest, J. D., and Van Vort, J.: Abortion services in the United States, 1984 and 1985. Fam. Plann. Perspect. 19(2), Mar.–Apr. 1987; and Henshaw, S. K. and Van Vort, J.: Abortion services in the United States, 1987 and 1988. Fam. Plann. Perspect. 22(3), May–June 1990.

**Table 14. Legal abortions, abortion-related deaths, and abortion-related death rates, according to period of gestation: United States, 1974–76, 1977–79, 1980–82, and 1983–85**

[Data are based primarily on reporting by State health departments and by facilities]

Period of gestation and year	Number of legal abortions reported	Abortion-related deaths <sup>1</sup>	
		Number	Rate per 100,000 abortions
Total			
1974–76 . . . . .	2,606,596	66	2.5
1977–79 . . . . .	3,489,127	44	1.3
1980–82 . . . . .	3,902,346	<sup>2</sup> 27	0.7
1983–85 . . . . .	3,931,078	<sup>3</sup> 27	0.7
Under 9 weeks			
1974–76 . . . . .	1,171,478	8	*0.7
1977–79 . . . . .	1,808,655	10	*0.6
1980–82 . . . . .	1,996,573	6	*0.3
1983–85 . . . . .	1,968,827	2	*
9–10 weeks			
1974–76 . . . . .	738,615	10	*1.4
1977–79 . . . . .	942,467	9	*1.0
1980–82 . . . . .	1,036,542	5	*0.5
1983–85 . . . . .	1,046,140	5	*0.5
11–12 weeks			
1974–76 . . . . .	387,208	10	*2.6
1977–79 . . . . .	439,754	7	*1.6
1980–82 . . . . .	477,875	3	*
1983–85 . . . . .	497,902	3	*
13 weeks and over			
1974–76 . . . . .	309,295	38	12.3
1977–79 . . . . .	298,251	18	6.0
1980–82 . . . . .	391,356	11	2.8
1983–85 . . . . .	418,209	15	3.6

<sup>1</sup>1983 data are provisional.

<sup>2</sup>1982 data include 2 deaths with weeks of gestation unknown.

<sup>3</sup>1984 data include 2 deaths with weeks of gestation unknown.

\*Estimates with relative standard errors greater than 30 percent are considered unreliable. Estimates with relative standard errors greater than 50 percent are considered highly unreliable and are not shown.

SOURCE: Centers for Disease Control: Abortion Surveillance, 1978. Public Health Service, DHHS, Atlanta, Ga., Nov. 1980; Unpublished data.



**Table 15. Methods of contraception for ever-married women 15–44 years of age, according to race and age: United States, 1973, 1982, and 1988**

[Data are based on household interviews of samples of women in the childbearing ages]

Method of contraception and age	All races			White			Black		
	1973	1982 <sup>1</sup>	1988	1973	1982 <sup>1</sup>	1988	1973	1982 <sup>1</sup>	1988
Number of ever-married women in thousands									
15–44 years . . . . .	30,247	34,935	36,842	26,795	30,419	31,465	3,109	3,440	3,614
15–24 years . . . . .	6,593	5,550	3,971	5,855	4,975	3,495	692	427	343
25–34 years . . . . .	12,731	15,996	16,889	11,356	31,819	14,371	1,226	1,628	1,666
35–44 years . . . . .	10,922	13,439	15,982	9,584	11,626	13,599	1,191	1,358	1,606
Percent of ever-married women using contraception									
All methods									
15–44 years . . . . .	66.4	66.9	70.8	67.8	68.0	71.8	55.8	60.4	63.9
15–24 years . . . . .	66.9	65.4	69.6	67.1	66.8	68.8	65.2	53.3	69.0
25–34 years . . . . .	70.4	70.0	70.6	71.6	70.7	71.3	59.2	67.7	66.1
35–44 years . . . . .	61.5	63.9	71.4	63.6	65.3	73.1	46.8	54.0	60.5
Percent of ever-married contracepting women									
Female sterilization									
15–44 years . . . . .	13.6	28.9	34.7	12.5	27.2	32.9	25.4	42.8	54.5
15–24 years . . . . .	4.3	*6.1	8.4	4.1	*5.7	8.2	6.8	*13.0	*11.0
25–34 years . . . . .	12.1	24.5	27.6	11.4	22.7	26.2	20.3	37.7	46.9
35–44 years . . . . .	21.7	44.0	48.5	19.2	42.4	45.9	47.2	59.5	73.6
Male sterilization <sup>2</sup>									
15–44 years . . . . .	10.4	13.6	15.0	11.2	14.7	16.8	*1.2	*2.2	1.3
15–24 years . . . . .	2.1	*4.1	*2.8	2.3	*4.4	*3.2	*0.1	*0.5	*—
25–34 years . . . . .	10.3	11.5	11.8	11.0	12.6	13.1	*2.0	*1.7	*1.6
35–44 years . . . . .	15.8	20.2	21.3	17.2	21.8	23.9	*1.1	*3.6	*1.4
Birth control pill									
15–44 years . . . . .	36.6	20.7	21.2	36.1	20.6	21.1	41.8	23.1	22.7
15–24 years . . . . .	65.3	56.2	61.4	64.4	56.0	59.8	72.4	56.8	74.9
25–34 years . . . . .	36.2	22.8	28.6	35.8	22.1	28.7	41.6	28.8	29.3
35–44 years . . . . .	18.3	*3.2	3.8	18.2	*3.2	4.0	17.2	*4.3	*2.4
Intrauterine device									
15–44 years . . . . .	10.2	7.6	2.2	9.8	7.5	2.1	13.8	10.0	3.4
15–24 years . . . . .	10.8	*3.5	*0.4	10.7	*3.3	*0.5	12.6	*8.2	*—
25–34 years . . . . .	13.2	9.6	2.1	12.7	9.4	1.8	18.8	14.1	3.8
35–44 years . . . . .	5.6	6.8	2.8	5.4	7.0	2.7	8.4	*4.5	3.9
Diaphragm									
15–44 years . . . . .	3.4	6.5	6.0	3.6	6.8	6.2	1.8	4.2	2.3
15–24 years . . . . .	*1.5	*7.0	3.1	*1.6	*7.2	*3.5	*0.3	*4.5	*1.3
25–34 years . . . . .	3.1	8.5	6.7	3.2	9.1	7.1	*2.2	3.1	*1.6
35–44 years . . . . .	5.0	*3.8	5.9	5.3	*3.7	6.0	*2.5	*5.7	3.4
Condom									
15–44 years . . . . .	12.6	12.1	12.9	13.4	12.6	13.1	4.1	5.0	7.7
15–24 years . . . . .	7.7	12.7	16.3	8.3	12.9	17.7	*1.8	*6.3	*7.6
25–34 years . . . . .	12.4	12.4	13.9	13.1	13.0	14.0	3.8	5.0	9.6
35–44 years . . . . .	16.1	11.4	11.0	17.2	12.0	11.0	6.4	*4.5	5.7

<sup>1</sup>Estimates have been revised and differ from those previously published.

<sup>2</sup>Refers only to currently married couples in 1973.

\*Relative standard error greater than 30 percent.

SOURCE: Division of Vital Statistics, National Center for Health Statistics: Data from the National Survey of Family Growth.

**Table 16. Methods of contraception for women 15–44 years of age, according to race and marital status: United States, 1982 and 1988**

[Data are based on household interviews of samples of women in the childbearing ages]

<i>Marital status and method of contraception</i>	<i>All races</i>		<i>White</i>		<i>Black</i>	
	<i>1982<sup>1</sup></i>	<i>1988</i>	<i>1982<sup>1</sup></i>	<i>1988</i>	<i>1982<sup>1</sup></i>	<i>1988</i>
Marital status						
Number of women in thousands						
All marital statuses . . . . .	54,099	57,900	45,367	47,077	6,985	7,679
Currently married . . . . .	28,231	29,147	25,195	25,426	2,130	2,197
Widowed, separated, or divorced . . . . .	6,704	7,695	5,224	6,038	1,310	1,417
Never married . . . . .	19,164	21,058	14,948	15,612	3,545	4,065
All methods						
Percent of women using contraception						
All marital statuses . . . . .	55.7	60.3	56.7	61.8	52.0	56.7
Currently married . . . . .	69.7	74.3	70.4	75.3	63.3	67.0
Widowed, separated, or divorced . . . . .	55.5	57.6	56.3	57.4	55.7	59.0
Never married . . . . .	35.3	41.9	33.6	41.5	43.8	50.4
Female sterilization						
Percent of contracepting women						
All marital statuses . . . . .	23.2	27.5	22.1	26.1	30.0	38.1
Currently married . . . . .	26.9	31.4	25.8	30.2	37.0	48.3
Widowed, separated, or divorced . . . . .	39.2	50.7	35.2	47.9	53.5	65.4
Never married . . . . .	3.7	6.4	*1.0	2.4	12.8	19.6
Male sterilization						
All marital statuses . . . . .	10.9	11.7	12.2	13.6	1.4	0.9
Currently married . . . . .	15.5	17.3	16.4	19.1	3.4	2.0
Widowed, separated, or divorced . . . . .	3.4	3.6	4.3	4.3	*_	*0.1
Never married . . . . .	1.8	1.8	2.3	2.3	*0.4	*0.3
Birth control pill						
All marital statuses . . . . .	28.0	30.7	26.7	29.8	38.0	38.0
Currently married . . . . .	19.3	20.4	19.0	20.0	24.5	26.0
Widowed, separated, or divorced . . . . .	28.4	25.3	30.4	27.4	20.4	16.8
Never married . . . . .	53.0	59.0	51.6	60.2	58.1	55.3
Intrauterine device						
All marital statuses . . . . .	7.1	2.0	6.9	1.8	9.1	3.1
Currently married . . . . .	6.9	2.0	6.8	1.8	9.3	2.3
Widowed, separated, or divorced . . . . .	11.5	3.6	11.8	3.3	11.4	5.4
Never married . . . . .	5.4	1.3	4.3	*0.9	7.9	2.7
Diaphragm						
All marital statuses . . . . .	8.1	5.7	8.8	6.2	3.5	1.9
Currently married . . . . .	6.5	6.2	6.7	6.4	5.1	2.4
Widowed, separated, or divorced . . . . .	6.7	5.3	7.8	5.6	*2.5	*2.1
Never married . . . . .	13.4	4.9	16.8	6.1	2.6	1.5
Condom						
All marital statuses . . . . .	12.0	14.6	12.7	14.9	6.2	10.3
Currently married . . . . .	14.1	14.3	14.5	14.3	6.8	9.8
Widowed, separated, or divorced . . . . .	*1.5	5.9	*1.5	6.3	*1.6	4.1
Never married . . . . .	11.6	19.6	12.8	21.4	7.9	13.2

<sup>1</sup>Estimates have been revised and differ from those previously published.

\*Relative standard error greater than 30 percent.

SOURCE: Division of Vital Statistics, National Center for Health Statistics: Data from the National Survey of Family Growth.



**Table 17. Life expectancy at birth and at 65 years of age, according to race and sex: United States, selected years 1900–1990**

[Data are based on the National Vital Statistics System]

Specified age and year	All races			White			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	At birth			Remaining life expectancy in years					
1900 <sup>1,2</sup>	47.3	46.3	48.3	47.6	46.6	48.7	<sup>3</sup> 33.0	<sup>3</sup> 32.5	<sup>3</sup> 33.5
1950 <sup>2</sup>	68.2	65.6	71.1	69.1	66.5	72.2	60.7	58.9	62.7
1960 <sup>2</sup>	69.7	66.6	73.1	70.6	67.4	74.1	63.2	60.7	65.9
1970	70.9	67.1	74.8	71.7	68.0	75.6	64.1	60.0	68.3
1975	72.6	68.8	76.6	73.4	69.5	77.3	66.8	62.4	71.3
1980	73.7	70.0	77.4	74.4	70.7	78.1	68.1	63.8	72.5
1981	74.2	70.4	77.8	74.8	71.1	78.4	68.9	64.5	73.2
1982	74.5	70.9	78.1	75.1	71.5	78.7	69.4	65.1	73.7
1983	74.6	71.0	78.1	75.2	71.7	78.7	69.6	65.4	73.6
1984	74.7	71.2	78.2	75.3	71.8	78.7	69.7	65.6	73.7
1985	74.7	71.2	78.2	75.3	71.9	78.7	69.5	65.3	73.5
1986	74.8	71.3	78.3	75.4	72.0	78.8	69.4	65.2	73.5
1987	75.0	71.5	78.4	75.6	72.2	78.9	69.4	65.2	73.6
1988	74.9	71.5	78.3	75.6	72.3	78.9	69.2	64.9	73.4
1989	75.3	71.8	78.6	76.0	72.7	79.2	69.2	64.8	73.5
Provisional data:									
1988 <sup>2</sup>	74.9	71.4	78.3	75.5	72.1	78.9	69.5	65.1	73.8
1989 <sup>2</sup>	75.2	71.8	78.5	75.9	72.6	79.1	69.7	65.2	74.0
1990 <sup>2</sup>	75.4	72.0	78.8	76.0	72.6	79.3	70.3	66.0	74.5
	At 65 years								
1900–1902 <sup>1,2</sup>	11.9	11.5	12.2	---	11.5	12.2	---	10.4	11.4
1950 <sup>2</sup>	13.9	12.8	15.0	---	12.8	15.1	13.9	12.9	14.9
1960 <sup>2</sup>	14.3	12.8	15.8	14.4	12.9	15.9	13.9	12.7	15.1
1970	15.2	13.1	17.0	15.2	13.1	17.1	14.2	12.5	15.7
1975	16.1	13.8	18.1	16.1	13.8	18.2	15.0	13.1	16.7
1980	16.4	14.1	18.3	16.5	14.2	18.4	15.1	13.0	16.8
1981	16.7	14.3	18.6	16.7	14.4	18.7	15.5	13.4	17.3
1982	16.8	14.5	18.7	16.9	14.5	18.8	15.7	13.5	17.5
1983	16.7	14.5	18.6	16.8	14.5	18.7	15.5	13.4	17.3
1984	16.8	14.6	18.6	16.9	14.6	18.7	15.5	13.5	17.2
1985	16.7	14.6	18.6	16.8	14.6	18.7	15.3	13.3	17.0
1986	16.8	14.7	18.6	16.9	14.8	18.7	15.4	13.4	17.0
1987	16.9	14.8	18.7	17.0	14.9	18.8	15.4	13.5	17.1
1988	16.9	14.9	18.6	17.0	14.9	18.7	15.4	13.4	16.9
1989	17.2	15.2	18.8	17.3	15.2	19.0	15.5	13.6	17.0
Provisional data:									
1988 <sup>2</sup>	16.9	14.8	18.6	17.0	14.9	18.7	15.5	13.6	17.1
1989 <sup>2</sup>	17.2	15.2	18.8	17.3	15.2	18.9	15.8	13.8	17.4
1990 <sup>2</sup>	17.3	15.3	19.0	17.3	15.3	19.0	16.1	14.2	17.6

<sup>1</sup>Death registration area only. The death registration area increased from 10 States and the District of Columbia in 1900 to the coterminous United States in 1933.

<sup>2</sup>Includes deaths of nonresidents of the United States.

<sup>3</sup>Figure is for the all other population.

SOURCES: U.S. Bureau of the Census: U.S. Life Tables 1890, 1901, 1910, and 1901–1910, by J. W. Glover. Washington. U.S. Government Printing Office, 1921; National Center for Health Statistics: Vital Statistics Rates in the United States, 1940–1960, by R. D. Grove and A. M. Hetzel. DHEW Pub. No. (PHS) 1677. Public Health Service. Washington. U.S. Government Printing Office, 1968; Annual summary of births, marriages, divorces, and deaths, United States, 1988. Monthly Vital Statistics Report. Vol. 37, No. 13. DHHS Pub. No. (PHS) 89–1120. July 26, 1989; Annual summary of births, marriages, divorces, and deaths, United States, 1989. Monthly Vital Statistics Report. 1991; and Annual summary of births, marriages, divorces, and deaths, United States, 1990. Monthly Vital Statistics Report. Vol. 39, No. 13. DHHS Pub. No. (PHS) 91–1120. 1991. Public Health Service. Hyattsville, Md.; Unpublished data from the Division of Vital Statistics; Data computed by the Office of Research and Methodology from data compiled by the Division of Vital Statistics.

**Table 18 (page 1 of 2). Infant mortality rates, fetal death rates, and perinatal mortality rates, according to race: United States, selected years 1950–90**

[Data are based on the National Vital Statistics System]

Race and year	Infant mortality rate <sup>1</sup>						
	Neonatal				Fetal death rate <sup>2</sup>	Late fetal death rate <sup>3</sup>	Perinatal mortality rate <sup>4</sup>
	Total	Under 28 days	Under 7 days	Postneonatal			
All races							
Deaths per 1,000 live births							
1950 <sup>5</sup>	29.2	20.5	17.8	8.7	18.4	14.9	32.5
1960 <sup>5</sup>	26.0	18.7	16.7	7.3	15.8	12.1	28.6
1970	20.0	15.1	13.6	4.9	14.0	9.5	23.0
1975	16.1	11.6	10.0	4.5	10.6	7.8	17.7
1980	12.6	8.5	7.1	4.1	9.1	6.2	13.2
1981	11.9	8.0	6.7	3.9	8.9	5.9	12.6
1982	11.5	7.7	6.4	3.8	8.8	5.9	12.3
1983	11.2	7.3	6.1	3.9	8.4	5.4	11.5
1984	10.8	7.0	5.9	3.8	8.1	5.2	11.0
1985	10.6	7.0	5.8	3.7	7.8	4.9	10.7
1986	10.4	6.7	5.6	3.6	7.7	4.7	10.3
1987	10.1	6.5	5.4	3.6	7.6	4.6	10.0
1988	10.0	6.3	5.2	3.6	7.5	4.5	9.7
1989	9.8	6.2	5.1	3.6	7.5	4.5	9.6
Provisional data:							
1987 <sup>5</sup>	10.0	6.5	---	3.4	---	---	---
1988 <sup>5</sup>	9.9	6.4	---	3.5	---	---	---
1989 <sup>5</sup>	9.7	6.3	---	3.5	---	---	---
1990 <sup>5</sup>	9.1	5.7	---	3.3	---	---	---
Race of child <sup>6</sup> : White							
1950 <sup>5</sup>	26.8	19.4	17.1	7.4	16.6	13.3	30.1
1960 <sup>5</sup>	22.9	17.2	15.6	5.7	13.9	10.8	26.2
1970	17.8	13.8	12.5	4.0	12.3	8.6	21.1
1975	14.2	10.4	9.0	3.8	9.4	7.1	16.0
1980	11.0	7.5	6.2	3.5	8.1	5.7	11.9
1981	10.5	7.1	5.9	3.4	8.0	5.4	11.3
1982	10.1	6.8	5.6	3.3	7.9	5.4	11.0
1983	9.7	6.4	5.4	3.3	7.4	5.0	10.3
1984	9.4	6.2	5.1	3.3	7.3	4.8	9.9
1985	9.3	6.1	5.0	3.2	7.0	4.5	9.6
1986	8.9	5.8	4.8	3.1	6.7	4.3	9.1
1987	8.6	5.5	4.5	3.1	6.6	4.2	8.7
1988	8.5	5.4	4.4	3.1	6.4	4.0	8.4
1989	8.2	5.2	4.3	3.0	6.4	4.0	8.3
Race of child <sup>6</sup> : Black							
1950 <sup>5</sup>	43.9	27.8	23.0	16.1	32.1	---	---
1960 <sup>5</sup>	44.3	27.8	23.7	16.5	---	---	---
1970	32.6	22.8	20.3	9.9	23.2	---	---
1975	26.2	18.3	15.7	7.9	16.8	11.4	26.9
1980	21.4	14.1	11.9	7.3	14.4	8.9	20.7
1981	20.0	13.4	11.4	6.6	13.8	8.2	19.4
1982	19.6	13.1	11.1	6.6	13.8	8.1	19.1
1983	19.2	12.4	10.6	6.8	13.5	7.7	18.2
1984	18.4	11.8	10.2	6.5	12.7	7.3	17.4
1985	18.2	12.1	10.3	6.1	12.6	7.1	17.4
1986	18.0	11.7	10.1	6.3	12.5	7.0	17.0
1987	17.9	11.7	10.0	6.1	12.8	7.0	16.9
1988	17.6	11.5	9.8	6.2	12.7	6.8	16.5
1989	17.7	11.3	9.6	6.4	12.8	6.7	16.2
Race of mother <sup>7</sup> : White							
1980	10.9	7.4	6.1	3.5	8.0	5.6	11.7
1981	10.3	7.0	5.8	3.4	7.9	5.4	11.2
1982	9.9	6.7	5.6	3.2	7.8	5.3	10.9
1983	9.6	6.3	5.3	3.3	7.3	4.9	10.2
1984	9.3	6.1	5.1	3.2	7.2	4.7	9.8
1985	9.2	6.0	5.0	3.2	6.9	4.5	9.4
1986	8.8	5.7	4.7	3.1	6.6	4.2	8.9
1987	8.5	5.4	4.5	3.1	6.5	4.1	8.5
1988	8.4	5.3	4.3	3.1	6.3	3.9	8.2
1989	8.1	5.1	4.2	2.9	6.3	3.9	8.1

See footnotes at end of table.



**Table 18 (page 2 of 2). Infant mortality rates, fetal death rates, and perinatal mortality rates, according to race: United States, selected years 1950–90**

[Data are based on the National Vital Statistics System]

Race and year	Infant mortality rate <sup>1</sup>						
	Neonatal			Postneonatal	Fetal death rate <sup>2</sup>	Late fetal death rate <sup>3</sup>	Perinatal mortality rate <sup>4</sup>
	Total	Under 28 days	Under 7 days				
Race of mother <sup>7</sup> : Black	Deaths per 1,000 live births						
1980.....	22.2	14.6	12.3	7.6	15.0	9.3	21.5
1981.....	20.8	14.0	11.8	6.8	14.3	8.5	20.2
1982.....	20.5	13.6	11.6	6.9	14.3	8.5	19.9
1983.....	20.0	12.9	11.1	7.0	14.0	8.0	19.0
1984.....	19.2	12.3	10.6	6.8	13.3	7.6	18.1
1985.....	19.0	12.6	10.8	6.4	13.1	7.4	18.1
1986.....	18.9	12.3	10.6	6.6	13.1	7.3	17.8
1987.....	18.8	12.3	10.5	6.4	13.5	7.3	17.7
1988.....	18.5	12.1	10.3	6.5	13.4	7.2	17.4
1989.....	18.6	11.9	10.1	6.7	13.5	7.1	17.1

<sup>1</sup>Infant mortality rate is number of deaths of infants under 1 year per 1,000 live births. Neonatal deaths occur within 28 days of birth; postneonatal deaths occur 28–365 days after birth. Deaths within 7 days are early neonatal deaths.

<sup>2</sup>Number of deaths of fetuses of 20 weeks or more gestation per 1,000 live births plus fetal deaths.

<sup>3</sup>Number of fetal deaths of 28 weeks or more gestation per 1,000 live births plus late fetal deaths.

<sup>4</sup>Number of late fetal deaths plus infant deaths within 7 days of birth per 1,000 live births plus late fetal deaths.

<sup>5</sup>Includes births and deaths of nonresidents of the United States.

<sup>6</sup>Deaths are tabulated by race of decedent; live births are tabulated by race of child (see Appendix II).

<sup>7</sup>Deaths are tabulated by race of decedent; live births are tabulated by race of mother (see Appendix II).

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service. Washington. U.S. Government Printing Office. Births, marriages, divorces, and deaths for 1990. Monthly Vital Statistics Report, Vol. 39, No. 12. DHHS Pub. No. (PHS) 91-1120. April 8, 1991; and Annual summary of births, marriages, divorces, and deaths, United States, 1990. Monthly Vital Statistics Report, Vol. 39, No. 13. DHHS Pub. No. (PHS) 91-1120. 1991. Public Health Service. Hyattsville, Md.; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.

**Table 19. Infant, neonatal, and postneonatal mortality rates, according to race and Hispanic origin of mother: United States, 1960 and 1983–86 birth cohorts**

[Data are based on the National Linked Files of Births and Infant Deaths]

Race and Hispanic origin of mother	Birth cohort					
	1960 <sup>1</sup>	1983	1984	1985	1986	1984–86
	Infant deaths per 1,000 live births					
All mothers . . . . .	25.1	10.9	10.4	10.4	10.1	10.3
White . . . . .	22.2	9.3	8.9	8.9	8.5	8.8
Black . . . . .	42.1	19.2	18.2	18.6	18.2	18.3
American Indian or Alaskan Native . . . . .	---	15.2	13.4	13.1	13.9	13.5
Asian or Pacific Islander . . . . .	---	8.3	8.9	7.8	7.8	8.1
Chinese . . . . .	---	9.5	7.2	5.8	5.9	6.3
Japanese . . . . .	---	*	*	*6.0	*7.2	6.5
Filipino . . . . .	---	8.4	8.5	7.7	7.2	7.8
Other Asian or Pacific Islander <sup>2</sup> . . . . .	---	8.3	9.7	8.6	8.6	8.9
Hispanic origin <sup>3,4</sup> . . . . .	---	9.5	9.3	8.8	8.4	8.8
Mexican American . . . . .	---	9.1	8.9	8.5	7.9	8.5
Puerto Rican . . . . .	---	12.9	12.9	11.1	11.7	11.9
Cuban . . . . .	---	*7.5	*8.1	8.5	*7.5	8.0
Central and South American . . . . .	---	8.5	8.3	8.0	7.8	8.0
Other and unknown Hispanic . . . . .	---	10.6	9.6	9.5	9.2	9.4
Non-Hispanic white <sup>4</sup> . . . . .	---	9.2	8.7	8.7	8.4	8.6
Non-Hispanic black <sup>4</sup> . . . . .	---	19.1	18.1	18.3	18.0	18.2
	Neonatal deaths per 1,000 live births					
All mothers . . . . .	18.4	7.1	6.8	6.8	6.5	6.7
White . . . . .	16.9	6.1	5.8	5.8	5.5	5.7
Black . . . . .	27.3	12.5	11.9	12.3	11.9	12.0
American Indian or Alaskan Native . . . . .	---	7.5	6.4	6.1	6.1	6.2
Asian or Pacific Islander . . . . .	---	5.2	5.7	4.8	4.8	5.1
Chinese . . . . .	---	5.5	4.4	3.3	3.1	3.6
Japanese . . . . .	---	*	*	*3.1	*4.7	3.8
Filipino . . . . .	---	5.6	5.3	5.1	4.9	5.1
Other Asian or Pacific Islander <sup>2</sup> . . . . .	---	5.2	6.5	5.4	5.3	5.7
Hispanic origin <sup>3,4</sup> . . . . .	---	6.2	6.2	5.7	5.5	5.8
Mexican American . . . . .	---	5.9	5.8	5.4	5.1	5.4
Puerto Rican . . . . .	---	8.7	8.6	7.6	7.6	7.9
Cuban . . . . .	---	*5.0	*6.4	6.2	*5.1	5.9
Central and South American . . . . .	---	5.8	5.9	5.6	5.2	5.5
Other and unknown Hispanic . . . . .	---	6.4	6.5	5.6	6.0	6.0
Non-Hispanic white <sup>4</sup> . . . . .	---	6.0	5.7	5.7	5.4	5.6
Non-Hispanic black <sup>4</sup> . . . . .	---	12.1	11.5	11.9	11.5	11.7
	Postneonatal deaths per 1,000 live births					
All mothers . . . . .	6.7	3.8	3.6	3.6	3.6	3.6
White . . . . .	5.3	3.2	3.1	3.1	3.0	3.1
Black . . . . .	14.8	6.7	6.3	6.3	6.3	6.3
American Indian or Alaskan Native . . . . .	---	7.7	7.0	7.0	7.8	7.3
Asian or Pacific Islander . . . . .	---	3.1	3.1	2.9	3.0	3.0
Chinese . . . . .	---	*	*	*2.5	*2.8	2.7
Japanese . . . . .	---	*	*	*	*2.5	2.7
Filipino . . . . .	---	*2.8	*3.2	*2.7	2.3	2.7
Other Asian or Pacific Islander <sup>2</sup> . . . . .	---	3.1	3.2	3.1	3.3	3.2
Hispanic origin <sup>3,4</sup> . . . . .	---	3.3	3.1	3.2	2.9	3.1
Mexican American . . . . .	---	3.2	3.2	3.2	2.8	3.0
Puerto Rican . . . . .	---	4.2	4.3	3.5	4.2	4.0
Cuban . . . . .	---	*	*1.7	*	*2.4	2.1
Central and South American . . . . .	---	2.6	2.4	2.4	2.6	2.5
Other and unknown Hispanic . . . . .	---	4.2	3.1	3.9	3.2	3.4
Non-Hispanic white <sup>4</sup> . . . . .	---	3.2	3.0	3.0	3.0	3.0
Non-Hispanic black <sup>4</sup> . . . . .	---	7.0	6.6	6.4	6.5	6.5

<sup>1</sup>Data are shown by race of child in 1960.

<sup>2</sup>Includes Hawaiians and part Hawaiians.

<sup>3</sup>Includes mothers of all races.

<sup>4</sup>Data shown only for States with an Hispanic-origin item on their birth certificates. In 1983–86, 23 States and the District of Columbia included this item.

\*Infant and neonatal mortality rates for groups with fewer than 10,000 births are considered unreliable. Postneonatal mortality rates for groups with fewer than 20,000 births are considered unreliable. Infant and neonatal mortality rates for groups with fewer than 7,500 births are considered highly unreliable and are not shown. Postneonatal mortality rates for groups with fewer than 15,000 births are considered highly unreliable and are not shown.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics on the national linked files of births and infant deaths.



**Table 20. Infant mortality rates, according to birthweight, race, and Hispanic origin of mother: United States, 1960 and 1983–86 birth cohorts**

[Data are based on the National Linked Files of Births and Infant Deaths]

Birthweight, race, and Hispanic origin of mother	Birth cohort					
	1960 <sup>1</sup>	1983	1984	1985	1986	1984–86
Birthweight less than 1,500 grams						
All mothers . . . . .	752.6	393.6	383.5	381.0	364.8	376.3
White . . . . .	769.4	402.4	389.5	385.1	369.8	381.4
Black . . . . .	706.4	378.7	372.5	370.5	353.6	365.3
American Indian or Alaskan Native . . . . .	---	376.1	356.7	388.9	422.6	389.7
Asian or Pacific Islander . . . . .	---	352.9	363.4	384.4	347.2	364.8
Chinese . . . . .	---	*	*	*369.6	*	331.1
Japanese . . . . .	---	*	*	*238.8	*	290.2
Filipino . . . . .	---	*321.0	*287.3	*350.9	*285.7	307.1
Other Asian or Pacific Islander <sup>2</sup> . . . . .	---	342.4	408.7	414.9	370.4	397.7
Hispanic origin <sup>3,4</sup> . . . . .	---	382.2	381.7	359.8	347.1	362.1
Mexican American . . . . .	---	387.1	395.8	360.2	352.3	368.5
Puerto Rican . . . . .	---	389.9	364.7	351.6	347.6	354.5
Cuban . . . . .	---	*	*	*	*	365.3
Central and South American . . . . .	---	331.2	342.1	347.7	313.2	333.1
Other and unknown Hispanic . . . . .	---	380.6	368.1	372.3	356.5	364.7
Non-Hispanic white <sup>4</sup> . . . . .	---	398.8	387.4	384.0	369.4	380.2
Non-Hispanic black <sup>4</sup> . . . . .	---	372.0	370.6	360.3	345.7	358.5
Birthweight 1,500–2,499 grams						
All mothers . . . . .	91.9	30.0	28.9	27.8	27.2	28.0
White . . . . .	93.9	31.3	30.8	28.9	28.1	29.3
Black . . . . .	85.1	26.6	24.4	25.1	24.2	24.6
American Indian or Alaskan Native . . . . .	---	*44.7	*45.8	*42.7	*51.6	46.7
Asian or Pacific Islander . . . . .	---	25.3	23.8	22.5	25.5	24.0
Chinese . . . . .	---	*	*	*	*	29.9
Japanese . . . . .	---	*	*	*	*	22.2
Filipino . . . . .	---	*	*	*	*	17.9
Other Asian or Pacific Islander <sup>2</sup> . . . . .	---	25.8	25.5	22.5	27.6	25.3
Hispanic origin <sup>3,4</sup> . . . . .	---	26.8	29.1	27.3	25.9	27.4
Mexican American . . . . .	---	28.0	29.9	27.8	27.9	28.5
Puerto Rican . . . . .	---	24.5	28.0	26.5	22.9	25.7
Cuban . . . . .	---	*	*	*	*	24.0
Central and South American . . . . .	---	*24.0	*25.4	*22.4	24.1	23.9
Other and unknown Hispanic . . . . .	---	28.9	29.3	30.5	22.5	27.2
Non-Hispanic white <sup>4</sup> . . . . .	---	31.7	30.2	28.8	28.6	29.2
Non-Hispanic black <sup>4</sup> . . . . .	---	26.7	23.4	26.1	24.5	24.7
Birthweight 2,500 grams or more						
All mothers . . . . .	11.2	4.5	4.3	4.2	4.1	4.2
White . . . . .	9.7	4.1	3.9	3.9	3.7	3.8
Black . . . . .	20.2	6.9	6.3	6.2	6.2	6.2
American Indian or Alaskan Native . . . . .	---	9.1	7.6	7.3	7.5	7.4
Asian or Pacific Islander . . . . .	---	3.8	4.1	3.2	3.4	3.6
Chinese . . . . .	---	*	*	*2.6	*2.5	2.8
Japanese . . . . .	---	*	*	*	*	2.9
Filipino . . . . .	---	*	*4.5	*3.4	*3.6	3.9
Other Asian or Pacific Islander <sup>2</sup> . . . . .	---	3.7	4.2	3.5	3.6	3.7
Hispanic origin <sup>3,4</sup> . . . . .	---	4.2	3.9	3.8	3.5	3.7
Mexican American . . . . .	---	4.1	3.9	3.7	3.3	3.6
Puerto Rican . . . . .	---	5.5	5.2	4.5	4.8	4.8
Cuban . . . . .	---	*	*	*	*	3.0
Central and South American . . . . .	---	3.5	3.3	3.3	3.2	3.3
Other and unknown Hispanic . . . . .	---	4.6	4.0	4.2	3.9	4.0
Non-Hispanic white <sup>4</sup> . . . . .	---	4.1	3.8	3.8	3.7	3.8
Non-Hispanic black <sup>4</sup> . . . . .	---	7.1	6.5	6.2	6.4	6.4

<sup>1</sup>Data are shown by race of child in 1960.

<sup>2</sup>Includes Hawaiians and part Hawaiians.

<sup>3</sup>Includes mothers of all races.

<sup>4</sup>Data shown only for States with an Hispanic-origin item on their birth certificates. In 1983–86, 23 States and the District of Columbia included this item.

\*Birthweight specific infant mortality rates are considered unreliable for groups with fewer than 200 births with birthweight less than 1,500 grams, fewer than 2,000 births with birthweight 1,500–2,499 grams, and fewer than 20,000 births with birthweight 2,500 grams or more. Birthweight specific infant mortality rates are considered highly unreliable and are not shown for groups with fewer than 150 births with birthweight less than 1,500 grams, fewer than 1,500 births with birthweight 1,500–2,499 grams, and fewer than 15,000 births with birthweight 2,500 grams or more.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics on the national linked files of births and infant deaths.

**Table 21. Infant mortality rates, according to race, geographic division, and State: United States, average annual 1977-79, 1982-84, and 1987-89**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White <sup>1</sup>			Black <sup>1</sup>		
	1977-79	1982-84	1987-89	1977-79	1982-84	1987-89	1977-79	1982-84	1987-89
	Infant deaths per 1,000 live births								
United States . . . . .	13.6	11.2	9.9	11.8	9.6	8.3	23.6	19.9	18.6
New England . . . . .	11.5	9.7	8.1	10.7	9.1	7.3	23.2	20.2	17.7
Maine . . . . .	9.9	8.7	7.8	9.9	8.6	7.8	*	*	*
New Hampshire . . . . .	10.4	9.9	8.0	10.4	9.9	8.0	*	*	*
Vermont . . . . .	10.7	8.9	7.4	10.6	8.9	7.4	*	*	*
Massachusetts . . . . .	11.3	9.4	7.6	10.8	8.8	6.8	20.3	18.5	16.7
Rhode Island . . . . .	13.3	10.5	8.9	11.9	9.8	8.4	*36.1	*20.7	*15.9
Connecticut . . . . .	12.4	10.5	8.8	10.9	9.2	7.4	24.3	21.5	19.5
Middle Atlantic . . . . .	13.8	11.4	10.3	11.8	9.7	8.2	23.3	19.5	19.7
New York . . . . .	14.0	11.6	10.7	11.9	10.0	8.7	22.7	18.1	18.7
New Jersey . . . . .	13.4	11.4	9.5	10.8	9.3	7.3	24.1	20.3	19.2
Pennsylvania . . . . .	13.7	11.1	10.1	12.2	9.5	8.0	24.1	22.4	22.8
East North Central . . . . .	13.8	11.6	10.5	12.0	9.7	8.5	25.0	22.6	20.4
Ohio . . . . .	13.3	11.0	9.6	12.0	9.7	8.3	22.2	19.8	17.3
Indiana . . . . .	13.4	11.3	10.4	12.3	10.4	9.3	23.4	19.9	20.5
Illinois . . . . .	15.6	12.7	11.6	12.5	9.9	8.9	27.8	24.0	21.5
Michigan . . . . .	13.7	11.9	11.0	11.7	9.5	8.3	24.5	24.5	22.4
Wisconsin . . . . .	11.1	9.7	8.7	10.6	8.9	7.8	19.0	19.7	17.0
West North Central . . . . .	12.6	10.0	8.9	11.6	9.2	8.0	26.2	20.1	18.6
Minnesota . . . . .	11.3	9.4	7.8	10.8	9.1	7.1	*31.1	*22.7	22.8
Iowa . . . . .	11.8	9.3	8.7	11.5	9.1	8.2	*26.5	*23.0	*22.6
Missouri . . . . .	14.2	10.9	10.1	12.1	9.4	8.7	26.5	20.0	17.5
North Dakota . . . . .	13.0	9.2	9.1	12.2	8.6	8.4	*	*	*
South Dakota . . . . .	13.6	10.3	9.9	12.0	8.4	8.1	*	*	*
Nebraska . . . . .	12.4	9.8	8.5	11.8	9.4	7.7	*25.0	*17.8	*20.6
Kansas . . . . .	12.4	10.3	8.7	11.5	9.6	7.8	23.3	19.3	18.9
South Atlantic . . . . .	15.5	12.7	11.3	12.2	9.9	8.6	23.6	20.1	18.5
Delaware . . . . .	14.6	11.6	11.8	11.4	8.9	9.2	25.7	20.5	20.5
Maryland . . . . .	14.5	11.8	11.0	11.5	9.1	8.3	22.4	18.8	17.7
District of Columbia . . . . .	25.6	20.5	21.9	*10.9	8.3	14.4	28.9	23.5	25.3
Virginia . . . . .	14.7	12.3	10.2	12.3	10.0	7.8	23.0	20.4	18.2
West Virginia . . . . .	14.5	11.1	9.4	14.2	10.9	9.1	*24.4	*17.4	*18.7
North Carolina . . . . .	15.8	13.1	11.9	12.1	10.3	9.1	24.6	20.0	18.8
South Carolina . . . . .	17.7	15.3	12.6	12.9	11.4	9.4	25.2	21.6	17.9
Georgia . . . . .	15.3	13.0	12.5	11.9	9.8	9.4	21.6	19.0	18.5
Florida . . . . .	14.8	11.9	10.3	12.0	9.4	8.1	23.0	20.0	17.8
East South Central . . . . .	15.2	12.9	11.3	12.3	10.4	8.9	23.1	19.7	17.7
Kentucky . . . . .	12.9	11.7	9.9	12.1	11.1	9.2	21.3	19.0	16.7
Tennessee . . . . .	14.6	12.2	11.1	12.6	10.2	8.5	21.8	19.7	19.2
Alabama . . . . .	15.8	13.3	12.1	12.3	10.1	9.1	22.5	19.5	17.9
Mississippi . . . . .	18.1	15.0	12.5	11.8	10.3	9.0	24.9	20.2	16.4
West South Central . . . . .	14.5	11.2	9.6	12.5	9.9	8.2	23.2	17.6	15.9
Arkansas . . . . .	15.0	10.5	10.4	12.6	8.7	8.6	22.4	16.6	16.6
Louisiana . . . . .	16.9	12.8	11.4	12.3	9.3	8.4	24.2	18.9	16.1
Oklahoma . . . . .	13.4	11.4	9.1	12.2	10.9	8.5	21.4	16.6	14.1
Texas . . . . .	13.9	10.8	9.1	12.5	10.0	8.1	22.8	16.9	15.8
Mountain . . . . .	12.1	9.8	9.2	11.5	9.5	8.7	24.1	18.9	19.3
Montana . . . . .	12.0	9.3	10.0	11.3	9.1	9.1	*	*	*
Idaho . . . . .	11.0	10.2	9.6	11.0	10.1	9.3	*	*	*
Wyoming . . . . .	13.4	10.2	9.2	13.3	10.2	9.1	*	*	*
Colorado . . . . .	11.3	9.8	9.4	11.0	9.5	9.1	20.4	17.7	16.5
New Mexico . . . . .	14.0	10.3	8.9	12.9	10.0	8.3	*28.7	*14.4	*22.6
Arizona . . . . .	13.4	9.5	9.5	12.2	8.8	8.9	*26.0	20.0	21.4
Utah . . . . .	10.7	9.7	8.3	10.6	9.6	8.0	*	*	*
Nevada . . . . .	12.9	10.5	8.7	11.9	9.9	7.7	*23.2	*19.0	20.0
Pacific . . . . .	11.8	9.8	8.8	11.0	9.2	8.1	21.7	18.7	18.9
Washington . . . . .	12.0	10.1	9.3	11.6	9.6	8.7	22.4	24.4	20.6
Oregon . . . . .	11.9	10.0	9.3	11.7	9.8	9.1	*22.6	*17.6	*21.4
California . . . . .	11.7	9.7	8.7	10.8	9.1	8.0	21.6	18.3	18.8
Alaska . . . . .	15.2	11.6	10.4	13.2	9.4	8.0	*	*23.3	*15.7
Hawaii . . . . .	10.9	9.4	8.1	7.9	6.8	5.5	*	*19.8	*14.4

<sup>1</sup>Deaths are tabulated by race of decedent; live births are tabulated by race of mother.

\*Data for States with fewer than 5,000 live births for the 3-year period are considered unreliable. Data for States with fewer than 1,000 live births are considered highly unreliable and are not shown.

SOURCE: National Center for Health Statistics; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.



**Table 22. Neonatal mortality rates, according to race, geographic division, and State: United States, average annual 1977-79, 1982-84, and 1987-89**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White <sup>1</sup>			Black <sup>1</sup>		
	1977-79	1982-84	1987-89	1977-79	1982-84	1987-89	1977-79	1982-84	1987-89
Neonatal deaths per 1,000 live births									
United States . . . . .	9.4	7.3	6.3	8.2	6.4	5.3	15.8	13.0	12.1
New England . . . . .	8.5	7.0	5.6	8.0	6.5	5.1	17.2	14.6	12.5
Maine . . . . .	6.0	5.7	5.1	6.0	5.7	5.0	*	*	*
New Hampshire . . . . .	7.9	7.2	5.2	7.9	7.1	5.2	*	*	*
Vermont . . . . .	7.4	5.9	4.7	7.3	5.9	4.8	*	*	*
Massachusetts . . . . .	8.5	6.7	5.3	8.1	6.3	4.8	15.1	12.9	11.7
Rhode Island . . . . .	9.7	8.0	6.7	8.9	7.6	6.2	*22.5	*14.2	*11.7
Connecticut . . . . .	9.7	7.9	6.3	8.5	6.9	5.3	18.5	16.2	13.9
Middle Atlantic . . . . .	10.1	7.9	7.0	8.8	6.9	5.7	16.2	12.6	13.0
New York . . . . .	10.1	7.9	7.3	8.8	7.1	6.0	15.7	11.6	12.5
New Jersey . . . . .	9.7	7.8	6.4	8.2	6.7	5.1	16.2	12.5	12.3
Pennsylvania . . . . .	10.3	7.8	7.0	9.3	6.7	5.7	17.4	15.3	15.1
East North Central . . . . .	9.5	7.8	6.7	8.4	6.6	5.5	16.6	14.9	13.1
Ohio . . . . .	9.4	7.4	6.1	8.5	6.6	5.3	15.4	13.1	10.5
Indiana . . . . .	9.2	7.4	6.4	8.4	6.8	5.7	15.8	13.0	13.1
Illinois . . . . .	10.9	8.5	7.5	9.0	6.9	5.9	18.1	15.0	13.4
Michigan . . . . .	9.4	8.3	7.4	8.0	6.5	5.4	16.6	17.7	16.1
Wisconsin . . . . .	7.4	6.3	5.2	7.2	5.8	4.7	11.1	12.1	9.6
West North Central . . . . .	9.0	6.4	5.3	8.3	5.9	4.8	18.1	12.6	11.1
Minnesota . . . . .	7.8	5.9	4.7	7.6	5.8	4.3	*19.0	*13.9	14.3
Iowa . . . . .	8.6	5.9	5.5	8.4	5.8	5.3	*18.2	*14.6	*13.1
Missouri . . . . .	10.1	7.0	6.2	8.7	6.0	5.5	18.6	12.9	10.4
North Dakota . . . . .	9.7	5.8	5.1	9.3	5.6	4.9	*	*	*
South Dakota . . . . .	9.1	6.1	5.0	8.7	5.5	4.7	*	*	*
Nebraska . . . . .	8.8	6.5	4.8	8.4	6.3	4.4	*16.4	*10.7	*11.6
Kansas . . . . .	9.0	6.5	5.1	8.4	6.1	4.5	16.4	11.3	11.2
South Atlantic . . . . .	10.7	8.6	7.5	8.7	6.7	5.6	15.7	13.5	12.5
Delaware . . . . .	10.9	8.2	8.6	8.3	6.5	6.8	19.7	14.0	14.7
Maryland . . . . .	10.7	8.2	7.4	8.5	6.2	5.4	16.4	13.3	12.3
District of Columbia . . . . .	19.4	15.3	16.0	*8.7	6.2	8.8	21.8	17.6	18.9
Virginia . . . . .	10.6	8.8	6.9	8.8	7.0	5.1	16.6	14.8	12.7
West Virginia . . . . .	9.9	7.1	6.3	9.6	7.0	6.2	*17.6	*12.1	*9.9
North Carolina . . . . .	11.0	8.8	7.9	8.7	6.9	5.9	16.4	13.5	12.8
South Carolina . . . . .	12.0	10.1	8.3	9.2	7.6	6.1	16.2	14.1	11.8
Georgia . . . . .	10.0	8.7	8.3	8.2	6.6	6.1	13.2	12.7	12.3
Florida . . . . .	10.0	7.8	6.7	8.4	6.4	5.3	14.6	12.6	11.6
East South Central . . . . .	10.3	8.5	7.2	8.5	7.0	5.6	15.1	12.5	11.4
Kentucky . . . . .	8.7	7.7	5.8	8.2	7.3	5.4	14.4	12.4	10.5
Tennessee . . . . .	10.1	8.1	7.0	8.7	6.6	5.2	15.4	13.4	12.6
Alabama . . . . .	10.5	8.8	8.1	8.5	7.0	6.2	14.2	12.1	11.6
Mississippi . . . . .	12.1	9.5	7.8	8.6	7.0	5.8	15.9	12.4	10.2
West South Central . . . . .	9.8	7.1	5.9	8.6	6.3	5.1	15.3	11.1	9.9
Arkansas . . . . .	9.4	6.3	6.1	8.2	5.3	5.1	13.1	9.3	9.6
Louisiana . . . . .	11.8	8.5	7.3	9.0	6.3	5.4	16.2	12.2	10.4
Oklahoma . . . . .	8.6	7.1	5.3	8.1	6.8	5.1	12.6	10.5	7.8
Texas . . . . .	9.5	6.8	5.6	8.6	6.3	5.0	15.5	10.6	9.9
Mountain . . . . .	7.8	5.8	5.2	7.6	5.7	5.0	15.8	11.1	12.1
Montana . . . . .	7.8	5.1	4.9	7.7	5.0	4.8	*	*	*
Idaho . . . . .	6.9	5.7	5.4	6.9	5.7	5.3	*	*	*
Wyoming . . . . .	8.3	6.0	5.2	8.3	5.9	5.2	*	*	*
Colorado . . . . .	6.9	5.8	5.6	6.7	5.6	5.4	13.8	11.6	11.4
New Mexico . . . . .	9.2	6.0	5.5	8.9	6.1	5.2	*17.9	*7.5	*14.2
Arizona . . . . .	8.9	5.7	5.8	8.6	5.7	5.5	*17.9	11.5	14.2
Utah . . . . .	7.1	5.9	4.1	7.1	5.9	4.1	*	*	*
Nevada . . . . .	8.0	6.0	4.2	7.2	5.9	3.7	*14.7	*9.5	9.8
Pacific . . . . .	7.6	6.0	5.2	7.1	5.7	4.8	14.1	11.8	11.1
Washington . . . . .	7.4	5.6	4.9	7.3	5.4	4.7	12.8	14.2	11.1
Oregon . . . . .	7.4	5.5	5.0	7.3	5.4	5.0	*13.6	*9.2	*9.6
California . . . . .	7.7	6.2	5.3	7.1	5.8	4.9	14.1	11.7	11.2
Alaska . . . . .	9.2	6.2	4.9	8.6	5.2	4.0	*	*15.0	*8.9
Hawaii . . . . .	7.4	6.2	4.9	5.3	4.4	3.0	*	*10.2	*9.4

<sup>1</sup>Deaths are tabulated by race of decedent; live births are tabulated by race of mother.

\*Data for States with fewer than 5,000 live births for the 3-year period are considered unreliable. Data for States with fewer than 1,000 live births are considered highly unreliable and are not shown.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.

**Table 23. Postneonatal mortality rates, according to race, geographic division, and State: United States, average annual 1977-79, 1982-84, and 1987-89**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White <sup>1</sup>			Black <sup>1</sup>		
	1977-79	1982-84	1987-89	1977-79	1982-84	1987-89	1977-79	1982-84	1987-89
Postneonatal deaths per 1,000 live births									
United States . . . . .	4.2	3.8	3.6	3.5	3.3	3.0	7.8	6.9	6.5
New England . . . . .	3.0	2.7	2.5	2.8	2.5	2.2	6.0	5.6	5.2
Maine . . . . .	3.8	3.0	2.8	3.8	3.0	2.7	*	*	*
New Hampshire . . . . .	2.5	2.8	2.8	2.5	2.8	2.8	*	*	*
Vermont . . . . .	3.3	3.0	2.7	3.3	3.0	2.6	*	*	*
Massachusetts . . . . .	2.8	2.7	2.3	2.7	2.5	2.1	5.3	5.6	5.0
Rhode Island . . . . .	3.6	2.5	2.3	3.0	2.3	2.2	*	*6.5	*4.2
Connecticut . . . . .	2.7	2.6	2.5	2.4	2.3	2.1	5.7	5.3	5.6
Middle Atlantic . . . . .	3.7	3.5	3.3	3.0	2.8	2.5	7.2	6.9	6.7
New York . . . . .	3.9	3.6	3.4	3.1	2.9	2.6	7.1	6.6	6.2
New Jersey . . . . .	3.7	3.6	3.1	2.6	2.6	2.2	7.9	7.8	7.0
Pennsylvania . . . . .	3.4	3.3	3.1	3.0	2.8	2.4	6.7	7.1	7.7
East North Central . . . . .	4.3	3.8	3.8	3.6	3.1	3.1	8.4	7.7	7.3
Ohio . . . . .	4.0	3.6	3.6	3.6	3.1	3.0	6.9	6.7	6.9
Indiana . . . . .	4.3	3.9	4.0	3.9	3.5	3.6	7.6	6.9	7.4
Illinois . . . . .	4.7	4.2	4.0	3.5	2.9	2.9	9.7	9.0	8.1
Michigan . . . . .	4.4	3.6	3.6	3.7	3.0	3.0	7.9	6.8	6.3
Wisconsin . . . . .	3.7	3.4	3.5	3.4	3.1	3.0	7.9	7.5	7.5
West North Central . . . . .	3.7	3.6	3.6	3.3	3.3	3.1	8.0	7.4	7.6
Minnesota . . . . .	3.5	3.5	3.2	3.2	3.3	2.8	*12.1	*8.8	*8.6
Iowa . . . . .	3.3	3.4	3.2	3.2	3.3	3.0	*8.3	*8.4	*9.4
Missouri . . . . .	4.1	3.9	3.9	3.4	3.4	3.3	7.9	7.1	7.1
North Dakota . . . . .	3.3	3.4	4.0	3.0	2.9	3.5	*	*	*
South Dakota . . . . .	4.5	4.2	4.9	3.2	2.9	3.4	*	*	*
Nebraska . . . . .	3.7	3.3	3.7	3.4	3.1	3.3	*8.5	*7.1	*9.0
Kansas . . . . .	3.4	3.8	3.7	3.1	3.5	3.3	*6.8	*8.0	*7.7
South Atlantic . . . . .	4.8	4.1	3.8	3.6	3.2	3.0	7.8	6.5	6.0
Delaware . . . . .	3.8	3.4	3.2	3.2	2.4	2.5	*6.0	*6.5	*5.8
Maryland . . . . .	3.8	3.6	3.6	2.9	2.8	2.9	6.0	5.5	5.4
District of Columbia . . . . .	6.2	5.2	5.9	*2.1	*2.2	*5.6	7.1	5.9	6.5
Virginia . . . . .	4.2	3.5	3.3	3.5	3.0	2.7	6.4	5.6	5.5
West Virginia . . . . .	4.6	4.0	3.1	4.6	4.0	2.9	*6.8	*5.3	*8.7
North Carolina . . . . .	4.9	4.3	4.0	3.4	3.4	3.2	8.2	6.5	6.0
South Carolina . . . . .	5.8	5.2	4.3	3.6	3.7	3.2	9.1	7.5	6.1
Georgia . . . . .	5.3	4.3	4.3	3.7	3.2	3.3	8.3	6.4	6.2
Florida . . . . .	4.9	4.1	3.6	3.7	3.0	2.8	8.5	7.4	6.3
East South Central . . . . .	4.9	4.5	4.2	3.8	3.5	3.3	8.0	7.2	6.3
Kentucky . . . . .	4.2	4.0	4.0	3.9	3.8	3.8	6.8	6.6	6.2
Tennessee . . . . .	4.5	4.1	4.1	3.9	3.5	3.3	6.4	6.2	6.6
Alabama . . . . .	5.3	4.5	4.1	3.7	3.0	2.9	8.3	7.4	6.3
Mississippi . . . . .	6.0	5.5	4.7	3.2	3.4	3.2	9.0	7.8	6.2
West South Central . . . . .	4.7	4.1	3.7	3.9	3.6	3.2	7.9	6.5	6.0
Arkansas . . . . .	5.6	4.3	4.3	4.4	3.4	3.5	9.3	7.3	7.1
Louisiana . . . . .	5.1	4.4	4.1	3.4	3.1	3.1	8.0	6.7	5.7
Oklahoma . . . . .	4.8	4.3	3.8	4.1	4.1	3.5	8.8	6.1	6.3
Texas . . . . .	4.4	4.0	3.5	3.9	3.7	3.1	7.4	6.3	5.9
Mountain . . . . .	4.3	4.0	3.9	3.9	3.8	3.7	8.2	7.8	7.2
Montana . . . . .	4.2	4.2	5.1	3.6	4.0	4.3	*	*	*
Idaho . . . . .	4.1	4.5	4.2	4.1	4.4	4.1	*	*	*
Wyoming . . . . .	5.1	4.2	3.9	5.0	4.3	3.9	*	*	*
Colorado . . . . .	4.4	4.0	3.8	4.3	4.0	3.8	*6.6	*6.1	*5.1
New Mexico . . . . .	4.8	4.3	3.4	4.0	3.9	3.1	*	*	*
Arizona . . . . .	4.5	3.7	3.7	3.6	3.1	3.4	*8.1	*8.5	*7.2
Utah . . . . .	3.6	3.7	4.1	3.5	3.7	4.0	*	*	*
Nevada . . . . .	5.0	4.5	4.5	4.7	4.1	4.0	*8.5	*9.5	*10.2
Pacific . . . . .	4.1	3.7	3.6	3.9	3.5	3.3	7.6	6.9	7.7
Washington . . . . .	4.6	4.5	4.3	4.4	4.2	4.0	*9.6	*10.2	*9.5
Oregon . . . . .	4.6	4.5	4.2	4.4	4.4	4.1	*9.0	*8.3	*11.9
California . . . . .	4.0	3.5	3.4	3.7	3.3	3.1	7.5	6.6	7.6
Alaska . . . . .	6.0	5.3	5.4	4.6	4.1	4.0	*	*	*
Hawaii . . . . .	3.5	3.2	3.2	2.6	2.4	2.5	*	*	*5.0

<sup>1</sup>Deaths are tabulated by race of decedent; live births are tabulated by race of mother.

\*Data for States with fewer than 10,000 live births for the 3-year period are considered unreliable. Data for States with fewer than 2,000 live births are considered highly unreliable and are not shown.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.



**Table 24. Fetal death rates, according to race, geographic division, and State: United States, average annual 1977–79, 1982–84, and 1987–89**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White <sup>1</sup>			Black <sup>1</sup>		
	1977–79	1982–84	1987–89	1977–79	1982–84	1987–89	1977–79	1982–84	1987–89
	Fetal deaths <sup>2</sup> per 1,000 live births plus fetal deaths								
United States . . . . .	9.6	8.4	7.5	8.4	7.4	6.4	15.9	13.9	13.5
New England . . . . .	7.6	7.1	6.3	7.3	6.6	5.8	11.6	13.9	13.0
Maine . . . . .	7.3	6.9	6.0	7.1	6.9	5.7	*	*	*
New Hampshire . . . . .	6.7	6.3	6.4	6.7	6.4	6.2	*	*	*
Vermont . . . . .	7.2	7.0	5.7	7.2	6.9	5.7	*	*	*
Massachusetts . . . . .	7.1	7.1	5.9	7.0	6.6	5.4	8.7	15.1	12.3
Rhode Island . . . . .	10.4	8.0	7.2	10.1	7.8	6.7	*16.7	*12.3	*13.8
Connecticut . . . . .	8.1	7.0	6.9	7.4	6.3	6.1	13.7	12.9	12.8
Middle Atlantic . . . . .	10.8	9.8	9.0	9.4	8.7	7.4	17.3	15.0	15.8
New York . . . . .	10.9	10.4	9.6	9.8	9.3	7.9	15.8	14.7	16.2
New Jersey . . . . .	9.5	8.2	8.0	8.1	6.9	6.4	15.5	13.9	14.4
Pennsylvania . . . . .	11.3	9.8	8.7	9.7	8.8	7.5	22.9	17.1	16.0
East North Central . . . . .	8.8	7.6	6.8	7.9	6.8	5.9	14.1	11.9	11.5
Ohio . . . . .	9.2	7.9	7.0	8.4	7.1	6.3	14.2	12.5	11.0
Indiana . . . . .	9.0	7.7	7.6	8.3	7.2	6.8	14.8	12.2	13.7
Illinois . . . . .	9.7	8.4	7.5	8.2	7.1	6.1	15.0	13.3	12.5
Michigan . . . . .	8.3	6.3	5.5	7.3	5.9	4.7	13.3	8.5	9.3
Wisconsin . . . . .	6.8	7.0	6.2	6.7	6.4	5.5	8.7	14.3	12.9
West North Central . . . . .	8.3	7.3	6.4	7.8	6.8	5.9	14.6	13.5	12.2
Minnesota . . . . .	7.5	6.7	6.2	7.3	6.4	5.8	*14.7	*14.6	15.5
Iowa . . . . .	7.4	6.8	6.5	7.1	6.7	6.2	*16.4	*14.0	*14.3
Missouri . . . . .	9.2	7.9	6.7	8.4	7.1	5.9	14.1	12.6	10.8
North Dakota . . . . .	9.0	6.8	6.2	8.7	6.3	6.0	*	*	*
South Dakota . . . . .	9.0	7.6	6.4	7.9	6.8	5.7	*	*	*
Nebraska . . . . .	8.6	7.8	6.8	8.2	7.3	6.3	*18.9	*15.9	*13.9
Kansas . . . . .	8.4	7.5	6.1	7.8	6.8	5.5	14.8	15.3	13.6
South Atlantic . . . . .	11.7	10.5	9.1	9.5	8.5	7.0	17.1	15.7	14.6
Delaware . . . . .	8.7	8.3	7.1	7.6	7.4	5.7	12.3	11.1	11.7
Maryland . . . . .	9.7	8.9	7.6	7.6	6.9	5.6	15.3	13.7	12.2
District of Columbia . . . . .	14.9	13.5	12.7	*7.6	9.0	8.4	16.4	14.6	14.7
Virginia . . . . .	13.8	11.3	9.4	11.3	9.3	7.7	22.0	18.1	15.3
West Virginia . . . . .	10.5	9.4	7.9	10.2	9.3	7.7	*18.5	*12.3	*14.1
North Carolina . . . . .	11.3	9.5	8.5	8.9	7.9	6.7	16.5	13.1	12.8
South Carolina . . . . .	12.7	12.1	10.4	9.6	8.9	7.3	17.5	17.3	15.2
Georgia . . . . .	13.9	12.7	11.3	11.5	10.1	8.2	18.2	17.6	17.0
Florida . . . . .	9.9	9.7	8.3	8.2	7.9	6.5	14.6	15.0	14.3
East South Central . . . . .	11.3	9.7	8.4	9.1	8.0	6.8	17.2	14.3	12.8
Kentucky . . . . .	9.5	8.4	8.1	8.8	7.9	7.6	16.5	14.4	13.4
Tennessee . . . . .	10.4	7.8	6.2	9.3	7.2	5.3	14.4	10.0	9.0
Alabama . . . . .	11.4	10.5	10.1	9.0	8.5	7.8	15.9	14.4	14.6
Mississippi . . . . .	14.9	13.1	10.2	9.5	9.5	6.7	20.5	17.2	14.0
West South Central . . . . .	9.4	8.2	7.1	8.3	7.3	6.2	14.2	12.1	11.0
Arkansas . . . . .	10.3	7.2	7.8	8.4	6.3	6.4	15.8	9.8	11.8
Louisiana . . . . .	10.8	9.3	8.1	7.8	7.1	6.3	15.7	13.1	10.8
Oklahoma . . . . .	9.3	8.2	7.8	8.4	7.1	6.7	15.4	11.8	14.3
Texas . . . . .	8.9	8.0	6.7	8.3	7.5	6.1	12.3	11.7	10.6
Mountain . . . . .	8.5	7.6	6.6	8.2	7.3	6.2	15.9	15.4	14.8
Montana . . . . .	8.5	7.0	7.5	7.9	6.6	6.9	*	*	*
Idaho . . . . .	7.5	7.3	6.5	7.5	7.1	6.3	*	*	*
Wyoming . . . . .	7.8	7.4	7.3	7.9	7.3	7.0	*	*	*
Colorado . . . . .	11.0	9.5	7.7	10.5	9.1	7.2	21.5	17.7	14.6
New Mexico . . . . .	8.4	7.3	4.8	8.0	7.1	4.5	*11.8	*13.0	*12.7
Arizona . . . . .	7.6	7.0	6.1	7.1	6.5	5.7	*13.7	12.2	13.6
Utah . . . . .	7.8	6.7	6.0	7.7	6.5	5.9	*	*	*
Nevada . . . . .	7.7	7.5	7.9	6.9	6.5	6.8	*11.2	*17.9	16.8
Pacific . . . . .	8.3	7.1	6.6	7.6	6.6	5.9	14.9	12.0	13.9
Washington . . . . .	7.4	6.8	5.4	7.1	6.6	5.0	13.3	12.4	12.8
Oregon . . . . .	7.7	6.5	5.7	7.5	6.4	5.6	*12.0	*10.0	*8.4
California . . . . .	8.3	7.1	6.8	7.6	6.7	6.0	14.9	11.9	14.1
Alaska . . . . .	8.5	6.3	5.6	7.2	5.8	4.1	*	*14.7	*14.8
Hawaii . . . . .	11.1	9.9	7.6	10.8	8.4	7.0	*	*17.8	*12.7

<sup>1</sup>Fetal deaths are tabulated by race of fetus; live births are tabulated by race of mother.

<sup>2</sup>Deaths of fetuses of 20 weeks or more gestation.

\*Data for States with fewer than 5,000 live births for the 3-year period are considered unreliable. Data for States with fewer than 1,000 live births are considered highly unreliable and are not shown.

SOURCE: National Center for Health Statistics: Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.

**Table 25. Infant mortality rates, feto-infant mortality rates, and postneonatal mortality rates, and average annual percent change: Selected countries, 1983 and 1988**

[Data are based on reporting by countries]

Country	Infant mortality rate <sup>1</sup>			Feto-infant mortality rate <sup>2</sup>			Postneonatal mortality rate <sup>3</sup>		
	1983	1988 <sup>4</sup>	Average annual percent change	1983	1988 <sup>5</sup>	Average annual percent change	1983	1988 <sup>6</sup>	Average annual percent change
Japan . . . . .	6.2	4.8	-5.0	12.4	9.1	-6.0	2.3	2.0	-2.8
Sweden . . . . .	7.1	5.8	-4.0	10.7	9.5	-2.4	2.5	2.1	-3.4
Finland . . . . .	6.2	6.1	-0.3	10.2	11.3	2.1	2.1	2.1	0.0
Netherlands . . . . .	8.4	6.8	-4.1	14.2	12.3	-2.8	3.1	2.3	-5.8
Switzerland . . . . .	7.6	6.8	-2.2	12.4	10.7	-2.9	2.7	2.6	-0.8
Singapore . . . . .	9.4	6.9	-6.0	14.8	10.7	-6.3	2.8	2.3	-3.9
Canada . . . . .	8.5	7.2	-3.3	13.3	11.0	-3.7	3.1	2.6	-3.5
Hong Kong . . . . .	9.8	7.4	-5.5	14.4	11.5	-4.4	2.9	2.8	-0.7
Federal Republic of Germany . . . . .	10.3	7.5	-6.1	14.9	11.0	-5.9	4.4	3.5	-4.5
Denmark . . . . .	7.7	7.5	-0.5	12.9	12.9	0.0	3.1	3.0	-0.7
France . . . . .	9.1	7.8	-3.0	16.6	14.0	-3.3	4.1	3.8	-1.5
German Democratic Republic . . . . .	10.7	8.1	-5.4	16.3	13.0	-4.4	3.5	3.1	-2.4
Spain . . . . .	10.9	8.1	-5.8	16.9	13.3	-4.7	3.3	3.0	-3.1
Austria . . . . .	11.9	8.1	-7.4	17.1	11.8	-7.2	4.7	3.4	-6.3
Scotland . . . . .	9.9	8.2	-3.7	15.7	13.5	-3.0	4.1	3.7	-2.0
Norway . . . . .	7.9	8.3	1.0	13.9	12.9	-1.5	3.1	3.8	4.2
Australia . . . . .	9.6	8.7	-1.9	14.6	13.1	-2.1	3.6	3.4	-1.1
Ireland . . . . .	10.1	8.9	-2.5	18.6	15.8	-3.2	4.0	3.5	-2.6
Northern Ireland . . . . .	12.1	8.9	-6.0	19.4	13.9	-6.5	4.8	3.6	-5.6
England and Wales . . . . .	10.1	9.0	-2.3	15.8	13.8	-2.7	4.3	4.1	-0.9
Belgium . . . . .	10.4	9.2	-2.4	17.3	15.6	-2.6	4.0	4.1	0.6
Italy . . . . .	12.3	9.3	-5.4	19.4	15.4	-4.5	2.7	2.1	-4.9
United States . . . . .	11.2	10.0	-2.2	16.5	14.4	-2.7	3.9	3.6	-1.6
Israel . . . . .	14.4	10.2	-6.7	20.6	15.5	-5.5	5.2	3.5	-7.6
New Zealand . . . . .	12.9	10.8	-3.5	18.3	15.5	-3.3	7.0	6.1	-2.7
Greece . . . . .	14.6	11.0	-5.5	21.7	17.8	-3.9	3.7	2.9	-4.8
Czechoslovakia . . . . .	15.7	11.9	-5.4	20.8	16.3	-4.8	5.1	3.9	-5.2
Cuba . . . . .	16.8	11.9	-6.7	28.1	24.9	-3.0	6.1	3.8	-9.0
Puerto Rico . . . . .	17.4	12.6	-6.3	27.9	22.5	-4.2	3.5	3.0	-3.0
Portugal . . . . .	19.3	13.1	-7.5	29.5	20.8	-6.8	6.3	4.4	-6.9
Bulgaria . . . . .	16.5	13.6	-3.8	23.3	19.4	-3.6	7.4	6.2	-3.5
Costa Rica . . . . .	18.6	14.7	-4.6	---	---	---	7.3	5.3	-6.2
Hungary . . . . .	19.0	15.8	-3.6	26.0	21.8	-3.5	4.8	4.0	-3.6
Poland . . . . .	19.2	16.2	-3.3	25.2	21.6	-3.0	6.0	4.6	-5.2
Kuwait . . . . .	19.0	17.3	-2.3	30.7	25.1	-6.5	7.3	5.2	-8.1
Chile . . . . .	21.9	18.9	-2.9	27.6	25.4	-1.6	11.2	9.4	-3.4
Yugoslavia . . . . .	30.7	24.5	-4.4	37.1	30.1	-4.1	14.9	11.0	-5.9
U.S.S.R. . . . .	25.1	24.9	-0.2	---	34.4	---	---	14.8	---
Romania . . . . .	23.9	25.4	1.2	31.7	32.8	0.7	14.4	18.0	4.6

<sup>1</sup>Number of deaths of infants under 1 year per 1,000 live births.

<sup>2</sup>Number of late fetal deaths plus infant deaths under 1 year per 1,000 live births plus late fetal deaths.

<sup>3</sup>Number of postneonatal deaths per 1,000 live births.

<sup>4</sup>Data for Kuwait are for 1987.

<sup>5</sup>Data for Belgium and Cuba are for 1987; and data for Kuwait are for 1986.

<sup>6</sup>Data for Belgium and Kuwait are for 1987; and data for Spain are for 1986.

NOTES: Rankings are from lowest to highest infant mortality rates based on the latest data available for countries or geographic areas with at least 1 million population and with "complete" counts of live births and infant deaths as indicated in the United Nations Demographic Yearbook, 1988. Some of the international variation in infant mortality rates (IMR) is due to variation among countries in distinctions between fetal and infant deaths. The feto-infant mortality rate (FIMR) attempts to reduce international variation due to clinical distinctions between fetal and infant deaths. The United States ranks 23rd on the IMR and 20th on the FIMR and 20th on the postneonatal mortality rate.

SOURCES: World Health Organization: World Health Statistics Annuals. Vols. 1985-1990. Geneva. United Nations: Demographic Yearbook 1983-1988. New York. National Center for Health Statistics: Vital Statistics of the United States, 1983, Vol. II, Mortality, Part A. DHHS Pub. No. (PHS) 87-1101. Public Health Service. Washington. U.S. Government Printing Office, 1988; Vital Statistics of the United States, 1988, Vol. II, Mortality, Part A. DHHS Pub. No. (PHS) 91-1101. Public Health Service. Washington. U.S. Government Printing Office, 1991.



**Table 26 (page 1 of 2). Life expectancy at birth and at 65 years of age, according to sex: Selected countries, 1983 and 1988**

[Data are based on reporting by countries]

Country	At birth		At 65 years	
	1983 <sup>1</sup>	1988 <sup>2</sup>	1983 <sup>1</sup>	1988 <sup>2</sup>
Male				
Life expectancy in years				
Japan . . . . .	74.5	75.8	15.5	16.2
Hong Kong . . . . .	72.3	74.4	14.0	15.3
Greece . . . . .	73.6	74.3	15.4	15.6
Sweden . . . . .	73.6	74.2	14.7	15.0
Switzerland . . . . .	72.7	74.0	14.6	15.4
Israel . . . . .	73.0	73.9	14.9	15.1
Netherlands . . . . .	73.0	73.7	14.0	14.4
Canada . . . . .	72.0	73.4	14.5	15.0
Italy . . . . .	71.3	73.3	13.7	14.7
Australia . . . . .	72.2	73.2	14.3	15.0
Spain . . . . .	72.6	73.1	14.8	15.0
Norway . . . . .	72.8	73.1	14.5	14.6
France . . . . .	70.7	72.9	14.2	15.7
England and Wales . . . . .	71.6	72.7	13.3	14.0
Kuwait . . . . .	69.0	72.5	12.5	14.5
Federal Republic of Germany . . . . .	70.7	72.3	13.3	14.1
Austria . . . . .	69.5	72.1	13.1	14.5
Costa Rica . . . . .	74.5	72.1	17.3	14.0
Cuba . . . . .	72.2	72.0	15.3	15.3
Denmark . . . . .	71.5	72.0	13.9	14.1
Ireland . . . . .	70.3	71.6	12.6	13.0
United States . . . . .	71.0	71.5	14.5	14.9
Singapore . . . . .	69.4	71.5	12.5	13.5
Belgium . . . . .	70.6	71.4	13.1	13.5
Puerto Rico . . . . .	71.6	71.1	16.3	16.8
New Zealand . . . . .	70.8	71.0	13.6	13.7
Northern Ireland . . . . .	69.3	70.9	12.4	12.9
Finland . . . . .	70.2	70.7	13.0	13.6
Portugal . . . . .	69.3	70.5	13.6	14.2
Scotland . . . . .	69.6	70.5	12.5	13.0
Chile . . . . .	67.8	70.0	13.3	13.7
German Democratic Republic . . . . .	69.5	69.7	12.5	12.6
Yugoslavia . . . . .	67.1	68.7	12.5	13.3
Bulgaria . . . . .	68.4	68.3	12.6	12.6
Czechoslovakia . . . . .	66.9	67.7	11.5	11.9
Romania . . . . .	66.9	67.1	12.6	12.8
Poland . . . . .	67.1	67.1	12.6	12.5
Hungary . . . . .	65.1	66.1	11.6	12.3
U.S.S.R . . . . .	62.9	64.7	12.0	12.4
Female				
Japan . . . . .	80.3	81.9	18.9	20.2
France . . . . .	78.8	81.3	18.4	20.4
Switzerland . . . . .	79.8	81.1	18.7	19.8
Netherlands . . . . .	79.8	80.5	19.0	19.3
Canada . . . . .	79.0	80.3	18.7	19.6
Sweden . . . . .	79.6	80.0	18.5	18.7
Italy . . . . .	77.9	79.9	17.2	18.7
Hong Kong . . . . .	78.4	79.9	17.9	18.6
Australia . . . . .	79.0	79.8	18.6	19.1
Norway . . . . .	79.8	79.7	18.7	18.7
Spain . . . . .	78.8	79.7	18.1	18.4
Greece . . . . .	78.3	79.4	17.6	18.0
Puerto Rico . . . . .	78.3	79.4	18.8	19.6
Federal Republic of Germany . . . . .	77.5	79.1	17.1	18.1
Finland . . . . .	78.5	78.8	17.5	17.7
Austria . . . . .	76.6	78.7	16.6	17.8
England and Wales . . . . .	77.6	78.4	17.4	17.9
United States . . . . .	78.1	78.3	18.6	18.6
Belgium . . . . .	77.2	78.1	17.0	17.5
Denmark . . . . .	77.5	77.7	17.8	17.9

See footnotes at end of table.

**Table 26 (page 2 of 2). Life expectancy at birth and at 65 years of age, according to sex: Selected countries, 1983 and 1988**

[Data are based on reporting by countries]

Country	At birth		At 65 years	
	1983 <sup>1</sup>	1988 <sup>2</sup>	1983 <sup>1</sup>	1988 <sup>2</sup>
Female—Con				
Life expectancy in years				
Portugal . . . . .	76.2	77.7	16.7	17.5
Israel . . . . .	76.4	77.4	16.2	16.7
New Zealand . . . . .	77.0	77.3	17.5	17.6
Ireland . . . . .	76.0	77.1	15.9	16.6
Northern Ireland . . . . .	75.7	76.9	16.1	17.0
Costa Rica . . . . .	78.4	76.9	19.0	16.8
Scotland . . . . .	75.8	76.8	16.2	16.8
Singapore . . . . .	75.0	76.2	15.5	16.0
German Democratic Republic . . . . .	75.4	76.0	15.4	15.6
Kuwait . . . . .	73.8	75.8	15.2	16.2
Poland . . . . .	75.2	75.7	16.1	16.3
Chile . . . . .	74.7	75.7	16.8	16.7
Czechoslovakia . . . . .	74.3	75.3	14.7	15.5
Cuba . . . . .	75.3	75.3	16.7	16.6
Yugoslavia . . . . .	73.0	74.7	14.9	15.9
Bulgaria . . . . .	74.4	74.6	14.9	15.0
Hungary . . . . .	73.0	74.2	14.8	15.6
U.S.S.R . . . . .	72.7	73.4	15.6	15.8
Romania . . . . .	72.5	72.7	14.4	14.7

<sup>1</sup>Data for Spain are for 1981; data for Canada, Chile, Greece, and Kuwait are for 1982; data for Denmark are for 1982–1983; data for England and Wales are for 1982–1984; data for Portugal are for 1982–1985; and data for U.S.S.R. are for 1984–1985.

<sup>2</sup>Data for Romania are for 1984; data for Belgium are for 1986; data for New Zealand are for 1986–1988; data for Bulgaria, Chile, Kuwait, and Spain are for 1987; and data for Portugal are for 1987–1988.

NOTES: Rankings are from highest to lowest life expectancy based on the latest available data for countries or geographic areas with at least 1 million population. This table is based on official mortality data from the country concerned, as submitted to the United Nations Demographic Yearbook or the World Health Statistics Annual.

SOURCES: World Health Organization: World Health Statistics Annuals. Vols. 1984–1990. Geneva. United Nations: Demographic Yearbook 1984 and 1986. New York. National Center for Health Statistics: Vital Statistics of the United States, 1983, Vol. II, Mortality, Part A. DHHS Pub. No. (PHS) 87–1101. Public Health Service. Washington. U.S. Government Printing Office, 1988; Vital Statistics of the United States, 1988, Vol. II, Mortality, Part A. DHHS Pub. No. (PHS) 91–1101. Public Health Service. Washington. U.S. Government Printing Office, 1991.



**Table 27 (page 1 of 2). Death rates for all causes, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Deaths per 100,000 resident population									
All races									
All ages, age adjusted . . . . .	840.5	760.9	714.3	585.8	546.1	541.7	535.5	535.5	523.0
All ages, crude . . . . .	963.8	954.7	945.3	878.3	873.9	873.2	872.4	882.0	866.3
Under 1 year . . . . .	3,299.2	2,696.4	2,142.4	1,288.3	1,067.8	1,032.1	1,018.5	1,008.3	1,005.2
1–4 years . . . . .	139.4	109.1	84.5	63.9	51.4	52.0	51.6	50.9	49.2
5–14 years . . . . .	60.1	46.6	41.3	30.6	26.3	26.0	25.6	25.8	25.4
15–24 years . . . . .	128.1	106.3	127.7	115.4	95.9	102.3	99.4	102.1	99.9
25–34 years . . . . .	178.7	146.4	157.4	135.5	123.4	132.1	133.2	135.4	138.1
35–44 years . . . . .	358.7	299.4	314.5	227.9	207.2	212.9	214.1	219.6	221.7
45–54 years . . . . .	853.9	756.0	730.0	584.0	516.3	504.8	498.0	486.2	475.0
55–64 years . . . . .	1,911.7	1,735.1	1,658.8	1,346.3	1,282.7	1,255.1	1,241.3	1,235.6	1,204.4
65–74 years . . . . .	4,067.7	3,822.1	3,582.7	2,994.9	2,838.6	2,801.4	2,751.3	2,729.8	2,646.7
75–84 years . . . . .	9,331.1	8,745.2	8,004.4	6,692.6	6,445.1	6,348.2	6,282.5	6,321.3	6,138.8
85 years and over . . . . .	20,196.9	19,857.5	16,344.9	15,980.3	15,480.3	15,398.9	15,320.8	15,594.0	15,034.8
White male									
All ages, age adjusted . . . . .	963.1	917.7	893.4	745.3	688.7	679.8	668.2	664.3	644.2
All ages, crude . . . . .	1,089.5	1,098.5	1,086.7	983.3	960.0	954.4	947.8	952.2	930.2
Under 1 year . . . . .	3,400.5	2,694.1	2,113.2	1,230.3	1,033.9	976.6	942.1	930.5	909.4
1–4 years . . . . .	135.5	104.9	83.6	66.1	52.4	52.2	52.0	51.0	47.8
5–14 years . . . . .	67.2	52.7	48.0	35.0	29.9	29.9	30.0	28.9	28.1
15–24 years . . . . .	152.4	143.7	170.8	167.0	136.3	145.9	137.3	139.7	132.9
25–34 years . . . . .	185.3	163.2	176.6	171.3	157.1	168.8	167.8	169.6	173.5
35–44 years . . . . .	380.9	332.6	343.5	257.4	241.4	248.4	249.6	257.2	260.8
45–54 years . . . . .	984.5	932.2	882.9	698.9	608.8	592.2	582.8	564.6	551.1
55–64 years . . . . .	2,304.4	2,225.2	2,202.6	1,728.5	1,614.3	1,573.1	1,552.8	1,530.2	1,486.1
65–74 years . . . . .	4,864.9	4,848.4	4,810.1	4,035.7	3,716.8	3,634.8	3,548.4	3,504.5	3,362.7
75–84 years . . . . .	10,526.3	10,299.6	10,098.8	8,829.8	8,500.4	8,341.7	8,212.2	8,201.8	7,911.0
85 years and over . . . . .	22,116.3	21,750.0	18,551.7	19,097.3	18,788.9	18,576.1	18,434.9	18,814.9	17,978.1
Black male									
All ages, age adjusted . . . . .	1,373.1	1,246.1	1,318.6	1,112.8	1,024.0	1,026.9	1,023.2	1,037.8	1,032.1
All ages, crude . . . . .	1,260.3	1,181.7	1,186.6	1,034.1	976.8	987.7	989.5	1,006.8	1,006.5
Under 1 year . . . . .	---	5,306.8	4,298.9	2,586.7	2,134.8	2,181.7	2,211.4	2,167.7	2,179.0
1–4 years . . . . .	---	208.5	150.5	110.5	89.0	90.9	90.5	90.5	88.4
5–14 years . . . . .	95.1	75.1	67.1	47.4	41.3	42.0	42.5	42.1	41.7
15–24 years . . . . .	289.7	212.0	320.6	209.1	174.1	190.5	203.9	223.3	235.8
25–34 years . . . . .	503.5	402.5	559.5	407.3	374.4	385.6	389.8	409.7	417.1
35–44 years . . . . .	878.1	762.0	956.6	689.8	641.8	675.9	701.5	728.3	744.1
45–54 years . . . . .	1,905.0	1,624.8	1,777.5	1,479.9	1,283.3	1,266.5	1,263.6	1,282.2	1,296.9
55–64 years . . . . .	3,773.2	3,316.4	3,256.9	2,873.0	2,623.1	2,545.5	2,464.7	2,477.5	2,439.6
65–74 years . . . . .	5,310.3	5,798.7	5,803.2	5,131.1	4,888.7	4,789.9	4,737.6	4,695.3	4,621.3
75–84 years . . . . .	---	8,605.1	9,454.9	9,231.6	9,298.4	9,290.8	9,240.7	9,419.9	9,064.4
85 years and over . . . . .	---	14,844.8	12,222.3	16,098.8	15,046.2	15,488.1	15,226.1	15,454.3	15,355.6
White female									
All ages, age adjusted . . . . .	645.0	555.0	501.7	411.1	390.6	387.7	384.1	384.4	374.9
All ages, crude . . . . .	803.3	800.9	812.6	806.1	837.1	840.7	845.5	860.0	846.0
Under 1 year . . . . .	2,566.8	2,007.7	1,614.6	962.5	786.9	759.1	742.9	728.2	716.0
1–4 years . . . . .	112.2	85.2	66.1	49.3	39.7	40.7	40.5	40.2	38.4
5–14 years . . . . .	45.1	34.7	29.9	22.9	19.4	18.6	17.9	18.6	18.8
15–24 years . . . . .	71.5	54.9	61.6	55.5	48.4	50.4	49.1	49.2	48.9
25–34 years . . . . .	112.8	85.0	84.1	65.4	58.9	60.4	62.6	61.7	62.0
35–44 years . . . . .	235.8	191.1	193.3	138.2	121.2	121.3	119.3	119.1	117.4
45–54 years . . . . .	546.4	458.8	462.9	372.7	339.5	330.3	325.7	317.2	307.0
55–64 years . . . . .	1,293.8	1,078.9	1,014.9	876.2	864.1	853.3	848.5	850.5	828.4
65–74 years . . . . .	3,242.8	2,779.3	2,470.7	2,066.6	2,028.3	2,031.8	2,001.8	1,995.9	1,947.5
75–84 years . . . . .	8,481.5	7,696.6	6,698.7	5,401.7	5,171.4	5,108.7	5,075.2	5,129.3	5,001.7
85 years and over . . . . .	19,679.5	19,477.7	15,980.2	14,979.6	14,579.4	14,502.9	14,486.9	14,755.9	14,242.8

See footnotes at end of table.

**Table 27 (page 2 of 2). Death rates for all causes, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Deaths per 100,000 resident population									
Black female									
All ages, age adjusted . . . . .	1,106.7	916.9	814.4	631.1	589.1	588.2	586.2	593.1	585.6
All ages, crude . . . . .	1,002.0	905.0	829.2	733.3	727.7	733.9	737.3	754.5	752.4
Under 1 year . . . . .	---	4,162.2	3,368.8	2,123.7	1,756.6	1,731.1	1,791.5	1,821.5	1,863.9
1–4 years . . . . .	---	173.3	129.4	84.4	70.3	76.5	73.5	70.7	72.5
5–14 years . . . . .	72.8	53.8	43.8	30.5	28.1	26.9	25.0	29.8	28.1
15–24 years . . . . .	213.1	107.5	111.9	70.5	59.5	64.3	67.9	69.0	67.8
25–34 years . . . . .	393.3	273.2	231.0	150.0	136.3	146.5	150.0	155.5	158.4
35–44 years . . . . .	758.1	568.5	533.0	323.9	278.4	290.2	295.9	307.7	302.0
45–54 years . . . . .	1,576.4	1,177.0	1,043.9	768.2	654.0	654.6	646.3	633.9	617.1
55–64 years . . . . .	3,089.4	2,510.9	1,986.2	1,561.0	1,501.7	1,469.8	1,445.0	1,465.5	1,424.2
65–74 years . . . . .	4,000.2	4,064.2	3,860.9	3,057.4	2,925.7	2,892.3	2,874.5	2,874.9	2,854.5
75–84 years . . . . .	---	6,730.0	6,691.5	6,212.1	6,252.0	6,148.8	6,145.7	6,255.3	6,211.4
85 years and over . . . . .	---	13,052.6	10,706.6	12,367.2	12,154.7	12,510.3	12,313.2	12,694.3	12,526.7

<sup>1</sup>Includes deaths of nonresidents of the United States.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service. Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.



**Table 28. Death rates for all causes, according to age, race, and Hispanic origin: United States, 1987–89**

[Data are based on the National Vital Statistics System]

<i>Race, Hispanic origin, and age</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>
Deaths per 100,000 resident population			
White			
Under 1 year . . . . .	845.1	832.0	815.5
1–14 years . . . . .	30.8	30.4	29.4
15–24 years . . . . .	93.8	95.1	91.5
25–44 years . . . . .	146.3	148.6	150.8
45–64 years . . . . .	810.5	790.4	761.2
65 years and over . . . . .	5,059.9	5,106.4	4,957.6
Black			
Under 1 year . . . . .	2,003.7	1,996.6	2,023.7
1–14 years . . . . .	47.9	49.0	48.4
15–24 years . . . . .	135.0	145.2	150.8
25–44 years . . . . .	350.8	367.0	373.6
45–64 years . . . . .	1,375.5	1,379.9	1,355.2
65 years and over . . . . .	5,592.2	5,649.8	5,585.3
Hispanic <sup>1</sup>			
Under 1 year . . . . .	919.7	963.9	1,013.5
1–14 years . . . . .	28.8	30.3	32.9
15–24 years . . . . .	113.2	113.3	121.4
25–44 years . . . . .	176.1	184.8	201.4
45–64 years . . . . .	592.6	609.2	611.1
65 years and over . . . . .	3,523.3	3,481.9	3,516.9
Asian or Pacific Islander			
Under 1 year . . . . .	610.6	609.2	659.5
1–14 years . . . . .	23.7	23.9	25.9
15–24 years . . . . .	57.1	57.1	55.6
25–44 years . . . . .	76.2	76.8	80.6
45–64 years . . . . .	398.8	402.3	386.8
65 years and over . . . . .	2,458.3	2,430.3	2,379.2
American Indian or Alaskan Native			
Under 1 year . . . . .	1,249.3	1,224.9	1,316.4
1–14 years . . . . .	44.7	43.7	46.8
15–24 years . . . . .	152.0	161.6	157.4
25–44 years . . . . .	273.1	271.1	286.3
45–64 years . . . . .	847.8	855.9	891.5
65 years and over . . . . .	3,273.8	3,291.8	3,471.0

<sup>1</sup>Data shown only for States with an Hispanic-origin item on their death certificates. See Appendix I.

NOTES: The race groups include persons of both Hispanic and non-Hispanic origin. Conversely, persons of Hispanic origin may be of any race.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A. Public Health Service. Washington. U.S. Government Printing Office; Death rates for Hispanics, Asian or Pacific Islanders, and American Indian or Alaskan Natives were computed by the Office of Analysis and Epidemiology, National Center for Health Statistics. See Appendix I.

**Table 29. Death rates for selected causes, according to age, race, and Hispanic origin: United States, 1987–89**

[Data are based on the National Vital Statistics System]

Age, race, and Hispanic origin	Accidents and adverse effects			Homicide and suicide		
	1987	1988	1989	1987	1988	1989
Deaths per 100,000 resident population						
<b>1–14 years</b>						
All races	14.6	14.4	13.7	2.0	2.2	2.3
White	13.7	13.3	12.8	1.6	1.7	1.7
Black	19.8	20.4	18.9	4.3	5.0	5.4
Hispanic <sup>1</sup>	11.5	12.2	13.0	1.7	1.8	2.3
Asian or Pacific Islander	9.4	9.5	9.8	1.5	1.6	2.4
American Indian or Alaskan Native	22.2	23.8	23.3	2.4	2.5	3.8
<b>15–24 years</b>						
All races	48.9	49.5	45.8	26.9	28.6	30.3
White	51.5	52.0	48.1	21.4	21.9	22.3
Black	35.6	36.6	34.9	58.9	67.6	75.2
Hispanic <sup>1</sup>	46.7	49.3	51.3	38.7	38.6	43.4
Asian or Pacific Islander	26.2	29.1	25.0	15.5	13.2	17.5
American Indian or Alaskan Native	86.1	88.8	84.0	41.3	48.4	48.0
<b>25–44 years</b>						
All races	35.4	35.8	35.4	28.4	28.8	28.7
White	34.0	34.3	33.9	24.0	23.8	23.5
Black	47.3	48.9	47.7	63.6	67.5	68.0
Hispanic <sup>1</sup>	37.1	40.0	42.5	33.9	34.1	37.8
Asian or Pacific Islander	16.4	15.5	15.8	11.8	14.5	14.6
American Indian or Alaskan Native	100.1	97.2	94.2	46.8	46.5	47.3
Deaths per 100,000 resident population						
<b>45–64 years</b>						
All races	270.9	259.3	241.5	301.7	296.6	290.9
White	257.3	244.2	225.8	293.7	288.7	282.8
Black	425.1	425.9	409.2	410.7	400.6	399.0
Hispanic <sup>1</sup>	161.8	166.2	158.0	148.5	151.9	160.6
Asian or Pacific Islander	103.6	99.1	94.6	147.5	159.5	147.9
American Indian or Alaskan Native	234.1	224.1	241.7	153.5	182.6	182.7
<b>65 years and over</b>						
All races	2,074.6	2,066.4	1,949.2	1,059.8	1,067.6	1,085.1
White	2,087.6	2,079.5	1,959.9	1,054.0	1,062.0	1,079.0
Black	2,179.9	2,180.9	2,080.6	1,231.8	1,241.4	1,269.8
Hispanic <sup>1</sup>	1,352.9	1,335.6	1,336.0	693.4	665.4	727.3
Asian or Pacific Islander	880.9	870.0	831.7	559.5	548.8	561.0
American Indian or Alaskan Native	1,144.4	1,128.3	1,211.4	583.8	606.5	684.2

<sup>1</sup>Data shown only for States with an Hispanic-origin item on their death certificates. See Appendix I.

NOTES: The race groups include persons of both Hispanic and non-Hispanic origin. Conversely, persons of Hispanic origin may be of any race.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A. Public Health Service. Washington. U.S. Government Printing Office; Death rates for Hispanics, Asian or Pacific Islanders, and American Indian or Alaskan Natives were computed by the Office of Analysis and Epidemiology, National Center for Health Statistics. See Appendix I.



**Table 30 (page 1 of 2). Age-adjusted death rates for selected causes of death, according to sex and race: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and cause of death</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
All races									
	Deaths per 100,000 resident population								
All causes . . . . .	840.5	760.9	714.3	585.8	546.1	541.7	535.5	535.5	523.0
Natural causes . . . . .	766.6	695.2	636.9	519.7	490.5	484.4	479.4	478.9	467.5
Diseases of heart . . . . .	307.2	286.2	253.6	202.0	180.5	175.0	169.6	166.3	155.9
Ischemic heart disease . . . . .	---	---	---	149.8	125.5	118.8	113.9	110.2	105.1
Cerebrovascular diseases . . . . .	88.6	79.7	66.3	40.8	32.3	31.0	30.3	29.7	28.0
Malignant neoplasms . . . . .	125.3	125.8	129.8	132.8	133.6	133.2	132.9	132.7	133.0
Respiratory system . . . . .	12.8	19.2	28.4	36.4	38.8	39.0	39.7	39.9	40.3
Colorectal . . . . .	19.0	17.7	16.8	15.5	14.8	14.4	14.3	13.9	13.6
Prostate <sup>2</sup> . . . . .	13.4	13.1	13.3	14.4	14.6	15.0	14.9	15.2	15.7
Breast <sup>3</sup> . . . . .	22.2	22.3	23.1	22.7	23.2	23.1	22.9	23.1	23.0
Chronic obstructive pulmonary diseases . . . . .	4.4	8.2	13.2	15.9	18.7	18.8	18.7	19.4	19.4
Pneumonia and influenza . . . . .	26.2	28.0	22.1	12.9	13.4	13.5	13.1	14.2	13.7
Chronic liver disease and cirrhosis . . . . .	8.5	10.5	14.7	12.2	9.6	9.2	9.1	9.0	8.9
Diabetes mellitus . . . . .	14.3	13.6	14.1	10.1	9.6	9.6	9.8	10.1	11.5
Nephritis, nephrotic syndrome, and nephrosis . . . . .	---	---	---	4.5	4.9	4.9	4.8	4.8	4.4
Septicemia . . . . .	---	---	---	2.6	4.1	4.3	4.5	4.6	4.1
Atherosclerosis . . . . .	---	---	---	5.7	4.0	3.7	3.6	3.4	2.9
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	5.5	6.6	8.7
External causes . . . . .	73.9	65.7	77.4	66.1	55.6	57.3	56.1	56.6	55.5
Accidents and adverse effects . . . . .	57.5	49.9	53.7	42.3	34.7	35.2	34.6	35.0	33.8
Motor vehicle accidents . . . . .	23.3	22.5	27.4	22.9	18.8	19.4	19.5	19.7	18.9
Suicide . . . . .	11.0	10.6	11.8	11.4	11.5	11.9	11.7	11.4	11.3
Homicide and legal intervention . . . . .	5.4	5.2	9.1	10.8	8.3	9.0	8.6	9.0	9.4
Drug-induced causes . . . . .	---	---	---	3.0	3.5	3.9	3.8	4.2	4.1
Alcohol-induced causes . . . . .	---	---	---	8.4	6.9	6.7	6.8	7.0	7.2
White male									
All causes . . . . .	963.1	917.7	893.4	745.3	688.7	679.8	668.2	664.3	644.2
Natural causes . . . . .	860.1	825.8	788.6	651.2	608.8	598.2	589.3	585.4	567.4
Diseases of heart . . . . .	381.1	375.4	347.6	277.5	244.5	234.8	225.9	220.5	205.9
Ischemic heart disease . . . . .	---	---	---	218.0	180.8	169.9	161.7	155.8	148.2
Cerebrovascular diseases . . . . .	87.0	80.3	68.8	41.9	32.8	31.1	30.3	30.0	28.0
Malignant neoplasms . . . . .	130.9	141.6	154.3	160.5	159.2	158.8	158.4	157.6	157.2
Respiratory system . . . . .	21.6	34.6	49.9	58.0	58.2	58.0	58.6	58.0	57.4
Colorectal . . . . .	19.8	18.9	18.9	18.3	17.6	17.2	17.1	16.6	16.3
Prostate . . . . .	13.1	12.4	12.3	13.2	13.3	13.8	13.7	14.1	14.5
Chronic obstructive pulmonary diseases . . . . .	6.0	13.8	24.0	26.7	28.5	28.1	27.4	27.8	26.8
Pneumonia and influenza . . . . .	27.1	31.0	26.0	16.2	17.4	17.5	16.8	18.0	16.9
Chronic liver disease and cirrhosis . . . . .	11.6	14.4	18.8	15.7	12.6	12.2	12.1	12.1	11.9
Diabetes mellitus . . . . .	11.3	11.6	12.7	9.5	9.2	9.1	9.5	9.6	11.0
Nephritis, nephrotic syndrome, and nephrosis . . . . .	---	---	---	4.9	5.4	5.4	5.3	5.2	4.7
Septicemia . . . . .	---	---	---	2.8	4.3	4.5	4.5	4.5	4.1
Atherosclerosis . . . . .	---	---	---	6.5	4.6	4.3	4.2	4.0	3.4
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	8.3	9.9	13.1
External causes . . . . .	103.0	91.9	104.8	94.1	79.9	81.6	78.9	78.9	76.8
Accidents and adverse effects . . . . .	80.9	70.5	76.2	62.3	50.4	51.1	49.7	49.9	47.8
Motor vehicle accidents . . . . .	35.9	34.0	40.1	34.8	27.6	28.7	28.4	28.5	26.8
Suicide . . . . .	18.1	17.5	18.2	18.9	19.9	20.5	20.1	19.8	19.6
Homicide and legal intervention . . . . .	3.9	3.9	7.3	10.9	8.1	8.4	7.7	7.7	8.1
Drug-induced causes . . . . .	---	---	---	3.2	4.0	4.6	4.3	4.8	4.8
Alcohol-induced causes . . . . .	---	---	---	10.8	9.1	8.9	9.1	9.4	9.8
Black male									
All causes . . . . .	1,373.1	1,246.1	1,318.6	1,112.8	1,024.0	1,026.9	1,023.2	1,037.8	1,032.1
Natural causes . . . . .	1,209.2	1,093.4	1,095.4	942.6	892.7	888.7	886.4	894.9	887.4
Diseases of heart . . . . .	415.5	381.2	375.9	327.3	301.0	294.3	287.1	286.2	272.6
Ischemic heart disease . . . . .	---	---	---	196.0	164.9	153.9	150.8	146.9	142.9
Cerebrovascular diseases . . . . .	146.2	141.2	122.5	77.5	60.8	58.9	57.1	57.8	54.1
Malignant neoplasms . . . . .	126.1	158.5	198.0	229.9	231.6	229.0	227.9	227.0	230.6
Respiratory system . . . . .	16.9	36.6	60.8	82.0	84.4	83.9	84.2	83.4	84.6
Colorectal . . . . .	13.8	15.0	17.3	19.2	19.5	19.3	19.7	19.0	19.4
Prostate . . . . .	16.9	22.2	25.4	29.1	30.2	30.1	30.1	30.3	30.9
Chronic obstructive pulmonary diseases . . . . .	---	---	---	20.9	23.9	24.6	24.0	26.0	24.9
Pneumonia and influenza . . . . .	63.8	70.2	53.8	28.0	26.8	27.2	26.4	28.0	27.9
Chronic liver disease and cirrhosis . . . . .	8.8	14.8	33.1	30.6	23.4	20.8	22.0	20.7	20.5
Diabetes mellitus . . . . .	11.5	16.2	21.2	17.7	17.7	17.9	18.3	19.8	22.6
Nephritis, nephrotic syndrome, and nephrosis . . . . .	---	---	---	14.2	14.1	14.2	13.4	13.3	13.9
Septicemia . . . . .	---	---	---	8.0	11.9	12.4	12.5	12.2	11.2
Atherosclerosis . . . . .	---	---	---	7.5	5.1	5.0	4.4	4.6	3.3
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	25.4	31.6	40.3
External causes . . . . .	163.9	152.7	223.2	170.2	131.3	138.2	136.8	142.9	144.7
Accidents and adverse effects . . . . .	105.7	100.0	119.5	82.0	66.7	66.9	66.8	69.0	67.3
Motor vehicle accidents . . . . .	39.8	38.2	50.1	32.9	27.7	29.2	28.5	29.6	29.4
Suicide . . . . .	7.0	7.8	9.9	11.1	11.3	11.5	12.0	11.8	12.5
Homicide and legal intervention . . . . .	51.1	44.9	82.1	71.9	49.9	55.9	53.8	58.2	61.5
Drug-induced causes . . . . .	---	---	---	5.8	8.9	10.5	11.3	12.9	11.4
Alcohol-induced causes . . . . .	---	---	---	32.4	27.2	25.0	26.0	26.6	26.8

See footnotes at end of table.

**Table 30 (page 2 of 2). Age-adjusted death rates for selected causes of death, according to sex and race: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and cause of death</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Deaths per 100,000 resident population									
<b>White female</b>									
All causes . . . . .	645.0	555.0	501.7	411.1	390.6	387.7	384.1	384.4	374.9
Natural causes . . . . .	607.7	522.7	463.8	380.0	363.4	360.4	356.7	357.1	348.3
Diseases of heart . . . . .	223.6	197.1	167.8	134.6	121.7	119.0	116.3	114.2	106.6
Ischemic heart disease . . . . .	---	---	---	97.4	82.9	79.5	76.9	74.7	71.0
Cerebrovascular diseases . . . . .	79.7	68.7	56.2	35.2	27.9	27.1	26.3	25.5	24.1
Malignant neoplasms . . . . .	119.4	109.5	107.6	107.7	110.3	110.1	109.7	110.1	110.7
Respiratory system . . . . .	4.6	5.1	10.1	18.2	22.6	23.1	23.8	24.8	25.8
Colorectal . . . . .	19.0	17.0	15.3	13.3	12.3	12.0	11.8	11.5	11.1
Breast . . . . .	22.5	22.4	23.4	22.8	23.3	23.0	22.8	23.0	22.9
Chronic obstructive pulmonary diseases . . . . .	2.8	3.3	5.3	9.2	12.9	13.3	13.7	14.5	15.2
Pneumonia and influenza . . . . .	18.9	19.0	15.0	9.4	9.8	9.9	9.7	10.7	10.3
Chronic liver disease and cirrhosis . . . . .	5.8	6.6	8.7	7.0	5.6	5.4	5.1	5.0	5.0
Diabetes mellitus . . . . .	16.4	13.7	12.8	8.7	8.1	8.1	8.1	8.4	9.6
Nephritis, nephrotic syndrome, and nephrosis . . . . .	---	---	---	2.9	3.4	3.3	3.3	3.3	3.0
Septicemia . . . . .	---	---	---	1.8	3.0	3.2	3.4	3.5	3.1
Atherosclerosis . . . . .	---	---	---	5.0	3.5	3.2	3.2	3.0	2.6
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	0.6	0.7	0.9
External causes . . . . .	37.3	32.3	37.9	31.1	27.2	27.3	27.4	27.3	26.6
Accidents and adverse effects . . . . .	30.6	25.5	27.2	21.4	18.4	18.4	18.6	18.8	18.5
Motor vehicle accidents . . . . .	10.6	11.1	14.4	12.3	10.8	11.0	11.4	11.6	11.5
Suicide . . . . .	5.3	5.3	7.2	5.7	5.3	5.4	5.3	5.1	4.8
Homicide and legal intervention . . . . .	1.4	1.5	2.2	3.2	2.9	2.9	2.9	2.8	2.8
Drug-induced causes . . . . .	---	---	---	2.6	2.5	2.7	2.5	2.7	2.6
Alcohol-induced causes . . . . .	---	---	---	3.5	2.8	2.7	2.6	2.7	2.8
<b>Black female</b>									
All causes . . . . .	1,106.7	916.9	814.4	631.1	589.1	588.2	586.2	593.1	585.6
Natural causes . . . . .	1,054.8	867.3	757.9	588.4	554.4	551.9	549.6	554.8	548.0
Diseases of heart . . . . .	349.5	292.6	251.7	201.1	186.8	185.1	180.8	181.1	172.9
Ischemic heart disease . . . . .	---	---	---	116.1	100.8	97.0	93.6	93.0	90.9
Cerebrovascular diseases . . . . .	155.6	139.5	107.9	61.7	50.3	47.6	46.7	46.6	44.9
Malignant neoplasms . . . . .	131.9	127.8	123.5	129.7	130.4	132.1	132.0	131.2	130.9
Respiratory system . . . . .	4.1	5.5	10.9	19.5	22.5	23.3	24.3	24.6	25.4
Colorectal . . . . .	15.0	15.4	16.1	15.3	16.1	15.2	15.5	14.9	14.8
Breast . . . . .	19.3	21.3	21.5	23.3	25.3	25.8	26.5	27.0	26.0
Chronic obstructive pulmonary diseases . . . . .	---	---	---	6.3	8.7	8.9	9.5	10.0	10.9
Pneumonia and influenza . . . . .	50.4	43.9	29.2	12.7	12.4	13.1	12.2	13.4	13.8
Chronic liver disease and cirrhosis . . . . .	5.7	8.9	17.8	14.4	10.1	9.3	9.1	9.3	8.5
Diabetes mellitus . . . . .	22.7	27.3	30.9	22.1	21.1	21.4	21.3	22.1	24.2
Nephritis, nephrotic syndrome, and nephrosis . . . . .	---	---	---	10.3	10.5	9.9	9.8	10.3	9.6
Septicemia . . . . .	---	---	---	5.4	8.1	8.1	9.1	9.0	8.4
Atherosclerosis . . . . .	---	---	---	5.6	3.8	3.5	3.3	3.3	2.9
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	4.7	6.2	8.1
External causes . . . . .	51.9	49.6	56.5	42.7	34.7	36.3	36.6	38.3	37.6
Accidents and adverse effects . . . . .	38.5	35.9	35.3	25.1	20.7	21.0	21.0	22.2	21.6
Motor vehicle accidents . . . . .	10.3	10.0	13.8	8.4	8.2	8.5	8.7	9.2	9.1
Suicide . . . . .	1.7	1.9	2.9	2.4	2.1	2.4	2.1	2.4	2.4
Homicide and legal intervention . . . . .	11.7	11.8	15.0	13.7	10.8	11.8	12.3	12.7	12.5
Drug-induced causes . . . . .	---	---	---	2.7	3.3	3.7	4.1	4.3	4.1
Alcohol-induced causes . . . . .	---	---	---	10.6	7.9	7.0	7.2	7.7	7.6

<sup>1</sup>Includes deaths of nonresidents of the United States.

<sup>2</sup>Male only.

<sup>3</sup>Female only.

NOTES: For data years shown, the code numbers for cause of death are based on the then current International Classification of Diseases, which are described in Appendix II, tables IV and V. Categories for the coding and classification of human immunodeficiency virus infection were introduced in the United States beginning with mortality data for 1987.

SOURCES: National Center for Health Statistics: Vital Statistics Rates in the United States, 1940–1960, by R. D. Grove and A. M. Hetzel. DHEW Pub. No. (PHS) 1677. Public Health Service, Washington. U.S. Government Printing Office, 1968; Unpublished data from the Division of Vital Statistics; Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service, Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.



**Table 31 (page 1 of 3). Numbers of deaths and rank for selected causes of death, according to sex and race: United States, 1985–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and cause of death</i>	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
<b>All races</b>	<b>Number</b>					<b>Rank</b>				
All causes . . . . .	2,086,440	2,105,361	2,123,323	2,167,999	2,150,466	...	...	...	...	...
Diseases of heart . . . . .	771,169	765,490	760,353	765,156	733,867	1	1	1	1	1
Cerebrovascular diseases . . . . .	153,050	149,643	149,835	150,517	145,551	3	3	3	3	3
Malignant neoplasms . . . . .	461,563	469,376	476,927	485,048	496,152	2	2	2	2	2
Chronic obstructive pulmonary diseases . . . . .	74,662	76,559	78,380	82,853	84,344	5	5	5	5	5
Pneumonia and influenza . . . . .	67,615	69,812	69,225	77,662	76,550	6	6	6	6	6
Chronic liver disease and cirrhosis . . . . .	26,767	26,159	26,201	26,409	26,694	9	9	9	9	9
Diabetes mellitus . . . . .	36,969	37,184	38,532	40,368	46,833	7	7	7	7	7
Nephritis, nephrotic syndrome, and nephrosis . . . . .	21,349	21,767	22,052	22,392	21,118	11	11	11	10	12
Septicemia . . . . .	17,182	18,795	19,916	20,925	19,333	14	13	13	13	14
Atherosclerosis . . . . .	23,926	22,706	22,474	22,086	19,357	10	10	10	11	13
Human immunodeficiency virus infection . . . . .	---	---	13,468	16,602	22,082	---	---	15	15	11
Accidents and adverse effects . . . . .	93,457	95,277	95,020	97,100	95,028	4	4	4	4	4
Suicide . . . . .	29,453	30,904	30,796	30,407	30,232	8	8	8	8	8
Homicide and legal intervention . . . . .	19,893	21,731	21,103	22,032	22,909	12	12	12	12	10
<b>White male</b>	<b>Number</b>					<b>Rank</b>				
All causes . . . . .	950,455	952,554	953,382	965,419	950,852	...	...	...	...	...
Diseases of heart . . . . .	355,374	347,967	342,063	341,519	325,397	1	1	1	1	1
Cerebrovascular diseases . . . . .	51,965	50,365	50,237	50,692	48,563	4	4	4	4	4
Malignant neoplasms . . . . .	215,079	218,381	221,757	224,514	228,301	2	2	2	2	2
Chronic obstructive pulmonary diseases . . . . .	43,074	43,341	43,290	44,827	44,046	5	5	5	5	5
Pneumonia and influenza . . . . .	29,028	29,891	29,284	32,262	30,892	6	6	6	6	6
Chronic liver disease and cirrhosis . . . . .	14,321	14,099	14,175	14,381	14,414	8	8	8	8	9
Diabetes mellitus . . . . .	12,758	12,788	13,553	14,008	16,282	9	9	9	9	8
Nephritis, nephrotic syndrome, and nephrosis . . . . .	8,482	8,754	8,800	8,786	8,093	10	10	10	11	12
Septicemia . . . . .	6,321	6,962	7,096	7,270	6,728	14	13	14	14	13
Atherosclerosis . . . . .	8,251	7,767	7,686	7,529	6,652	11	12	13	13	14
Human immunodeficiency virus infection . . . . .	---	---	8,700	10,479	14,114	---	---	11	10	10
Accidents and adverse effects . . . . .	53,856	54,864	53,936	54,435	52,691	3	3	3	3	3
Suicide . . . . .	21,256	22,270	22,188	21,980	21,858	7	7	7	7	7
Homicide and legal intervention . . . . .	8,122	8,567	7,979	7,994	8,337	12	11	12	12	11
<b>Black male</b>	<b>Number</b>					<b>Rank</b>				
All causes . . . . .	133,610	137,214	139,551	144,228	146,393	...	...	...	...	...
Diseases of heart . . . . .	38,982	39,076	38,934	39,584	38,321	1	1	1	1	1
Cerebrovascular diseases . . . . .	8,000	7,938	7,852	8,098	7,739	4	4	4	5	5
Malignant neoplasms . . . . .	29,028	29,363	29,928	30,321	31,452	2	2	2	2	2
Chronic obstructive pulmonary diseases . . . . .	3,154	3,302	3,319	3,644	3,593	8	8	8	9	9
Pneumonia and influenza . . . . .	3,664	3,836	3,795	4,047	4,168	6	6	6	7	7
Chronic liver disease and cirrhosis . . . . .	2,616	2,404	2,574	2,476	2,517	9	9	10	11	11
Diabetes mellitus . . . . .	2,230	2,295	2,388	2,640	3,072	10	10	11	10	10
Nephritis, nephrotic syndrome, and nephrosis . . . . .	1,935	1,963	1,905	1,908	2,047	11	11	12	12	12
Septicemia . . . . .	1,595	1,697	1,760	1,729	1,643	12	12	13	13	14
Atherosclerosis . . . . .	758	756	680	739	547	16	15	17	17	17
Human immunodeficiency virus infection . . . . .	---	---	3,301	4,202	5,475	---	---	9	6	6
Accidents and adverse effects . . . . .	8,752	9,035	9,159	9,608	9,503	3	3	3	3	3
Suicide . . . . .	1,481	1,537	1,635	1,648	1,771	13	13	14	14	13
Homicide and legal intervention . . . . .	6,616	7,634	7,518	8,314	8,888	5	5	5	4	4
<b>American Indian male</b>	<b>Number</b>					<b>Rank</b>				
All causes . . . . .	4,181	4,365	4,432	4,617	5,066	...	...	...	...	...
Diseases of heart . . . . .	1,001	999	1,062	1,048	1,184	1	1	1	1	1
Cerebrovascular diseases . . . . .	157	140	180	171	193	7	7	5	7	6
Malignant neoplasms . . . . .	533	522	496	594	706	3	3	3	3	3
Chronic obstructive pulmonary diseases . . . . .	89	107	102	112	143	10	9	10	10	10
Pneumonia and influenza . . . . .	151	138	153	147	165	8	8	8	8	8
Chronic liver disease and cirrhosis . . . . .	173	176	168	193	214	4	6	6	4	4
Diabetes mellitus . . . . .	102	97	111	124	155	9	10	9	9	9
Nephritis, nephrotic syndrome, and nephrosis . . . . .	36	43	53	50	43	13	14	12	13	13
Septicemia . . . . .	30	44	33	35	36	14	13	14	14	14
Atherosclerosis . . . . .	12	22	17	19	17	16	15	15	16	17
Human immunodeficiency virus infection . . . . .	---	---	17	26	28	---	---	15	15	15
Accidents and adverse effects . . . . .	804	871	884	900	885	2	2	2	2	2
Suicide . . . . .	172	181	186	192	197	5	5	4	5	5
Homicide and legal intervention . . . . .	161	194	158	178	177	6	4	7	6	7

See notes at end of table.

**Table 31 (page 2 of 3). Numbers of deaths and rank for selected causes of death, according to sex and race: United States, 1985–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and cause of death</i>	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
<b>Asian or Pacific Islander male</b>	<b>Number</b>					<b>Rank</b>				
All causes . . . . .	9,441	9,795	10,496	11,155	11,688	...	...	...	...	...
Diseases of heart . . . . .	2,837	2,853	3,137	3,225	3,240	1	1	1	1	1
Cerebrovascular diseases . . . . .	658	718	788	791	821	4	4	4	4	3
Malignant neoplasms . . . . .	2,262	2,281	2,454	2,639	2,821	2	2	2	2	2
Chronic obstructive pulmonary diseases . . . . .	276	308	327	353	391	6	6	6	6	6
Pneumonia and influenza . . . . .	315	334	329	376	473	5	5	5	5	5
Chronic liver disease and cirrhosis . . . . .	133	115	133	145	161	11	12	11	11	12
Diabetes mellitus . . . . .	172	186	183	200	217	8	9	9	9	9
Nephritis, nephrotic syndrome, and nephrosis . . . . .	98	101	113	134	134	13	13	12	13	13
Septicemia . . . . .	71	82	79	97	81	14	14	14	15	15
Atherosclerosis . . . . .	40	42	44	40	38	16	16	17	19	20
Human immunodeficiency virus infection . . . . .	---	---	69	99	132	---	---	15	14	14
Accidents and adverse effects . . . . .	734	791	827	864	809	3	3	3	3	4
Suicide . . . . .	230	237	257	255	270	7	7	7	7	8
Homicide and legal intervention . . . . .	164	195	190	221	279	9	8	8	8	7
<b>White female</b>										
All causes . . . . .	868,599	878,529	889,685	911,487	902,989	...	...	...	...	...
Diseases of heart . . . . .	332,778	333,396	333,669	337,007	323,469	1	1	1	1	1
Cerebrovascular diseases . . . . .	81,067	79,641	79,810	79,383	76,953	3	3	3	3	3
Malignant neoplasms . . . . .	190,648	193,971	196,716	200,626	205,855	2	2	2	2	2
Chronic obstructive pulmonary diseases . . . . .	26,364	27,781	29,378	31,846	33,835	5	5	5	5	5
Pneumonia and influenza . . . . .	31,480	32,432	32,527	37,308	36,961	4	4	4	4	4
Chronic liver disease and cirrhosis . . . . .	7,871	7,817	7,591	7,543	7,797	10	11	11	11	11
Diabetes mellitus . . . . .	17,547	17,496	17,842	18,684	21,771	7	7	7	7	7
Nephritis, nephrotic syndrome, and nephrosis . . . . .	8,564	8,692	8,964	9,129	8,514	9	9	9	10	10
Septicemia . . . . .	7,419	8,194	8,840	9,673	8,829	11	10	10	9	9
Atherosclerosis . . . . .	13,770	13,091	13,040	12,732	11,139	8	8	8	8	8
Human immunodeficiency virus infection . . . . .	---	---	628	788	981	---	---	24	24	23
Accidents and adverse effects . . . . .	25,155	25,451	25,874	26,656	26,448	6	6	6	6	6
Suicide . . . . .	5,831	6,167	6,029	5,810	5,566	12	12	12	12	12
Homicide and legal intervention . . . . .	3,041	3,123	3,149	3,072	2,971	17	17	16	18	18
<b>Black female</b>										
All causes . . . . .	110,597	113,112	115,263	119,791	121,249	...	...	...	...	...
Diseases of heart . . . . .	37,702	38,650	38,813	39,882	39,110	1	1	1	1	1
Cerebrovascular diseases . . . . .	10,341	10,014	10,055	10,381	10,240	3	3	3	3	3
Malignant neoplasms . . . . .	21,878	22,616	23,099	23,647	24,112	2	2	2	2	2
Chronic obstructive pulmonary diseases . . . . .	1,505	1,554	1,733	1,832	2,078	11	11	11	11	9
Pneumonia and influenza . . . . .	2,674	2,864	2,770	3,144	3,417	7	6	6	6	6
Chronic liver disease and cirrhosis . . . . .	1,439	1,341	1,342	1,427	1,334	12	12	12	12	12
Diabetes mellitus . . . . .	3,874	4,004	4,109	4,332	4,883	4	4	4	4	4
Nephritis, nephrotic syndrome, and nephrosis . . . . .	2,109	2,057	2,070	2,249	2,119	8	8	8	8	8
Septicemia . . . . .	1,662	1,720	1,988	2,011	1,912	10	10	9	10	11
Atherosclerosis . . . . .	1,022	964	942	955	889	13	15	15	15	16
Human immunodeficiency virus infection . . . . .	---	---	739	995	1,320	---	---	16	14	13
Accidents and adverse effects . . . . .	3,455	3,550	3,618	3,879	3,901	5	5	5	5	5
Suicide . . . . .	314	355	328	374	382	19	19	19	20	19
Homicide and legal intervention . . . . .	1,666	1,861	1,969	2,089	2,074	9	9	10	9	10
<b>American Indian female</b>										
All causes . . . . .	2,973	2,936	3,170	3,300	3,548	...	...	...	...	...
Diseases of heart . . . . .	732	683	755	777	860	1	1	1	1	1
Cerebrovascular diseases . . . . .	189	175	185	200	181	4	4	4	4	5
Malignant neoplasms . . . . .	456	466	549	557	612	2	2	2	2	2
Chronic obstructive pulmonary diseases . . . . .	51	46	71	66	85	10	12	8	8	8
Pneumonia and influenza . . . . .	99	85	110	131	142	7	7	7	7	7
Chronic liver disease and cirrhosis . . . . .	147	124	134	162	172	6	6	6	6	6
Diabetes mellitus . . . . .	150	137	158	187	211	5	5	5	5	4
Nephritis, nephrotic syndrome, and nephrosis . . . . .	56	74	63	53	59	8	8	9	10	11
Septicemia . . . . .	39	33	37	50	35	12	14	14	12	13
Atherosclerosis . . . . .	26	26	20	26	29	15	15	15	15	15
Human immunodeficiency virus infection . . . . .	---	---	3	---	8	---	---	26	---	23
Accidents and adverse effects . . . . .	306	339	305	306	318	3	3	3	3	3
Suicide . . . . .	38	37	39	36	35	14	13	13	14	13
Homicide and legal intervention . . . . .	39	55	51	50	72	12	11	11	12	10

See notes at end of table.

**Table 31 (page 3 of 3). Numbers of deaths and rank for selected causes of death, according to sex and race: United States, 1985–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and cause of death</i>	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
Asian or Pacific Islander female	Number					Rank				
All causes . . . . .	6,446	6,719	7,193	7,808	8,354	...	...	...	...	...
Diseases of heart . . . . .	1,729	1,834	1,875	2,065	2,186	1	1	2	2	2
Cerebrovascular diseases . . . . .	669	641	719	789	846	3	3	3	3	3
Malignant neoplasms . . . . .	1,649	1,752	1,902	2,115	2,236	2	2	1	1	1
Chronic obstructive pulmonary diseases . . . . .	146	120	159	168	167	6	8	7	7	7
Pneumonia and influenza . . . . .	201	226	253	242	328	5	5	5	5	5
Chronic liver disease and cirrhosis . . . . .	66	78	82	78	79	13	13	12	13	13
Diabetes mellitus . . . . .	132	175	184	188	231	7	6	6	6	6
Nephritis, nephrotic syndrome, and nephrosis . . . . .	68	81	83	80	105	12	12	11	12	11
Septicemia . . . . .	44	62	80	59	68	15	14	13	14	14
Atherosclerosis . . . . .	46	37	43	46	46	14	15	15	15	15
Human immunodeficiency virus infection . . . . .	---	---	10	8	14	---	---	24	27	24
Accidents and adverse effects . . . . .	380	366	407	433	442	4	4	4	4	4
Suicide . . . . .	123	118	126	109	143	9	9	9	10	8
Homicide and legal intervention . . . . .	79	97	79	109	102	11	11	14	10	12

NOTES: For data years shown, the code numbers for cause of death are based on the International Classification of Diseases, Ninth Revision, described in Appendix II, table V. Categories for the coding and classification of human immunodeficiency virus infection were introduced in the United States beginning with mortality data for 1987.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1985–89. Public Health Service. Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.



**Table 32 (page 1 of 2). Years of potential life lost before age 65 for selected causes of death, according to sex and race: United States, selected years 1970–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and cause of death</i>	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
All races											
Years lost per 100,000 population under 65 years of age											
All causes . . . . .	8,595.9	6,416.0	6,155.9	5,897.7	5,702.9	5,631.6	5,641.6	5,706.2	5,653.5	5,698.2	5,679.5
Diseases of heart . . . . .	1,108.9	841.3	819.3	792.4	784.4	763.5	750.2	734.7	711.7	689.1	649.7
Ischemic heart disease . . . . .	---	544.3	526.8	507.8	485.1	463.1	447.2	420.9	401.3	379.0	362.5
Cerebrovascular diseases . . . . .	241.1	140.8	136.5	128.0	124.7	124.3	119.4	116.1	116.1	115.5	109.5
Malignant neoplasms . . . . .	1,013.0	907.5	885.3	887.4	876.5	875.7	872.5	864.4	850.8	847.6	843.3
Respiratory system . . . . .	190.7	211.9	210.4	210.4	208.9	207.9	206.9	203.4	204.6	203.7	201.1
Colorectal . . . . .	78.9	68.7	66.8	66.5	65.8	65.6	64.7	62.8	64.6	62.2	59.1
Prostate <sup>1</sup> . . . . .	8.2	8.5	8.5	8.3	8.7	8.4	8.6	8.5	8.0	8.4	8.6
Breast <sup>2</sup> . . . . .	115.6	105.5	104.6	105.2	103.7	107.7	106.6	107.6	107.2	108.5	108.4
Chronic obstructive pulmonary diseases . . . . .	73.2	57.2	58.2	57.7	60.0	58.6	60.9	60.9	61.8	61.9	62.4
Pneumonia and influenza . . . . .	392.1	97.5	87.0	79.3	79.5	78.7	80.9	82.6	80.5	84.3	84.9
Chronic liver disease and cirrhosis . . . . .	187.8	145.3	132.6	122.4	118.1	115.7	113.2	109.5	110.0	109.9	107.5
Diabetes mellitus . . . . .	80.6	56.2	55.3	53.9	56.4	53.7	54.7	57.1	57.6	62.0	67.0
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	---	---	170.0	206.3	269.7
Accidents and adverse effects . . . . .	1,599.1	1,373.1	1,280.7	1,171.5	1,114.6	1,098.5	1,084.2	1,112.6	1,079.8	1,077.6	1,028.9
Motor vehicle accidents . . . . .	889.4	840.8	789.3	694.1	659.5	672.2	658.9	687.0	675.2	673.4	632.9
Suicide . . . . .	250.2	309.0	315.8	312.7	306.0	312.7	312.6	320.9	314.2	311.3	307.1
Homicide and legal intervention . . . . .	271.8	373.6	359.0	336.4	299.0	292.4	290.7	320.9	307.2	324.9	338.5
White male											
All causes . . . . .	9,757.4	7,611.5	7,307.1	6,990.6	6,732.1	6,653.1	6,676.5	6,747.0	6,605.6	6,614.5	6,525.1
Diseases of heart . . . . .	1,607.4	1,179.1	1,149.5	1,118.9	1,091.6	1,058.3	1,031.5	1,000.4	963.4	924.5	870.0
Ischemic heart disease . . . . .	---	869.7	838.1	809.6	770.4	732.7	705.3	662.8	626.7	587.9	561.6
Cerebrovascular diseases . . . . .	215.0	122.6	117.0	111.6	110.0	108.0	103.8	99.8	100.4	100.4	93.2
Malignant neoplasms . . . . .	1,036.9	935.1	901.7	903.3	889.2	882.4	884.8	878.1	857.5	850.3	838.4
Respiratory system . . . . .	287.8	286.0	283.2	278.9	271.8	270.1	266.3	261.3	262.0	257.8	250.4
Colorectal . . . . .	81.2	73.5	72.4	71.8	72.2	71.8	71.1	68.4	70.2	68.5	65.2
Prostate . . . . .	14.4	15.2	15.4	15.4	16.0	15.4	14.7	15.7	15.6	15.4	16.0
Chronic obstructive pulmonary diseases . . . . .	88.8	64.2	66.5	63.6	64.4	63.6	63.2	63.9	63.6	62.7	61.4
Pneumonia and influenza . . . . .	353.2	88.7	82.3	74.2	74.0	75.3	77.9	80.7	76.9	81.0	79.6
Chronic liver disease and cirrhosis . . . . .	209.8	166.9	156.3	150.5	143.0	141.3	136.6	133.5	136.0	139.9	139.1
Diabetes mellitus . . . . .	75.3	52.5	53.7	52.6	53.0	52.6	54.2	56.1	59.1	61.7	67.3
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	---	---	253.1	300.7	399.6
Accidents and adverse effects . . . . .	2,261.3	2,071.0	1,945.2	1,771.9	1,667.5	1,635.2	1,602.5	1,641.9	1,570.0	1,556.4	1,461.1
Motor vehicle accidents . . . . .	1,296.5	1,301.7	1,228.8	1,071.6	1,006.0	1,016.7	981.8	1,029.6	995.7	984.4	902.6
Suicide . . . . .	369.6	509.0	515.0	518.8	510.6	525.1	528.2	546.2	530.8	527.3	518.0
Homicide and legal intervention . . . . .	201.9	365.4	346.6	320.5	286.2	277.9	274.2	291.6	264.3	266.6	278.4
Black male											
All causes . . . . .	20,283.5	14,381.9	13,522.0	12,888.6	12,351.9	12,190.3	12,534.3	13,124.5	13,384.1	13,845.2	14,186.5
Diseases of heart . . . . .	2,022.2	1,661.4	1,591.4	1,500.9	1,541.6	1,523.9	1,546.2	1,539.1	1,493.9	1,491.2	1,435.9
Ischemic heart disease . . . . .	---	800.9	778.5	735.2	699.2	690.6	675.0	634.2	609.8	593.5	588.8
Cerebrovascular diseases . . . . .	595.6	349.3	331.4	307.3	291.5	299.7	290.4	293.9	282.0	296.1	278.8
Malignant neoplasms . . . . .	1,216.0	1,175.8	1,162.6	1,153.3	1,132.9	1,156.6	1,130.2	1,106.0	1,082.3	1,092.3	1,107.3
Respiratory system . . . . .	376.7	400.4	392.6	385.7	381.4	387.1	384.6	371.2	358.2	355.1	362.9
Colorectal . . . . .	80.8	76.7	77.4	79.3	75.4	81.1	78.5	77.3	83.8	81.3	79.4
Prostate . . . . .	35.2	34.1	32.9	29.8	31.0	30.2	31.4	30.9	30.5	30.6	29.7
Chronic obstructive pulmonary diseases . . . . .	146.8	110.8	107.0	110.7	113.9	106.8	109.9	116.0	122.0	120.6	118.4
Pneumonia and influenza . . . . .	1,308.9	315.2	267.3	252.6	255.7	241.8	251.2	247.5	259.1	269.9	270.8
Chronic liver disease and cirrhosis . . . . .	463.5	391.9	339.9	296.6	286.6	286.7	306.1	278.4	289.6	271.8	265.2
Diabetes mellitus . . . . .	144.0	102.2	101.3	93.7	105.2	105.4	102.0	108.3	106.7	124.5	137.4
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	---	---	708.8	879.1	1,106.6
Accidents and adverse effects . . . . .	3,500.6	2,308.9	2,096.2	1,936.1	1,851.7	1,856.8	1,868.0	1,956.7	1,958.8	1,973.3	1,915.3
Motor vehicle accidents . . . . .	1,466.1	1,022.4	927.3	852.1	826.5	864.3	886.9	959.0	929.9	949.6	924.0
Suicide . . . . .	237.5	323.8	316.0	316.2	303.2	321.0	329.6	332.6	350.6	363.6	387.8
Homicide and legal intervention . . . . .	2,234.6	2,274.9	2,198.0	2,016.8	1,747.4	1,648.0	1,671.8	1,933.5	1,897.9	2,115.4	2,251.8

See footnotes at end of table.

**Table 32 (page 2 of 2). Years of potential life lost before age 65 for selected causes of death, according to sex and race: United States, selected years 1970–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and cause of death</i>	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
White female											
Years lost per 100,000 population under 65 years of age											
All causes . . . . .	5,527.4	3,983.2	3,872.3	3,728.2	3,625.5	3,580.7	3,525.6	3,499.0	3,461.4	3,447.7	3,403.8
Diseases of heart . . . . .	497.4	401.2	401.4	383.9	385.3	375.8	367.6	361.3	355.1	341.4	314.6
Ischemic heart disease . . . . .	---	227.9	226.2	216.5	210.7	201.7	194.5	184.6	180.4	170.6	159.4
Cerebrovascular diseases . . . . .	180.1	111.6	110.4	100.6	97.4	98.1	92.7	90.0	89.6	86.5	82.0
Malignant neoplasms . . . . .	974.6	858.3	845.1	852.0	841.7	844.6	842.7	829.4	822.2	822.3	824.6
Respiratory system . . . . .	89.8	132.6	132.0	139.0	142.0	141.3	144.8	141.8	144.5	148.3	147.4
Colorectal . . . . .	77.0	64.0	60.6	60.1	59.6	59.1	57.7	56.3	56.0	53.6	51.3
Breast . . . . .	233.4	211.7	210.4	211.4	207.4	214.0	213.8	212.7	211.7	213.7	215.3
Chronic obstructive pulmonary diseases . . . . .	46.5	43.0	45.0	44.7	48.1	47.1	52.0	50.6	52.6	51.2	54.7
Pneumonia and influenza . . . . .	247.2	64.0	57.6	49.2	52.5	50.1	52.0	51.8	49.3	51.2	51.6
Chronic liver disease and cirrhosis . . . . .	114.7	79.1	72.2	64.5	63.6	60.6	58.8	56.3	53.8	53.7	50.8
Diabetes mellitus . . . . .	65.1	45.4	44.2	44.1	47.1	42.3	43.0	46.1	44.8	47.4	51.6
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	---	---	19.0	23.7	30.9
Accidents and adverse effects . . . . .	755.6	647.8	604.5	552.1	538.0	540.9	530.5	539.1	539.9	537.1	530.2
Motor vehicle accidents . . . . .	466.5	437.3	413.7	364.7	354.6	369.9	362.0	370.3	380.9	380.9	374.1
Suicide . . . . .	157.2	145.4	156.1	148.3	142.4	142.4	136.9	139.6	136.7	131.4	126.2
Homicide and legal intervention . . . . .	69.7	109.3	107.0	107.7	92.9	99.7	97.3	102.4	99.7	98.9	96.7
Black female											
All causes . . . . .	12,188.8	7,927.2	7,455.8	7,161.6	7,011.9	6,901.5	6,894.3	7,032.0	7,128.7	7,352.4	7,431.5
Diseases of heart . . . . .	1,292.7	937.2	871.7	854.2	865.7	846.2	848.2	858.4	818.7	834.1	799.6
Ischemic heart disease . . . . .	---	382.7	357.8	363.2	347.6	330.5	319.0	307.6	289.4	292.8	283.4
Cerebrovascular diseases . . . . .	564.7	289.0	275.9	270.5	260.7	248.9	246.5	236.1	240.0	238.1	231.4
Malignant neoplasms . . . . .	1,044.8	968.4	940.3	941.9	938.1	946.3	927.9	965.7	959.9	947.4	926.0
Respiratory system . . . . .	89.3	132.8	137.5	132.3	137.9	132.2	137.7	135.9	141.2	136.0	142.7
Colorectal . . . . .	81.4	70.3	71.5	75.2	67.4	66.5	72.5	71.5	70.6	71.4	64.7
Breast . . . . .	209.3	210.9	215.8	220.5	220.8	245.0	232.0	257.5	261.2	267.8	253.5
Chronic obstructive pulmonary diseases . . . . .	93.3	62.5	59.2	71.5	71.6	70.5	72.5	71.5	77.6	84.8	79.2
Pneumonia and influenza . . . . .	888.7	187.4	150.4	148.3	133.0	141.4	137.7	150.2	141.2	151.9	160.9
Chronic liver disease and cirrhosis . . . . .	295.6	210.9	180.5	161.4	158.8	147.8	145.0	135.9	141.2	129.3	117.1
Diabetes mellitus . . . . .	179.7	109.3	105.4	99.3	106.9	98.8	101.5	107.3	98.8	112.0	112.1
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	---	---	169.4	215.0	276.8
Accidents and adverse effects . . . . .	1,169.9	718.5	659.6	648.4	646.7	595.5	609.0	643.8	628.2	682.8	652.5
Motor vehicle accidents . . . . .	478.4	296.8	269.6	274.9	260.7	267.2	282.7	293.3	303.5	323.7	310.6
Suicide . . . . .	81.9	70.3	72.4	65.4	67.6	65.4	58.0	64.4	63.5	73.2	73.9
Homicide and legal intervention . . . . .	460.3	492.0	460.4	429.0	411.9	417.9	398.7	443.5	458.8	489.0	474.3

<sup>1</sup>Male only.  
<sup>2</sup>Female only.

NOTES: For data years shown, the code numbers for cause of death are based on the International Classification of Diseases, Ninth Revision, described in Appendix II, table V. International Classification of Diseases codes for human immunodeficiency virus infection not available for use with the National Vital Statistics System until 1987. Years of potential life lost before age 65 provides a measure of the impact of mortality on the population under 65 years of age. See Appendix II for method of calculation.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1970–89. Public Health Service. Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.

**Table 33 (page 1 of 2). Death rates for diseases of heart, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
All races									
	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	307.2	286.2	253.6	202.0	180.5	175.0	169.6	166.3	155.9
All ages, crude . . . . .	355.5	369.0	362.0	336.0	323.0	317.5	312.4	311.3	295.6
Under 1 year . . . . .	3.5	6.6	13.1	22.8	24.5	26.1	25.2	22.6	19.7
1–4 years. . . . .	1.3	1.3	1.7	2.6	2.1	2.5	2.2	2.4	1.9
5–14 years. . . . .	2.1	1.3	0.8	0.9	0.9	0.9	0.9	0.9	0.8
15–24 years. . . . .	6.8	4.0	3.0	2.9	2.8	2.8	2.8	2.9	2.6
25–34 years. . . . .	19.4	15.6	11.4	8.3	8.2	8.6	8.4	8.2	7.9
35–44 years. . . . .	86.4	74.6	66.7	44.6	38.0	37.5	35.6	34.2	32.3
45–54 years. . . . .	308.6	271.8	238.4	180.2	152.9	144.6	140.5	131.4	124.2
55–64 years. . . . .	808.1	737.9	652.3	494.1	439.1	424.2	408.8	400.9	376.7
65–74 years. . . . .	1,839.8	1,740.5	1,558.2	1,218.6	1,080.6	1,043.0	1,007.9	984.1	911.8
75–84 years. . . . .	4,310.1	4,089.4	3,683.8	2,993.1	2,712.6	2,637.5	2,560.0	2,542.7	2,400.6
85 years and over. . . . .	9,150.6	9,317.8	7,891.3	7,777.1	7,275.0	7,178.7	7,074.2	7,098.1	6,701.6
White male									
All ages, age adjusted. . . . .	381.1	375.4	347.6	277.5	244.5	234.8	225.9	220.5	205.9
All ages, crude . . . . .	433.0	454.6	438.3	384.0	358.9	348.6	340.1	336.8	318.3
Under 1 year . . . . .	4.1	6.9	12.0	22.5	23.8	26.0	24.8	21.2	18.4
1–4 years. . . . .	1.1	1.0	1.5	2.1	1.7	2.1	1.8	1.9	1.7
5–14 years. . . . .	1.7	1.1	0.8	0.9	0.8	0.9	0.9	1.0	0.7
15–24 years. . . . .	5.8	3.6	3.0	2.9	3.0	3.0	3.0	3.1	2.7
25–34 years. . . . .	20.1	17.6	12.3	9.1	9.2	9.5	9.3	9.2	8.9
35–44 years. . . . .	110.6	107.5	94.6	61.8	52.4	51.7	48.7	46.2	43.1
45–54 years. . . . .	423.6	413.2	365.7	269.8	224.4	208.8	201.6	186.3	174.8
55–64 years. . . . .	1,081.7	1,056.0	979.3	730.6	635.6	610.3	582.7	565.1	531.5
65–74 years. . . . .	2,308.3	2,297.9	2,177.2	1,729.7	1,501.0	1,440.9	1,378.0	1,348.9	1,243.8
75–84 years. . . . .	4,907.3	4,839.9	4,617.6	3,883.2	3,532.9	3,405.2	3,291.0	3,257.6	3,066.1
85 years and over. . . . .	9,950.5	10,135.8	8,818.0	8,958.0	8,396.3	8,138.4	8,030.6	8,072.5	7,549.9
Black male									
All ages, age adjusted. . . . .	415.5	381.2	375.9	327.3	301.0	294.3	287.1	286.2	272.6
All ages, crude . . . . .	348.4	330.6	330.3	301.0	285.0	281.3	276.1	276.3	263.5
Under 1 year . . . . .	---	13.9	33.5	42.8	46.7	49.8	45.7	43.0	34.4
1–4 years. . . . .	---	3.8	3.9	6.3	4.4	5.3	5.1	4.5	4.6
5–14 years. . . . .	6.4	3.0	1.4	1.3	1.5	1.4	1.6	1.8	1.4
15–24 years. . . . .	18.0	8.7	8.3	8.3	7.2	6.7	6.9	7.9	6.3
25–34 years. . . . .	51.9	43.1	41.6	30.3	29.1	29.3	26.9	27.6	25.3
35–44 years. . . . .	198.1	168.1	189.2	136.6	122.0	123.6	118.8	113.0	108.3
45–54 years. . . . .	624.1	514.0	512.8	433.4	382.4	365.1	362.8	352.9	359.4
55–64 years. . . . .	1,434.0	1,236.8	1,135.4	987.2	882.6	864.9	814.7	833.0	795.8
65–74 years. . . . .	2,140.1	2,281.4	2,237.8	1,847.2	1,738.4	1,673.1	1,659.7	1,616.7	1,531.5
75–84 years. . . . .	---	3,533.6	3,783.4	3,578.8	3,450.0	3,407.3	3,371.6	3,435.7	3,157.2
85 years and over. . . . .	---	6,037.9	5,367.6	6,819.5	6,098.5	6,268.7	6,050.7	6,165.7	5,837.5
White female									
All ages, age adjusted. . . . .	223.6	197.1	167.8	134.6	121.7	119.0	116.3	114.2	106.6
All ages, crude . . . . .	289.4	306.5	313.8	319.2	320.7	319.0	317.1	318.0	303.0
Under 1 year . . . . .	2.7	4.3	7.0	15.7	18.3	19.1	19.4	16.8	14.2
1–4 years. . . . .	1.1	0.9	1.2	2.1	1.6	2.1	1.7	2.2	1.3
5–14 years. . . . .	1.9	0.9	0.7	0.8	0.9	0.7	0.7	0.7	0.6
15–24 years. . . . .	5.3	2.8	1.7	1.7	1.7	1.6	1.7	1.7	1.5
25–34 years. . . . .	12.2	8.2	5.5	3.9	3.8	4.1	4.1	3.9	3.8
35–44 years. . . . .	40.5	28.6	23.9	16.4	14.3	13.8	13.1	12.5	11.9
45–54 years. . . . .	141.9	103.4	91.4	71.2	62.1	59.8	58.8	54.5	50.4
55–64 years. . . . .	460.2	383.0	317.7	248.1	225.8	221.4	217.1	213.3	196.1
65–74 years. . . . .	1,400.9	1,229.8	1,044.0	796.7	713.7	693.9	675.1	656.2	604.4
75–84 years. . . . .	3,925.2	3,629.7	3,143.5	2,493.6	2,233.3	2,180.2	2,120.7	2,101.5	1,990.7
85 years and over. . . . .	9,084.7	9,280.8	7,839.9	7,501.6	7,089.3	7,021.3	6,924.6	6,957.3	6,580.4

See footnote at end of table.



**Table 33 (page 2 of 2). Death rates for diseases of heart, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Black female									
Deaths per 100,000 resident population									
All ages, age adjusted. . . . .	349.5	292.6	251.7	201.1	186.8	185.1	180.8	181.1	172.9
All ages, crude. . . . .	289.9	268.5	261.0	249.7	248.1	250.8	248.3	251.2	242.7
Under 1 year . . . . .	---	12.0	31.3	43.6	39.5	42.8	36.4	39.9	39.7
1–4 years. . . . .	---	2.8	4.2	4.4	5.2	4.8	4.4	4.1	3.2
5–14 years. . . . .	8.8	3.0	1.8	1.7	1.7	1.5	1.4	1.0	1.6
15–24 years. . . . .	19.8	10.0	6.0	4.6	4.6	4.6	4.4	4.4	4.2
25–34 years. . . . .	52.0	35.9	24.7	15.7	13.1	15.3	14.8	13.2	13.1
35–44 years. . . . .	185.0	125.3	99.8	61.7	50.4	50.1	46.5	50.8	47.1
45–54 years. . . . .	526.8	360.7	290.9	202.4	172.6	172.5	165.7	167.8	153.7
55–64 years. . . . .	1,210.7	952.3	710.5	530.1	500.4	479.0	469.9	471.4	453.1
65–74 years. . . . .	1,659.4	1,680.5	1,553.2	1,210.3	1,133.6	1,108.3	1,090.2	1,060.0	1,024.9
75–84 years. . . . .	---	2,926.9	2,964.1	2,707.2	2,606.0	2,623.5	2,566.3	2,625.6	2,492.9
85 years and over. . . . .	---	5,650.0	5,003.8	5,796.5	5,441.0	5,698.6	5,627.6	5,648.1	5,469.7

<sup>1</sup>Includes deaths of nonresidents of the United States.

NOTE: For data years shown, the code numbers for cause of death are based on the then current International Classification of Diseases, which are described in Appendix II, tables IV and V.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service. Washington, U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.

**Table 34 (page 1 of 2). Death rates for cerebrovascular diseases, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Deaths per 100,000 resident population									
All races									
All ages, age adjusted . . . . .	88.6	79.7	66.3	40.8	32.3	31.0	30.3	29.7	28.0
All ages, crude . . . . .	104.0	108.0	101.9	75.1	64.1	62.1	61.6	61.2	58.6
Under 1 year . . . . .	5.1	4.1	5.0	4.4	3.6	2.9	3.4	3.9	3.2
1–4 years . . . . .	0.9	0.8	1.0	0.5	0.3	0.3	0.4	0.4	0.3
5–14 years . . . . .	0.5	0.7	0.7	0.3	0.2	0.2	0.2	0.2	0.2
15–24 years . . . . .	1.6	1.8	1.6	1.0	0.8	0.7	0.6	0.7	0.6
25–34 years . . . . .	4.2	4.7	4.5	2.6	2.1	2.2	2.2	2.2	2.1
35–44 years . . . . .	18.7	14.7	15.6	8.5	7.2	7.1	7.0	6.9	6.4
45–54 years . . . . .	70.4	49.2	41.6	25.2	21.1	20.4	20.1	19.2	18.4
55–64 years . . . . .	195.3	147.3	115.8	65.2	54.3	53.0	52.2	51.3	48.8
65–74 years . . . . .	549.7	469.2	384.1	219.5	171.3	164.1	157.2	154.7	144.7
75–84 years . . . . .	1,499.6	1,491.3	1,254.2	788.6	605.8	573.8	562.6	553.6	519.8
85 years and over . . . . .	2,990.1	3,680.5	3,014.3	2,288.9	1,837.5	1,762.6	1,733.1	1,707.4	1,631.0
White male									
All ages, age adjusted . . . . .	87.0	80.3	68.8	41.9	32.8	31.1	30.3	30.0	28.0
All ages, crude . . . . .	100.5	102.7	93.5	63.3	52.5	50.5	49.9	50.0	47.5
Under 1 year . . . . .	5.9	4.3	4.5	3.8	3.7	2.5	3.6	3.1	2.8
1–4 years . . . . .	1.1	0.8	1.2	0.4	*0.3	*0.2	0.5	0.3	*0.2
5–14 years . . . . .	0.5	0.7	0.8	0.2	0.2	0.2	0.2	0.2	0.3
15–24 years . . . . .	1.6	1.7	1.6	1.0	0.7	0.7	0.6	0.7	0.6
25–34 years . . . . .	3.4	3.5	3.2	2.0	1.8	1.8	1.8	1.8	1.7
35–44 years . . . . .	13.1	11.3	11.8	6.5	5.4	5.7	5.4	5.5	5.0
45–54 years . . . . .	53.7	40.9	35.6	21.7	18.0	16.5	16.7	16.0	14.8
55–64 years . . . . .	182.2	139.0	119.9	64.2	54.2	51.4	50.7	50.4	47.4
65–74 years . . . . .	569.7	501.0	420.0	240.4	183.7	171.4	165.4	163.5	152.2
75–84 years . . . . .	1,556.3	1,564.8	1,361.6	854.8	651.1	617.3	601.2	590.8	554.6
85 years and over . . . . .	3,127.1	3,734.8	3,018.1	2,236.9	1,747.8	1,697.0	1,663.1	1,667.1	1,568.3
Black male									
All ages, age adjusted . . . . .	146.2	141.2	122.5	77.5	60.8	58.9	57.1	57.8	54.1
All ages, crude . . . . .	122.0	122.9	108.8	73.1	58.5	57.1	55.7	56.5	53.2
Under 1 year . . . . .	---	8.5	12.3	11.2	9.8	8.0	*5.9	9.3	7.6
1–4 years . . . . .	---	1.9	*1.4	*0.6	*0.8	*0.5	*0.5	*0.5	*0.3
5–14 years . . . . .	*0.7	*0.9	0.8	*0.5	*0.1	*0.2	*0.3	*0.2	*0.4
15–24 years . . . . .	3.3	3.7	3.0	2.1	1.3	1.1	0.9	0.9	1.0
25–34 years . . . . .	12.0	12.8	14.6	7.7	5.7	6.1	5.4	6.7	4.8
35–44 years . . . . .	59.3	47.4	52.7	29.2	25.9	27.2	27.1	25.9	24.9
45–54 years . . . . .	211.9	166.1	136.1	82.1	70.6	68.2	67.5	66.6	66.8
55–64 years . . . . .	522.8	439.9	343.4	189.8	151.6	144.3	143.9	146.4	135.6
65–74 years . . . . .	783.6	899.2	780.1	472.8	358.9	337.8	318.5	325.8	301.8
75–84 years . . . . .	---	1,475.2	1,445.7	1,067.6	817.6	809.9	777.6	796.3	715.5
85 years and over . . . . .	---	2,700.0	1,963.1	1,873.2	1,363.1	1,350.7	1,339.1	1,302.9	1,333.3
White female									
All ages, age adjusted . . . . .	79.7	68.7	56.2	35.2	27.9	27.1	26.3	25.5	24.1
All ages, crude . . . . .	103.3	110.1	109.8	88.8	78.1	76.2	75.8	74.9	72.1
Under 1 year . . . . .	2.9	2.6	3.2	3.3	2.2	1.8	2.0	2.8	2.5
1–4 years . . . . .	0.6	0.5	0.6	0.4	*0.3	*0.2	*0.3	*0.3	*0.3
5–14 years . . . . .	0.4	0.6	0.6	0.3	0.3	0.2	0.2	0.2	0.2
15–24 years . . . . .	1.2	1.4	1.1	0.7	0.7	0.6	0.6	0.6	0.5
25–34 years . . . . .	2.9	3.4	3.4	2.0	1.6	1.6	1.7	1.6	1.5
35–44 years . . . . .	13.6	10.1	11.5	6.7	5.3	5.0	5.1	4.6	4.3
45–54 years . . . . .	55.0	33.8	30.5	18.7	15.4	15.5	14.5	13.9	13.2
55–64 years . . . . .	156.9	103.0	78.1	48.7	39.7	40.1	38.7	37.0	35.6
65–74 years . . . . .	498.1	383.3	303.2	172.8	138.0	136.3	129.3	125.3	117.8
75–84 years . . . . .	1,471.3	1,444.7	1,176.8	730.3	559.4	530.7	524.0	512.7	479.7
85 years and over . . . . .	3,017.9	3,795.7	3,167.6	2,367.8	1,923.0	1,837.3	1,807.8	1,767.0	1,695.9

See footnote at end of table.

**Table 34 (page 2 of 2). Death rates for cerebrovascular diseases, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Black female									
Deaths per 100,000 resident population									
All ages, age adjusted. . . . .	155.6	139.5	107.9	61.7	50.3	47.6	46.7	46.6	44.9
All ages, crude. . . . .	128.3	127.7	112.2	77.9	68.0	65.0	64.3	65.4	63.5
Under 1 year. . . . .	---	*6.7	9.1	*6.4	*5.3	*5.3	7.8	8.2	*4.6
1–4 years. . . . .	---	*1.3	*1.4	*0.5	*0.5	*0.4	*0.6	*0.7	*0.4
5–14 years. . . . .	*0.6	1.0	0.8	*0.3	*0.3	*0.3	*0.2	*0.4	*0.3
15–24 years. . . . .	4.2	3.4	3.0	1.7	1.5	1.0	1.1	1.1	1.3
25–34 years. . . . .	15.9	17.4	14.3	7.0	5.6	6.0	5.8	5.3	5.7
35–44 years. . . . .	75.0	57.4	49.1	21.6	19.3	18.5	17.5	18.5	16.9
45–54 years. . . . .	248.9	166.2	119.4	61.9	49.8	46.4	47.2	43.0	44.1
55–64 years. . . . .	567.7	452.0	272.4	138.7	111.3	109.4	108.7	105.7	99.5
65–74 years. . . . .	754.4	830.5	673.5	362.2	281.5	268.5	261.2	264.7	248.1
75–84 years. . . . .	---	1,413.1	1,338.3	918.6	775.4	710.7	685.7	700.7	701.1
85 years and over. . . . .	---	2,578.9	2,210.5	1,896.3	1,585.6	1,504.1	1,480.9	1,517.7	1,419.4

<sup>1</sup>Includes deaths of nonresidents of the United States.

\*Based on fewer than 20 deaths.

NOTES: For data years shown, the code numbers for cause of death are based on the then current International Classification of Diseases, which are described in Appendix II, tables IV and V.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service, Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.



**Table 35 (page 1 of 2). Death rates for malignant neoplasms, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
All races									
Deaths per 100,000 resident population									
All ages, age adjusted. . . . .	125.3	125.8	129.8	132.8	133.6	133.2	132.9	132.7	133.0
All ages, crude . . . . .	139.8	149.2	162.8	183.9	193.3	194.7	195.9	197.3	199.9
Under 1 year . . . . .	8.7	7.2	4.7	3.2	3.0	2.6	2.7	2.3	2.7
1–4 years. . . . .	11.7	10.9	7.5	4.5	3.8	4.0	3.8	3.7	3.4
5–14 years. . . . .	6.7	6.8	6.0	4.3	3.5	3.4	3.3	3.2	3.3
15–24 years. . . . .	8.6	8.3	8.3	6.3	5.4	5.4	5.1	5.1	5.1
25–34 years. . . . .	20.0	19.5	16.5	13.7	13.1	13.1	12.4	11.9	12.1
35–44 years. . . . .	62.7	59.7	59.5	48.6	45.7	45.3	43.5	44.2	43.1
45–54 years. . . . .	175.1	177.0	182.5	180.0	169.1	165.7	164.3	160.4	157.2
55–64 years. . . . .	392.9	396.8	423.0	436.1	450.5	444.4	447.0	447.3	445.1
65–74 years. . . . .	692.5	713.9	751.2	817.9	838.3	847.0	843.6	842.7	852.6
75–84 years. . . . .	1,153.3	1,127.4	1,169.2	1,232.3	1,281.0	1,287.3	1,298.4	1,313.3	1,338.1
85 years and over. . . . .	1,451.0	1,450.0	1,320.7	1,594.6	1,591.5	1,612.0	1,618.0	1,638.9	1,662.3
White male									
All ages, age adjusted. . . . .	130.9	141.6	154.3	160.5	159.2	158.8	158.4	157.6	157.2
All ages, crude . . . . .	147.2	166.1	185.1	208.7	217.2	218.8	220.5	221.4	223.3
Under 1 year . . . . .	9.6	7.9	4.3	3.5	3.1	3.0	2.7	2.3	2.8
1–4 years. . . . .	13.1	13.1	8.5	5.4	4.4	4.7	4.1	3.9	3.9
5–14 years. . . . .	7.6	8.0	7.0	5.2	4.0	3.9	4.1	3.7	3.7
15–24 years. . . . .	9.9	10.3	10.6	7.8	6.5	6.8	6.0	5.9	5.7
25–34 years. . . . .	17.7	18.8	16.2	13.6	13.0	13.5	11.9	11.5	11.4
35–44 years. . . . .	44.5	46.3	50.1	41.1	39.5	37.7	36.7	36.9	35.6
45–54 years. . . . .	150.8	164.1	172.0	175.4	161.2	158.5	157.1	153.5	149.6
55–64 years. . . . .	409.4	450.9	498.1	497.4	508.4	504.3	509.8	508.6	505.7
65–74 years. . . . .	798.7	887.3	997.0	1,070.7	1,061.2	1,063.3	1,061.1	1,050.4	1,054.3
75–84 years. . . . .	1,367.6	1,413.7	1,592.7	1,779.7	1,820.1	1,827.0	1,826.6	1,839.7	1,853.0
85 years and over. . . . .	1,732.7	1,791.4	1,772.2	2,375.6	2,424.5	2,462.3	2,475.5	2,533.0	2,566.1
Black male									
All ages, age adjusted. . . . .	126.1	158.5	198.0	229.9	231.6	229.0	227.9	227.0	230.6
All ages, crude . . . . .	106.6	136.7	171.6	205.5	212.2	211.4	212.2	211.7	216.2
Under 1 year . . . . .	---	*6.8	*5.3	*4.5	*2.4	*1.7	*2.1	*2.7	*1.6
1–4 years. . . . .	---	7.9	7.6	5.1	3.3	3.1	4.3	3.4	2.9
5–14 years. . . . .	5.8	4.4	4.8	3.7	3.6	3.8	2.7	3.1	3.3
15–24 years. . . . .	7.9	9.7	9.4	8.1	6.4	6.3	6.5	6.2	6.9
25–34 years. . . . .	18.0	18.4	18.8	14.1	14.7	14.2	14.3	14.0	14.9
35–44 years. . . . .	55.7	72.9	81.3	73.8	71.2	71.4	64.9	68.0	65.3
45–54 years. . . . .	211.7	244.7	311.2	333.0	313.6	303.6	296.7	302.2	304.6
55–64 years. . . . .	490.8	579.7	689.2	812.5	803.3	776.0	767.3	749.8	759.5
65–74 years. . . . .	636.4	938.5	1,168.9	1,417.2	1,448.7	1,455.1	1,453.6	1,434.5	1,460.7
75–84 years. . . . .	---	1,053.3	1,624.8	2,029.6	2,238.3	2,249.2	2,329.5	2,344.5	2,410.4
85 years and over. . . . .	---	1,155.2	1,387.0	2,393.9	2,507.7	2,620.9	2,659.4	2,720.0	2,787.5
White female									
All ages, age adjusted. . . . .	119.4	109.5	107.6	107.7	110.3	110.1	109.7	110.1	110.7
All ages, crude . . . . .	139.9	139.8	149.4	170.3	183.7	185.6	186.9	189.3	192.9
Under 1 year . . . . .	7.8	6.8	5.4	2.7	3.0	2.4	3.0	2.2	3.0
1–4 years. . . . .	11.3	9.7	6.9	3.6	3.5	3.4	3.6	3.7	3.0
5–14 years. . . . .	6.3	6.2	5.4	3.7	3.1	3.1	2.8	2.6	3.0
15–24 years. . . . .	7.5	6.5	6.2	4.7	4.3	4.2	3.9	4.2	4.3
25–34 years. . . . .	20.9	18.8	16.3	13.5	12.6	12.1	12.3	11.5	12.0
35–44 years. . . . .	74.5	66.6	62.4	50.9	47.0	47.4	45.1	46.2	45.5
45–54 years. . . . .	185.8	175.7	177.3	166.4	160.6	155.6	154.9	151.3	148.1
55–64 years. . . . .	362.5	329.0	338.6	355.5	374.1	369.4	370.1	372.5	370.9
65–74 years. . . . .	616.5	562.1	554.7	605.2	645.3	658.7	654.0	660.0	670.8
75–84 years. . . . .	1,026.6	939.3	903.5	905.4	949.2	956.4	968.6	984.4	1,013.9
85 years and over. . . . .	1,348.3	1,304.9	1,126.6	1,266.8	1,270.9	1,283.6	1,291.0	1,300.1	1,322.0

See footnote at end of table.

**Table 35 (page 2 of 2). Death rates for malignant neoplasms, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Black female	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	131.9	127.8	123.5	129.7	130.4	132.1	132.0	131.2	130.9
All ages, crude. . . . .	111.8	113.8	117.3	136.5	143.9	146.7	147.8	148.9	149.6
Under 1 year . . . . .	---	*6.7	*3.3	*3.0	*4.3	*2.8	*1.8	*3.4	*3.3
1–4 years. . . . .	---	6.9	5.7	3.9	2.5	4.3	2.6	3.8	3.7
5–14 years. . . . .	3.9	4.8	4.0	3.4	3.0	2.9	3.0	2.8	2.8
15–24 years. . . . .	8.8	6.9	6.4	5.7	4.3	4.7	5.3	4.9	4.9
25–34 years. . . . .	34.3	31.0	20.9	18.3	17.0	17.8	15.8	17.5	15.8
35–44 years. . . . .	119.8	102.4	94.6	73.5	69.5	72.2	72.9	71.2	67.4
45–54 years. . . . .	277.0	254.8	228.6	230.2	208.1	215.3	214.5	196.2	197.8
55–64 years. . . . .	484.6	442.7	404.8	450.4	465.4	451.6	457.3	454.1	442.3
65–74 years. . . . .	477.3	541.6	615.8	662.4	694.2	717.5	703.4	728.3	748.1
75–84 years. . . . .	---	696.3	763.3	923.9	1,014.6	1,017.9	1,045.5	1,062.6	1,078.7
85 years and over. . . . .	---	728.9	791.5	1,159.9	1,228.8	1,254.5	1,256.6	1,288.0	1,282.4

<sup>1</sup>Includes deaths of nonresidents of the United States.

\*Based on fewer than 20 deaths.

NOTE: For data years shown, the code numbers for cause of death are based on the then current International Classification of Diseases, which are described in Appendix II, tables IV and V.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service. Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.

**Table 36 (page 1 of 2). Death rates for malignant neoplasms of respiratory system, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Deaths per 100,000 resident population									
All races									
All ages, age adjusted. . . . .	12.8	19.2	28.4	36.4	38.8	39.0	39.7	39.9	40.3
All ages, crude. . . . .	14.1	22.2	34.2	47.9	53.3	54.1	55.5	56.2	57.3
Under 1 year . . . . .	*0.1	*0.2	*0.1	*0.2	*0.1	*0.1	*0.1	*0.1	*0.2
1–4 years. . . . .	*0.1	*0.1	*0.1	*0.1	*0.0	*0.0	*0.0	*0.0	*0.0
5–14 years. . . . .	*0.1	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
15–24 years. . . . .	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
25–34 years. . . . .	0.9	1.1	1.0	0.8	0.8	0.7	0.8	0.7	0.7
35–44 years. . . . .	5.1	7.3	11.6	9.6	8.1	7.9	7.7	7.6	7.2
45–54 years. . . . .	22.9	32.0	46.2	56.5	52.8	51.7	51.6	50.0	48.7
55–64 years. . . . .	55.2	81.5	116.2	144.3	158.4	157.8	160.4	162.2	162.3
65–74 years. . . . .	69.3	117.2	174.6	243.1	268.0	271.7	278.1	280.0	287.0
75–84 years. . . . .	69.3	102.9	175.1	251.4	294.5	303.9	313.3	324.2	336.5
85 years and over. . . . .	64.0	79.1	113.5	184.5	202.0	214.9	221.8	228.5	232.2
White male									
All ages, age adjusted. . . . .	21.6	34.6	49.9	58.0	58.2	58.0	58.6	58.0	57.4
All ages, crude. . . . .	24.1	39.6	58.3	73.4	77.3	77.8	79.1	79.1	79.1
Under 1 year . . . . .	*0.2	*0.1	*0.2	*0.2	*–	*0.1	*0.1	*0.1	*0.1
1–4 years. . . . .	*0.1	*0.0	*0.1	*0.0	*0.0	*0.0	*–	*0.0	*0.0
5–14 years. . . . .	*0.1	*0.0	*0.0	*0.0	*0.0	*0.0	*–	*0.0	*0.0
15–24 years. . . . .	0.3	0.2	0.2	0.2	0.2	0.2	*0.1	0.1	0.1
25–34 years. . . . .	1.2	1.6	1.4	0.9	0.7	0.9	0.9	0.8	0.7
35–44 years. . . . .	7.9	10.4	15.4	11.2	9.4	8.5	8.5	8.4	7.8
45–54 years. . . . .	39.1	53.0	67.6	74.3	65.2	63.7	63.5	60.6	58.5
55–64 years. . . . .	95.9	149.8	199.3	215.0	221.7	221.3	223.7	222.9	219.2
65–74 years. . . . .	119.4	225.1	344.8	418.4	419.1	417.0	422.9	418.8	418.6
75–84 years. . . . .	109.1	191.9	360.7	516.1	562.6	570.7	572.9	579.0	580.4
85 years and over. . . . .	102.7	133.9	221.8	391.5	459.1	477.5	495.4	493.9	510.2
Black male									
All ages, age adjusted. . . . .	16.9	36.6	60.8	82.0	84.4	83.9	84.2	83.4	84.6
All ages, crude. . . . .	14.3	31.1	51.2	70.8	74.5	74.6	75.5	75.3	76.4
Under 1 year . . . . .	*–	*0.4	*0.4	*0.4	*0.3	*–	*0.7	*–	*0.6
1–4 years. . . . .	*–	*0.1	*0.1	*0.2	*–	*–	*–	*–	*–
5–14 years. . . . .	*0.1	*0.0	*0.1	*0.0	*0.0	*–	*–	*–	*–
15–24 years. . . . .	*0.4	*0.2	*0.3	*0.3	*0.3	*0.2	*0.2	*0.3	*0.3
25–34 years. . . . .	2.1	2.6	2.9	1.9	1.9	1.4	1.8	1.3	1.2
35–44 years. . . . .	9.4	20.7	32.6	26.9	22.8	22.3	19.6	21.0	20.1
45–54 years. . . . .	41.1	75.0	123.5	142.8	132.1	131.3	126.8	122.8	126.6
55–64 years. . . . .	78.8	161.8	250.3	340.3	352.1	337.3	333.3	322.3	329.7
65–74 years. . . . .	65.2	184.6	322.2	499.4	534.8	542.3	562.8	556.5	561.1
75–84 years. . . . .	–	126.3	290.6	499.6	581.3	606.5	629.9	664.3	677.3
85 years and over. . . . .	–	110.3	154.4	337.7	390.8	456.7	459.4	528.6	465.3
White female									
All ages, age adjusted. . . . .	4.6	5.1	10.1	18.2	22.6	23.1	23.8	24.8	25.8
All ages, crude. . . . .	5.4	6.4	13.1	26.5	34.6	35.9	37.5	39.4	41.6
Under 1 year . . . . .	*–	*0.2	*0.1	*0.1	*0.2	*0.2	*0.1	*–	*0.1
1–4 years. . . . .	*0.1	*0.1	*0.1	*0.1	*0.1	*–	*0.1	*0.0	*–
5–14 years. . . . .	*0.1	*0.0	*0.1	*0.1	*0.0	*0.0	*0.0	*0.0	*0.0
15–24 years. . . . .	*0.2	*0.1	*0.1	*0.0	*0.1	*0.1	*0.1	*0.1	*0.1
25–34 years. . . . .	0.5	0.6	0.6	0.5	0.6	0.5	0.6	0.5	0.5
35–44 years. . . . .	2.2	3.4	6.0	6.8	5.6	5.8	5.7	5.6	5.3
45–54 years. . . . .	6.5	9.8	22.1	33.9	36.0	34.9	35.0	35.0	34.0
55–64 years. . . . .	15.5	16.7	39.3	74.2	94.2	94.9	98.1	103.2	106.2
65–74 years. . . . .	27.2	26.5	45.4	108.1	149.1	156.0	161.1	168.1	180.2
75–84 years. . . . .	40.0	36.5	56.8	99.3	140.3	149.0	161.7	173.4	191.6
85 years and over. . . . .	44.0	45.2	57.4	96.8	102.1	113.8	117.6	127.1	128.9

See footnote at end of table.



**Table 36 (page 2 of 2). Death rates for malignant neoplasms of respiratory system, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Black female	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	4.1	5.5	10.9	19.5	22.5	23.3	24.3	24.6	25.4
All ages, crude . . . . .	3.4	4.9	10.1	19.3	23.3	24.3	25.4	26.2	27.4
Under 1 year . . . . .	*-	*-	*-	*0.4	*0.4	*-	*-	*0.3	*0.3
1–4 years. . . . .	*-	*0.1	*0.1	*-	*-	*-	*0.1	*-	*-
5–14 years. . . . .	*-	*0.1	*-	*0.0	*0.0	*-	*0.0	*0.1	*0.0
15–24 years . . . . .	*0.3	*-	*0.1	*0.1	*0.1	*0.1	*0.1	*0.1	*0.1
25–34 years . . . . .	*1.2	0.8	*0.5	*0.8	1.0	*0.6	*0.4	*0.6	1.0
35–44 years . . . . .	2.7	3.4	10.5	7.9	7.7	8.6	8.9	6.6	7.9
45–54 years . . . . .	8.8	12.8	25.3	46.4	40.7	42.8	43.9	41.0	41.2
55–64 years . . . . .	15.3	20.7	36.4	83.8	105.6	102.4	107.0	110.3	107.1
65–74 years . . . . .	16.4	20.7	49.3	91.7	118.9	130.9	136.5	145.8	156.8
75–84 years . . . . .	---	33.1	52.6	81.1	108.6	123.5	129.9	146.0	158.4
85 years and over. . . . .	---	44.7	47.6	90.5	112.2	102.1	110.5	105.7	122.4

<sup>1</sup>Includes deaths of nonresidents of the United States.

\*Based on fewer than 20 deaths.

NOTE: For data years shown, the code numbers for cause of death are based on the then current International Classification of Diseases, which are described in Appendix II, tables IV and V.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service, Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.

**Table 37. Death rates for malignant neoplasm of breast for females, according to race and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Race and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Deaths per 100,000 resident population									
All races									
All ages, age adjusted.....	22.2	22.3	23.1	22.7	23.2	23.1	22.9	23.1	23.0
All ages, crude.....	24.7	26.1	28.4	30.6	32.7	32.8	32.8	33.5	33.7
Under 25 years.....	*0.1	*0.1	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
25–34 years.....	3.8	3.8	3.9	3.3	3.0	3.1	3.1	3.0	3.0
35–44 years.....	20.8	20.2	20.4	17.9	17.5	18.3	17.5	17.6	17.7
45–54 years.....	46.9	51.4	52.6	48.1	46.7	45.4	45.4	45.3	44.7
55–64 years.....	70.4	70.8	77.6	80.5	83.6	80.9	80.7	81.8	78.6
65–74 years.....	94.0	90.0	93.8	101.1	107.7	109.9	108.3	109.4	111.1
75–84 years.....	139.8	129.9	127.4	126.4	137.7	136.2	137.8	143.1	147.5
85 years and over.....	195.5	191.9	157.1	169.3	175.9	180.0	176.5	183.9	185.8
White									
All ages, age adjusted.....	22.5	22.4	23.4	22.8	23.3	23.0	22.8	23.0	22.9
All ages, crude.....	25.7	27.2	29.9	32.3	34.6	34.6	34.5	35.2	35.6
Under 25 years.....	*0.1	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0	*0.0
25–34 years.....	3.7	3.6	3.7	3.0	2.8	2.7	2.9	2.7	2.7
35–44 years.....	20.8	19.7	20.2	17.3	16.7	17.3	16.4	16.5	17.0
45–54 years.....	47.1	51.2	53.0	48.1	46.5	44.4	44.3	44.4	43.6
55–64 years.....	70.9	71.8	79.3	81.3	84.2	81.8	81.3	82.2	79.5
65–74 years.....	96.3	91.6	95.9	103.7	110.0	112.4	110.6	111.8	113.2
75–84 years.....	143.6	132.8	129.6	128.4	140.4	139.7	140.5	145.2	150.5
85 years and over.....	204.2	199.7	161.9	171.7	178.9	182.7	179.2	186.6	188.9
Black									
All ages, age adjusted.....	19.3	21.3	21.5	23.3	25.3	25.8	26.5	27.0	26.0
All ages, crude.....	16.4	18.7	19.7	22.9	25.6	26.2	27.2	28.1	27.3
Under 25 years.....	*0.1	*0.2	*0.1	*0.0	*0.1	*0.1	*0.1	*0.1	*0.1
25–34 years.....	4.9	6.1	5.9	5.3	4.4	5.6	4.7	5.4	5.1
35–44 years.....	21.0	24.8	24.4	24.1	26.3	28.3	28.9	29.1	25.4
45–54 years.....	46.5	54.4	52.0	52.7	54.4	59.1	60.1	58.5	59.2
55–64 years.....	64.3	63.2	64.7	79.9	88.5	83.6	88.2	90.4	82.2
65–74 years.....	67.0	72.3	77.3	84.3	99.3	100.5	101.0	102.5	106.9
75–84 years.....	---	87.5	101.8	114.1	121.0	112.1	125.3	139.0	135.3
85 years and over.....	---	92.1	112.1	149.9	152.5	162.1	162.5	176.6	170.9

<sup>1</sup>Includes deaths of nonresidents of the United States.

\*Based on fewer than 20 deaths.

NOTE: For data years shown, the code numbers for cause of death are based on the then current International Classification of Diseases, which are described in Appendix II, tables IV and V.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service. Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.

**Table 38. Maternal mortality rates for complications of pregnancy, childbirth, and the puerperium, according to race and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Race and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Deaths per 100,000 live births									
All races									
All ages, age adjusted. . . . .	73.7	32.1	21.5	9.4	7.6	7.0	6.1	8.0	7.3
All ages, crude . . . . .	83.3	37.1	21.5	9.2	7.8	7.2	6.6	8.4	7.9
Under 20 years. . . . .	70.7	22.7	18.9	7.6	6.9	5.9	5.1	7.0	5.8
20–24 years . . . . .	47.6	20.7	13.0	5.8	5.4	5.7	4.8	7.2	6.4
25–29 years . . . . .	63.5	29.8	17.0	7.7	6.4	5.8	5.3	6.1	6.7
30–34 years . . . . .	107.7	50.3	31.6	13.6	8.9	7.8	8.9	9.3	10.0
35 years and over <sup>2</sup> . . . . .	222.0	104.3	81.9	36.3	25.0	21.4	15.1	21.9	15.3
White									
All ages, age adjusted. . . . .	53.1	22.4	14.5	6.8	5.0	4.7	4.9	5.6	5.4
All ages, crude . . . . .	61.1	26.0	14.4	6.7	5.2	4.9	5.1	5.9	5.6
Under 20 years. . . . .	44.9	14.8	13.9	5.9	*4.3	*4.1	*5.4	*3.8	*5.2
20–24 years . . . . .	35.7	15.3	8.4	4.3	3.4	3.7	3.9	5.5	4.9
25–29 years . . . . .	45.0	20.3	11.2	5.5	4.7	3.6	3.9	4.6	4.8
30–34 years . . . . .	75.9	34.3	18.8	9.4	5.2	5.2	6.0	7.1	6.4
35 years and over <sup>2</sup> . . . . .	174.1	73.9	59.6	25.8	17.8	16.1	11.8	12.4	9.7
Black									
All ages, age adjusted. . . . .	---	92.0	64.3	23.9	21.0	19.3	14.3	19.8	18.6
All ages, crude . . . . .	---	103.6	59.8	21.5	20.4	18.8	14.2	19.5	18.4
Under 20 years. . . . .	---	54.8	31.8	12.8	*12.1	*10.6	*4.1	*11.8	*7.0
20–24 years . . . . .	---	56.9	41.0	13.4	14.0	13.9	9.4	14.5	13.5
25–29 years . . . . .	---	92.8	63.8	21.4	18.4	19.3	14.3	14.3	17.9
30–34 years . . . . .	---	150.6	115.6	41.9	35.8	29.0	30.9	26.7	33.8
35 years and over <sup>2</sup> . . . . .	---	299.5	204.7	96.5	72.6	*58.6	*43.1	84.8	57.5

<sup>1</sup>Includes deaths of nonresidents of the United States.

<sup>2</sup>Rates computed by relating deaths of women 35 years and over to live births to women 35–49 years.

\*Based on fewer than 20 deaths.

NOTE: For data years shown, the code numbers for cause of death are based on the then current International Classification of Diseases, which are described in Appendix II, tables IV and V.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service, Washington. U.S. Government Printing Office; Vital Statistics of the United States, Vol. I, Natality, for data years 1950–89. Public Health Service, Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics; 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.



**Table 39 (page 1 of 2). Death rates for motor vehicle accidents, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Deaths per 100,000 resident population									
All races									
All ages, age adjusted. . . . .	23.3	22.5	27.4	22.9	18.8	19.4	19.5	19.7	18.9
All ages, crude. . . . .	23.1	21.3	26.9	23.5	19.2	19.9	19.8	20.0	19.2
Under 1 year . . . . .	8.4	8.1	9.8	7.0	4.8	4.9	5.3	5.6	5.5
1–4 years. . . . .	11.5	10.0	11.5	9.2	7.1	7.0	6.8	6.9	6.8
5–14 years. . . . .	8.8	7.9	10.2	7.9	6.8	6.9	7.0	7.0	6.4
15–24 years. . . . .	34.4	38.0	47.2	44.8	36.1	39.0	37.8	38.5	35.4
25–34 years. . . . .	24.6	24.3	30.9	29.1	22.8	24.2	24.2	23.9	23.4
35–44 years. . . . .	20.3	19.3	24.9	20.9	17.1	16.6	17.3	17.4	17.3
45–54 years. . . . .	22.2	21.4	25.5	18.6	15.2	15.1	15.4	15.8	15.6
55–64 years. . . . .	29.2	25.1	27.9	17.4	15.5	15.1	15.6	15.7	15.8
65–74 years. . . . .	38.8	31.4	32.8	19.2	17.7	17.9	18.5	19.2	19.1
75–84 years. . . . .	52.7	41.8	43.5	28.1	27.6	28.8	29.3	30.2	29.8
85 years and over. . . . .	45.1	37.9	34.2	27.6	26.1	25.3	27.1	29.1	28.8
White male									
All ages, age adjusted. . . . .	35.9	34.0	40.1	34.8	27.6	28.7	28.4	28.5	26.8
All ages, crude. . . . .	35.1	31.5	39.1	35.9	28.2	29.2	28.8	28.7	27.0
Under 1 year . . . . .	9.1	8.8	9.1	7.0	4.5	4.1	4.3	5.8	4.9
1–4 years. . . . .	13.2	11.3	12.2	9.5	7.6	7.0	7.2	6.9	6.8
5–14 years. . . . .	12.0	10.3	12.6	9.8	8.5	8.7	9.1	8.7	7.8
15–24 years. . . . .	58.3	62.7	75.2	73.8	57.4	62.6	59.2	60.3	54.2
25–34 years. . . . .	39.1	38.6	47.0	46.6	35.5	37.3	36.8	36.1	34.7
35–44 years. . . . .	30.9	28.4	35.2	30.7	24.1	23.7	24.4	24.6	23.6
45–54 years. . . . .	31.6	29.7	34.6	26.3	20.9	20.8	20.6	21.5	20.7
55–64 years. . . . .	41.9	34.4	39.0	23.9	20.6	19.9	20.8	20.5	21.0
65–74 years. . . . .	59.1	45.5	46.2	25.8	21.7	22.4	24.0	24.2	23.5
75–84 years. . . . .	86.4	66.8	69.2	43.6	41.2	42.9	43.4	43.4	43.1
85 years and over. . . . .	79.3	61.9	65.5	57.3	56.4	51.6	58.6	59.3	62.0
Black male									
All ages, age adjusted. . . . .	39.8	38.2	50.1	32.9	27.7	29.2	28.5	29.6	29.4
All ages, crude. . . . .	37.2	33.1	44.3	31.1	26.7	28.6	27.7	28.9	28.3
Under 1 year . . . . .	---	*6.8	10.6	7.8	*5.9	8.0	8.3	7.7	7.6
1–4 years. . . . .	---	12.7	16.9	13.7	10.7	10.7	9.9	9.2	8.8
5–14 years. . . . .	9.7	10.4	16.1	10.5	8.9	9.6	9.2	9.5	8.7
15–24 years. . . . .	41.6	46.4	58.1	34.9	32.1	35.3	36.2	38.0	36.6
25–34 years. . . . .	57.4	51.0	70.4	44.9	37.2	41.7	38.2	38.3	37.9
35–44 years. . . . .	45.9	43.6	59.5	41.2	35.4	35.1	35.2	37.3	37.8
45–54 years. . . . .	49.9	48.1	61.4	39.1	29.9	31.4	32.4	32.2	35.8
55–64 years. . . . .	58.8	47.3	62.1	40.3	34.3	31.9	30.1	30.2	32.0
65–74 years. . . . .	48.5	46.1	54.9	41.8	30.0	27.2	31.2	37.0	30.0
75–84 years. . . . .	---	51.8	51.6	46.5	42.2	53.1	36.2	45.2	43.9
85 years and over. . . . .	---	*58.6	45.7	*34.0	36.9	62.7	40.6	65.7	48.6
White female									
All ages, age adjusted. . . . .	10.6	11.1	14.4	12.3	10.8	11.0	11.4	11.6	11.5
All ages, crude. . . . .	10.9	11.2	14.8	12.8	11.4	11.5	11.9	12.1	12.1
Under 1 year . . . . .	7.8	7.5	10.2	7.1	3.9	4.6	5.8	5.3	4.7
1–4 years. . . . .	10.1	8.3	9.6	7.7	5.7	6.0	5.9	6.2	6.0
5–14 years. . . . .	5.6	5.3	6.9	5.7	5.2	4.9	4.9	5.2	5.0
15–24 years. . . . .	12.6	15.6	22.7	23.0	20.1	21.5	21.7	21.8	21.4
25–34 years. . . . .	9.0	9.0	12.7	12.2	10.0	10.8	11.6	11.7	11.9
35–44 years. . . . .	8.1	8.9	12.3	10.6	9.4	8.4	9.3	9.1	9.5
45–54 years. . . . .	10.8	11.4	14.3	10.2	8.9	8.5	9.2	9.5	9.4
55–64 years. . . . .	15.0	15.3	16.1	10.5	9.9	9.6	10.4	10.5	10.1
65–74 years. . . . .	20.9	19.3	22.1	13.4	14.3	14.4	13.7	14.5	15.3
75–84 years. . . . .	25.4	23.8	28.1	19.0	19.9	20.5	22.0	22.8	22.4
85 years and over. . . . .	22.3	22.2	18.1	15.3	15.1	14.7	15.9	17.7	17.3

See footnote at end of table.

**Table 39 (page 2 of 2). Death rates for motor vehicle accidents, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Black female	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	10.3	10.0	13.8	8.4	8.2	8.5	8.7	9.2	9.1
All ages, crude. . . . .	10.2	9.7	13.4	8.3	8.3	8.5	8.8	9.3	9.3
Under 1 year . . . . .	---	8.1	11.9	*5.3	7.8	*5.3	*5.3	*5.5	7.9
1–4 years. . . . .	---	8.8	12.6	9.5	6.8	6.9	7.5	7.5	6.3
5–14 years. . . . .	6.2	5.9	9.3	5.2	4.3	4.8	4.7	5.6	4.6
15–24 years. . . . .	11.5	9.9	13.4	8.0	9.1	9.1	9.5	10.7	10.1
25–34 years. . . . .	10.7	9.8	13.3	10.6	9.2	10.3	11.1	11.1	11.9
35–44 years. . . . .	11.1	11.0	16.1	8.3	9.1	8.7	9.2	10.1	10.4
45–54 years. . . . .	10.6	11.8	16.4	9.1	8.2	8.7	9.0	8.9	8.4
55–64 years. . . . .	14.0	14.0	17.0	9.3	9.5	10.9	8.8	9.7	9.6
65–74 years. . . . .	12.7	14.2	16.3	8.5	9.6	9.7	11.8	9.6	12.5
75–84 years. . . . .	---	*8.8	14.4	11.1	15.0	10.0	10.9	14.1	13.6
85 years and over. . . . .	---	*21.1	*15.4	*12.3	*9.4	*11.0	*7.2	*10.8	*6.1

<sup>1</sup>Includes deaths of nonresidents of the United States.

\*Based on fewer than 20 deaths.

NOTE: For data years shown, the code numbers for cause of death are based on the then current International Classification of Diseases, which are described in Appendix II, tables IV and V.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service. Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.

**Table 40 (page 1 of 2). Death rates for homicide and legal intervention, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Deaths per 100,000 resident population									
All races									
All ages, age adjusted. . . . .	5.4	5.2	9.1	10.8	8.3	9.0	8.6	9.0	9.4
All ages, crude . . . . .	5.3	4.7	8.3	10.7	8.3	9.0	8.7	9.0	9.2
Under 1 year . . . . .	4.4	4.8	4.3	5.9	5.3	7.4	7.2	8.2	8.5
1–4 years. . . . .	0.6	0.7	1.9	2.5	2.4	2.7	2.3	2.6	2.7
5–14 years. . . . .	0.5	0.5	0.9	1.2	1.2	1.1	1.2	1.3	1.5
15–24 years. . . . .	6.3	5.9	11.7	15.6	12.1	14.2	14.0	15.4	16.9
25–34 years. . . . .	9.9	9.7	16.6	19.6	14.7	16.1	15.1	16.0	16.3
35–44 years. . . . .	8.8	8.1	13.7	15.1	11.3	11.4	10.8	10.9	11.0
45–54 years. . . . .	6.1	6.2	10.1	11.1	8.1	8.3	7.7	7.1	7.6
55–64 years. . . . .	4.0	4.2	7.1	7.0	5.7	5.4	5.5	5.2	5.0
65–74 years. . . . .	3.2	2.8	5.0	5.7	4.3	4.4	4.3	4.2	4.1
75–84 years. . . . .	2.6	2.4	4.0	5.2	4.3	4.6	4.8	4.5	4.2
85 years and over. . . . .	2.3	2.4	4.2	5.3	4.1	4.7	5.1	4.7	4.3
White male									
All ages, age adjusted. . . . .	3.9	3.9	7.3	10.9	8.1	8.4	7.7	7.7	8.1
All ages, crude . . . . .	3.9	3.6	6.8	10.9	8.2	8.6	7.9	7.9	8.2
Under 1 year . . . . .	4.3	3.8	2.9	4.3	3.7	5.4	6.0	5.6	5.6
1–4 years. . . . .	0.4	0.6	1.4	2.0	1.9	1.9	1.8	2.2	1.9
5–14 years. . . . .	0.4	0.4	0.5	0.9	1.1	0.9	0.8	1.0	1.0
15–24 years. . . . .	3.7	4.4	7.9	15.5	11.2	12.5	11.2	11.5	12.8
25–34 years. . . . .	5.4	6.2	13.0	18.9	13.9	14.6	13.2	13.2	13.7
35–44 years. . . . .	6.4	5.5	11.0	15.5	11.5	11.6	10.2	10.4	10.5
45–54 years. . . . .	5.5	5.0	9.0	11.9	8.6	8.6	8.3	7.6	8.5
55–64 years. . . . .	4.4	4.3	7.7	7.8	6.3	6.0	6.3	6.0	5.6
65–74 years. . . . .	4.1	3.4	5.6	6.9	4.5	4.3	4.2	4.1	3.9
75–84 years. . . . .	3.5	2.7	5.1	6.3	4.5	4.6	4.9	4.3	3.9
85 years and over. . . . .	1.8	2.7	6.4	6.4	3.9	4.4	5.4	5.1	5.1
Black male									
All ages, age adjusted. . . . .	51.1	44.9	82.1	71.9	49.9	55.9	53.8	58.2	61.5
All ages, crude . . . . .	47.3	36.6	67.6	66.6	48.4	55.0	53.3	58.0	61.1
Under 1 year . . . . .	---	10.3	14.3	18.6	16.0	22.5	19.4	19.3	22.0
1–4 years. . . . .	---	1.7	5.1	7.2	6.5	9.3	4.8	7.5	7.9
5–14 years. . . . .	1.8	1.4	4.2	2.9	3.2	3.2	4.3	4.2	4.9
15–24 years. . . . .	58.9	46.4	102.5	84.3	66.1	79.2	85.6	101.8	114.8
25–34 years. . . . .	110.5	92.0	158.5	145.1	94.3	108.0	98.9	108.8	112.6
35–44 years. . . . .	83.7	77.5	126.2	110.3	76.3	79.4	78.4	79.2	78.6
45–54 years. . . . .	54.6	54.8	100.5	83.8	51.1	56.3	46.0	45.2	46.2
55–64 years. . . . .	35.7	31.8	59.8	55.6	37.8	35.4	32.8	29.1	30.2
65–74 years. . . . .	18.7	19.1	40.6	33.9	27.6	30.0	28.0	26.2	26.3
75–84 years. . . . .	---	16.1	19.0	27.6	21.5	27.9	29.5	30.5	28.4
85 years and over. . . . .	---	*10.3	*19.6	*17.0	*16.9	*25.4	29.0	31.4	34.7
White female									
All ages, age adjusted. . . . .	1.4	1.5	2.2	3.2	2.9	2.9	2.9	2.8	2.8
All ages, crude . . . . .	1.4	1.4	2.1	3.2	2.9	3.0	3.0	2.9	2.8
Under 1 year . . . . .	3.9	3.5	2.9	4.3	4.3	5.1	4.2	6.0	5.6
1–4 years. . . . .	0.6	0.5	1.2	1.5	1.6	1.4	1.5	1.6	1.5
5–14 years. . . . .	0.4	0.3	0.5	1.0	0.8	0.8	0.8	0.8	0.9
15–24 years. . . . .	1.3	1.5	2.7	4.7	3.6	4.3	3.9	3.9	3.9
25–34 years. . . . .	1.9	2.0	3.4	4.3	4.4	4.4	4.6	4.4	4.2
35–44 years. . . . .	2.2	2.2	3.2	4.1	3.6	3.5	3.5	3.2	3.3
45–54 years. . . . .	1.6	1.9	2.2	3.0	2.9	2.8	2.7	2.5	2.5
55–64 years. . . . .	1.3	1.5	2.0	2.1	2.3	1.9	1.9	2.0	1.7
65–74 years. . . . .	1.1	1.1	1.7	2.5	2.2	2.2	2.4	2.3	2.1
75–84 years. . . . .	1.2	1.2	2.5	3.3	3.1	3.1	3.1	3.0	2.7
85 years and over. . . . .	1.9	1.5	1.9	4.0	3.2	3.3	3.8	2.9	2.0

See footnote at end of table.



**Table 40 (page 2 of 2). Death rates for homicide and legal intervention, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Black female	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	11.7	11.8	15.0	13.7	10.8	11.8	12.3	12.7	12.5
All ages, crude . . . . .	11.5	10.4	13.3	13.5	11.0	12.1	12.6	13.2	12.9
Under 1 year . . . . .	---	13.8	10.7	12.8	10.3	17.0	18.7	23.5	23.9
1–4 years. . . . .	---	*1.7	6.3	6.4	6.3	6.8	7.2	6.3	7.3
5–14 years. . . . .	1.2	1.0	2.0	2.2	2.0	2.3	2.0	3.1	2.9
15–24 years. . . . .	16.5	11.9	17.7	18.4	14.2	16.2	17.7	17.4	17.3
25–34 years. . . . .	26.6	24.9	25.6	25.8	19.8	21.9	22.4	25.5	23.2
35–44 years. . . . .	17.8	20.5	25.1	17.7	14.8	14.8	14.4	14.6	14.7
45–54 years. . . . .	8.5	12.7	17.5	12.5	9.0	8.5	10.5	7.7	8.4
55–64 years. . . . .	3.6	6.8	8.1	8.9	6.4	6.8	7.6	6.8	8.1
65–74 years. . . . .	3.4	3.3	7.7	8.6	7.2	8.7	6.9	9.0	8.2
75–84 years. . . . .	---	*2.5	*5.7	6.7	7.6	8.6	10.4	9.9	9.9
85 years and over. . . . .	---	*2.6	*9.8	*8.5	*11.5	*13.1	*10.5	12.7	15.2

<sup>1</sup>Includes deaths of nonresidents of the United States.

\*Based on fewer than 20 deaths.

NOTE: For data years shown, the code numbers for cause of death are based on the then current International Classification of Diseases, which are described in Appendix II, tables IV and V.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service. Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.

**Table 41 (page 1 of 2). Death rates for suicide, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Deaths per 100,000 resident population									
All races									
All ages, age adjusted. . . . .	11.0	10.6	11.8	11.4	11.5	11.9	11.7	11.4	11.3
All ages, crude . . . . .	11.4	10.6	11.6	11.9	12.3	12.8	12.7	12.4	12.2
Under 1 year . . . . .	...	...	...	...	...	...	...	...	...
1–4 years. . . . .	...	...	...	...	...	...	...	...	...
5–14 years. . . . .	0.2	0.3	0.3	0.4	0.8	0.8	0.7	0.7	0.7
15–24 years. . . . .	4.5	5.2	8.8	12.3	12.9	13.1	12.9	13.2	13.3
25–34 years. . . . .	9.1	10.0	14.1	16.0	15.2	15.7	15.4	15.4	15.0
35–44 years. . . . .	14.3	14.2	16.9	15.4	14.6	15.2	15.0	14.8	14.6
45–54 years. . . . .	20.9	20.7	20.0	15.9	15.6	16.4	15.9	14.6	14.6
55–64 years. . . . .	27.0	23.7	21.4	15.9	16.7	17.0	16.6	15.6	15.5
65–74 years. . . . .	29.3	23.0	20.8	16.9	18.5	19.7	19.4	18.4	18.0
75–84 years. . . . .	31.1	27.9	21.2	19.1	24.1	25.2	25.8	25.9	23.1
85 years and over. . . . .	28.8	26.0	19.0	19.2	19.1	20.8	22.1	20.5	22.8
White male									
All ages, age adjusted. . . . .	18.1	17.5	18.2	18.9	19.9	20.5	20.1	19.8	19.6
All ages, crude . . . . .	19.0	17.6	18.0	19.9	21.5	22.3	22.1	21.7	21.4
Under 1 year . . . . .	...	...	...	...	...	...	...	...	...
1–4 years. . . . .	...	...	...	...	...	...	...	...	...
5–14 years. . . . .	0.3	0.5	0.5	0.7	1.3	1.2	1.2	1.1	1.0
15–24 years. . . . .	6.6	8.6	13.9	21.4	22.7	23.6	22.7	23.4	23.2
25–34 years. . . . .	13.8	14.9	19.9	25.6	25.4	26.4	25.6	25.7	24.9
35–44 years. . . . .	22.4	21.9	23.3	23.5	23.5	23.9	23.9	24.1	23.8
45–54 years. . . . .	34.1	33.7	29.5	24.2	25.1	26.3	25.4	23.2	24.2
55–64 years. . . . .	45.9	40.2	35.0	25.8	28.6	28.7	28.7	27.0	26.6
65–74 years. . . . .	53.2	42.0	38.7	32.5	35.3	37.6	36.8	35.4	35.1
75–84 years. . . . .	61.9	55.7	45.5	45.5	57.1	58.9	60.9	61.5	55.3
85 years and over. . . . .	61.9	61.3	45.8	52.8	60.3	66.3	71.9	65.8	71.9
Black male									
All ages, age adjusted. . . . .	7.0	7.8	9.9	11.1	11.3	11.5	12.0	11.8	12.5
All ages, crude . . . . .	6.3	6.4	8.0	10.3	10.8	11.1	11.6	11.5	12.2
Under 1 year . . . . .	...	...	...	...	...	...	...	...	...
1–4 years. . . . .	...	...	...	...	...	...	...	...	...
5–14 years. . . . .	*-	*0.1	*0.1	*0.3	*0.6	0.8	0.8	*0.6	0.9
15–24 years. . . . .	4.9	4.1	10.5	12.3	13.3	11.5	12.9	14.5	16.7
25–34 years. . . . .	9.3	12.4	19.2	21.8	19.6	21.3	21.1	22.1	22.0
35–44 years. . . . .	10.4	12.8	12.6	15.6	14.9	17.5	17.9	16.4	18.1
45–54 years. . . . .	10.4	10.8	13.8	12.0	13.5	12.8	13.0	11.7	10.9
55–64 years. . . . .	16.5	16.2	10.6	11.7	11.5	9.9	10.3	10.6	10.4
65–74 years. . . . .	10.0	11.3	8.7	11.1	15.8	16.1	17.6	12.9	15.4
75–84 years. . . . .	---	6.6	8.9	10.5	15.6	16.0	20.9	17.6	14.7
85 years and over. . . . .	---	6.9	*8.7	*18.9	*7.7	*17.9	*13.0	*10.0	*22.2
White female									
All ages, age adjusted. . . . .	5.3	5.3	7.2	5.7	5.3	5.4	5.3	5.1	4.8
All ages, crude . . . . .	5.5	5.3	7.1	5.9	5.6	5.9	5.7	5.5	5.2
Under 1 year . . . . .	...	...	...	...	...	...	...	...	...
1–4 years. . . . .	...	...	...	...	...	...	...	...	...
5–14 years. . . . .	*0.1	*0.1	0.1	0.2	0.5	0.3	0.3	0.4	0.3
15–24 years. . . . .	2.7	2.3	4.2	4.6	4.7	4.7	4.6	4.6	4.4
25–34 years. . . . .	5.2	5.8	9.0	7.5	6.4	6.2	6.3	6.1	5.9
35–44 years. . . . .	8.2	8.1	13.0	9.1	7.7	8.3	7.9	7.4	7.1
45–54 years. . . . .	10.5	10.9	13.5	10.2	9.0	9.6	9.4	8.6	8.0
55–64 years. . . . .	10.7	10.9	12.3	9.1	8.4	9.0	8.4	7.9	7.9
65–74 years. . . . .	10.6	8.8	9.6	7.0	7.3	7.7	7.6	7.3	6.4
75–84 years. . . . .	8.4	9.2	7.2	5.7	7.0	8.0	7.5	7.4	6.3
85 years and over. . . . .	8.9	6.1	5.8	5.8	4.7	5.0	4.8	5.3	6.2

See footnote at end of table.

**Table 41 (page 2 of 2). Death rates for suicide, according to sex, race, and age: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1989
Black female	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	1.7	1.9	2.9	2.4	2.1	2.4	2.1	2.4	2.4
All ages, crude . . . . .	1.5	1.6	2.6	2.2	2.1	2.3	2.1	2.4	2.4
Under 1 year . . . . .	...	...	...	...	...	...	...	...	...
1–4 years . . . . .	...	...	...	...	...	...	...	...	...
5–14 years . . . . .	*-	*0.0	0.2	*0.1	*0.2	*0.2	*0.2	*0.5	*0.3
15–24 years . . . . .	*1.8	*1.3	3.8	2.3	2.0	2.3	2.5	2.6	2.8
25–34 years . . . . .	2.6	3.0	5.7	4.1	3.0	3.8	4.0	3.8	3.7
35–44 years . . . . .	2.0	3.0	3.7	4.6	3.6	2.8	2.9	3.5	3.9
45–54 years . . . . .	3.5	3.1	3.7	2.8	3.2	3.2	2.2	3.8	3.0
55–64 years . . . . .	*1.1	3.0	*2.0	2.3	2.2	4.2	1.8	2.5	2.5
65–74 years . . . . .	*1.9	*2.3	*2.9	*1.7	*2.0	2.8	2.5	*2.0	*2.1
75–84 years . . . . .	---	*1.3	*1.7	*1.4	*4.5	*2.6	*2.3	*1.3	*1.7
85 years and over . . . . .	---	*-	*2.8	*-	*1.4	*-	*-	*-	*0.6

<sup>1</sup>Includes deaths of nonresidents of the United States.

\*Based on fewer than 20 deaths.

NOTE: For data years shown, the code numbers for cause of death are based on the then current International Classification of Diseases, which are described in Appendix II, tables IV and V.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–89. Public Health Service. Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.



**Table 42. Death rates for human immunodeficiency virus (HIV) infection, according to sex, race, and age: United States, 1987, 1988, and 1989**

[Data are based on the National Vital Statistics System]

Race and age	Both sexes			Male			Female		
	1987	1988	1989	1987	1988	1989	1987	1988	1989
All races									
Deaths per 100,000 resident population									
All ages, age adjusted . . . . .	5.5	6.6	8.7	10.0	12.0	15.7	1.1	1.4	1.8
All ages, crude . . . . .	5.5	6.8	8.9	10.2	12.4	16.3	1.1	1.4	1.8
Under 1 year . . . . .	2.3	2.1	3.0	2.1	2.5	2.7	2.5	1.7	3.4
1-4 years . . . . .	0.7	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.8
5-14 years . . . . .	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
15-24 years . . . . .	1.3	1.4	1.7	2.2	2.4	2.7	0.3	0.5	0.6
25-34 years . . . . .	11.6	13.8	17.7	20.5	24.2	31.0	2.7	3.5	4.4
35-44 years . . . . .	14.0	17.5	23.5	26.2	32.5	43.5	2.1	3.0	3.9
45-54 years . . . . .	7.9	9.7	13.2	15.4	18.8	25.5	0.8	1.1	1.6
55-64 years . . . . .	3.5	4.0	5.3	6.7	7.6	10.3	0.5	0.7	0.8
65-74 years . . . . .	1.3	1.6	1.8	2.3	2.8	3.2	0.5	0.6	0.7
75-84 years . . . . .	0.8	0.8	0.7	1.2	1.5	1.2	0.6	0.4	0.4
85 years and over . . . . .	*0.5	*0.4	*0.4	*0.7	*1.0	*0.9	*0.3	*0.1	*0.2
White									
All ages, age adjusted . . . . .	4.4	5.3	7.0	8.3	9.9	13.1	0.6	0.7	0.9
All ages, crude . . . . .	4.5	5.4	7.2	8.6	10.3	13.8	0.6	0.7	0.9
Under 1 year . . . . .	1.1	1.1	1.6	1.3	1.4	1.7	*0.9	*0.7	1.6
1-4 years . . . . .	0.4	0.4	0.4	0.4	0.4	*0.2	0.4	0.4	0.5
5-14 years . . . . .	0.1	0.1	0.1	0.2	0.2	0.2	*0.1	*0.1	*0.1
15-24 years . . . . .	1.0	1.1	1.2	1.8	1.8	2.1	0.1	0.3	0.4
25-34 years . . . . .	9.1	10.7	14.0	16.8	19.5	25.6	1.3	1.7	2.1
35-44 years . . . . .	11.3	14.0	18.7	21.7	26.7	35.8	1.0	1.4	1.6
45-54 years . . . . .	6.9	8.4	11.4	13.5	16.4	22.3	0.5	0.6	0.8
55-64 years . . . . .	3.0	3.4	4.6	5.9	6.5	9.0	0.4	0.5	0.5
65-74 years . . . . .	1.3	1.5	1.5	2.3	2.5	2.7	0.5	0.6	0.6
75-84 years . . . . .	0.8	0.8	0.7	1.2	1.4	1.2	0.6	0.4	0.4
85 years and over . . . . .	*0.4	*0.4	*0.4	*0.6	*0.9	*0.8	*0.3	*0.2	*0.2
Black									
All ages, age adjusted . . . . .	14.2	17.9	22.9	25.4	31.6	40.3	4.7	6.2	8.1
All ages, crude . . . . .	13.6	17.2	22.2	23.4	29.3	37.6	4.7	6.3	8.2
Under 1 year . . . . .	9.4	8.1	11.0	7.3	8.7	8.6	11.7	7.5	13.4
1-4 years . . . . .	2.4	3.0	3.0	2.4	3.2	3.5	2.4	2.8	2.5
5-14 years . . . . .	*0.3	0.4	0.4	*0.3	*0.4	*0.4	*0.3	*0.5	*0.4
15-24 years . . . . .	3.3	3.8	4.5	5.3	5.9	6.9	1.4	1.7	2.1
25-34 years . . . . .	30.9	37.8	45.9	52.0	62.8	75.9	12.0	15.4	19.1
35-44 years . . . . .	39.1	50.2	66.8	72.9	91.7	121.1	10.8	15.4	21.2
45-54 years . . . . .	17.7	23.0	30.9	35.4	45.2	59.9	3.3	5.0	7.5
55-64 years . . . . .	7.9	9.7	12.6	15.6	18.4	24.5	*1.5	2.6	2.8
65-74 years . . . . .	1.6	3.4	4.8	*2.3	6.4	9.2	*1.0	*1.1	*1.6
75-84 years . . . . .	*0.4	*1.4	*1.3	*0.4	*2.6	*1.4	*0.5	*0.7	*1.3
85 years and over . . . . .	*1.4	*0.4	*0.4	*2.9	*1.4	*1.4	*0.7	*-	*-

\*Based on fewer than 20 deaths.

NOTE: Categories for the coding and classification of human immunodeficiency virus infection were introduced in the United States beginning with mortality data for 1987.

SOURCE: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1987-89. Public Health Service. Washington. U.S. Government Printing Office.

**Table 43. Deaths for selected occupational diseases for males, according to age: United States, selected years 1970–89**

[Data are based on the National Vital Statistics System]

<i>Age and cause of death</i>	1970	1975	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Number of deaths <sup>1</sup>														
25 years and over														
Malignant neoplasm of peritoneum and pleura (mesothelioma) . . . . .	602	591	557	559	552	556	576	584	584	571	564	575	556	565
Coalworkers' pneumoconiosis . . . . .	1,155	973	840	918	977	1,053	954	926	923	947	882	823	757	725
Asbestosis . . . . .	25	43	64	86	96	98	99	128	131	130	180	195	206	261
Silicosis . . . . .	351	243	162	220	202	165	176	149	160	138	135	153	128	130
25–64 years														
Malignant neoplasm of peritoneum and pleura (mesothelioma) . . . . .	308	280	254	246	241	229	234	211	211	210	200	196	187	179
Coalworkers' pneumoconiosis . . . . .	294	188	116	130	136	116	116	88	97	89	71	71	56	50
Asbestosis . . . . .	17	22	31	29	30	21	26	30	25	29	37	32	38	31
Silicosis . . . . .	90	64	50	51	49	44	42	37	34	30	22	32	26	21
65 years and over														
Malignant neoplasm of peritoneum and pleura (mesothelioma) . . . . .	294	311	303	313	311	327	342	373	373	361	364	379	369	386
Coalworkers' pneumoconiosis . . . . .	861	785	724	788	841	937	838	838	826	858	811	752	701	675
Asbestosis . . . . .	8	21	33	57	66	77	73	98	106	101	143	163	168	230
Silicosis . . . . .	261	179	112	169	153	121	134	112	126	108	113	121	102	109

<sup>1</sup>This table classifies deaths according to underlying cause. Multiple cause of death data from the Vital Statistics System can be used to identify additional deaths for which occupational disease is a nonunderlying cause of death rather than the underlying cause. Additional deaths for which occupational disease is a nonunderlying cause among men 25 years and over are shown below.

<i>Nonunderlying cause of death</i>	1980	1983	1984	1985	1986	1987	1988
Malignant neoplasm of peritoneum and pleura (mesothelioma)	135	115	124	102	106	111	104
Coalworkers' pneumoconiosis . . . . .	1,587	1,758	1,742	1,652	1,536	1,419	1,445
Asbestosis . . . . .	228	321	298	382	494	488	536
Silicosis . . . . .	232	205	210	187	175	173	162

NOTES: Selection of occupational diseases based on definitions in D. Rutstein et al.: Sentinel health events (occupational): A basis for physician recognition and public health surveillance, *Am. J. Public Health* 73(9): 1054–1062, Sept. 1983. For data years shown, the code numbers for cause of death are based on the then current International Classification of Diseases, which are described in Appendix II, tables IV and V. Changes in number of deaths from 1978 to 1979 may be affected by changes in coding from the Eighth Revision to the Ninth Revision.

SOURCES: Data computed by the National Institute for Occupational Safety and Health from data compiled by the Division of Vital Statistics, National Center for Health Statistics; Data computed by the Division of Epidemiology and Health Promotion from data compiled by the Division of Vital Statistics.

**Table 44. Occupational injury deaths, according to industry: United States, 1980–86**

[Data are based on the National Vital Statistics System]

<i>Industry</i>	1980	1981	1982	1983	1984	1985	1986
Deaths per 100,000 workers <sup>1</sup>							
Total civilian work force . . . . .	9.1	8.7	7.9	7.3	7.2	6.9	6.0
Agriculture, forestry, and fishing . . . . .	26.3	24.6	21.8	18.7	19.0	18.8	15.4
Mining . . . . .	33.9	37.2	23.5	22.6	31.5	24.5	22.1
Construction . . . . .	26.8	26.6	26.4	26.1	24.3	24.3	21.9
Manufacturing . . . . .	4.1	3.7	3.5	3.3	3.7	3.5	3.3
Transportation, communication, and public utilities. . . . .	27.5	26.5	23.2	21.4	23.4	22.8	19.5
Wholesale trade . . . . .	2.4	2.2	2.0	2.0	1.7	1.9	1.6
Retail trade . . . . .	3.7	3.4	3.0	2.8	2.3	2.5	1.9
Finance, insurance, and real estate . . . . .	1.3	1.3	1.2	1.2	1.4	0.9	1.0
Services . . . . .	3.4	2.9	2.8	2.6	2.3	2.3	1.9
Public administration . . . . .	6.9	6.8	6.5	6.8	6.4	5.8	5.6
Not classified. . . . .	---	---	---	---	---	---	---
Number of deaths							
Total civilian work force . . . . .	7,513	7,204	6,503	5,887	6,189	6,216	5,577
Agriculture, forestry, and fishing . . . . .	830	817	759	670	737	769	682
Mining . . . . .	338	412	279	220	307	231	187
Construction . . . . .	1,198	1,141	1,039	982	1,015	1,089	1,018
Manufacturing . . . . .	857	746	686	610	719	671	628
Transportation, communication, and public utilities. . . . .	1,274	1,223	1,073	975	1,093	1,098	950
Wholesale trade . . . . .	126	117	103	103	92	107	90
Retail trade . . . . .	551	515	466	424	377	427	330
Finance, insurance, and real estate . . . . .	71	73	65	69	83	52	61
Services . . . . .	578	511	528	488	463	506	444
Public administration . . . . .	359	351	340	322	307	290	286
Not classified. . . . .	1,331	1,298	1,165	1,024	996	976	901

<sup>1</sup>Denominators for death rates are average annual employment (U.S. Bureau of Labor Statistics. Employment and Earnings, annual average supplements; Vol. 28–34:1, 1981–87).

NOTES: Includes deaths to United States residents, 16 years of age and over, that resulted from an "external" cause and the item "injury at work" was checked on the death certificate. Industry is coded based on Standard Industrial Classification Manual, 1987 Edition (see Appendix II, table VI).

SOURCE: National Institute for Occupational Safety and Health: National Traumatic Occupational Fatalities: 1980–86. September 1989.



**Table 45. Provisional death rates for all causes, according to race, sex, and age: United States, 1988–90**

[Data are based on a 10-percent sample of death certificates from the National Vital Statistics System]

Sex and age	All races			White			Black		
	1988	1989	1990	1988	1989	1990	1988	1989	1990
Deaths per 100,000 resident population									
Both sexes									
All ages, age adjusted. . . . .	536.3	524.1	515.1	513.4	500.0	494.3	769.9	761.2	729.6
All ages, crude. . . . .	883.0	868.1	861.9	910.0	893.3	891.6	853.9	848.1	820.4
Under 1 year . . . . .	1,001.9	986.0	936.6	818.4	819.2	814.4	2,030.4	1,899.8	1,652.5
1–4 years. . . . .	50.7	43.8	44.2	47.6	39.0	40.0	66.1	69.6	66.9
5–14 years. . . . .	26.2	26.6	24.1	23.9	24.5	23.1	38.7	38.5	30.8
15–24 years. . . . .	104.8	103.5	104.1	98.8	95.8	95.1	143.3	150.1	161.8
25–34 years. . . . .	133.6	139.7	139.6	115.6	119.1	120.6	266.5	286.5	276.1
35–44 years. . . . .	217.6	221.0	221.1	188.7	191.1	192.4	476.9	485.4	471.4
45–54 years. . . . .	486.4	479.1	463.1	441.4	434.1	425.3	908.9	904.1	832.3
55–64 years. . . . .	1,246.3	1,210.0	1,175.6	1,193.9	1,153.3	1,125.2	1,859.7	1,825.2	1,767.5
65–74 years. . . . .	2,731.2	2,628.2	2,607.4	2,679.4	2,573.2	2,565.7	3,587.3	3,504.1	3,319.7
75–84 years. . . . .	6,324.4	6,167.5	6,084.5	6,305.2	6,155.4	6,081.0	7,257.6	6,970.4	6,873.2
85 years and over. . . . .	15,577.7	15,083.2	14,784.4	15,888.0	15,362.5	15,087.7	13,206.1	13,110.2	12,707.3
Male									
All ages, age adjusted. . . . .	699.8	679.6	668.9	670.5	647.9	642.7	1,018.4	1,010.0	956.9
All ages, crude. . . . .	944.2	922.0	917.2	960.3	934.6	937.2	988.4	984.5	941.5
Under 1 year . . . . .	1,121.5	1,076.7	1,037.5	937.5	910.0	908.8	2,196.7	1,993.6	1,796.4
1–4 years. . . . .	56.2	46.6	48.7	51.7	42.0	43.9	82.8	73.6	71.7
5–14 years. . . . .	30.5	32.3	29.1	29.0	30.3	27.7	39.1	44.5	38.4
15–24 years. . . . .	154.0	152.0	156.1	144.4	139.0	140.7	214.2	235.7	258.6
25–34 years. . . . .	196.0	203.3	205.6	169.6	173.4	178.9	404.9	432.9	414.8
35–44 years. . . . .	296.2	301.7	306.1	254.7	260.4	265.6	703.9	701.2	688.0
45–54 years. . . . .	636.5	628.2	600.9	573.0	563.8	547.1	1,294.3	1,288.9	1,181.1
55–64 years. . . . .	1,624.2	1,569.8	1,507.5	1,557.4	1,497.5	1,454.8	2,415.9	2,371.3	2,180.2
65–74 years. . . . .	3,583.2	3,414.6	3,358.5	3,533.8	3,348.0	3,316.2	4,527.3	4,516.3	4,172.9
75–84 years. . . . .	8,243.2	7,950.4	7,950.2	8,234.6	7,943.6	7,976.4	9,360.3	8,902.9	8,731.4
85 years and over. . . . .	18,475.2	17,695.3	17,521.6	18,933.7	18,110.4	17,973.3	15,342.9	14,958.3	14,743.2
Female									
All ages, age adjusted. . . . .	403.5	396.4	389.0	385.8	378.8	372.8	574.9	564.6	549.4
All ages, crude. . . . .	825.0	816.9	809.3	861.8	853.8	847.9	732.6	725.0	711.0
Under 1 year . . . . .	876.3	890.9	831.2	692.8	722.9	715.0	1,860.1	1,803.3	1,504.6
1–4 years. . . . .	44.9	40.8	39.4	43.3	35.9	35.9	48.8	65.4	62.0
5–14 years. . . . .	21.7	20.6	18.9	18.5	18.3	18.2	38.4	32.3	23.0
15–24 years. . . . .	54.5	53.9	50.8	52.0	51.4	48.2	74.1	66.5	67.0
25–34 years. . . . .	71.2	75.9	73.4	60.5	63.8	61.1	142.8	155.4	152.0
35–44 years. . . . .	141.0	142.2	138.1	123.0	122.0	119.2	286.9	304.6	289.5
45–54 years. . . . .	344.3	337.9	332.6	314.2	308.7	307.5	596.3	593.2	550.8
55–64 years. . . . .	909.4	887.8	877.5	865.7	841.2	825.1	1,399.1	1,373.6	1,424.2
65–74 years. . . . .	2,051.4	1,997.1	2,002.1	1,993.0	1,946.8	1,956.9	2,887.1	2,744.7	2,673.9
75–84 years. . . . .	5,166.6	5,083.4	4,941.7	5,145.3	5,072.3	4,921.1	5,997.8	5,812.5	5,763.7
85 years and over. . . . .	14,451.7	14,070.3	13,727.5	14,727.8	14,317.0	13,993.7	12,259.5	12,224.2	11,831.4

NOTE: Includes deaths of nonresidents of the United States.

SOURCE: National Center for Health Statistics: Annual summary of births, marriages, divorces, and deaths, United States, 1990. Monthly Vital Statistics Report. Vol. 39, No. 13. DHHS Pub. No. (PHS) 91–1120. 1991. Public Health Service. Hyattsville, Md.

**Table 46. Provisional death rates for selected causes of death: United States, 1988–90**

[Data are based on a 10-percent sample of death certificates from the National Vital Statistics System]

Cause of death	Age-adjusted death rate			Crude death rate			Rank		
	1988	1989	1990	1988	1989	1990	1988	1989	1990
All causes . . . . .	536.3	524.1	515.1	883.0	868.1	861.9	...	...	...
Diseases of heart . . . . .	166.7	155.9	150.3	312.2	296.3	289.0	1	1	1
Ischemic heart disease . . . . .	110.4	104.9	101.0	207.9	200.6	195.1	...	...	...
Cerebrovascular diseases . . . . .	29.8	28.5	27.6	61.1	59.4	57.9	3	3	3
Malignant neoplasms . . . . .	133.3	133.7	133.0	198.6	200.3	201.7	2	2	2
Respiratory system . . . . .	40.6	40.1	39.9	57.3	57.0	57.3	...	...	...
Breast <sup>1</sup> . . . . .	23.3	23.4	23.6	33.9	34.1	34.9	...	...	...
Chronic obstructive pulmonary diseases . . . . .	19.2	19.4	19.7	33.3	34.0	35.5	5	5	5
Pneumonia and influenza . . . . .	14.2	13.3	13.5	31.5	30.3	31.3	6	6	6
Chronic liver disease and cirrhosis . . . . .	9.0	8.7	8.3	10.6	10.6	10.2	9	9	10
Diabetes mellitus . . . . .	9.9	11.3	11.7	16.1	18.8	19.5	7	7	7
Nephritis, nephrotic syndrome, and nephrosis . . . . .	4.6	4.4	4.2	8.9	8.6	8.3	12	12	12
Septicemia . . . . .	4.5	4.1	4.2	8.5	7.7	7.9	13	14	13
Atherosclerosis . . . . .	3.7	3.0	2.4	9.6	7.7	6.6	10	13	15
Human immunodeficiency virus infection . . . . .	6.5	8.3	9.1	6.6	8.6	9.6	15	11	11
Accidents and adverse effects . . . . .	35.1	33.5	32.7	39.7	38.2	37.3	4	4	4
Motor vehicle accidents . . . . .	20.1	19.4	18.9	20.4	19.7	19.1	...	...	...
Suicide . . . . .	11.3	11.7	11.3	12.3	12.6	12.3	8	8	8
Homicide and legal intervention . . . . .	9.0	9.4	10.6	9.0	9.3	10.2	11	10	9

<sup>1</sup>Female only.

NOTES: Includes deaths of nonresidents of the United States. Code numbers for cause of death are based on the International Classification of Diseases, Ninth Revision, described in Appendix II, table V. Categories for the coding and classification of human immunodeficiency virus infection were introduced in the United States beginning with mortality data for 1987.

SOURCES: National Center for Health Statistics: Annual summary of births, marriages, divorces, and deaths, United States, 1988. Monthly Vital Statistics Report. Vol. 37, No. 13. DHHS Pub. No. (PHS) 89-1120. July 26, 1989; and Annual summary of births, marriages, divorces, and deaths, United States, 1990. Monthly Vital Statistics Report. Vol. 39, No. 13. DHHS Pub. No. (PHS) 91-1120. 1991. Public Health Service. Hyattsville, Md.

**Table 47. Provisional death rates for the 3 leading causes of death, according to age: United States, 1988–90**

[Data are based on a 10-percent sample of death certificates from the National Vital Statistics System]

<i>Cause of death and age</i>	<i>1988</i>	<i>1989</i>	<i>1990</i>
Diseases of heart			
All ages, age adjusted . . . . .	166.7	155.9	150.3
All ages, crude . . . . .	312.2	296.3	289.0
Under 1 year . . . . .	23.6	18.8	17.9
1–14 years . . . . .	1.4	1.1	1.1
15–24 years . . . . .	2.8	2.1	2.4
25–34 years . . . . .	7.3	7.5	7.6
35–44 years . . . . .	33.0	30.8	30.2
45–54 years . . . . .	131.4	124.6	117.9
55–64 years . . . . .	405.6	377.8	357.2
65–74 years . . . . .	985.6	910.1	885.8
75–84 years . . . . .	2,554.4	2,412.5	2,344.3
85 years and over . . . . .	7,119.1	6,742.6	6,451.4
Malignant neoplasms			
All ages, age adjusted . . . . .	133.3	133.7	133.0
All ages, crude . . . . .	198.6	200.3	201.7
Under 1 year . . . . .	1.3	1.5	2.2
1–14 years . . . . .	3.5	3.2	3.0
15–24 years . . . . .	5.0	5.3	4.8
25–34 years . . . . .	10.8	13.3	12.7
35–44 years . . . . .	44.3	45.0	43.2
45–54 years . . . . .	157.2	158.5	155.7
55–64 years . . . . .	456.5	451.4	440.7
65–74 years . . . . .	845.4	843.5	857.3
75–84 years . . . . .	1,324.8	1,338.4	1,348.7
85 years and over . . . . .	1,664.5	1,655.2	1,702.1
Cerebrovascular diseases			
All ages, age adjusted . . . . .	29.8	28.5	27.6
All ages, crude . . . . .	61.1	59.4	57.9
Under 1 year . . . . .	1.0	2.8	2.5
1–14 years . . . . .	0.1	0.3	0.3
15–24 years . . . . .	0.9	0.4	0.8
25–34 years . . . . .	2.1	1.9	1.9
35–44 years . . . . .	7.1	6.7	6.6
45–54 years . . . . .	20.4	18.1	19.7
55–64 years . . . . .	51.9	50.6	46.5
65–74 years . . . . .	155.7	147.6	144.5
75–84 years . . . . .	544.4	530.2	501.5
85 years and over . . . . .	1,710.3	1,632.8	1,573.9

NOTES: Includes deaths of nonresidents of the United States. Code numbers for cause of death are based on the *International Classification of Diseases, Ninth Revision*, described in Appendix II, table V.

SOURCES: National Center for Health Statistics: Annual summary of births, marriages, divorces, and deaths, United States, 1988. Monthly Vital Statistics Report. Vol. 37, No. 13. DHHS Pub. No. (PHS) 89–1120. July 26, 1989; and Annual summary of births, marriages, divorces, and deaths, United States, 1990. Monthly Vital Statistics Report. Vol. 39, No. 13. DHHS Pub. No. (PHS) 91–1120. 1991. Public Health Service. Hyattsville, Md.



**Table 48. Progress toward 1990 health promotion goals: United States, selected years 1977–90**

1990 goals	1977	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 <sup>1</sup>	1990 goal
<b>Infants (under 1 year)</b>	<b>Deaths per 1,000 live births</b>												
To continue to improve infant health, and by 1990, to reduce infant mortality by at least 35 percent to fewer than 9 deaths per 1,000 live births. . . . .	14.1	12.6	11.9	11.5	11.2	10.8	10.6	10.4	10.1	10.0	9.8	9.1	9
<b>Children (1–14 years)</b>	<b>Deaths per 100,000 population</b>												
To improve child health, foster optimal childhood development, and by 1990, reduce deaths among children ages 1 to 14 years by at least 20 percent to fewer than 34 per 100,000. . . . .	42.3	38.5	38.0	36.7	35.3	34.1	33.8	33.7	33.3	33.2	32.4	30.1	34
<b>Adolescents and young adults (15–24 years)</b>	<b>Deaths per 100,000 population</b>												
To improve the health and health habits of adolescents and young adults, and by 1990, to reduce deaths among people ages 15 to 24 by at least 20 percent to fewer than 93 per 100,000. . . . .	114.8	115.4	107.1	101.0	96.0	96.8	95.9	102.3	99.4	102.1	99.9	104.1	93
<b>Adults (25–64 years)</b>	<b>Deaths per 100,000 population</b>												
To improve the health of adults, and by 1990, to reduce deaths among people ages 25 to 64 by at least 25 percent to fewer than 400 per 100,000. . . . .	532.9	498.0	482.1	462.3	452.8	443.5	438.7	431.0	423.4	419.3	409.8	400.4	400
25–34 years of age . . . . .	132.8	135.5	132.1	125.2	121.4	121.1	123.4	132.1	133.2	135.4	138.1	139.6	...
35–44 years of age . . . . .	247.3	227.9	221.3	207.4	201.9	204.8	207.2	212.9	214.1	219.6	221.7	221.1	...
45–54 years of age . . . . .	621.2	584.0	573.5	549.7	535.7	521.1	516.3	504.8	498.0	486.2	475.0	463.1	...
55–64 years of age . . . . .	1,408.5	1,346.3	1,322.1	1,297.9	1,299.5	1,287.8	1,282.7	1,255.1	1,241.3	1,235.6	1,204.4	1,175.6	...
<b>Older adults (65 years and over)</b>	<b>Restricted-activity days per person</b>												
To improve the health and quality of life for older adults, and by 1990, to reduce the average annual number of days of restricted activity due to acute and chronic conditions by 20 percent, to fewer than 30 days per year for people aged 65 and older <sup>2</sup> . . . . .	36.5	39.2	39.9	31.6	32.1	31.8	33.1	32.1	30.3	30.6	31.5	31.4	30
	<b>Bed-disability days per person</b>												
To reduce the average annual number of days of bed disability due to acute and chronic conditions by 20 percent, to fewer than 12 days per year for people aged 65 and over <sup>2</sup> . . . . .	14.5	13.8	14.0	14.7	16.7	15.1	13.7	14.9	14.0	14.4	14.2	13.6	12

<sup>1</sup>1990 mortality data are provisional. For comparative purposes, the 1989 provisional data are:

1989

	<b>Deaths per 1,000 live births</b>	
Infant mortality . . . . .	9.7	
	<b>Deaths per 100,000 population</b>	
1–14 years of age . . . . .	31.7	
15–24 years of age . . . . .	103.5	
25–64 years of age . . . . .	412.0	
25–34 years of age . . . . .	139.7	
35–44 years of age . . . . .	221.0	
45–54 years of age . . . . .	479.1	
55–64 years of age . . . . .	1,210.0	

<sup>2</sup>Levels of estimates for 1982–90 may not be comparable to estimates for previous years because the 1982–90 data are based on a revised questionnaire and field procedures.

SOURCES: Office of the Assistant Secretary for Health and Surgeon General: Healthy People – The Surgeon General’s Report on Health Promotion and Disease Prevention, 1979. DHEW Pub. No. (PHS) 79–55071. Public Health Service. Washington. U.S. Government Printing Office, 1979; National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1977–89. Public Health Service. Washington. U.S. Government Printing Office; Annual summary of births, marriages, divorces, and deaths: United States, 1990. Monthly Vital Statistics Report, Vol. 39, No. 13. DHHS Pub. No. (PHS) 91–1120. Aug. 28, 1991; Public Health Service. Hyattsville, Md.; Data computed by Division of Analysis from data compiled by Division of Vital Statistics and from table 1; Division of Health Interview Statistics: Current estimates from the National Health Interview Survey: United States, 1989. Vital and Health Statistics. Series 10, No. 176. DHHS Pub. No. (PHS) 90–1504. Public Health Service. Washington. U.S. Government Printing Office, Oct. 1990; Current estimates from the National Health Interview Survey: United States, 1990. Vital and Health Statistics. Series 10, No. 179. DHHS Pub. No. (PHS) 91–1507. Public Health Service. Washington. U.S. Government Printing Office, Oct. 1991.

**Table 49. Vaccinations of children 1–4 years of age for selected diseases, according to race and residence in metropolitan statistical area (MSA): United States, 1970, 1976, and 1983–85**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Vaccination and year	Total	Race		Inside MSA		Outside MSA
		White	All other	Central city	Remaining areas	
All respondents						
Percent of population						
<b>Measles:</b>						
1970	57.2	60.4	41.9	55.2	61.7	54.3
1976	65.9	68.3	54.8	62.5	67.2	67.3
1983	64.9	66.8	57.2	60.4	66.3	66.7
1984	62.8	65.4	52.0	56.6	63.3	66.4
1985	60.8	63.6	48.8	55.5	63.3	61.9
<b>Rubella:</b>						
1970	37.2	38.3	31.8	38.3	39.2	34.3
1976	61.7	63.8	51.5	59.5	63.5	61.5
1983	64.0	66.3	54.7	59.5	65.2	66.0
1984	60.9	63.9	48.3	56.1	60.4	64.6
1985	58.9	61.6	47.7	53.9	61.0	60.3
<b>DTP:<sup>1,2</sup></b>						
1970	76.1	79.7	58.8	68.9	80.7	77.1
1976	71.4	75.3	53.2	64.1	75.7	72.9
1983	65.7	70.1	47.7	55.4	69.4	69.4
1984	65.7	69.1	51.3	57.9	66.6	69.8
1985	64.9	68.7	48.7	55.5	68.4	67.9
<b>Polio:<sup>2</sup></b>						
1970	65.9	69.2	50.1	61.0	70.8	64.7
1976	61.6	66.2	39.9	53.8	65.3	63.9
1983	57.0	61.9	36.7	47.7	60.3	60.3
1984	54.8	58.4	39.9	48.7	55.2	58.5
1985	55.3	58.9	40.1	47.1	58.4	58.0
<b>Mumps:</b>						
1970	---	---	---	---	---	---
1976	48.3	50.3	38.7	45.6	50.7	47.9
1983	59.5	61.8	50.0	52.6	60.2	63.6
1984	58.7	61.3	47.7	51.8	58.3	63.6
1985	58.9	61.8	47.0	52.4	61.0	61.4
Respondents consulting vaccination records, 1985 <sup>3</sup>						
Measles	76.9	78.1	67.2	73.5	76.7	79.0
Rubella	73.8	75.0	64.1	70.4	75.0	74.6
DTP <sup>1,2</sup>	87.0	88.5	75.2	79.6	89.7	88.6
Polio <sup>2</sup>	75.7	77.5	61.5	68.9	79.6	75.9
Mumps	75.5	77.1	62.7	70.5	76.8	77.0

<sup>1</sup>Diphtheria-tetanus-pertussis.

<sup>2</sup>Three doses or more.

<sup>3</sup>The data in this panel are based only on 35 percent of white respondents and 19 percent of all other respondents who consulted records for some or all vaccination questions. One month prior to interview all sampled households were asked to check vaccination records such as those from a private physician, the health department, or military.

NOTE: Beginning in 1976, the category "don't know" was added to response categories. Prior to 1976, the lack of this option resulted in some forced positive answers, particularly for vaccinations requiring multiple dose schedules, that is, polio and DTP. Data on immunization status of children will be collected in the 1991 National Health Interview Survey.

SOURCE: Division of Immunization, Center for Prevention Services, Centers for Disease Control: Unpublished data from the United States Immunization Survey.

**Table 50. Selected notifiable disease rates, according to disease: United States, selected years 1950–90**

[Data are based on reporting by State health departments]

Disease	1950	1960	1970	1980	1985	1988	1989	1990
Cases per 100,000 population								
Diphtheria	3.83	0.51	0.21	0.00	0.00	0.00	0.00	0.00
Hepatitis A <sup>1</sup>	---	---	27.87	12.84	10.03	11.60	14.43	12.64
Hepatitis B <sup>1</sup>	---	---	4.08	8.39	11.50	9.43	9.43	8.48
Mumps	---	---	55.55	3.86	1.30	2.05	2.34	2.17
Pertussis (whooping cough)	79.82	8.23	2.08	0.76	1.50	1.40	1.67	1.84
Poliomyelitis, total	22.02	1.77	0.02	0.00	0.00	0.00	0.00	0.00
Paralytic <sup>2</sup>	---	1.40	0.02	0.00	0.00	0.00	0.00	0.00
Rubella (German measles)	---	---	27.75	1.72	0.26	0.09	0.16	0.45
Rubeola (measles)	211.01	245.42	23.23	5.96	1.18	1.38	7.33	11.17
Salmonellosis, excluding typhoid fever	---	3.85	10.84	14.88	27.37	19.91	19.26	19.54
Shigellosis	15.45	6.94	6.79	8.41	7.14	12.46	10.07	10.89
Tuberculosis <sup>3</sup>	80.45	30.83	18.28	12.25	9.30	9.13	9.46	10.33
Varicella (chicken pox)	---	---	---	96.69	123.23	122.43	121.77	120.06
Sexually transmitted diseases: <sup>4</sup>								
Syphilis <sup>5</sup>	146.02	68.78	45.26	30.51	28.50	42.53	46.37	53.80
Primary and secondary	16.73	9.06	10.89	12.06	11.45	16.47	18.47	20.10
Early latent	39.71	10.11	8.08	9.00	9.15	14.63	18.29	22.10
Late and late latent	70.22	45.91	24.94	9.30	7.77	11.13	8.88	10.30
Congenital <sup>6</sup>	8.97	2.48	0.97	0.12	0.14	0.30	0.73	1.30
Gonorrhea	192.45	145.33	297.22	444.99	384.28	300.30	295.70	276.60
Chancroid	3.34	0.94	0.70	0.35	0.87	2.04	1.90	1.70
Granuloma inguinale	1.19	0.17	0.06	0.02	0.02	0.00	0.00	0.00
Lymphogranuloma venereum	0.95	0.47	0.30	0.09	0.10	0.08	0.07	0.10
Number of cases								
Diphtheria	5,796	918	435	3	3	2	3	4
Hepatitis A <sup>1</sup>	---	---	56,797	29,087	23,210	28,507	35,821	31,441
Hepatitis B <sup>1</sup>	---	---	8,310	19,015	26,611	23,177	23,419	21,102
Mumps	---	---	104,953	8,576	2,982	4,866	5,712	5,292
Pertussis (whooping cough)	120,718	14,809	4,249	1,730	3,589	3,450	4,157	4,570
Poliomyelitis, total	33,300	3,190	33	9	7	9	5	7
Paralytic <sup>2</sup>	---	2,525	31	8	7	9	5	7
Rubella (German measles)	---	---	56,552	3,904	630	225	396	1,125
Rubeola (measles)	319,124	441,703	47,351	13,506	2,822	3,396	18,193	27,786
Salmonellosis, excluding typhoid fever	---	6,929	22,096	33,715	65,347	48,948	47,812	48,603
Shigellosis	23,367	12,487	13,845	19,041	17,057	30,617	25,010	27,077
Tuberculosis <sup>3</sup>	121,742	55,494	37,137	27,749	22,201	22,436	23,495	25,701
Varicella (chicken pox)	---	---	---	190,894	178,162	192,857	185,441	173,099
Sexually transmitted diseases: <sup>4</sup>								
Syphilis <sup>5</sup>	217,558	122,538	91,382	68,832	67,563	104,546	115,113	134,255
Primary and secondary	23,939	16,145	21,982	27,204	27,131	40,474	45,854	50,233
Early latent	59,256	18,017	16,311	20,297	21,689	35,968	45,409	55,132
Late and late latent	113,569	81,798	50,348	20,979	18,414	27,363	22,035	25,612
Congenital <sup>6</sup>	13,377	4,416	1,953	277	329	741	1,809	3,288
Gonorrhea	286,746	258,933	600,072	1,004,029	911,419	738,160	734,127	690,169
Chancroid	4,977	1,680	1,416	788	2,067	4,891	4,697	4,212
Granuloma inguinale	1,783	296	124	51	44	11	7	97
Lymphogranuloma venereum	1,427	835	612	199	226	194	182	277

<sup>1</sup>Reports from New York City are not available for 1985.

<sup>2</sup>Data beginning in 1986 may be updated due to late reports.

<sup>3</sup>Data after 1974 are not comparable to prior years because of changes in reporting criteria effective in 1975.

<sup>4</sup>Newly reported civilian cases.

<sup>5</sup>Includes stage of syphilis not stated.

<sup>6</sup>Data reported for 1990 reflects change in case definition introduced in 1989.

NOTES: Rates greater than 0 but less than 0.005 are shown as 0.00. The total resident population was used to calculate all rates except sexually transmitted diseases, for which the civilian resident population was used. Population data from those States where diseases were not notifiable or not available were excluded from rate calculation. See Appendix I for information on underreporting of notifiable diseases.

SOURCES: Centers for Disease Control: Final 1990 reports of notifiable diseases, Morbidity and Mortality Weekly Report 39(53). Public Health Service, Atlanta, Ga., Oct. 1991, in press; Division of Sexually Transmitted Diseases, Center for Prevention Services, Centers for Disease Control: Selected data.



**Table 51. Acquired immunodeficiency syndrome (AIDS) cases, according to age at diagnosis, sex, race, and Hispanic origin: United States, 1984–91**

[Data are based on reporting by State health departments]

Age at diagnosis, sex, race, and Hispanic origin	All years <sup>1,2</sup>	Number, by year of report								All years <sup>1,2</sup>	Percent distribution
		1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>	1991 <sup>2</sup>		
Total <sup>3</sup> . . . . .	189,323	4,441	8,219	13,150	21,120	30,769	33,649	41,577	33,477	...	
<b>Male</b>											
All males, 13 years and over <sup>3</sup> . . . . .	167,552	4,112	7,566	12,004	19,113	27,154	29,670	36,312	28,941	100.0	
White, not Hispanic . . . . .	99,509	2,600	4,805	7,528	12,353	16,096	17,549	20,916	16,066	59.4	
Black, not Hispanic. . . . .	44,283	950	1,717	2,760	4,326	7,156	8,062	10,259	8,360	26.4	
Hispanic . . . . .	22,049	541	986	1,608	2,245	3,660	3,723	4,742	4,161	13.2	
American Indian <sup>4</sup> . . . . .	255	3	7	19	25	32	54	63	51	0.2	
Asian or Pacific Islander <sup>5</sup> . . . . .	1,079	16	48	79	127	163	212	238	191	0.6	
13–19 years. . . . .	519	17	29	45	70	85	90	101	75	0.3	
20–29 years. . . . .	32,292	840	1,476	2,491	3,808	5,478	5,735	6,835	5,061	19.3	
30–39 years. . . . .	78,149	1,984	3,624	5,656	8,890	12,631	13,917	16,811	13,368	46.6	
40–49 years. . . . .	39,204	891	1,667	2,574	4,282	6,121	6,823	8,905	7,341	23.4	
50–59 years. . . . .	12,641	314	605	918	1,474	1,998	2,252	2,644	2,229	7.5	
60 years and over . . . . .	4,747	66	165	320	589	841	853	1,016	867	2.8	
<b>Female</b>											
All females, 13 years and over <sup>3</sup> . . . . .	18,646	279	523	963	1,686	3,044	3,383	4,544	4,029	100.0	
White, not Hispanic . . . . .	5,152	78	143	269	547	854	949	1,231	1,038	27.6	
Black, not Hispanic. . . . .	10,362	145	284	521	896	1,657	1,900	2,535	2,322	55.6	
Hispanic . . . . .	2,948	56	92	161	229	502	496	738	627	15.8	
American Indian <sup>4</sup> . . . . .	42	–	3	2	3	5	9	10	9	0.2	
Asian or Pacific Islander <sup>5</sup> . . . . .	96	–	1	8	11	21	18	18	17	0.5	
13–19 years. . . . .	190	4	4	12	11	23	28	62	43	1.0	
20–29 years. . . . .	4,777	96	175	275	483	777	888	1,109	895	25.6	
30–39 years. . . . .	8,756	130	232	445	748	1,507	1,626	2,098	1,899	47.0	
40–49 years. . . . .	2,910	27	47	129	231	411	509	785	748	15.6	
50–59 years. . . . .	1,045	5	26	47	91	149	173	274	266	5.6	
60 years and over . . . . .	968	17	39	55	122	177	159	216	178	5.2	
<b>Children</b>											
All children, under 13 years <sup>3</sup> . . . . .	3,125	50	130	183	321	571	596	721	507	100.0	
White, not Hispanic . . . . .	711	10	25	42	85	150	111	163	114	22.8	
Black, not Hispanic. . . . .	1,743	28	85	105	161	304	341	385	306	55.8	
Hispanic . . . . .	642	12	20	35	72	112	137	166	81	20.5	
American Indian <sup>4</sup> . . . . .	7	–	–	–	2	–	1	3	1	0.2	
Asian or Pacific Islander <sup>5</sup> . . . . .	17	–	–	1	1	4	3	4	4	0.5	
Under 1 year . . . . .	808	6	35	36	87	162	139	196	142	25.9	
1–12 years . . . . .	2,317	44	95	147	234	409	457	525	365	74.1	

<sup>1</sup>Includes cases prior to 1984.

<sup>2</sup>Data are as of September 30, 1991, and reflect reporting delays.

<sup>3</sup>Includes all other races not shown separately.

<sup>4</sup>Includes Aleut and Eskimo.

<sup>5</sup>Includes Chinese, Japanese, Filipino, Hawaiian (includes part Hawaiian), and other Asian or Pacific Islander.

NOTES: The AIDS case definition was changed in September 1987 to allow for the presumptive diagnosis of AIDS-associated diseases and conditions and to expand the spectrum of human immunodeficiency virus-associated diseases reportable as AIDS. Excludes residents of U.S. territories.

SOURCE: Centers for Disease Control, National Center for Infectious Diseases, Division of HIV/AIDS.

**Table 52. Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to age at diagnosis, sex, race, and Hispanic origin: United States, 1984–91**

[Data are based on reporting by State health departments]

Age at diagnosis, sex, race, and Hispanic origin	All years <sup>1,2</sup>	Number, by year of death									All years <sup>1,2</sup>  Percent distribution
		1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>	1991 <sup>2</sup>		
Total <sup>3</sup> . . . . .	122,203	3,322	6,584	11,329	15,125	19,120	24,847	25,747	13,882	...	
Male											
All males, 13 years and over <sup>3</sup> . . . . .	108,984	3,025	6,030	10,282	13,472	16,946	22,057	22,800	12,371	100.0	
White, not Hispanic . . . . .	65,114	1,859	3,754	6,446	8,026	9,864	12,822	13,588	7,636	59.7	
Black, not Hispanic . . . . .	28,616	740	1,473	2,427	3,550	4,650	6,016	6,050	3,125	26.3	
Hispanic . . . . .	14,243	404	768	1,335	1,788	2,274	2,997	2,931	1,457	13.1	
American Indian <sup>4</sup> . . . . .	163	3	4	12	22	23	28	38	32	0.1	
Asian or Pacific Islander <sup>5</sup> . . . . .	688	17	29	53	74	104	149	155	102	0.6	
13–19 years . . . . .	306	13	23	38	43	41	59	56	28	0.3	
20–29 years . . . . .	19,795	578	1,158	1,948	2,549	3,185	3,917	3,929	2,128	18.2	
30–39 years . . . . .	49,709	1,386	2,759	4,734	6,146	7,611	10,100	10,426	5,614	45.6	
40–49 years . . . . .	26,126	697	1,328	2,327	3,042	3,944	5,345	5,768	3,218	24.0	
50–59 years . . . . .	9,286	273	564	867	1,142	1,500	1,892	1,885	985	8.5	
60 years and over . . . . .	3,762	78	198	368	550	665	744	736	398	3.5	
Female											
All females, 13 years and over <sup>3</sup> . . . . .	11,518	247	448	898	1,384	1,893	2,464	2,624	1,371	100.0	
White, not Hispanic . . . . .	3,187	59	144	256	432	533	635	699	388	27.7	
Black, not Hispanic . . . . .	6,451	140	218	483	762	1,043	1,398	1,508	795	56.0	
Hispanic . . . . .	1,766	47	83	148	182	299	403	393	170	15.3	
American Indian <sup>4</sup> . . . . .	22	—	3	1	2	1	5	5	4	0.2	
Asian or Pacific Islander <sup>5</sup> . . . . .	72	1	—	7	6	16	17	11	12	0.6	
13–19 years . . . . .	92	1	5	11	11	11	13	24	12	0.8	
20–29 years . . . . .	2,898	90	132	245	359	459	572	635	343	25.2	
30–39 years . . . . .	5,285	108	203	408	611	885	1,206	1,195	594	45.9	
40–49 years . . . . .	1,760	23	48	105	181	279	402	448	253	15.3	
50–59 years . . . . .	705	9	18	44	91	106	141	174	108	6.1	
60 years and over . . . . .	778	16	42	85	131	153	130	148	61	6.8	
Children											
All children, under 13 years <sup>3</sup> . . . . .	1,701	50	106	149	269	281	326	323	140	100.0	
White, not Hispanic . . . . .	402	9	29	35	69	67	88	61	32	23.6	
Black, not Hispanic . . . . .	929	29	59	82	130	151	164	197	84	54.6	
Hispanic . . . . .	352	12	16	30	67	60	71	62	23	20.7	
American Indian <sup>4</sup> . . . . .	5	—	—	—	2	—	1	1	—	0.3	
Asian or Pacific Islander <sup>5</sup> . . . . .	11	—	2	2	1	3	1	1	1	0.6	
Under 1 year . . . . .	398	6	24	39	63	65	77	75	41	23.4	
1–12 years . . . . .	1,303	44	82	110	206	216	249	248	99	76.6	

<sup>1</sup>Includes cases prior to 1984.

<sup>2</sup>Data are as of September 30, 1991, and reflect reporting delays.

<sup>3</sup>Includes all other races not shown separately.

<sup>4</sup>Includes Aleut and Eskimo.

<sup>5</sup>Includes Chinese, Japanese, Filipino, Hawaiian (includes part Hawaiian), and other Asian or Pacific Islander.

NOTES: The AIDS case definition was changed in September 1987 to allow for the presumptive diagnosis of AIDS-associated diseases and conditions and to expand the spectrum of human immunodeficiency virus-associated diseases reportable as AIDS. Excludes residents of U.S. territories.

SOURCE: Centers for Disease Control, National Center for Infectious Diseases, Division of HIV/AIDS.

**Table 53 (page 1 of 2). Acquired immunodeficiency syndrome (AIDS) cases, according to race, Hispanic origin, sex, and transmission category for persons 13 years of age and over: United States, 1984–91**

[Data are based on reporting by State health departments]

Race, Hispanic origin, sex, and transmission category	All years <sup>1,2</sup>	All years <sup>1,2</sup>	1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>	1991 <sup>2</sup>
Total <sup>3</sup>	100.0	186,198	4,391	8,089	12,967	20,799	30,198	33,053	40,856	32,970
Male homosexual/bisexual	60.0	111,694	2,855	5,449	8,551	13,556	17,872	19,673	23,731	18,203
Intravenous drug use	21.2	39,514	777	1,398	2,244	3,542	6,903	7,216	9,174	7,747
Male homosexual/bisexual and intravenous drug use	6.5	12,047	411	584	982	1,553	2,027	2,146	2,293	1,782
Hemophilia/coagulation disorder	0.9	1,598	38	73	123	206	297	284	329	230
Born in Caribbean/African countries	1.3	2,399	112	140	216	261	365	369	411	391
Heterosexual contact <sup>4</sup>	4.3	7,922	56	143	338	647	1,173	1,501	2,171	1,863
Sex with intravenous drug user	2.9	5,347	42	107	236	443	852	1,061	1,442	1,140
Transfusion	2.2	4,062	49	169	298	625	815	739	801	536
Undetermined <sup>5</sup>	3.7	6,962	93	133	215	409	746	1,125	1,946	2,218
Race and Hispanic origin										
White, not Hispanic	100.0	104,661	2,678	4,948	7,797	12,900	16,950	18,498	22,147	17,104
Male homosexual/bisexual	76.0	79,531	2,150	4,054	6,226	10,029	12,804	13,869	16,634	12,456
Intravenous drug use	8.4	8,754	145	252	407	817	1,488	1,697	2,049	1,794
Male homosexual/bisexual and intravenous drug use	6.9	7,253	265	371	644	1,004	1,170	1,282	1,310	1,053
Hemophilia/coagulation disorder	1.3	1,337	28	62	113	180	243	235	272	187
Born in Caribbean/African countries	0.0	10	1	—	1	1	1	—	2	4
Heterosexual contact <sup>4</sup>	2.2	2,313	16	34	96	213	362	452	636	500
Sex with intravenous drug user	1.2	1,241	10	19	48	105	206	265	338	249
Transfusion	2.8	2,921	38	131	229	477	604	543	525	350
Undetermined <sup>5</sup>	2.4	2,542	35	44	81	179	278	420	719	760
Black, not Hispanic	100.0	54,645	1,095	2,001	3,281	5,222	8,813	9,962	12,794	10,682
Male homosexual/bisexual	35.5	19,384	401	796	1,328	2,121	3,078	3,583	4,408	3,377
Intravenous drug use	39.5	21,589	407	753	1,207	1,887	3,745	4,013	5,096	4,229
Male homosexual/bisexual and intravenous drug use	6.3	3,424	97	143	237	391	608	643	730	509
Hemophilia/coagulation disorder	0.2	120	5	4	4	11	27	18	26	25
Born in Caribbean/African countries	4.3	2,366	111	140	214	258	360	363	404	383
Heterosexual contact <sup>4</sup>	7.6	4,172	23	81	162	322	571	793	1,157	1,050
Sex with intravenous drug user	5.5	3,009	17	64	120	250	452	596	818	681
Transfusion	1.4	738	8	26	43	94	138	130	172	124
Undetermined <sup>5</sup>	5.2	2,852	43	58	86	138	286	419	801	985
Hispanic	100.0	24,997	597	1,078	1,769	2,474	4,162	4,219	5,480	4,788
Male homosexual/bisexual	46.0	11,495	288	554	911	1,254	1,797	1,981	2,398	2,114
Intravenous drug use	35.9	8,982	224	385	618	829	1,646	1,464	1,984	1,678
Male homosexual/bisexual and intravenous drug use	5.2	1,292	48	68	97	146	241	205	234	205
Hemophilia/coagulation disorder	0.4	109	4	7	5	10	22	22	26	12
Born in Caribbean/African countries	0.1	13	—	—	—	2	2	2	5	1
Heterosexual contact <sup>4</sup>	5.5	1,366	17	28	77	109	226	235	368	293
Sex with intravenous drug user	4.2	1,055	15	24	68	87	186	186	279	198
Transfusion	1.2	312	2	7	20	40	56	54	82	49
Undetermined <sup>5</sup>	5.7	1,428	14	29	41	84	172	256	383	436

See footnotes at end of table.



**Table 53 (page 2 of 2). Acquired immunodeficiency syndrome (AIDS) cases, according to race, Hispanic origin, sex, and transmission category for persons 13 years of age and over: United States, 1984–91**

[Data are based on reporting by State health departments]

<i>Race, Hispanic origin, sex, and transmission category</i>	<i>All years<sup>1,2</sup></i>	<i>All years<sup>1,2</sup></i>	<i>1984</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>	<i>1989<sup>2</sup></i>	<i>1990<sup>2</sup></i>	<i>1991<sup>2</sup></i>
Sex	Percent distribution	Number, by year of report								
Male . . . . .	100.0	167,552	4,112	7,566	12,004	19,113	27,154	29,670	36,312	28,941
Homosexual/bisexual . . . . .	66.7	111,694	2,855	5,449	8,551	13,556	17,872	19,673	23,731	18,203
Intravenous drug use . . . . .	17.9	30,027	607	1,114	1,767	2,703	5,275	5,454	6,947	5,756
Homosexual/bisexual and intravenous drug use . . . . .	7.2	12,047	411	584	982	1,553	2,027	2,146	2,293	1,782
Hemophilia/coagulation disorder . . . . .	0.9	1,560	34	72	119	202	293	278	322	222
Born in Caribbean/African countries . . . . .	1.0	1,725	95	110	161	187	259	238	302	260
Heterosexual contact <sup>4</sup> . . . . .	1.4	2,398	10	28	64	162	324	494	712	601
Sex with intravenous drug user . . . . .	1.0	1,592	9	25	44	115	229	367	454	347
Transfusion . . . . .	1.5	2,524	29	109	193	408	490	453	474	352
Undetermined <sup>5</sup> . . . . .	3.3	5,577	71	100	167	342	614	934	1,531	1,765
Female . . . . .	100.0	18,646	279	523	963	1,686	3,044	3,383	4,544	4,029
Intravenous drug use . . . . .	50.9	9,487	170	284	477	839	1,628	1,762	2,227	1,991
Hemophilia/coagulation disorder . . . . .	0.2	38	4	1	4	4	4	6	7	8
Born in Caribbean/African countries . . . . .	3.6	674	17	30	55	74	106	131	109	131
Heterosexual contact <sup>4</sup> . . . . .	29.6	5,524	46	115	274	485	849	1,007	1,459	1,262
Sex with intravenous drug user . . . . .	20.1	3,755	33	82	192	328	623	694	988	793
Transfusion . . . . .	8.2	1,538	20	60	105	217	325	286	327	184
Undetermined <sup>5</sup> . . . . .	7.4	1,385	22	33	48	67	132	191	415	453

<sup>1</sup>Includes cases prior to 1984.

<sup>2</sup>Data are as of September 30, 1991, and reflect reporting delays.

<sup>3</sup>Includes all other races not shown separately.

<sup>4</sup>Includes persons who have had heterosexual contact with a person with human immunodeficiency virus (HIV) infection or at risk of HIV infection.

<sup>5</sup>Includes persons for whom risk information is incomplete (because of death, refusal to be interviewed, or loss to followup), persons still under investigation, men reported only to have had heterosexual contact with prostitutes, and interviewed persons for whom no specific risk is identified.

NOTES: The AIDS case definition was changed in September 1987 to allow for the presumptive diagnosis of AIDS-associated diseases and conditions and to expand the spectrum of HIV-associated diseases reportable as AIDS. Excludes residents of U.S. territories.

SOURCE: Centers for Disease Control, National Center for Infectious Diseases, Division of HIV/AIDS.

**Table 54 (page 1 of 2). Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to race, Hispanic origin, sex, and transmission category for persons 13 years of age and over: United States, 1984–91**

[Data are based on reporting by State health departments]

Race, Hispanic origin, sex, and transmission category	All years <sup>1,2</sup>	All years <sup>1,2</sup>	1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>	1991 <sup>2</sup>
	Percent distribution	Number, by year of death								
Total <sup>3</sup>	100.0	120,502	3,272	6,478	11,180	14,856	18,839	24,521	25,424	13,742
Male homosexual/bisexual	60.9	73,387	2,028	4,171	7,184	8,921	11,207	14,614	15,312	8,660
Intravenous drug use	20.6	24,847	637	1,193	2,020	3,089	4,172	5,489	5,314	2,509
Male homosexual/bisexual and intravenous drug use	6.6	8,012	314	485	837	1,113	1,235	1,494	1,531	807
Hemophilia/coagulation disorder	0.9	1,129	26	75	107	158	191	209	231	113
Born in Caribbean/African countries	1.1	1,356	80	109	146	190	183	233	181	106
Heterosexual contact <sup>4</sup>	3.8	4,624	44	126	269	457	705	1,007	1,272	713
Sex with intravenous drug user	2.6	3,146	38	89	184	320	501	720	833	439
Transfusion	2.6	3,156	64	193	359	533	597	590	528	263
Undetermined <sup>5</sup>	3.3	3,991	79	126	258	395	549	885	1,055	571
Race and Hispanic origin										
White, not Hispanic	100.0	68,301	1,918	3,898	6,702	8,458	10,397	13,457	14,287	8,024
Male homosexual/bisexual	76.6	52,320	1,499	3,087	5,255	6,331	7,821	10,275	10,919	6,240
Intravenous drug use	7.6	5,203	107	219	361	632	844	1,167	1,177	603
Male homosexual/bisexual and intravenous drug use	6.9	4,720	193	304	536	666	703	838	884	495
Hemophilia/coagulation disorder	1.4	951	23	61	96	136	168	168	195	87
Born in Caribbean/African countries	0.0	1	—	—	—	—	—	—	1	—
Heterosexual contact <sup>4</sup>	1.9	1,313	6	32	82	125	204	286	355	216
Sex with intravenous drug user	1.0	681	5	12	39	68	103	165	173	113
Transfusion	3.4	2,336	52	149	278	412	454	404	376	187
Undetermined <sup>5</sup>	2.1	1,457	38	46	94	156	203	319	380	196
Black, not Hispanic	100.0	35,067	880	1,691	2,910	4,312	5,693	7,414	7,558	3,920
Male homosexual/bisexual	36.4	12,776	298	647	1,149	1,592	2,120	2,643	2,668	1,411
Intravenous drug use	39.6	13,870	358	658	1,130	1,692	2,324	3,049	2,986	1,461
Male homosexual/bisexual and intravenous drug use	6.7	2,344	79	126	212	320	378	465	490	219
Hemophilia/coagulation disorder	0.2	87	1	7	3	13	11	20	15	16
Born in Caribbean/African countries	3.8	1,344	80	108	146	189	183	227	179	104
Heterosexual contact <sup>4</sup>	7.1	2,486	23	66	120	264	367	540	701	392
Sex with intravenous drug user	5.2	1,815	19	54	88	201	284	408	494	258
Transfusion	1.5	525	9	27	45	80	93	122	101	47
Undetermined <sup>5</sup>	4.7	1,635	32	52	105	162	217	348	418	270
Hispanic	100.0	16,009	451	851	1,483	1,970	2,573	3,400	3,324	1,627
Male homosexual/bisexual	47.0	7,520	212	414	725	909	1,141	1,533	1,552	889
Intravenous drug use	35.4	5,669	171	312	520	760	987	1,248	1,127	428
Male homosexual/bisexual and intravenous drug use	5.6	900	41	54	85	123	147	181	144	86
Hemophilia/coagulation disorder	0.5	75	2	5	8	7	10	17	17	8
Born in Caribbean/African countries	0.0	7	—	1	—	1	—	3	—	2
Heterosexual contact <sup>4</sup>	4.9	783	15	28	64	67	129	168	207	94
Sex with intravenous drug user	3.9	629	14	23	56	51	111	140	159	65
Transfusion	1.4	227	2	11	28	30	40	49	41	24
Undetermined <sup>5</sup>	5.2	828	8	26	53	73	119	201	236	96

See footnotes at end of table.

**Table 54 (page 2 of 2). Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to race, Hispanic origin, sex, and transmission category for persons 13 years of age and over: United States, 1984–91**

[Data are based on reporting by State health departments]

<i>Race, Hispanic origin, sex, and transmission category</i>	<i>All years<sup>1,2</sup></i>	<i>All years<sup>1,2</sup></i>	<i>1984</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>	<i>1989<sup>2</sup></i>	<i>1990<sup>2</sup></i>	<i>1991<sup>2</sup></i>
	Percent distribution	Number, by year of death								
Sex										
Male . . . . .	100.0	108,984	3,025	6,030	10,282	13,472	16,946	22,057	22,800	12,371
Homosexual/bisexual . . . . .	67.3	73,387	2,028	4,171	7,184	8,921	11,207	14,614	15,312	8,660
Intravenous drug use . . . . .	17.5	19,066	489	958	1,566	2,386	3,194	4,227	4,043	1,874
Homosexual/bisexual and intravenous drug use . . . . .	7.4	8,012	314	485	837	1,113	1,235	1,494	1,531	807
Hemophilia/coagulation disorder . . . . .	1.0	1,103	25	71	104	156	186	207	225	110
Born in Caribbean/African countries . . . . .	0.9	963	61	88	99	138	123	153	125	71
Heterosexual contact <sup>4</sup> . . . . .	1.2	1,313	6	30	51	118	181	287	398	239
Sex with intravenous drug user . . . . .	0.8	878	6	26	36	81	136	189	254	148
Transfusion . . . . .	1.8	1,965	41	124	246	320	365	368	329	161
Undetermined <sup>5</sup> . . . . .	2.9	3,175	61	103	195	320	455	707	837	449
Female . . . . .	100.0	11,518	247	448	898	1,384	1,893	2,464	2,624	1,371
Intravenous drug use . . . . .	50.2	5,781	148	235	454	703	978	1,262	1,271	635
Hemophilia/coagulation disorder . . . . .	0.2	26	1	4	3	2	5	2	6	3
Born in Caribbean/African countries . . . . .	3.4	393	19	21	47	52	60	80	56	35
Heterosexual contact <sup>4</sup> . . . . .	28.7	3,311	38	96	218	339	524	720	874	474
Sex with intravenous drug user . . . . .	19.7	2,268	32	63	148	239	365	531	579	291
Transfusion . . . . .	10.3	1,191	23	69	113	213	232	222	199	102
Undetermined <sup>5</sup> . . . . .	7.1	816	18	23	63	75	94	178	218	122

<sup>1</sup>Includes cases prior to 1984.

<sup>2</sup>Data are as of September 30, 1991, and reflect reporting delays.

<sup>3</sup>Includes all other races not shown separately.

<sup>4</sup>Includes persons who have had heterosexual contact with a person with human immunodeficiency virus (HIV) infection or at risk of HIV infection.

<sup>5</sup>Includes persons for whom risk information is incomplete (because of death, refusal to be interviewed, or loss to followup), persons still under investigation, men reported only to have had heterosexual contact with prostitutes, and interviewed persons for whom no specific risk is identified.

NOTES: The AIDS case definition was changed in September 1987 to allow for the presumptive diagnosis of AIDS-associated diseases and conditions and to expand the spectrum of HIV-associated diseases reportable as AIDS. Excludes residents of U.S. territories.

SOURCE: Centers for Disease Control, National Center for Infectious Diseases, Division of HIV/AIDS.



**Table 55 (page 1 of 2). Acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1983–91**

[Data are based on reporting by State health departments]

Geographic division and State	All years <sup>1,2</sup>	1983	1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>	1991 <sup>2</sup>	12 months ending
											September 30, 1991
											Cases per 100,000 population <sup>3</sup>
Number, by year of report											
United States . . . . .	189,323	2,080	4,441	8,219	13,150	21,120	30,769	33,649	41,577	33,477	16.72
New England . . . . .	7,390	58	154	279	528	847	1,283	1,395	1,508	1,314	12.68
Maine . . . . .	255	—	—	11	22	28	27	66	66	35	4.36
New Hampshire . . . . .	226	1	3	4	13	32	38	37	65	32	4.17
Vermont . . . . .	92	1	1	2	6	15	11	20	22	14	4.23
Massachusetts . . . . .	4,085	34	86	164	282	452	711	753	843	747	15.83
Rhode Island . . . . .	446	4	7	12	30	68	84	88	88	65	8.72
Connecticut . . . . .	2,286	18	57	86	175	252	412	431	424	421	15.61
Middle Atlantic . . . . .	58,355	1,036	1,954	3,152	4,845	6,110	10,272	9,300	12,044	9,105	30.66
New York . . . . .	40,892	863	1,582	2,482	3,769	3,947	6,969	6,001	8,390	6,434	44.82
New Jersey . . . . .	12,120	136	282	469	767	1,509	2,450	2,227	2,462	1,755	29.67
Pennsylvania . . . . .	5,343	37	90	201	309	654	853	1,072	1,192	916	9.83
East North Central . . . . .	13,077	60	198	353	821	1,405	2,144	2,662	3,015	2,391	7.18
Ohio . . . . .	2,779	7	31	54	212	335	506	488	663	476	5.65
Indiana . . . . .	1,261	3	25	26	71	133	79	401	292	231	4.90
Illinois . . . . .	5,816	39	100	188	346	629	990	1,137	1,274	1,095	12.30
Michigan . . . . .	2,422	9	32	61	150	211	456	506	577	417	5.78
Wisconsin . . . . .	799	2	10	24	42	97	113	130	209	172	3.89
West North Central . . . . .	4,412	15	44	128	241	476	769	833	1,058	844	6.02
Minnesota . . . . .	981	4	11	41	96	130	166	176	203	151	4.72
Iowa . . . . .	301	—	2	12	21	30	42	56	68	70	3.51
Missouri . . . . .	2,335	7	27	50	74	238	411	442	581	504	11.68
North Dakota . . . . .	24	—	—	1	4	2	3	8	2	4	0.63
South Dakota . . . . .	28	—	—	1	2	2	7	4	9	3	1.29
Nebraska . . . . .	228	1	2	7	10	24	51	33	58	42	3.61
Kansas . . . . .	515	3	2	16	34	50	89	114	137	70	3.66
South Atlantic . . . . .	37,391	266	584	1,300	2,075	3,691	5,445	7,060	8,782	8,092	21.85
Delaware . . . . .	370	1	3	12	22	39	62	80	93	58	11.73
Maryland . . . . .	3,899	27	54	149	188	457	542	715	994	768	19.24
District of Columbia . . . . .	3,242	19	90	178	226	465	495	495	741	530	116.11
Virginia . . . . .	2,588	21	40	109	160	242	348	389	737	536	11.07
West Virginia . . . . .	224	—	5	6	8	23	20	55	63	44	2.70
North Carolina . . . . .	2,088	9	15	66	81	209	276	445	566	421	7.59
South Carolina . . . . .	1,300	11	7	38	58	84	174	327	351	250	8.37
Georgia . . . . .	5,408	25	56	191	304	517	838	1,091	1,216	1,157	21.10
Florida . . . . .	18,272	153	314	551	1,028	1,655	2,690	3,463	4,021	4,328	37.84
East South Central . . . . .	3,950	10	24	72	165	324	759	762	1,043	789	6.53
Kentucky . . . . .	636	4	10	17	32	48	90	114	189	132	4.75
Tennessee . . . . .	1,352	2	5	18	72	72	330	266	341	246	6.42
Alabama . . . . .	1,148	3	6	29	33	153	213	216	238	255	7.64
Mississippi . . . . .	814	1	3	8	28	51	126	166	275	156	7.56
West South Central . . . . .	18,107	112	315	617	1,181	2,158	2,848	3,143	4,463	3,250	15.48
Arkansas . . . . .	602	—	1	10	29	48	80	79	208	147	7.93
Louisiana . . . . .	2,850	18	55	104	165	336	401	508	702	561	16.16
Oklahoma . . . . .	868	5	9	20	50	107	149	168	203	157	6.40
Texas . . . . .	13,787	89	250	483	937	1,667	2,218	2,388	3,350	2,385	18.00
Mountain . . . . .	5,330	33	74	161	332	635	896	1,118	1,122	953	8.71
Montana . . . . .	80	—	—	1	3	6	16	13	17	24	3.87
Idaho . . . . .	98	—	—	4	3	10	11	23	28	19	2.67
Wyoming . . . . .	51	—	1	1	4	3	6	16	5	15	3.76
Colorado . . . . .	1,929	21	38	62	166	226	325	386	361	339	12.68
New Mexico . . . . .	438	1	3	14	21	47	60	94	109	89	8.01
Arizona . . . . .	1,487	7	21	50	78	216	278	331	313	192	6.44
Utah . . . . .	423	2	7	17	21	39	81	74	98	84	5.72
Nevada . . . . .	824	2	4	12	36	88	119	181	191	191	19.81

See footnotes at end of table.

**Table 55 (page 2 of 2). Acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1983–91**

[Data are based on reporting by State health departments]

Geographic division and State	All years <sup>1,2</sup>	1983	1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>	1991 <sup>2</sup>	12 months ending September 30, 1991
											Cases per 100,000 population <sup>3</sup>
Number, by year of report											
Pacific . . . . .	41,311	490	1,094	2,157	2,962	5,474	6,353	7,376	8,542	6,739	21.52
Washington . . . . .	2,622	6	59	110	168	324	342	509	687	416	11.30
Oregon . . . . .	1,230	5	13	35	64	160	177	228	336	210	10.58
California . . . . .	36,582	470	1,008	1,979	2,658	4,891	5,710	6,442	7,339	5,964	24.81
Alaska . . . . .	114	1	1	5	16	16	19	17	24	15	3.01
Hawaii . . . . .	763	8	13	28	56	83	105	180	156	134	14.70

<sup>1</sup>Includes cases prior to 1983.

<sup>2</sup>Data are as of September 30, 1991, and reflect reporting delays.

<sup>3</sup>Resident population as of mid-1990, based on extrapolation from 1980–85 data from the U.S. Bureau of the Census.

NOTES: The AIDS case definition was changed in September 1987 to allow for the presumptive diagnosis of AIDS-associated diseases and conditions and to expand the spectrum of human immunodeficiency virus-associated diseases reportable as AIDS. Excludes residents of U.S. territories.

SOURCE: Centers for Disease Control, National Center for Infectious Diseases, Division of HIV/AIDS.

**Table 56 (page 1 of 2). Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1983–91**

[Data are based on reporting by State health departments]

Geographic division and State	Number, by year of death									
	All years <sup>1,2</sup>	1983	1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>	1991 <sup>2</sup>
United States . . . . .	122,203	1,453	3,322	6,584	11,329	15,125	19,120	24,847	25,747	13,882
New England . . . . .	4,460	46	108	223	393	572	733	860	983	492
Maine . . . . .	136	—	—	7	16	10	19	28	41	14
New Hampshire . . . . .	128	2	—	7	14	16	25	22	26	15
Vermont . . . . .	52	1	1	1	6	6	5	10	13	9
Massachusetts . . . . .	2,522	30	60	113	192	311	412	514	567	301
Rhode Island . . . . .	282	2	5	9	24	43	44	54	67	31
Connecticut . . . . .	1,340	11	42	86	141	186	228	232	269	122
Middle Atlantic . . . . .	38,638	760	1,483	2,586	4,062	5,238	6,244	8,092	6,961	2,805
New York . . . . .	27,412	625	1,164	2,001	2,925	3,626	4,366	5,830	4,902	1,656
New Jersey . . . . .	7,662	104	232	428	824	1,170	1,310	1,541	1,244	737
Pennsylvania . . . . .	3,564	31	87	157	313	442	568	721	815	412
East North Central . . . . .	8,247	45	135	322	601	892	1,276	1,786	1,949	1,206
Ohio . . . . .	1,718	9	32	62	126	187	261	372	418	245
Indiana . . . . .	735	7	14	22	60	79	114	147	185	104
Illinois . . . . .	3,812	21	65	160	283	398	602	830	873	560
Michigan . . . . .	1,523	5	16	60	97	168	239	348	363	221
Wisconsin . . . . .	459	3	8	18	35	60	60	89	110	76
West North Central . . . . .	2,617	7	36	100	218	309	396	521	609	415
Minnesota . . . . .	634	2	9	26	61	77	85	101	161	110
Iowa . . . . .	178	1	2	7	16	19	22	34	34	42
Missouri . . . . .	1,285	3	19	48	91	140	203	285	301	192
North Dakota . . . . .	18	—	—	2	4	2	3	6	1	—
South Dakota . . . . .	14	—	—	1	3	1	3	1	2	3
Nebraska . . . . .	145	1	2	4	13	16	30	26	32	21
Kansas . . . . .	343	—	4	12	30	54	50	68	78	47
South Atlantic . . . . .	23,500	197	459	1,025	1,790	2,651	3,561	4,788	5,459	3,464
Delaware . . . . .	239	—	2	7	21	30	30	45	68	34
Maryland . . . . .	2,461	13	52	119	176	276	347	503	600	364
District of Columbia . . . . .	2,070	14	42	133	203	239	315	395	464	256
Virginia . . . . .	1,665	20	25	80	140	205	276	331	384	202
West Virginia . . . . .	147	—	5	6	8	12	12	36	46	22
North Carolina . . . . .	1,302	5	25	44	91	133	192	320	295	196
South Carolina . . . . .	778	2	12	30	46	79	116	158	231	100
Georgia . . . . .	3,217	18	56	127	227	347	515	654	806	444
Florida . . . . .	11,621	125	240	479	878	1,330	1,758	2,346	2,565	1,846
East South Central . . . . .	2,439	11	26	84	152	260	382	523	610	377
Kentucky . . . . .	450	5	11	20	26	41	61	104	116	63
Tennessee . . . . .	804	3	6	27	64	84	119	151	202	141
Alabama . . . . .	698	3	6	27	34	79	112	151	167	118
Mississippi . . . . .	487	—	3	10	28	56	90	117	125	55
West South Central . . . . .	11,622	78	223	515	992	1,514	1,866	2,375	2,661	1,363
Arkansas . . . . .	344	2	—	10	24	38	64	84	69	53
Louisiana . . . . .	1,817	13	32	95	140	221	269	376	388	272
Oklahoma . . . . .	554	1	11	12	40	69	92	131	112	81
Texas . . . . .	8,907	62	180	398	788	1,186	1,441	1,784	2,092	957
Mountain . . . . .	3,151	19	63	135	280	389	514	622	699	414
Montana . . . . .	44	—	—	1	3	5	6	10	8	11
Idaho . . . . .	61	—	—	1	3	7	12	8	20	10
Wyoming . . . . .	27	—	1	2	1	4	2	6	4	6
Colorado . . . . .	1,205	11	40	58	112	145	179	206	263	188
New Mexico . . . . .	257	—	2	8	23	25	32	57	56	49
Arizona . . . . .	820	4	12	40	87	113	173	189	171	25
Utah . . . . .	249	1	3	12	25	32	41	39	62	34
Nevada . . . . .	488	3	5	13	26	58	69	107	115	91

See footnotes at end of table.



**Table 56 (page 2 of 2). Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1983–91**

[Data are based on reporting by State health departments]

<i>Geographic division and State</i>	<i>All years<sup>1,2</sup></i>	<i>1983</i>	<i>1984</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>	<i>1989<sup>2</sup></i>	<i>1990<sup>2</sup></i>	<i>1991<sup>2</sup></i>
Pacific . . . . .	27,529	290	789	1,594	2,841	3,300	4,148	5,280	5,816	3,346
Washington . . . . .	1,580	7	31	81	128	186	240	304	353	250
Oregon . . . . .	778	2	9	24	67	74	112	139	201	149
California . . . . .	24,644	279	741	1,450	2,604	2,983	3,707	4,745	5,149	2,865
Alaska . . . . .	49	1	—	6	7	5	9	9	7	4
Hawaii . . . . .	478	1	8	33	35	52	80	83	106	78

<sup>1</sup>Includes cases prior to 1983.

<sup>2</sup>Data are as of September 30, 1991, and reflect reporting delays.

NOTES: The AIDS case definition was changed in September 1987 to allow for the presumptive diagnosis of AIDS-associated diseases and conditions and to expand the spectrum of human immunodeficiency virus-associated diseases reportable as AIDS. Excludes residents of U.S. territories.

SOURCE: Centers for Disease Control, National Center for Infectious Diseases, Division of HIV/AIDS.

**Table 57. Age-adjusted cancer incidence rates for selected cancer sites, according to sex and race: Selected years 1973–89**

[Data are based on the Surveillance, Epidemiology, and End Results Program's population-based registries in Atlanta, Detroit, Seattle-Puget Sound, San Francisco-Oakland, Connecticut, Iowa, New Mexico, Utah, and Hawaii]

<i>Race, sex, and site</i>	1973	1975	1980	1984	1985	1986	1987	1988	1989	<i>Estimated annual percent change<sup>1</sup></i>
<i>Estimated annual percent change<sup>1</sup></i>										
Number of new cases per 100,000 population <sup>2</sup>										
<b>White male</b>										
All sites . . . . .	363.7	378.9	407.8	424.9	430.2	436.0	453.9	447.7	444.4	1.3
Oral cavity and pharynx . . . . .	17.5	18.4	16.9	17.1	16.8	16.3	17.2	15.3	14.8	-0.8
Esophagus . . . . .	4.8	4.8	4.9	4.8	5.3	5.2	5.5	5.4	5.1	0.7
Stomach . . . . .	13.9	12.5	12.4	10.9	10.6	10.8	10.5	10.7	10.6	-1.6
Colon and rectum . . . . .	54.2	55.1	58.9	63.0	63.8	62.4	61.4	59.6	58.1	0.6
Colon . . . . .	34.7	36.1	39.4	43.4	43.5	43.0	42.1	41.1	39.6	1.0
Rectum . . . . .	19.4	19.0	19.4	19.6	20.2	19.4	19.3	18.5	18.6	-0.2
Pancreas . . . . .	12.7	12.4	11.0	11.1	10.7	10.8	10.5	10.5	9.7	-1.0
Lung and bronchus . . . . .	72.4	75.8	82.4	84.6	82.5	82.2	84.3	81.7	78.9	0.6
Prostate gland . . . . .	62.4	68.7	78.9	82.8	86.9	90.5	102.3	104.8	108.5	3.1
Urinary bladder . . . . .	27.2	28.6	31.5	32.3	31.1	32.2	33.7	32.8	31.6	1.1
Non-Hodgkin's lymphoma . . . . .	10.3	11.4	12.7	15.5	15.9	16.7	18.3	17.9	17.8	3.8
Leukemia . . . . .	14.4	14.2	14.5	14.1	14.1	14.1	13.7	13.3	12.9	-0.5
<b>Black male</b>										
All sites . . . . .	437.9	435.0	512.1	542.5	535.2	532.4	546.7	536.0	524.4	1.6
Oral cavity and pharynx . . . . .	16.3	17.2	23.3	27.4	22.1	24.6	26.3	22.4	23.9	2.5
Esophagus . . . . .	12.9	17.3	16.5	18.0	19.7	21.8	18.2	16.8	15.5	0.7
Stomach . . . . .	25.9	19.8	21.5	17.7	18.6	18.7	20.9	20.1	18.3	-0.8
Colon and rectum . . . . .	42.4	46.9	63.7	55.9	61.0	59.6	61.1	58.0	62.8	2.0
Colon . . . . .	31.3	34.0	46.0	42.7	47.0	44.1	47.1	42.9	48.0	2.3
Rectum . . . . .	11.0	12.9	17.7	13.1	14.0	15.5	14.0	15.1	14.7	1.2
Pancreas . . . . .	15.7	15.3	17.7	15.5	19.9	16.4	15.9	17.1	12.5	-0.4
Lung and bronchus . . . . .	104.4	100.7	131.8	141.7	133.0	135.0	124.6	126.0	118.3	1.6
Prostate gland . . . . .	105.2	110.7	126.7	140.5	134.2	131.5	145.6	144.4	142.0	2.2
Urinary bladder . . . . .	10.7	13.5	14.6	15.7	16.2	17.6	17.7	14.3	13.9	1.5
Non-Hodgkin's lymphoma . . . . .	9.0	7.1	9.3	11.1	10.0	10.9	9.4	12.5	11.0	3.0
Leukemia . . . . .	12.0	12.4	13.1	10.5	13.1	10.7	13.7	10.5	12.1	0.0
<b>White female</b>										
All sites . . . . .	294.0	310.0	311.2	332.5	342.5	340.2	350.9	346.5	340.2	0.9
Colon and rectum . . . . .	41.6	42.9	44.9	44.7	46.0	43.1	41.3	40.0	40.3	-0.2
Colon . . . . .	30.2	30.9	33.1	32.4	34.0	32.2	30.2	29.4	29.6	-0.1
Rectum . . . . .	11.4	12.0	11.8	12.4	12.0	10.9	11.0	10.7	10.6	-0.5
Pancreas . . . . .	7.4	7.1	7.3	8.4	8.2	7.9	7.5	7.6	7.2	0.3
Lung and bronchus . . . . .	17.8	21.9	28.4	35.0	36.1	37.9	39.7	41.4	40.1	5.1
Melanoma of skin . . . . .	5.8	6.9	9.1	9.3	10.1	10.4	10.9	10.2	10.2	3.6
Breast . . . . .	84.0	89.5	87.4	100.0	106.4	109.0	117.0	113.5	108.2	1.8
Cervix uteri . . . . .	12.7	11.1	9.1	8.3	7.6	8.0	7.4	7.9	8.2	-2.9
Corpus uteri . . . . .	29.4	33.7	25.3	24.0	23.3	22.4	22.7	21.3	21.9	-2.7
Ovary . . . . .	14.6	14.4	14.0	14.8	15.1	13.5	14.6	15.5	15.8	0.3
Non-Hodgkin's lymphoma . . . . .	7.5	8.5	9.3	11.1	11.3	11.2	11.3	12.1	11.4	2.8
<b>Black female</b>										
All sites . . . . .	279.5	293.1	306.4	323.0	325.1	328.7	328.3	334.5	319.3	1.1
Colon and rectum . . . . .	40.6	42.9	49.9	47.9	46.4	47.3	48.1	46.5	44.1	1.1
Colon . . . . .	29.2	32.4	41.3	38.0	36.3	36.7	37.4	36.7	33.8	1.4
Rectum . . . . .	11.5	10.5	8.6	9.9	10.1	10.6	10.8	9.8	10.3	0.1
Pancreas . . . . .	11.5	11.7	13.1	13.3	11.5	13.1	15.0	14.0	11.1	1.0
Lung and bronchus . . . . .	20.7	20.4	34.2	40.1	41.1	43.3	39.4	42.4	45.2	5.2
Breast . . . . .	68.0	77.5	74.4	84.0	92.9	94.1	90.8	97.4	87.6	2.0
Cervix uteri . . . . .	29.6	27.8	19.2	17.4	16.0	15.2	15.0	15.4	12.8	-4.5
Corpus uteri . . . . .	14.8	16.8	14.2	15.2	15.1	14.2	13.7	13.9	16.7	-0.0
Ovary . . . . .	10.3	10.1	10.1	9.4	10.1	9.0	10.1	10.6	10.6	0.3
Non-Hodgkin's lymphoma . . . . .	5.4	4.0	6.1	5.9	6.8	6.9	8.0	7.1	7.9	3.9

<sup>1</sup>The estimated annual percent change has been calculated by fitting a linear regression model to the natural logarithm of the yearly rates from 1973–89.

<sup>2</sup>Age adjusted by the direct method to the 1970 U.S. population.

SOURCE: National Cancer Institute, National Institutes of Health, Cancer Statistics Review, 1973–1989. NIH Pub. No. 92-2789. U.S. Department of Health and Human Services. Public Health Service. Bethesda, Md., 1992.

**Table 58. Five-year relative cancer survival rates for selected sites, according to race and sex: 1974–76, 1977–79, 1980–82, and 1983–88**

[Data are based on the Surveillance, Epidemiology, and End Results Program's population-based registries in Atlanta, Detroit, Seattle-Puget Sound, San Francisco-Oakland, Connecticut, Iowa, New Mexico, Utah, and Hawaii]

Sex and site	All races				White				Black			
	1974–76	1977–79	1980–82	1983–88	1974–76	1977–79	1980–82	1983–88	1974–76	1977–79	1980–82	1983–88
Percent of patients												
Male												
All sites. . . . .	40.8	42.9	44.7	46.7	41.9	44.2	46.1	48.4	31.1	32.0	33.8	33.4
Oral cavity and pharynx. . . . .	52.2	51.0	50.5	49.0	54.4	53.3	53.7	52.1	30.8	30.8	25.5	26.2
Esophagus. . . . .	3.5	4.7	5.8	7.2	4.1	5.6	6.4	8.1	2.1	2.4	4.6	5.3
Stomach. . . . .	13.8	15.3	16.1	15.4	13.1	14.4	15.1	14.4	15.6	14.6	18.3	15.0
Colon. . . . .	49.5	51.3	55.1	58.9	49.9	51.7	55.5	60.1	43.8	45.0	46.4	47.2
Rectum. . . . .	47.4	48.5	50.0	55.5	47.8	49.6	51.1	56.5	34.1	37.6	36.0	42.3
Pancreas. . . . .	2.9	2.2	2.7	2.7	3.1	2.2	2.6	2.4	1.2	2.8	3.7	4.8
Lung and bronchus. . . . .	11.1	11.8	11.9	11.5	11.0	12.0	12.0	11.8	10.9	8.9	10.9	9.6
Prostate gland. . . . .	66.6	70.7	72.9	75.9	67.6	71.7	74.0	77.6	57.7	61.9	63.9	62.9
Urinary bladder. . . . .	73.5	76.2	78.9	80.1	74.3	76.7	79.7	80.5	54.0	62.2	61.8	65.2
Non-Hodgkin's lymphoma. . . . .	46.8	45.4	49.7	49.7	47.5	45.9	50.4	50.3	42.9	42.1	46.5	41.3
Leukemia. . . . .	32.8	35.7	36.4	36.3	33.3	36.5	37.5	37.6	31.7	29.4	28.8	29.1
Female												
All sites. . . . .	56.6	55.9	55.7	57.0	57.3	56.6	56.5	58.2	46.7	46.2	45.3	43.6
Colon. . . . .	50.4	53.5	54.8	57.4	50.6	53.6	55.1	58.3	46.9	49.6	50.5	48.3
Rectum. . . . .	49.3	50.6	53.7	56.6	49.7	51.3	54.5	57.2	48.9	37.9	39.9	49.8
Pancreas. . . . .	2.2	2.5	3.3	3.6	2.1	2.2	2.9	3.2	3.1	4.8	5.9	4.5
Lung and bronchus. . . . .	15.5	17.0	15.9	15.7	15.7	17.1	16.0	16.0	12.6	17.0	15.4	12.6
Melanoma of skin. . . . .	84.5	85.6	87.3	87.1	84.6	85.9	87.3	87.3	---	---	---	*66.5
Breast. . . . .	74.2	74.4	75.9	78.0	74.8	75.1	76.7	79.3	62.9	62.5	65.6	62.1
Cervix uteri. . . . .	68.4	67.7	66.5	65.6	69.2	68.8	67.3	68.0	63.2	61.8	60.1	55.3
Corpus uteri. . . . .	87.7	84.8	81.3	82.5	88.6	86.1	82.5	84.2	60.4	57.8	53.6	54.3
Ovary. . . . .	36.5	38.0	38.8	39.5	36.2	37.5	38.6	39.3	40.7	39.5	37.3	37.1
Non-Hodgkin's lymphoma. . . . .	47.3	50.3	52.3	53.1	47.4	50.2	52.5	53.8	54.1	58.9	54.0	44.4

\*Standard error is greater than 10 percentage points.

NOTES: Rates are based on followup of patients through 1989. The 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. It estimates the chance of surviving the effects of cancer.

SOURCES: National Cancer Institute, National Institutes of Health, Cancer Statistics Review, 1973–1989, NIH Pub. No. 92-2789. U.S. Department of Health and Human Services. Public Health Service, Bethesda, Md., 1992; National Cancer Institute, Division of Cancer Prevention and Control: Unpublished data.



**Table 59. Limitation of activity caused by chronic conditions, according to selected characteristics: United States, 1985 and 1990**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Total with limitation of activity		Limited but not in major activity		Limited in amount or kind of major activity		Unable to carry on major activity	
	1985	1990	1985	1990	1985	1990	1985	1990
	Percent of population							
Total <sup>1,2</sup> . . . . .	13.4	12.9	4.2	4.1	5.5	5.0	3.7	3.9
Age								
Under 15 years . . . . .	4.8	4.7	1.2	1.2	3.1	3.1	0.4	0.4
Under 5 years . . . . .	2.2	2.2	0.6	0.6	1.1	1.0	0.5	0.6
5-14 years . . . . .	6.2	6.1	1.6	1.6	4.2	4.1	0.4	0.4
15-44 years . . . . .	8.3	8.5	2.7	2.6	3.6	3.5	1.9	2.4
45-64 years . . . . .	23.4	21.8	5.9	5.7	8.8	7.5	8.7	8.6
65 years and over . . . . .	39.6	37.5	15.5	15.4	13.8	11.9	10.4	10.2
65-74 years . . . . .	36.7	33.7	14.0	13.2	11.5	9.9	11.2	10.6
75 years and over . . . . .	44.3	43.3	17.9	18.8	17.3	14.9	9.1	9.6
Sex <sup>1</sup>								
Male . . . . .	13.6	12.9	3.8	3.8	5.1	4.7	4.7	4.4
Female . . . . .	13.2	13.0	4.5	4.3	5.8	5.3	2.9	3.4
Race <sup>1</sup>								
White . . . . .	13.1	12.8	4.3	4.2	5.5	5.0	3.4	3.6
Black . . . . .	16.3	15.5	3.9	3.8	6.1	5.3	6.4	6.5
Family income <sup>1,3</sup>								
Less than \$14,000 . . . . .	22.4	22.9	5.6	5.2	8.5	8.1	8.3	9.6
\$14,000-\$24,999 . . . . .	15.0	14.8	4.3	4.3	6.3	5.7	4.5	4.8
\$25,000-\$34,999 . . . . .	12.0	11.6	3.7	3.8	5.2	4.7	3.1	3.0
\$35,000-\$49,999 . . . . .	10.7	10.4	3.8	3.7	4.6	4.4	2.4	2.3
\$50,000 or more . . . . .	8.8	8.4	3.2	3.4	3.7	3.3	1.8	1.7
Geographic region <sup>1</sup>								
Northeast . . . . .	11.8	11.9	3.7	3.9	4.8	4.5	3.3	3.6
Midwest . . . . .	12.7	12.9	3.7	3.9	5.3	5.5	3.7	3.4
South . . . . .	14.8	14.0	4.8	4.1	6.1	5.3	4.0	4.6
West . . . . .	13.8	12.5	4.3	4.4	5.7	4.5	3.8	3.7
Location of residence <sup>1</sup>								
Within MSA . . . . .	13.0	12.4	4.0	4.0	5.4	4.7	3.6	3.7
Outside MSA . . . . .	14.6	14.9	4.7	4.3	5.9	6.1	4.0	4.5

<sup>1</sup>Age adjusted.

<sup>2</sup>Includes all other races not shown separately and unknown family income.

<sup>3</sup>Family income categories for 1990. Income categories for 1985 are: less than \$11,000; \$11,000-\$19,999; \$20,000-\$29,999; \$30,000-\$39,999; and \$40,000 or more.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.

**Table 60. Disability days associated with acute conditions and incidence of acute conditions, according to age: United States, 1983–90**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Age	1983	1984	1985	1986	1987	1988	1989	1990
<b>Restricted-activity days</b>								
All ages <sup>1</sup>	7.2	7.4	6.8	7.7	6.8	7.1	7.5	7.0
Under 15 years	8.2	7.9	6.9	8.2	7.5	8.1	8.4	7.6
Under 5 years	9.5	8.8	7.5	9.0	9.4	9.7	9.6	9.5
5–14 years	7.5	7.4	6.7	7.8	6.6	7.2	7.8	6.5
15–44 years	6.6	7.1	6.5	7.0	6.5	6.7	7.3	6.9
45–64 years	6.3	6.6	6.0	7.0	6.1	5.8	5.9	5.8
65 years and over	9.2	9.1	9.6	10.2	8.0	8.2	9.1	8.7
65–74 years	8.7	8.3	8.9	10.2	8.2	7.3	8.2	7.6
75 years and over	10.1	10.2	10.9	10.1	7.7	9.6	10.4	10.3
<b>Bed-disability days<sup>2</sup></b>								
All ages <sup>1</sup>	3.4	3.3	3.1	3.4	3.0	3.1	3.5	3.1
Under 15 years	4.0	3.6	3.4	3.8	3.4	3.9	4.2	3.5
Under 5 years	4.7	3.8	3.5	3.9	4.4	4.9	4.5	4.5
5–14 years	3.6	3.5	3.3	3.8	2.8	3.4	4.0	3.0
15–44 years	3.0	3.2	2.8	3.1	2.8	2.8	3.2	3.0
45–64 years	2.8	2.6	2.7	3.1	2.6	2.4	2.8	2.7
65 years and over	4.5	3.9	3.9	4.6	3.4	3.4	4.2	3.2
65–74 years	4.4	3.7	2.8	3.9	3.7	3.1	3.6	2.6
75 years and over	4.7	4.3	5.7	5.5	3.0	4.0	5.0	4.0
<b>Incidence of acute conditions<sup>3</sup></b>								
All ages <sup>1</sup>	182.9	184.9	183.1	189.5	180.8	184.8	190.5	181.2
Under 15 years	288.1	289.3	280.0	302.7	281.7	296.5	299.7	288.1
Under 5 years	354.5	345.1	334.6	360.4	358.9	362.8	369.5	365.0
5–14 years	252.8	259.2	250.9	271.7	240.4	261.3	262.3	246.9
15–44 years	165.1	172.2	170.1	180.5	168.7	162.6	173.5	157.0
45–64 years	109.3	104.4	112.9	125.1	101.4	107.9	113.6	114.4
65 years and over	100.9	98.8	98.4	119.5	100.4	108.9	100.2	105.8
65–74 years	103.1	97.4	98.9	118.2	94.8	107.8	97.4	108.2
75 years and over	97.3	101.0	97.7	121.5	109.4	110.6	104.6	102.1

<sup>1</sup>Age adjusted.

<sup>2</sup>A subset of restricted-activity days.

<sup>3</sup>Excludes conditions involving neither medical attention nor activity restriction.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.

**Table 61. Self-assessment of health, according to selected characteristics: United States, 1985 and 1990**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Total	Excellent		Very good		Good		Fair or poor	
		1985	1990	1985	1990	1985	1990	1985	1990
Percent distribution <sup>1</sup>									
Total <sup>2,3</sup>	100.0	40.4	40.5	27.1	28.5	22.8	22.0	9.8	8.9
Age									
Under 15 years	100.0	53.1	52.8	26.3	28.1	18.2	16.6	2.5	2.4
Under 5 years	100.0	54.7	53.2	25.8	28.1	17.2	15.8	2.3	2.9
5-14 years	100.0	52.2	52.6	26.5	28.1	18.7	17.1	2.5	2.2
15-44 years	100.0	43.9	43.1	30.1	30.9	20.6	20.6	5.4	5.4
45-64 years	100.0	27.0	29.2	25.3	27.1	29.2	27.7	18.6	16.0
65 years and over	100.0	15.9	17.1	20.2	22.9	32.5	32.3	31.4	27.7
65-74 years	100.0	17.1	18.9	20.7	23.5	32.9	32.6	29.3	25.1
75 years and over	100.0	13.9	14.5	19.5	21.9	31.9	31.9	34.7	31.7
Sex <sup>2</sup>									
Male	100.0	42.8	42.5	26.2	28.3	21.5	20.8	9.5	8.4
Female	100.0	38.0	38.7	27.9	28.8	24.1	23.2	10.0	9.3
Race <sup>2</sup>									
White	100.0	42.1	42.1	27.5	29.0	21.5	20.8	8.9	8.1
Black	100.0	29.1	31.1	23.9	25.3	30.0	28.5	17.0	15.1
Family income <sup>2,4</sup>									
Less than \$14,000	100.0	28.3	28.1	24.0	24.3	28.4	28.9	19.3	18.6
\$14,000-\$24,999	100.0	35.0	34.6	27.9	29.6	25.6	25.0	11.6	10.8
\$25,000-\$34,999	100.0	41.0	40.6	28.3	30.2	22.7	21.7	8.0	7.5
\$35,000-\$49,999	100.0	44.5	45.9	28.8	29.7	20.2	19.1	6.4	5.3
\$50,000 or more	100.0	53.3	52.1	27.1	28.0	15.3	16.0	4.2	4.0
Geographic region <sup>2</sup>									
Northeast	100.0	40.5	43.1	27.9	28.1	23.1	21.6	8.5	7.2
Midwest	100.0	41.2	41.7	27.9	29.3	21.9	21.1	9.0	7.9
South	100.0	37.3	37.3	26.5	27.8	24.3	23.8	11.9	11.2
West	100.0	44.5	42.2	25.8	29.1	21.3	20.6	8.5	8.1
Location of residence <sup>2</sup>									
Within MSA	100.0	41.3	41.6	27.3	28.5	22.3	21.5	9.0	8.5
Outside MSA	100.0	37.1	36.7	26.3	28.7	24.5	24.1	12.1	10.4

<sup>1</sup>Denominator excludes unknown health status.

<sup>2</sup>Age adjusted.

<sup>3</sup>Includes all other races not shown separately and unknown family income.

<sup>4</sup>Family income categories for 1990. Income categories for 1985 are less than \$11,000; \$11,000-\$19,999; \$20,000-\$29,999; \$30,000-\$39,999; and \$40,000 or more.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.



**Table 62. Current cigarette smoking by persons 18 years of age and over, according to sex, race, and age: United States, selected years 1965–90**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

<i>Sex, race, and age</i>	1965	1974	1979	1983	1985	1987	1988	1990 <sup>1</sup>
All persons		Percent of persons 18 years of age and over						
18 years and over, age adjusted . . . . .	42.3	37.2	33.5	32.2	30.0	28.7	27.9	25.4
18 years and over, crude . . . . .	42.4	37.1	33.5	32.1	30.1	28.8	28.1	25.5
All males								
18 years and over, age adjusted . . . . .	51.6	42.9	37.2	34.7	32.1	31.0	30.1	28.0
18 years and over, crude . . . . .	51.9	43.1	37.5	35.1	32.6	31.2	30.8	28.4
18–24 years . . . . .	54.1	42.1	35.0	32.9	28.0	28.2	25.5	26.6
25–34 years . . . . .	60.7	50.5	43.9	38.8	38.2	34.8	36.2	31.6
35–44 years . . . . .	58.2	51.0	41.8	41.0	37.6	36.6	36.5	34.5
45–64 years . . . . .	51.9	42.6	39.3	35.9	33.4	33.5	31.3	29.3
65 years and over . . . . .	28.5	24.8	20.9	22.0	19.6	17.2	18.0	14.6
White:								
18 years and over, age adjusted . . . . .	50.8	41.7	36.5	34.1	31.3	30.4	29.5	27.6
18–24 years . . . . .	53.0	40.8	34.3	32.5	28.4	29.2	26.7	27.4
25–34 years . . . . .	60.1	49.5	43.6	38.6	37.3	33.8	35.4	31.6
35–44 years . . . . .	57.3	50.1	41.3	40.8	36.6	36.2	35.8	33.5
45–64 years . . . . .	51.3	41.2	38.3	35.0	32.1	32.4	30.0	28.7
65 years and over . . . . .	27.7	24.3	20.5	20.6	18.9	16.0	16.9	13.7
Black:								
18 years and over, age adjusted . . . . .	59.2	54.0	44.1	41.3	39.9	39.0	36.5	32.2
18–24 years . . . . .	62.8	54.9	40.2	34.2	27.2	24.9	18.6	21.3
25–34 years . . . . .	68.4	58.5	47.5	39.9	45.6	44.9	41.6	33.8
35–44 years . . . . .	67.3	61.5	48.6	45.5	45.0	44.0	42.5	42.0
45–64 years . . . . .	57.9	57.8	50.0	44.8	46.1	44.3	43.2	36.7
65 years and over . . . . .	36.4	29.7	26.2	38.9	27.7	30.3	29.8	21.5
All females								
18 years and over, age adjusted . . . . .	34.0	32.5	30.3	29.9	28.2	26.7	26.0	23.1
18 years and over, crude . . . . .	33.9	32.1	29.9	29.5	27.9	26.5	25.7	22.8
18–24 years . . . . .	38.1	34.1	33.8	35.5	30.4	26.1	26.3	22.5
25–34 years . . . . .	43.7	38.8	33.7	32.6	32.0	31.8	31.3	28.2
35–44 years . . . . .	43.7	39.8	37.0	33.8	31.5	29.6	27.8	24.8
45–64 years . . . . .	32.0	33.4	30.7	31.0	29.9	28.6	27.7	24.8
65 years and over . . . . .	9.6	12.0	13.2	13.1	13.5	13.7	12.8	11.5
White:								
18 years and over, age adjusted . . . . .	34.3	32.3	30.6	30.1	28.3	27.2	26.2	23.9
18–24 years . . . . .	38.4	34.0	34.5	36.5	31.8	27.8	27.5	25.4
25–34 years . . . . .	43.4	38.6	34.1	32.2	32.0	31.9	31.0	28.5
35–44 years . . . . .	43.9	39.3	37.2	34.8	31.0	29.2	28.3	25.0
45–64 years . . . . .	32.7	33.0	30.6	30.6	29.7	29.0	27.7	25.4
65 years and over . . . . .	9.8	12.3	13.8	13.2	13.3	13.9	12.6	11.5
Black:								
18 years and over, age adjusted . . . . .	32.1	35.9	30.8	31.8	30.7	27.2	27.1	20.4
18–24 years . . . . .	37.1	35.6	31.8	32.0	23.7	20.4	21.8	10.0
25–34 years . . . . .	47.8	42.2	35.2	38.0	36.2	35.8	37.2	29.1
35–44 years . . . . .	42.8	46.4	37.7	32.7	40.2	35.3	27.6	25.5
45–64 years . . . . .	25.7	38.9	34.2	36.3	33.4	28.4	29.5	22.6
65 years and over . . . . .	7.1	8.9	8.5	13.1	14.5	11.7	14.8	11.1

<sup>1</sup>The reader should use caution in interpreting the changes in prevalence from 1988 to 1990 as an accelerated decline in prevalence until confirmed by data from the 1991 survey now in progress. Some inconsistencies in smoking patterns in the National Health Interview Survey data have been noted, and there is a lack of agreement among national tobacco use surveys on smoking trends in recent years.

NOTES: A current smoker is a person who has smoked at least 100 cigarettes and who now smokes; includes occasional smokers. Excludes unknown smoking status.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey; Data computed by the Division of Epidemiology and Health Promotion from data compiled by the Division of Health Interview Statistics.

**Table 63. Age-adjusted prevalence of current cigarette smoking by persons 25 years of age and over, according to sex, race, and education: United States, selected years 1974–90**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

<i>Sex, race, and education</i>	1974	1979	1983	1985	1987	1988	1990 <sup>1</sup>
Percent of persons 25 years of age and over, age adjusted							
All persons <sup>2</sup> . . . . .	37.1	33.3	31.7	30.2	29.1	28.4	25.6
Less than 12 years . . . . .	43.8	41.1	40.8	41.0	40.6	39.4	36.7
12 years . . . . .	36.4	33.7	33.6	32.1	31.8	31.8	29.3
13–15 years . . . . .	35.8	33.2	30.3	29.7	27.2	26.4	23.5
16 or more years . . . . .	27.5	22.8	20.7	18.6	16.7	16.3	14.1
All males <sup>2</sup> . . . . .	43.0	37.6	35.1	32.9	31.5	31.1	28.3
Less than 12 years . . . . .	52.4	48.1	47.2	46.0	45.7	44.9	41.8
12 years . . . . .	42.6	39.1	37.4	35.6	35.2	35.2	33.2
13–15 years . . . . .	41.6	36.5	33.0	33.0	28.4	29.0	25.9
16 or more years . . . . .	28.6	23.1	21.8	19.7	17.3	17.2	14.6
White males <sup>2</sup> . . . . .	41.9	36.9	34.5	31.9	30.6	30.1	27.7
Less than 12 years . . . . .	51.6	48.0	47.9	45.2	45.3	44.8	41.7
12 years . . . . .	42.2	38.6	37.1	34.8	34.6	34.2	33.0
13–15 years . . . . .	41.4	36.4	32.6	32.3	28.0	28.2	25.4
16 or more years . . . . .	28.1	22.8	21.1	19.2	17.4	17.1	14.5
Black males <sup>2</sup> . . . . .	53.8	44.9	42.8	42.5	41.9	40.3	34.5
Less than 12 years . . . . .	58.3	50.1	46.0	51.1	49.4	45.3	41.4
12 years . . . . .	*51.2	48.4	47.2	41.9	43.6	48.3	37.4
13–15 years . . . . .	*45.7	39.3	44.7	42.3	32.4	34.8	28.3
16 or more years . . . . .	*41.8	*37.9	*31.3	*32.0	20.9	21.5	20.6
All females <sup>2</sup> . . . . .	32.2	29.6	28.8	27.8	26.9	25.9	23.2
Less than 12 years . . . . .	36.8	35.0	35.3	36.7	36.1	34.5	32.1
12 years . . . . .	32.5	29.9	30.9	29.6	29.2	29.1	26.3
13–15 years . . . . .	30.2	30.0	27.5	26.7	26.0	24.1	21.1
16 or more years . . . . .	26.1	22.5	19.2	17.4	16.1	15.3	13.6
White females <sup>2</sup> . . . . .	31.9	29.8	28.8	27.6	27.0	25.9	23.6
Less than 12 years . . . . .	37.0	36.1	35.5	37.1	37.0	35.2	33.6
12 years . . . . .	32.1	29.9	30.9	29.4	29.4	29.3	26.8
13–15 years . . . . .	30.5	30.6	28.0	27.1	26.2	23.8	21.4
16 or more years . . . . .	25.8	21.9	18.9	16.8	16.4	15.1	13.7
Black females <sup>2</sup> . . . . .	35.9	30.6	31.8	32.1	28.6	28.2	22.6
Less than 12 years . . . . .	36.4	31.9	36.9	39.2	35.0	33.9	26.8
12 years . . . . .	41.9	33.0	35.2	32.3	28.1	30.1	24.0
13–15 years . . . . .	33.2	*28.8	26.5	23.7	27.2	26.8	23.1
16 or more years . . . . .	*35.2	*43.4	*38.7	27.5	19.5	22.2	16.9

<sup>1</sup>The reader should use caution in interpreting the changes in prevalence from 1988 to 1990 as an accelerated decline in prevalence until confirmed by data from the 1991 survey now in progress. Some inconsistencies in smoking patterns in the National Health Interview Survey data have been noted, and there is a lack of agreement among national tobacco use surveys on smoking trends in recent years.

<sup>2</sup>Includes unknown education.

\*For age groups where percent smoking was 0 or 100 the age-adjustment procedure was modified to substitute the percent from the next lower education group. These age-adjusted percents should be considered unreliable because of small sample size.

NOTES: A current smoker is a person who has smoked at least 100 cigarettes and who now smokes; includes occasional smokers. Excludes unknown smoking status.

SOURCE: Data computed by the Division of Epidemiology and Health Promotion, National Center for Health Statistics from data compiled by the Division of Health Interview Statistics.

**Table 64 (page 1 of 2). Use of selected substances in the past month by youths 12–17 years of age and young adults 18–25 years of age, according to age, sex, race, and Hispanic origin: United States, selected years 1974–91**

[Data are based on household interviews of a sample of the population 12 years of age and over in the coterminous United States]

<i>Substance, age, sex, race, and Hispanic origin</i>	1974	1976	1977	1979	1982	1985	1988	1990	1991
Cigarettes									
Percent of population									
12–17 years . . . . .	25	23	22	( <sup>1</sup> )	15	15	12	12	11
12–13 years . . . . .	13	11	10	( <sup>1</sup> )	*3	6	3	2	3
14–15 years . . . . .	25	20	22	( <sup>1</sup> )	10	14	11	14	9
16–17 years . . . . .	38	39	35	( <sup>1</sup> )	30	25	20	18	21
Male . . . . .	27	21	23	( <sup>1</sup> )	16	16	12	12	12
Female . . . . .	24	26	22	( <sup>1</sup> )	13	15	11	11	10
White . . . . .	---	---	---	---	---	17	14	14	13
Black . . . . .	---	---	---	---	---	9	5	4	4
Hispanic . . . . .	---	---	---	---	---	11	8	11	9
18–25 years . . . . .	49	49	47	( <sup>1</sup> )	40	37	35	32	32
Male . . . . .	50	48	50	( <sup>1</sup> )	37	38	36	36	32
Female . . . . .	47	51	44	( <sup>1</sup> )	42	35	35	27	32
White . . . . .	---	---	---	---	---	38	37	35	36
Black . . . . .	---	---	---	---	---	34	30	21	22
Hispanic . . . . .	---	---	---	---	---	30	28	25	25
Alcohol <sup>2</sup>									
12–17 years . . . . .	34	32	31	37	27	31	25	25	20
12–13 years . . . . .	19	19	13	20	10	11	6	8	7
14–15 years . . . . .	32	31	28	36	23	35	23	26	19
16–17 years . . . . .	51	47	52	55	45	46	42	38	35
Male . . . . .	39	36	37	39	27	34	27	25	22
Female . . . . .	29	29	25	36	27	28	23	24	18
White . . . . .	---	---	---	---	---	34	27	28	20
Black . . . . .	---	---	---	---	---	21	16	15	20
Hispanic . . . . .	---	---	---	---	---	22	25	19	23
18–25 years . . . . .	69	69	70	76	68	71	65	63	64
Male . . . . .	---	79	82	84	75	78	75	74	70
Female . . . . .	---	58	59	68	61	64	57	53	58
White . . . . .	---	---	---	---	---	76	69	66	67
Black . . . . .	---	---	---	---	---	57	50	59	56
Hispanic . . . . .	---	---	---	---	---	58	61	57	53
Marijuana									
12–17 years . . . . .	12	12	17	17	12	12	6	5	4
12–13 years . . . . .	*2	*3	*4	4	*2	*4	1	*	*
14–15 years . . . . .	12	13	16	17	8	11	5	5	4
16–17 years . . . . .	20	21	30	28	23	21	12	10	9
Male . . . . .	12	14	20	19	13	13	6	6	5
Female . . . . .	11	11	13	14	10	11	7	4	4
White . . . . .	---	---	---	---	---	13	7	6	4
Black . . . . .	---	---	---	---	---	8	4	3	5
Hispanic . . . . .	---	---	---	---	---	9	5	4	5
18–25 years . . . . .	25	25	27	35	27	22	15	13	13
Male . . . . .	---	31	35	45	36	27	20	17	16
Female . . . . .	---	19	20	26	19	17	11	9	11
White . . . . .	---	---	---	---	---	22	16	14	14
Black . . . . .	---	---	---	---	---	24	15	13	15
Hispanic . . . . .	---	---	---	---	---	15	14	8	9
Cocaine									
12–17 years . . . . .	*1.0	*1.0	*0.8	1.4	1.6	1.5	1.1	0.6	0.4
Male . . . . .	---	---	---	---	1.8	2.0	0.9	0.7	0.5
Female . . . . .	---	---	---	---	*1.5	*1.0	1.4	*	0.3
White . . . . .	---	---	---	---	---	1.5	1.3	0.4	*0.3
Black . . . . .	---	---	---	---	---	1.0	*	*	*0.5
Hispanic . . . . .	---	---	---	---	---	2.5	1.3	*	1.3

See footnotes at end of table.





**Table 65. Use of selected substances in the past month by high school seniors, according to sex, race, Hispanic origin, and average parental education: United States, 1980–90**

[Data are based on a survey of high school seniors in the coterminous United States]

<i>Substance, sex, race, Hispanic origin, and average parental education</i>	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
<b>Cigarettes</b>											
Percent using substance in the past month											
All seniors . . . . .	30.5	29.4	30.0	30.3	29.3	30.1	29.6	29.4	28.7	28.6	29.4
Male . . . . .	26.8	26.5	26.8	28.0	25.9	28.2	27.9	27.0	28.0	27.7	29.1
Female . . . . .	33.4	31.6	32.6	31.6	31.9	31.4	30.6	31.4	28.9	29.0	29.2
White . . . . .	31.0	30.1	31.3	31.3	31.0	31.7	32.0	32.2	32.3	32.1	32.5
Black . . . . .	25.2	22.3	21.2	21.2	17.6	18.7	14.6	13.9	12.8	12.4	12.0
Hispanic . . . . .	20.6	24.8	24.6	24.8	25.9	25.1	22.6	22.8	21.0	20.4	23.2
Average parental education: <sup>1</sup>											
Less than high school . . . . .	32.7	32.5	32.6	32.7	33.6	32.3	28.6	28.8	28.1	25.4	26.3
High school graduate . . . . .	34.2	31.7	32.0	32.2	31.8	32.3	32.3	31.4	29.9	30.8	30.8
Some college . . . . .	28.0	28.2	29.0	28.0	28.1	29.7	29.7	28.8	27.8	29.4	29.3
College graduate . . . . .	25.7	26.0	25.5	27.8	25.2	27.7	26.4	27.6	28.6	27.0	29.1
Some postgraduate . . . . .	24.0	22.5	25.1	25.5	23.7	22.6	26.7	29.3	27.8	26.3	28.6
<b>Alcohol</b>											
All seniors . . . . .	72.0	70.7	69.7	69.4	67.2	65.9	65.3	66.4	63.9	60.0	57.1
Male . . . . .	77.4	75.7	74.1	74.4	71.4	69.8	69.0	69.9	68.0	65.1	61.3
Female . . . . .	66.8	65.7	65.4	64.3	62.8	62.1	61.9	63.1	59.9	54.9	52.3
White . . . . .	75.8	75.0	74.2	73.5	72.1	70.2	70.2	71.8	69.5	65.3	62.2
Black . . . . .	47.7	45.8	46.2	49.3	42.1	43.6	40.4	38.5	40.9	38.1	32.9
Hispanic . . . . .	61.5	62.2	58.8	59.5	60.0	56.5	56.2	58.0	57.6	48.9	49.2
Average parental education: <sup>1</sup>											
Less than high school . . . . .	65.9	62.1	61.3	61.2	58.1	58.7	56.1	56.3	54.5	47.8	47.2
High school graduate . . . . .	72.0	70.7	69.4	69.2	67.4	65.9	65.3	67.0	64.6	59.7	57.2
Some college . . . . .	73.3	71.5	72.7	70.4	69.6	66.9	66.7	67.2	64.3	62.9	57.7
College graduate . . . . .	74.4	73.1	74.5	73.1	69.3	68.9	68.0	68.8	66.0	62.1	60.8
Some postgraduate . . . . .	77.2	77.4	74.1	75.0	70.3	67.9	69.9	70.5	67.3	62.2	60.8
<b>Marijuana</b>											
All seniors . . . . .	33.7	31.6	28.5	27.0	25.2	25.7	23.4	21.0	18.0	16.7	14.0
Male . . . . .	37.8	35.3	31.4	31.0	28.2	28.7	26.8	23.1	20.7	19.5	16.1
Female . . . . .	29.1	27.3	24.9	22.2	21.1	22.4	20.0	18.6	15.2	13.8	11.5
White . . . . .	34.2	32.4	29.1	26.6	25.3	26.4	24.6	22.3	19.9	18.6	15.6
Black . . . . .	26.5	24.9	24.8	26.9	22.8	21.7	16.6	12.4	9.8	9.4	5.2
Hispanic . . . . .	29.2	26.8	25.6	25.0	22.4	21.5	21.1	19.5	12.7	12.1	11.3
Average parental education: <sup>1</sup>											
Less than high school . . . . .	29.9	29.7	24.9	26.2	23.8	23.4	21.0	19.9	15.6	13.9	11.4
High school graduate . . . . .	34.6	31.5	28.4	27.3	25.4	25.9	24.1	20.9	16.8	16.3	14.3
Some college . . . . .	33.6	31.4	29.3	26.1	25.8	26.5	24.1	21.1	17.7	17.9	13.5
College graduate . . . . .	33.7	31.9	30.1	26.9	23.3	27.1	23.1	21.1	19.3	17.1	15.0
Some postgraduate . . . . .	36.2	31.9	27.7	25.5	23.4	20.6	21.7	21.2	20.6	16.2	15.0
<b>Cocaine</b>											
All seniors . . . . .	5.2	5.8	5.0	4.9	5.8	6.7	6.2	4.3	3.4	2.8	1.9
Male . . . . .	6.0	6.3	5.9	5.7	7.0	7.7	7.2	4.9	4.2	3.6	2.3
Female . . . . .	4.3	5.0	3.8	4.1	4.4	5.6	5.1	3.7	2.6	2.0	1.3
White . . . . .	5.4	6.1	4.9	4.9	6.0	7.0	6.4	4.4	3.7	2.9	1.8
Black . . . . .	2.0	2.1	3.2	3.0	2.4	2.7	2.7	1.8	1.4	1.2	0.5
Hispanic . . . . .	5.4	6.5	6.0	7.2	7.2	8.2	8.8	5.6	3.3	4.0	3.3
Average parental education: <sup>1</sup>											
Less than high school . . . . .	3.8	3.9	3.6	4.6	4.5	6.5	5.8	3.4	3.2	3.5	2.0
High school graduate . . . . .	4.5	4.9	4.6	4.2	5.9	6.7	6.1	4.1	3.3	2.7	1.8
Some college . . . . .	5.8	6.0	5.2	4.7	5.6	6.7	6.7	4.9	3.0	2.6	2.0
College graduate . . . . .	5.9	7.6	5.9	6.0	6.2	6.8	6.1	4.2	4.0	3.1	1.2
Some postgraduate . . . . .	7.0	7.4	5.4	6.0	6.6	6.4	5.3	4.0	3.6	2.4	2.0

<sup>1</sup>Average parental education is calculated by averaging the following respondent-reported parental educational categories: (1) completed grade school or less, (2) some high school, (3) completed high school, (4) some college, (5) completed college, and (6) graduate or professional school after college.

NOTES: The Nation's High School Seniors survey excludes high school dropouts (about 15 percent of the age group during the 1980's) and absentees (about 16–19 percent of high school students). High school dropouts and absentees have higher drug usage than those included in the survey.

SOURCE: National Institute on Drug Abuse: Monitoring the Future Study: Annual surveys.

**Table 66. Cocaine-related emergency room episodes, according to age, sex, race, and Hispanic origin: Selected metropolitan areas, 1985–90**

[Data are based on a sample of emergency rooms]

Age, sex, race, and Hispanic origin	Data from 21 metropolitan areas				Data from national sample		
	1985–86	1986–87	1987–88	1988–89	1989–90	1989	1990
All races, both sexes <sup>1</sup>	Annual percent change				Number of episodes		
All ages <sup>2</sup>	81.3	72.7	32.7	-2.1	-27.0	110,013	80,355
12–17 years	94.9	34.4	33.8	-10.4	-26.9	2,544	1,859
18–24 years	81.1	67.1	32.5	-10.8	-39.7	25,996	15,665
25–34 years	82.8	73.0	29.5	-1.5	-28.6	55,422	39,589
35–44 years	74.8	87.1	40.8	6.2	-10.9	21,529	19,186
45–64 years	71.8	73.2	43.6	9.4	-5.4	3,965	3,749
White male							
All ages <sup>2</sup>	74.2	55.0	28.5	-9.2	-37.4	24,789	15,512
12–17 years	46.8	37.2	20.6	4.3	-40.8	880	521
18–24 years	65.0	48.0	25.6	-13.7	-48.8	6,138	3,143
25–34 years	74.3	60.9	24.0	-12.7	-41.9	12,714	7,392
35–44 years	102.1	52.1	49.0	2.3	-14.1	4,369	3,755
45–64 years	76.4	47.4	48.3	13.7	2.7	594	610
Black male							
All ages <sup>2</sup>	82.4	85.3	40.5	-0.1	-16.1	33,070	27,745
12–17 years	127.0	67.9	41.1	-4.0	-35.3	363	235
18–24 years	104.9	85.3	41.2	-7.6	-37.5	6,098	3,811
25–34 years	86.0	80.2	37.6	-0.1	-16.9	16,193	13,453
35–44 years	56.6	107.0	45.0	4.5	-0.2	8,271	8,253
45–64 years	69.3	66.4	51.5	8.0	-3.6	1,989	1,917
Hispanic male							
All ages <sup>2</sup>	76.8	41.1	27.8	-2.2	-31.8	7,067	4,821
12–17 years	*	24.0	41.9	-20.5	-52.2	297	142
18–24 years	75.8	32.0	44.9	-11.2	-31.7	2,088	1,426
25–34 years	78.9	40.3	18.6	-1.8	-30.0	3,009	2,106
35–44 years	52.5	67.6	17.4	10.8	-32.8	1,367	918
45–64 years	*	35.7	59.2	15.7	-30.9	291	201
White female							
All ages <sup>2</sup>	62.7	52.4	27.1	-5.0	-37.0	13,226	8,331
12–17 years	98.5	-9.9	36.4	-16.1	-4.0	505	485
18–24 years	48.0	49.2	29.6	-17.7	-44.2	3,908	2,179
25–34 years	67.6	58.6	21.2	-0.8	-38.9	6,740	4,120
35–44 years	84.5	72.1	45.1	11.9	-21.9	1,782	1,391
45–64 years	*	*	34.3	55.3	-33.2	220	*147
Black female							
All ages <sup>2</sup>	103.9	85.0	29.5	0.8	-16.0	17,657	14,833
12–17 years	*	112.2	17.3	-18.9	-29.8	248	*174
18–24 years	125.9	88.4	26.1	-9.7	-24.4	3,944	2,981
25–34 years	97.0	80.6	29.2	4.4	-15.0	9,714	8,257
35–44 years	105.8	84.5	38.1	7.6	-8.4	3,181	2,914
45–64 years	45.7	139.2	33.6	2.5	-4.3	465	445
Hispanic female							
All ages <sup>2</sup>	79.6	39.1	26.7	-6.1	-32.7	2,556	1,719
12–17 years	*	*	*	-30.8	-31.2	93	64
18–24 years	75.5	34.2	30.5	-16.3	-29.0	730	518
25–34 years	82.3	53.4	7.1	-5.5	-30.1	1,115	779
35–44 years	48.8	32.8	76.5	16.7	-42.7	557	319
45–64 years	*	*	*	*	-27.5	51	37

<sup>1</sup>Includes unknown race/ethnicity and/or sex.

<sup>2</sup>Includes ages under 12, over 64, and unknown.

\*Annual percent change based on fewer than 30 episodes in a year from the 21 metropolitan areas is considered unreliable and is not shown. National estimates with relative standard error greater than 30 percent are considered unreliable.

NOTES: Prior to 1989, data from the Drug Abuse Warning Network (DAWN) were derived from a nonrandom sample of emergency rooms primarily located in 21 metropolitan areas. In 1989, DAWN data were derived from a national probability sample.

SOURCE: National Institute on Drug Abuse, Drug Abuse Warning Network.



**Table 67. Alcohol consumption status of persons 18 years of age and over, according to sex: United States, selected years 1971–88**

[Data are based on interviews of samples of the noninstitutionalized population]

<i>Sex and alcohol consumption</i>	1971	1973	1974	1975	1976	1979	1983	1988
Both sexes		Percent of persons						
Abstain . . . . .	36	34	36	36	33	33	39	43
Light . . . . .	34	29	28	31	38	34	30	30
Moderate . . . . .	20	23	28	21	19	24	21	19
Heavier . . . . .	10	14	11	12	10	9	10	8
Male								
Abstain . . . . .	30	25	24	27	26	25	28	32
Light . . . . .	29	24	24	27	33	29	28	30
Moderate . . . . .	26	29	34	26	24	31	28	25
Heavier . . . . .	15	22	18	20	18	14	16	13
Female								
Abstain . . . . .	42	42	42	45	39	40	50	53
Light . . . . .	40	35	32	35	44	38	30	30
Moderate . . . . .	13	17	21	15	15	18	15	14
Heavier . . . . .	5	6	5	4	3	4	4	3

NOTES: Data for 1971–79 are from the National Institute of Alcohol Abuse and Alcoholism’s National Survey on Drinking. Data for 1983 and 1988 are from the National Health Interview Survey. Alcohol consumption status is defined in ounces of absolute alcohol (ethanol) consumed per day as follows: abstain, less than .01; light, .01–.21; moderate, .22–.99; and heavier, 1.00 or more.

SOURCES: Clark, W. B., Midanik, L., and Knupfer, G.: Report on the 1979 National Survey. University of California. Contract No. ADM 281–77–0021. Prepared for the National Institute of Alcohol Abuse and Alcoholism. Rockville, Md., Dec. 1981. Williams, G., and DeBakey, S. Changes in levels of alcohol consumption: United States, 1983 to 1988. *British Journal of Addiction*, (April 1992, forthcoming).

**Table 68 (page 1 of 2). Elevated blood pressure among persons 20–74 years of age, according to race, sex, and age: United States, 1960–62, 1971–74, and 1976–80**

[Data are based on physical examinations of a sample of the civilian noninstitutionalized population]

Sex and age	All races			White			Black		
	1960–62	1971–74	1976–80	1960–62	1971–74	1976–80	1960–62	1971–74	1976–80
Percent of population with systolic pressure at least 140 mmHg or diastolic pressure at least 90 mmHg									
Both sexes <sup>1</sup>									
20–74 years, age adjusted . . . . .	37.4	38.4	38.0	36.2	37.3	37.0	48.8	49.6	46.6
20–74 years, crude . . . . .	38.1	38.1	37.2	37.1	37.3	36.5	48.7	47.3	43.2
20–24 years . . . . .	12.9	13.5	16.1	13.1	13.7	16.0	13.1	13.7	16.9
25–34 years . . . . .	16.2	20.0	21.3	15.3	19.2	21.2	23.4	28.2	22.8
35–44 years . . . . .	30.0	32.3	33.1	28.3	29.7	31.0	44.0	54.5	47.6
45–54 years . . . . .	44.4	46.9	47.0	42.4	45.8	45.8	60.6	57.4	58.2
55–64 years . . . . .	62.3	59.4	56.7	60.9	58.4	55.2	78.9	71.8	70.5
65–74 years . . . . .	73.8	70.3	63.1	73.1	69.3	61.9	85.2	80.0	71.9
Male									
20–74 years, age adjusted . . . . .	40.8	42.7	43.6	40.0	42.1	43.1	48.9	51.0	48.5
20–74 years, crude . . . . .	41.0	42.0	42.5	40.4	41.6	42.3	49.6	48.9	45.7
20–24 years . . . . .	21.7	20.2	24.7	22.1	20.7	25.6	*18.4	18.6	22.2
25–34 years . . . . .	23.3	27.5	31.1	22.3	27.2	31.3	31.9	33.6	31.7
35–44 years . . . . .	37.4	38.1	39.5	37.0	36.0	37.7	44.2	60.5	52.8
45–54 years . . . . .	47.2	52.8	51.8	46.0	53.0	51.8	56.3	53.3	49.8
55–64 years . . . . .	59.3	59.3	58.7	58.2	58.9	57.6	75.1	67.5	71.8
65–74 years . . . . .	65.9	65.4	62.0	65.0	64.0	60.6	*76.8	79.3	69.2
Female <sup>1</sup>									
20–74 years, age adjusted . . . . .	34.0	34.3	32.6	32.3	32.6	31.0	49.0	48.5	45.2
20–74 years, crude . . . . .	35.3	34.6	32.3	34.0	33.3	31.0	47.9	46.1	41.2
20–24 years . . . . .	4.2	7.1	7.8	3.8	6.9	6.5	8.7	9.3	12.2
25–34 years . . . . .	9.2	12.7	11.7	8.2	11.2	11.0	17.3	24.0	15.6
35–44 years . . . . .	22.9	26.9	27.1	19.9	23.8	24.6	43.8	49.9	43.7
45–54 years . . . . .	41.8	41.5	42.4	39.0	39.1	40.1	64.8	61.0	65.6
55–64 years . . . . .	65.0	59.5	54.9	63.3	57.9	53.0	82.8	75.3	69.4
65–74 years . . . . .	80.3	74.1	63.9	79.8	73.4	62.9	*92.1	80.6	74.0
Percent of population with systolic pressure at least 160 mmHg or diastolic pressure at least 95 mmHg									
Both sexes <sup>1</sup>									
20–74 years, age adjusted . . . . .	18.8	19.3	18.1	17.2	18.0	17.4	32.9	32.4	24.6
20–74 years, crude . . . . .	19.2	19.2	17.6	17.8	18.0	17.0	32.6	30.5	22.3
20–24 years . . . . .	4.3	3.7	4.9	4.3	3.7	5.0	5.1	4.5	4.3
25–34 years . . . . .	5.6	6.8	8.0	4.3	6.1	7.8	14.8	13.3	9.3
35–44 years . . . . .	13.4	15.5	13.9	11.5	13.5	12.4	29.0	31.9	24.7
45–54 years . . . . .	21.4	24.3	25.1	19.1	22.2	24.1	39.5	43.7	36.1
55–64 years . . . . .	31.8	33.2	28.1	30.1	31.6	26.9	50.4	52.1	39.3
65–74 years . . . . .	48.7	40.9	34.5	46.9	39.5	33.9	71.9	55.7	36.7
Male									
20–74 years, age adjusted . . . . .	18.8	20.7	20.9	17.4	19.6	20.4	32.9	31.8	26.1
20–74 years, crude . . . . .	19.0	20.2	20.1	17.6	19.3	19.8	32.9	30.1	23.9
20–24 years . . . . .	6.7	5.7	7.4	6.5	5.8	8.0	*9.7	5.6	4.3
25–34 years . . . . .	7.8	8.9	12.2	6.1	8.3	12.2	21.8	16.1	13.4
35–44 years . . . . .	16.2	19.1	17.0	14.9	17.2	15.2	28.1	36.8	33.9
45–54 years . . . . .	21.4	26.8	28.2	19.6	25.8	28.4	34.6	37.0	27.8
55–64 years . . . . .	29.3	32.5	31.2	27.4	29.8	29.8	50.3	49.5	45.5
65–74 years . . . . .	40.5	36.4	33.3	38.6	35.1	32.6	*63.3	50.3	32.3

See footnote at end of table.

**Table 68 (page 2 of 2). Elevated blood pressure among persons 20–74 years of age, according to race, sex, and age: United States, 1960–62, 1971–74, and 1976–80**

[Data are based on physical examinations of a sample of the civilian noninstitutionalized population]

Sex and age	All races			White			Black		
	1960–62	1971–74	1976–80	1960–62	1971–74	1976–80	1960–62	1971–74	1976–80
Percent of population with systolic pressure at least 160 mmHg or diastolic pressure at least 95 mmHg									
Female <sup>1</sup>									
20–74 years, age adjusted. . . . .	18.6	18.0	15.4	16.9	16.3	14.4	33.2	33.0	23.5
20–74 years, crude . . . . .	19.3	18.3	15.2	18.0	16.8	14.5	32.3	30.9	21.0
20–24 years . . . . .	1.9	1.9	2.5	2.1	1.7	2.0	1.3	3.5	4.4
25–34 years . . . . .	3.4	4.8	3.8	2.5	4.0	3.4	9.7	11.2	6.0
35–44 years . . . . .	10.8	12.2	11.0	8.3	10.0	9.7	29.8	28.2	17.5
45–54 years . . . . .	21.5	21.9	22.3	18.7	18.8	20.0	44.3	49.4	43.4
55–64 years . . . . .	34.1	33.9	25.2	32.5	32.0	24.3	50.5	54.2	34.2
65–74 years . . . . .	55.4	44.4	35.4	53.8	42.9	34.9	*79.0	59.8	40.0

<sup>1</sup>Excludes pregnant women.

\*Percents based on fewer than 45 persons are considered unreliable. Percents based on fewer than 25 persons are considered highly unreliable and are not shown.

NOTE: Percents are based on a single measurement of blood pressure to provide comparable data across the 3 time periods.

SOURCE: Division of Health Examination Statistics, National Center for Health Statistics: Unpublished data.



**Table 69. Hypertension among persons 20–74 years of age, according to race, sex, and age: United States, 1960–62, 1971–74, and 1976–80**

[Data are based on physical examinations of a sample of the civilian noninstitutionalized population]

Sex and age	All races			White			Black		
	1960–62	1971–74	1976–80	1960–62	1971–74	1976–80	1960–62	1971–74	1976–80
Both sexes <sup>1</sup>									
Percent of population									
20–74 years, age adjusted. . . . .	38.5	40.0	40.6	37.1	38.7	39.4	51.4	53.5	50.5
20–74 years, crude . . . . .	39.0	39.7	39.7	37.9	38.7	38.9	51.3	51.0	46.7
20–24 years . . . . .	13.4	13.6	16.4	13.3	13.8	16.2	15.6	13.7	18.2
25–34 years . . . . .	17.3	20.6	22.0	16.1	19.5	21.9	26.5	31.3	24.2
35–44 years . . . . .	30.7	33.4	34.5	28.6	30.6	32.3	47.0	58.0	49.6
45–54 years . . . . .	45.5	49.1	50.2	43.4	47.5	48.9	62.2	63.5	64.3
55–64 years . . . . .	63.5	62.5	61.4	61.9	61.2	59.8	82.0	77.7	76.0
65–74 years . . . . .	75.7	73.5	69.7	74.9	72.5	68.5	88.1	83.8	80.7
Male									
20–74 years, age adjusted. . . . .	41.4	44.0	45.3	40.6	43.3	44.8	49.7	54.2	50.5
20–74 years, crude . . . . .	41.7	43.3	44.0	41.0	42.8	43.8	50.5	52.1	47.4
20–24 years . . . . .	21.6	20.4	24.7	22.0	20.9	25.6	*18.4	18.4	22.2
25–34 years . . . . .	23.5	27.6	31.4	22.5	27.3	31.7	32.4	33.6	32.1
35–44 years . . . . .	37.7	39.1	40.5	37.1	36.6	38.6	46.6	64.7	54.3
45–54 years . . . . .	47.6	55.0	53.6	46.5	54.6	53.5	56.3	61.1	53.3
55–64 years . . . . .	60.3	62.5	61.8	59.1	62.1	60.8	76.2	72.0	73.8
65–74 years . . . . .	68.8	67.2	67.1	68.1	65.8	65.8	*76.8	81.5	75.1
Female <sup>1</sup>									
20–74 years, age adjusted. . . . .	35.5	36.1	36.0	33.4	34.1	34.2	53.4	52.9	50.6
20–74 years, crude . . . . .	36.6	36.5	35.6	34.9	34.9	34.2	52.0	50.2	46.1
20–24 years . . . . .	5.3	7.2	8.3	4.4	6.9	6.8	13.3	9.5	14.6
25–34 years . . . . .	11.2	13.7	12.8	9.7	11.7	12.0	22.2	29.6	17.7
35–44 years . . . . .	24.0	28.2	28.8	20.6	24.9	26.2	47.3	52.8	46.0
45–54 years . . . . .	43.4	43.6	47.1	40.6	40.9	44.5	68.1	65.6	73.9
55–64 years . . . . .	66.4	62.5	61.1	64.4	60.5	59.0	87.8	82.5	77.9
65–74 years . . . . .	81.5	78.3	71.8	80.7	77.5	70.6	*97.5	85.6	85.0

<sup>1</sup>Excludes pregnant women.

\*Percents based on fewer than 45 persons are considered unreliable. Percents based on fewer than 25 persons are considered highly unreliable and are not shown.

NOTE: 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 a single measurement of blood pressure to provide comparable data across the 3 time periods. In 1976–80, 31.3 percent of persons 20–74 years of age had hypertension, based on the average of 3 blood pressure measurements, in contrast to 39.7 percent when a single measurement is used.

SOURCE: Division of Health Examination Statistics, National Center for Health Statistics: Unpublished data.

**Table 70. Borderline high and high serum cholesterol levels among persons 20–74 years of age, according to race, sex, and age: United States, 1960–62, 1971–74, and 1976–80**

[Data are based on physical examinations of a sample of the civilian noninstitutionalized population]

Sex and age	All races			White			Black		
	1960–62	1971–74	1976–80	1960–62	1971–74	1976–80	1960–62	1971–74	1976–80
Percent of population with borderline high serum cholesterol									
Both sexes									
20–74 years, age adjusted. . . . .	32.2	32.3	30.7	32.5	32.4	30.8	29.5	31.5	29.3
20–74 years, crude . . . . .	32.7	32.2	30.3	33.0	32.3	30.4	30.7	31.0	28.4
20–24 years . . . . .	21.5	22.5	22.1	22.7	22.3	22.1	14.7	24.9	21.5
25–34 years . . . . .	32.1	29.4	25.9	32.6	29.7	25.9	25.1	28.5	23.9
35–44 years . . . . .	39.6	35.1	32.3	39.6	35.7	32.9	42.0	29.1	29.1
45–54 years . . . . .	36.6	37.0	34.7	37.1	37.1	34.5	33.6	36.0	33.5
55–64 years . . . . .	29.1	35.2	35.6	28.6	34.7	35.5	34.7	36.7	34.2
65–74 years . . . . .	28.4	32.5	33.5	29.4	32.4	33.3	17.8	33.8	35.3
Male									
20–74 years, age adjusted. . . . .	35.2	33.7	31.6	35.6	34.1	31.9	31.1	29.2	27.5
20–74 years, crude . . . . .	35.7	33.5	31.1	36.0	34.0	31.5	33.3	28.7	26.7
20–24 years . . . . .	23.3	19.6	20.4	24.1	19.6	20.7	*15.8	19.8	18.9
25–34 years . . . . .	33.7	30.8	28.0	34.1	31.6	28.3	24.5	25.2	22.6
35–44 years . . . . .	40.7	36.0	33.0	39.7	37.0	33.7	49.4	25.4	28.1
45–54 years . . . . .	38.2	38.0	35.2	38.9	38.0	35.5	35.4	38.6	31.8
55–64 years . . . . .	36.3	39.9	37.3	36.7	40.0	37.6	36.3	33.6	29.7
65–74 years . . . . .	35.5	35.8	34.8	37.2	36.3	34.6	*14.1	32.0	35.7
Female									
20–74 years, age adjusted. . . . .	29.5	31.2	30.0	29.8	30.9	29.7	27.8	33.2	30.8
20–74 years, crude . . . . .	30.0	31.0	29.6	30.2	30.7	29.4	28.4	32.9	29.9
20–24 years . . . . .	20.0	25.1	23.7	21.4	24.7	23.6	13.8	29.0	23.5
25–34 years . . . . .	30.7	28.2	23.9	31.1	27.8	23.6	25.5	31.0	25.0
35–44 years . . . . .	38.5	34.3	31.7	39.4	34.5	32.1	35.7	31.9	29.9
45–54 years . . . . .	35.0	36.1	34.2	35.3	36.3	33.5	31.7	33.9	34.9
55–64 years . . . . .	22.3	31.0	34.0	21.0	29.9	33.7	*32.9	39.2	38.0
65–74 years . . . . .	22.7	30.0	32.5	23.0	29.5	32.2	*20.7	35.2	35.0
Percent of population with high serum cholesterol									
Both sexes									
20–74 years, age adjusted. . . . .	33.4	28.7	28.0	34.1	28.7	28.0	29.1	28.9	26.2
20–74 years, crude . . . . .	33.6	28.2	26.8	34.6	28.4	27.2	28.4	27.2	23.8
20–24 years . . . . .	9.4	8.5	6.4	10.0	8.5	6.3	2.7	6.6	5.2
25–34 years . . . . .	15.9	13.7	13.5	16.2	13.5	13.6	15.8	15.6	13.4
35–44 years . . . . .	28.3	25.3	24.1	29.2	25.2	24.4	21.1	24.6	20.3
45–54 years . . . . .	43.1	38.1	38.7	43.5	38.1	38.6	42.0	39.2	40.5
55–64 years . . . . .	56.2	45.1	45.3	58.3	45.3	45.9	41.8	44.9	41.4
65–74 years . . . . .	54.8	47.7	43.0	54.5	47.7	43.6	60.2	47.8	39.3
Male									
20–74 years, age adjusted. . . . .	30.0	27.3	26.0	30.6	27.4	26.0	25.9	26.6	25.7
20–74 years, crude . . . . .	30.7	26.8	24.9	31.4	26.9	25.0	26.7	25.1	23.9
20–24 years . . . . .	8.1	7.0	6.2	9.1	7.6	6.1	*–	1.7	2.9
25–34 years . . . . .	18.6	15.8	15.3	19.5	15.5	15.0	13.9	19.4	19.3
35–44 years . . . . .	33.9	31.8	27.9	35.5	31.8	27.9	19.9	28.0	24.5
45–54 years . . . . .	39.2	37.5	36.9	39.2	38.1	36.5	40.8	32.8	40.3
55–64 years . . . . .	41.6	36.2	36.8	42.3	36.1	37.3	39.5	39.2	35.3
65–74 years . . . . .	38.0	34.7	31.7	37.5	34.4	32.4	*44.9	38.6	27.2
Female									
20–74 years, age adjusted. . . . .	36.4	29.7	29.2	37.0	29.6	29.6	31.8	30.8	26.6
20–74 years, crude . . . . .	36.3	29.6	28.5	37.5	29.8	29.2	29.9	28.8	23.7
20–24 years . . . . .	10.5	9.8	6.6	10.8	9.4	6.5	4.7	10.6	7.0
25–34 years . . . . .	13.5	11.7	11.8	13.2	11.5	12.4	17.1	12.7	8.7
35–44 years . . . . .	23.1	19.3	20.7	23.3	18.9	21.1	22.1	22.0	16.9
45–54 years . . . . .	46.9	38.7	40.5	47.6	38.2	40.6	43.3	44.6	40.7
55–64 years . . . . .	70.1	53.1	52.9	73.0	53.7	53.7	*44.4	49.4	46.5
65–74 years . . . . .	68.5	57.7	51.6	68.7	57.9	52.1	*72.6	54.8	48.4

\*Percents based on fewer than 45 persons are considered unreliable. Percents based on fewer than 25 persons are considered highly unreliable and are not shown.

NOTES: Borderline high serum cholesterol is defined as greater than or equal to 200 mg/dl (5.17 mmol/L) but less than or equal to 239 mg/dl (6.19 mmol/L). High serum cholesterol is defined as greater than or equal to 240 mg/dl (6.20 mmol/L). Risk levels have been defined by the National Cholesterol Education Program Expert Panel on Detection, Evaluation and Treatment of High Blood Cholesterol in Adults, Nov. 1987. (Archives of Internal Medicine: January 1988, 148: 36–69).

SOURCE: Division of Health Examination Statistics, National Center for Health Statistics: Unpublished data.

**Table 71. Overweight persons 20–74 years of age, according to race, sex, and age: United States, 1960–62, 1971–74, and 1976–80**

[Data are based on physical examinations of a sample of the civilian noninstitutionalized population]

Sex and age	All races			White			Black		
	1960–62	1971–74	1976–80	1960–62	1971–74	1976–80	1960–62	1971–74	1976–80
Percent of population									
Both sexes									
20–74 years, age adjusted. . . . .	25.0	25.7	26.2	24.1	24.8	25.1	32.6	35.7	37.7
20–74 years, crude . . . . .	25.5	25.5	25.7	24.6	24.7	24.8	33.4	34.9	35.7
20–24 years . . . . .	11.6	11.3	11.7	11.5	10.9	11.2	11.6	15.8	15.3
25–34 years . . . . .	18.7	20.5	20.2	17.5	19.7	19.4	31.1	29.1	26.3
35–44 years . . . . .	23.5	28.4	27.9	21.4	26.6	26.4	38.0	45.3	40.8
45–54 years . . . . .	29.4	30.0	31.7	28.6	29.1	30.2	34.3	39.4	52.1
55–64 years . . . . .	35.4	32.0	32.8	34.6	31.0	31.9	44.0	43.9	44.2
65–74 years . . . . .	33.5	31.5	32.7	33.8	31.0	31.9	31.5	37.3	46.0
Male									
20–74 years, age adjusted. . . . .	23.2	24.1	24.8	23.5	24.3	24.9	21.7	25.0	27.5
20–74 years, crude . . . . .	23.4	24.0	24.2	23.7	24.1	24.4	22.5	24.5	25.7
20–24 years . . . . .	15.5	12.1	12.1	16.1	12.8	12.7	*8.5	8.2	5.5
25–34 years . . . . .	21.6	23.6	20.4	21.2	23.6	20.9	33.0	26.1	17.5
35–44 years . . . . .	22.8	29.4	28.9	22.0	28.9	28.2	28.6	39.3	40.9
45–54 years . . . . .	28.1	27.6	31.0	29.0	28.2	30.5	20.6	22.4	41.4
55–64 years . . . . .	26.9	24.8	28.1	28.5	24.9	28.6	17.1	25.6	26.0
65–74 years . . . . .	21.8	23.0	25.2	22.6	23.1	25.8	*11.7	21.6	26.4
Female									
20–74 years, age adjusted. . . . .	26.5	26.9	27.4	24.4	25.0	25.2	42.9	44.5	46.1
20–74 years, crude . . . . .	27.4	27.0	27.1	25.4	25.2	25.1	43.0	43.2	43.8
20–24 years . . . . .	7.9	10.5	11.4	6.7	9.1	9.6	14.2	22.5	23.7
25–34 years . . . . .	15.9	17.6	20.0	13.9	15.9	17.9	29.6	31.5	33.5
35–44 years . . . . .	24.1	27.3	27.0	20.9	24.5	24.8	46.1	49.9	40.8
45–54 years . . . . .	30.7	32.3	32.5	28.2	29.9	29.9	47.8	53.5	61.2
55–64 years . . . . .	43.2	38.5	37.0	40.1	36.6	34.8	71.4	58.7	59.4
65–74 years . . . . .	42.9	38.0	38.5	42.8	37.0	36.5	*47.8	49.2	60.8

\*Based on fewer than 45 persons.

NOTES: Overweight is defined for men as body mass index greater than or equal to 27.8 kilograms/meter<sup>2</sup>, and for women as body mass index greater than or equal to 27.3 kilograms/meter<sup>2</sup>. These cut points were used because they represent the sex-specific 85th percentiles for persons 20–29 years of age in the 1976–80 National Health and Nutrition Examination Survey. Excludes pregnant women. Height was measured without shoes; 2 pounds are deducted from data for 1960–62 to allow for weight of clothing.

SOURCE: Division of Health Examination Statistics, National Center for Health Statistics: Unpublished data.



**Table 72. Air pollution, according to source and type of pollutant: United States, selected years 1970–89**

[Data are calculated emissions estimates]

Type of pollutant and year	All sources	Transportation	Stationary fuel combustion	Industrial processes	Solid waste	Other
<b>Particulate matter</b>						
Emissions in 10 <sup>6</sup> metric tons per year						
1970	18.5	1.2	4.6	10.5	1.1	1.1
1975	10.6	1.3	2.8	5.2	0.6	0.7
1980	8.5	1.3	2.4	3.3	0.4	1.1
1984	7.4	1.3	2.1	2.8	0.3	0.9
1985	7.3	1.4	1.8	2.8	0.3	1.1
1986	6.8	1.4	1.8	2.6	0.3	0.9
1987	7.0	1.4	1.8	2.5	0.3	1.0
1988	7.5	1.5	1.7	2.7	0.3	1.3
1989	7.2	1.5	1.8	2.7	0.3	1.0
<b>Sulfur oxides</b>						
1970	28.4	0.6	21.3	6.4	0.0	0.1
1975	25.8	0.7	20.2	5.0	0.0	0.0
1980	23.4	0.9	18.7	3.8	0.0	0.0
1984	21.5	0.8	17.4	3.3	0.0	0.0
1985	21.1	0.9	17.0	3.2	0.0	0.0
1986	20.9	0.9	16.9	3.2	0.0	0.0
1987	20.7	0.9	16.6	3.2	0.0	0.0
1988	20.9	0.9	16.6	3.4	0.0	0.0
1989	21.1	1.0	16.8	3.3	0.0	0.0
<b>Nitrogen oxides</b>						
1970	18.5	8.0	9.1	0.7	0.4	0.3
1975	19.5	9.3	9.3	0.7	0.1	0.1
1980	20.9	9.8	10.1	0.7	0.1	0.2
1984	19.8	8.8	10.2	0.6	0.1	0.2
1985	20.0	8.9	10.2	0.6	0.1	0.2
1986	19.1	8.3	10.0	0.6	0.1	0.2
1987	19.5	8.1	10.5	0.6	0.1	0.2
1988	20.0	8.1	10.9	0.6	0.1	0.3
1989	19.9	7.9	11.1	0.6	0.1	0.2
<b>Volatile organic compounds</b>						
1970	25.0	10.3	0.6	8.9	1.8	3.3
1975	21.1	8.8	0.6	8.3	0.9	2.5
1980	22.6	9.0	0.9	9.2	0.6	2.9
1984	21.2	8.1	1.0	8.8	0.6	2.7
1985	20.2	7.6	0.9	8.5	0.6	2.6
1986	19.1	7.2	0.9	8.1	0.6	2.3
1987	19.4	7.1	0.9	8.3	0.6	2.5
1988	19.5	6.9	0.9	8.1	0.6	2.9
1989	18.5	6.4	0.9	8.1	0.6	2.5
<b>Carbon monoxide</b>						
1970	101.4	74.4	4.5	8.9	6.4	7.2
1975	84.1	65.0	4.3	6.9	3.1	4.8
1980	79.6	56.1	7.4	6.3	2.2	7.6
1984	71.8	50.6	8.3	4.7	1.9	6.3
1985	69.6	47.9	7.5	4.4	2.0	7.9
1986	64.0	44.6	7.5	4.2	1.8	5.9
1987	64.2	43.3	7.6	4.3	1.8	7.2
1988	65.0	41.2	7.6	4.6	1.7	9.9
1989	60.9	40.0	7.8	4.6	1.7	6.8
<b>Lead</b>						
Emissions in 10 <sup>3</sup> metric tons per year						
1970	203.8	163.6	9.6	23.9	6.7	---
1975	147.0	122.6	9.3	10.3	4.8	---
1980	70.6	59.4	3.9	3.6	3.7	---
1984	40.1	34.7	0.5	2.3	2.6	---
1985	20.9	15.5	0.5	2.3	2.6	---
1986	8.4	3.5	0.5	1.9	2.6	---
1987	8.0	3.0	0.5	1.9	2.6	---
1988	7.6	2.6	0.5	2.0	2.5	---
1989	7.2	2.2	0.4	2.3	2.3	---

NOTE: Because of modifications in methodology and use of more refined emission factors, data from this table should not be compared with data in previous editions of Health, United States.

SOURCE: Office of Air Quality Planning and Standards, Technical Support Division, National Air Data Branch: National Air Pollutant Emission Estimates, 1940–1989. EPA-450/4-91-004. U.S. Environmental Protection Agency. Research Triangle Park, N.C., Mar. 1991.

**Table 73. Occupational injuries with lost workdays in the private sector, according to industry: United States, 1978–89**

[Data are based on employer records from a sample of business establishments]

Industry	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Number of injuries with lost workdays in thousands												
Total private sector <sup>1</sup> . . . . .	2,438.5	2,701.4	2,491.0	2,408.9	2,141.3	2,140.3	2,449.7	2,484.7	2,533.2	2,721.3	2,880.4	2,955.5
Agriculture, fishing, and forestry <sup>1</sup> . . .	30.2	31.4	39.3	42.2	42.0	44.1	46.3	45.2	43.7	49.3	51.3	52.2
Mining . . . . .	54.5	63.9	66.2	70.8	57.1	41.7	51.4	43.9	31.6	34.6	37.1	33.9
Construction . . . . .	228.5	258.9	242.6	222.1	195.8	207.9	256.5	272.8	290.4	292.3	304.4	301.2
Manufacturing . . . . .	1,053.2	1,152.7	1,009.5	951.0	760.1	738.6	841.8	825.1	825.4	923.2	1,007.3	1,007.4
Transportation, communication, and public utilities . . . . .	260.9	282.3	263.0	252.3	230.0	215.7	249.3	243.5	235.7	247.5	261.3	273.9
Wholesale trade . . . . .	180.5	200.3	191.1	177.1	166.7	159.0	179.3	188.4	195.8	203.3	214.7	230.3
Retail trade . . . . .	312.0	355.6	330.2	328.3	322.1	343.5	395.0	399.9	421.0	445.0	461.6	480.6
Finance, insurance, and real estate . . . . .	34.3	40.5	38.1	37.5	41.1	41.2	44.3	45.5	49.1	49.9	54.0	52.6
Services . . . . .	284.4	315.7	311.1	327.5	326.3	348.5	385.8	420.6	440.4	476.0	488.6	523.4
Injuries with lost workdays per 100 full-time employees												
Total private sector <sup>1</sup> . . . . .	4.0	4.2	3.9	3.7	3.4	3.4	3.6	3.6	3.6	3.7	3.8	3.9
Agriculture, fishing, and forestry <sup>1</sup> . . .	5.2	5.5	5.6	5.8	5.7	6.0	5.9	5.6	5.4	5.5	5.5	5.6
Mining . . . . .	6.4	6.7	6.4	6.2	5.4	4.4	5.3	4.7	4.1	4.8	5.1	4.8
Construction . . . . .	6.3	6.8	6.5	6.3	6.0	6.2	6.9	6.8	6.8	6.7	6.8	6.7
Manufacturing . . . . .	5.4	5.7	5.2	4.9	4.3	4.2	4.5	4.4	4.5	5.0	5.3	5.3
Transportation, communication, and public utilities . . . . .	5.7	5.8	5.4	5.2	4.8	4.7	5.1	4.9	4.8	4.9	5.0	5.2
Wholesale trade . . . . .	3.9	4.0	3.8	3.5	3.4	3.2	3.4	3.5	3.6	3.7	3.8	3.9
Retail trade . . . . .	2.8	3.1	2.9	2.9	2.9	3.0	3.2	3.1	3.2	3.3	3.3	3.4
Finance, insurance, and real estate . . . . .	0.8	0.9	0.8	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9
Services . . . . .	2.3	2.4	2.3	2.3	2.3	2.3	2.4	2.5	2.5	2.6	2.6	2.6
Total lost workdays per 100 full-time employees												
Total private sector <sup>1</sup> . . . . .	62.1	66.2	63.7	60.4	57.5	57.2	61.8	63.3	63.9	67.3	72.6	74.2
Agriculture, fishing, and forestry <sup>1</sup> . . .	78.3	81.7	81.3	81.4	84.2	89.5	89.4	90.1	92.4	92.5	99.8	99.4
Mining . . . . .	142.3	149.8	162.8	145.7	136.7	124.1	159.3	144.3	124.4	142.5	150.3	134.7
Construction . . . . .	108.1	119.2	116.1	112.1	114.6	117.3	126.7	128.1	133.3	134.9	141.1	141.6
Manufacturing . . . . .	82.3	87.3	84.0	79.4	72.4	70.4	74.2	76.2	80.2	87.9	96.4	98.7
Transportation, communication, and public utilities . . . . .	101.3	106.1	103.3	100.0	95.8	94.4	104.2	106.3	101.0	107.1	117.5	120.0
Wholesale trade . . . . .	56.8	58.2	57.1	53.5	51.6	50.1	54.8	59.1	62.0	63.2	68.4	70.7
Retail trade . . . . .	39.1	44.1	44.1	40.8	42.1	46.3	47.9	46.2	50.0	52.2	56.2	59.0
Finance, insurance, and real estate . . . . .	12.1	12.9	11.6	11.3	12.8	12.4	13.2	14.6	16.0	13.8	16.3	16.5
Services . . . . .	35.4	37.1	34.5	34.7	35.1	36.2	40.3	44.7	42.2	44.8	47.1	49.9

<sup>1</sup>Excludes farms with fewer than 11 employees.

NOTES: Industry is coded based on various editions of the Standard Industrial Classification Manual as follows: data for 1978 are based on the 1972 Edition; data for 1979–87 are based on the 1972 Edition, 1977 Supplement; and data for 1988–89 are based on the 1987 Edition (see Appendix II).

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor: Occupational Injuries and Illnesses in the United States by Industry, 1978–89 Editions, 1980–1991.

**Table 74. Production employees with potential exposure to elemental lead or to continuous noise, according to industry and size of facility: United States, 1972-74 and 1981-83**

[Data are based on interviews of a sample of nonagricultural businesses]

Industry	All facilities		8-99 employees		100-499 employees		500 or more employees	
	1972-74	1981-83	1972-74	1981-83	1972-74	1981-83	1972-74	1981-83
	Number of employees in thousands							
All production employees <sup>1</sup> . . . . .	28,379	19,546	9,957	7,303	8,331	6,091	10,091	6,151
Textile mill products . . . . .	246	546	94	82	109	261	*43	203
Apparel and other textile mill products . . . . .	920	991	515	345	367	482	*38	*164
Lumber and wood products . . . . .	217	442	105	230	85	143	*27	*70
Printing and publishing . . . . .	1,248	636	365	283	306	218	578	135
Chemicals and allied products . . . . .	964	462	193	106	192	132	579	224
Rubber and miscellaneous plastics . . . . .	508	473	132	165	171	204	205	104
Stone, clay, and glass products . . . . .	687	382	173	175	300	124	*214	*83
Primary metals industries . . . . .	1,322	556	112	96	215	212	995	248
Fabricated metal products . . . . .	1,441	967	515	393	522	379	404	194
Machinery, except electrical . . . . .	1,529	1,270	271	418	359	338	900	513
Electrical and electronic machinery, equipment, and supplies . . . . .	1,493	964	97	143	326	327	1,070	494
Transportation equipment . . . . .	1,160	837	95	95	131	155	935	587
Measuring, analyzing, and controlling instruments; photographic, medical, and optical goods; watches and clocks . . . . .	392	328	91	66	74	92	227	170
Miscellaneous manufacturing industries . . . . .	393	360	140	109	159	104	*93	*147
	Percent of employees with any potential exposure to elemental lead							
All production employees <sup>1</sup> . . . . .	0.6	3.6	0.4	3.4	0.4	4.0	0.9	3.6
Textile mill products . . . . .	-	0.1	-	0.1	-	0.2	*-	0.3
Apparel and other textile mill products . . . . .	0.1	0.6	0.0	0.1	-	0.7	*-	*1.1
Lumber and wood products . . . . .	-	0.6	-	0.7	-	0.4	*-	*0.5
Printing and publishing . . . . .	1.7	2.0	3.1	2.9	1.0	1.0	1.2	1.6
Chemicals and allied products . . . . .	1.1	4.4	0.4	1.9	2.6	5.2	0.8	5.1
Rubber and miscellaneous plastics . . . . .	0.2	2.0	0.1	3.7	0.2	0.6	0.5	2.1
Stone, clay, and glass products . . . . .	1.7	4.0	0.3	2.7	1.2	0.5	*3.5	*12.3
Primary metals industries . . . . .	0.5	3.0	0.3	3.6	0.2	4.9	0.7	1.1
Fabricated metal products . . . . .	0.2	4.8	0.1	0.8	0.4	9.8	0.1	3.2
Machinery, except electrical . . . . .	0.7	6.1	0.3	3.8	1.2	8.8	0.6	6.1
Electrical and electronic machinery, equipment, and supplies . . . . .	1.2	18.5	0.4	23.4	2.1	15.8	1.0	18.9
Transportation equipment . . . . .	1.1	1.1	0.9	-	0.5	0.3	1.2	1.5
Measuring, analyzing, and controlling instruments; photographic, medical, and optical goods; watches and clocks . . . . .	1.0	-	2.9	-	0.7	-	0.4	-
Miscellaneous manufacturing industries . . . . .	0.5	4.8	1.1	6.2	0.1	3.0	*0.2	*5.0
	Percent of employees with potential exposure to continuous noise at 85 dBA or greater							
All production employees <sup>1</sup> . . . . .	22.4	21.2	14.7	17.3	24.4	24.9	28.3	22.0
Textile mill products . . . . .	36.2	48.0	29.1	36.4	43.0	51.6	*34.2	48.2
Apparel and other textile mill products . . . . .	21.4	15.2	20.5	5.8	23.2	16.5	*14.9	*31.4
Lumber and wood products . . . . .	42.8	44.4	48.9	45.0	28.9	53.3	*63.1	*24.4
Printing and publishing . . . . .	24.0	24.4	20.4	19.5	12.0	26.0	32.7	32.0
Chemicals and allied products . . . . .	13.1	22.2	15.3	14.8	22.8	19.7	9.1	27.2
Rubber and miscellaneous plastics . . . . .	52.9	28.7	48.9	20.0	55.4	33.7	53.4	32.4
Stone, clay, and glass products . . . . .	32.6	24.7	28.1	22.2	38.9	29.6	*27.3	*27.3
Primary metals industries . . . . .	53.5	48.4	45.2	33.4	68.0	53.2	51.3	50.2
Fabricated metal products . . . . .	49.5	34.9	40.6	33.0	55.6	34.8	53.0	38.5
Machinery, except electrical . . . . .	31.1	18.1	28.2	17.3	29.0	19.7	32.8	17.6
Electrical and electronic machinery, equipment, and supplies . . . . .	13.1	10.8	6.7	9.9	17.4	7.2	12.3	13.6
Transportation equipment . . . . .	48.3	28.5	24.2	32.4	48.9	32.5	50.6	26.8
Measuring, analyzing, and controlling instruments; photographic, medical, and optical goods; watches and clocks . . . . .	14.5	14.5	2.2	7.6	16.9	6.1	18.6	22.0
Miscellaneous manufacturing industries . . . . .	31.0	10.9	22.7	16.3	34.6	19.3	*37.1	*1.0

<sup>1</sup>Production employees work in locations where production or service work is conducted.

\*Based on fewer than 10 facilities.

NOTES: Data are displayed for elemental lead (Chemical Abstract Number 7439921) only. These data do not include potential exposures to lead in approximately 150 compounds also measured in the surveys. Industry categories are based on the Standard Industrial Classification (SIC) Manual. For a listing of the code numbers, see Appendix II, table VI.

SOURCE: National Institute for Occupational Safety and Health: Unpublished data from the 1972-74 National Occupational Hazard Survey and 1981-83 National Occupational Exposure Survey.



**Table 75. Health and safety services available in nonagricultural industries, according to size of facility: United States, 1972-74 and 1981-83**

[Data are based on interviews of a sample of nonagricultural businesses]

Health and safety services available in facility	All facilities		8-99 employees		100-499 employees		500 or more employees	
	1972-74	1981-83	1972-74 <sup>1</sup>	1981-83	1972-74	1981-83	1972-74	1981-83
	Number of employees in thousands							
All employees . . . . .	38,263	33,413	15,394	11,083	10,883	9,870	11,985	12,460
	Percent of employees							
Occupational health and safety practices								
Regularly monitor environmental conditions <sup>2</sup> . . . . .	21.7	48.5	2.5	11.2	12.1	43.6	55.2	85.7
Personal protective devices in some work areas <sup>3</sup> . . . . .	39.2	53.4	32.5	45.9	46.1	59.1	41.4	55.5
Employer provides protective devices . . . . .	52.5	80.2	41.9	70.4	60.1	82.9	59.4	86.8
Medical facilities and practices								
Health unit at facility . . . . .	31.5	43.0	3.3	3.8	18.4	31.7	79.6	86.9
Access to physician or clinic . . . . .	70.7	77.2	49.0	53.2	76.2	79.1	93.5	96.9
Physician available on-site . . . . .	18.8	26.6	1.2	1.3	4.3	8.2	52.7	63.7
Physician available off-site . . . . .	17.0	52.7	17.5	50.5	25.2	67.1	8.8	43.2
Pre-employment medical exams . . . . .	38.5	49.9	12.8	20.0	35.2	47.1	74.5	78.4
Periodic tests available . . . . .	14.4	30.5	6.0	8.4	13.5	26.7	25.9	53.1
Audiometric tests available . . . . .	5.1	16.7	1.4	5.0	3.7	16.8	11.1	26.6
Blood tests available . . . . .	3.0	14.5	1.3	4.0	3.7	9.9	4.7	27.4
Records of employee absenteeism showing type of illness . . . . .	14.2	17.6	4.7	9.5	9.5	18.3	30.8	24.1

<sup>1</sup>Includes facilities with fewer than eight employees.

<sup>2</sup>Monitoring environmental conditions such as presence of fumes, gases, dust, noise, vibration, and radiation.

<sup>3</sup>Includes respirators, protective clothing, etc.

SOURCE: National Institute for Occupational Safety and Health, National Occupational Exposure Survey: Analysis of Management Interview Responses. DHHS Pub. No. (NIOSH) 89-103. Public Health Service. Washington. U.S. Government Printing Office, 1989.

**Table 76. Physician contacts, according to place of contact and selected patient characteristics: United States, 1985 and 1990**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Place of contact												
	Physician contacts		Total	Doctor's office		Hospital outpatient department <sup>1</sup>		Telephone		Home		Other <sup>2</sup>	
	1985	1990		1985	1990	1985	1990	1985	1990	1985	1990	1985	1990
	Number per person			Percent distribution									
Total <sup>3,4</sup>	5.2	5.5	100.0	57.5	59.9	14.7	13.7	13.9	12.7	1.9	2.1	12.0	11.6
Age													
Under 15 years	4.5	4.5	100.0	58.3	60.7	13.9	13.6	17.0	14.9	1.0	0.9	9.9	9.9
Under 5 years	6.7	6.9	100.0	57.1	59.1	13.1	14.0	19.6	15.9	*0.8	*1.1	9.5	9.8
5-14 years	3.3	3.2	100.0	59.5	62.6	14.7	13.1	14.1	13.7	*1.2	*0.6	10.4	10.0
15-44 years	4.6	4.8	100.0	56.0	59.4	15.1	14.3	13.2	12.0	1.0	0.6	14.7	13.7
45-64 years	6.1	6.4	100.0	58.5	60.4	16.1	14.1	12.4	12.2	2.1	2.0	10.9	11.4
65 years and over	8.3	9.2	100.0	59.4	58.7	12.1	11.1	10.6	9.9	8.2	11.8	9.6	8.4
65-74 years	7.7	8.5	100.0	60.8	60.2	13.8	13.7	10.6	9.7	4.4	7.0	10.4	9.4
75 years and over	9.3	10.1	100.0	57.6	56.8	9.8	7.8	10.7	10.2	13.4	18.1	8.5	7.0
Sex <sup>3</sup>													
Male	4.5	4.7	100.0	56.8	57.6	17.6	16.1	11.4	11.3	1.9	2.1	12.3	12.9
Female	5.9	6.1	100.0	57.9	61.6	12.8	12.2	15.5	13.4	1.9	2.0	11.9	10.9
Race <sup>3</sup>													
White	5.3	5.6	100.0	58.8	61.7	13.2	12.3	14.7	13.1	1.8	1.9	11.5	11.0
Black	4.9	5.1	100.0	48.2	48.2	24.9	24.3	8.0	9.1	2.7	2.8	16.2	15.6
Family income <sup>3,5</sup>													
Less than \$14,000	5.8	6.3	100.0	49.2	48.9	19.8	19.9	10.3	11.5	3.3	3.2	17.4	16.4
\$14,000-\$24,999	5.1	5.6	100.0	54.8	56.9	16.5	16.0	14.6	11.8	1.8	1.7	12.4	13.5
\$25,000-\$34,999	5.4	5.2	100.0	59.1	60.9	13.7	13.8	14.2	13.2	1.2	1.6	11.7	10.4
\$35,000-\$49,999	5.1	5.7	100.0	60.6	62.0	13.0	11.5	15.6	14.6	0.4	1.1	10.5	10.9
\$50,000 or more	5.5	5.6	100.0	62.8	66.1	10.8	8.9	15.6	14.1	1.4	1.5	9.4	9.5
Geographic region <sup>3</sup>													
Northeast	5.1	5.2	100.0	57.9	62.6	16.4	13.0	12.6	11.7	2.3	1.9	10.8	10.8
Midwest	5.3	5.3	100.0	55.2	55.8	14.7	14.7	16.2	15.4	1.7	1.9	12.1	12.3
South	5.0	5.6	100.0	60.0	61.1	14.0	13.6	12.8	11.3	2.0	2.6	11.3	11.3
West	5.6	5.6	100.0	56.0	60.4	13.9	13.6	14.0	12.8	1.6	1.4	14.4	12.0
Location of residence <sup>3</sup>													
Within MSA	5.3	5.6	100.0	56.5	59.6	14.8	13.7	14.3	13.1	1.7	1.9	12.6	11.7
Outside MSA	4.8	4.9	100.0	61.2	61.4	14.3	14.1	12.1	10.7	2.3	2.6	10.2	11.2

<sup>1</sup>Includes hospital outpatient clinic, emergency room, and other hospital contacts.

<sup>2</sup>Includes clinics or other places outside a hospital.

<sup>3</sup>Age adjusted.

<sup>4</sup>Includes all other races not shown separately and unknown family income.

<sup>5</sup>Family income categories for 1990. Income categories for 1985 are less than \$11,000; \$11,000-\$19,999; \$20,000-\$29,999; \$30,000-\$39,999; and \$40,000 or more.

\*Relative standard error greater than 30 percent.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.

**Table 77. Interval since last physician contact, according to selected patient characteristics: United States, 1964, 1985, and 1990**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Total	Less than 1 year			1 year—less than 2 years			2 years or more <sup>1</sup>		
		1964	1985	1990	1964	1985	1990	1964	1985	1990
Total <sup>3,4</sup>	100.0	66.9	75.8	78.2	14.0	10.8	10.1	19.1	13.4	11.7
Percent distribution <sup>2</sup>										
Age										
Under 15 years	100.0	68.4	80.4	82.9	14.8	11.7	10.7	16.7	8.0	6.4
Under 5 years	100.0	80.7	92.3	93.6	11.1	5.8	5.0	8.2	1.8	1.4
5–14 years	100.0	61.7	74.0	77.2	16.9	14.7	13.7	21.4	11.2	9.1
15–44 years	100.0	66.3	71.2	73.3	15.0	12.2	11.6	18.7	16.6	15.0
45–64 years	100.0	64.5	74.4	77.3	13.0	9.2	8.6	22.5	16.5	14.1
65 years and over	100.0	69.7	84.5	87.1	9.3	5.6	4.7	21.0	9.9	8.2
65–74 years	100.0	68.8	83.0	85.7	9.4	5.8	5.1	21.8	11.2	9.1
75 years and over	100.0	71.3	86.9	89.3	9.3	5.3	4.1	19.5	7.7	6.6
Sex <sup>3</sup>										
Male	100.0	63.5	71.0	73.3	15.0	11.8	11.3	21.5	17.2	15.4
Female	100.0	69.9	80.3	82.9	13.1	9.8	9.0	17.0	9.9	8.1
Race <sup>3</sup>										
White	100.0	68.1	76.2	78.7	13.8	10.6	9.9	18.1	13.2	11.5
Black <sup>5</sup>	100.0	58.3	74.4	77.5	15.1	12.2	11.0	26.6	13.5	11.6
Family income <sup>3,6</sup>										
Less than \$14,000	100.0	58.6	74.4	77.3	13.2	10.4	9.8	28.2	15.2	12.9
\$14,000–\$24,999	100.0	62.5	73.8	76.7	14.2	11.6	10.2	23.3	14.7	13.2
\$25,000–\$34,999	100.0	66.8	75.7	78.7	14.5	10.8	10.0	18.7	13.5	11.4
\$35,000–\$49,999	100.0	70.2	77.9	80.1	14.0	9.6	9.4	15.7	12.5	10.4
\$50,000 or more	100.0	73.6	80.0	81.7	12.9	9.9	8.9	13.5	10.0	9.4
Geographic region <sup>3</sup>										
Northeast	100.0	68.0	78.3	81.6	14.1	9.4	9.1	17.9	12.3	9.3
Midwest	100.0	66.6	76.1	79.5	14.2	10.5	9.6	19.2	13.4	10.9
South	100.0	65.2	74.0	76.0	13.9	12.0	11.3	20.9	14.0	12.7
West	100.0	69.0	76.1	77.5	13.7	10.5	9.4	17.3	13.4	13.1
Location of residence <sup>3</sup>										
Within MSA	100.0	68.2	76.6	79.0	14.0	10.4	9.7	17.8	13.0	11.3
Outside MSA	100.0	64.0	73.1	75.7	14.1	11.9	11.4	21.9	15.0	12.9

<sup>1</sup>Includes persons who never visited a physician.

<sup>2</sup>Denominator excludes persons with unknown interval.

<sup>3</sup>Age adjusted.

<sup>4</sup>Includes all other races not shown separately and unknown family income.

<sup>5</sup>1964 data include all other races.

<sup>6</sup>Family income categories for 1990. Income categories in 1964 are less than \$2,000; \$2,000–\$3,999; \$4,000–\$6,999; \$7,000–\$9,999; and \$10,000 or more; and, in 1985 are less than \$11,000; \$11,000–\$19,999; \$20,000–\$29,999; \$30,000–\$39,999; and \$40,000 or more.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.



**Table 78. Office visits to physicians, according to physician specialty and selected patient characteristics: United States, 1985 and 1989**

[Data are based on reporting by a sample of office-based physicians]

Characteristic	All specialties <sup>1</sup>				General and family practice		Internal medicine		Pediatrics	
	1985	1989	1985	1989	1985	1989	1985	1989	1985	1989
	Visits per person <sup>2</sup>		Number of visits in thousands		Percent of visits					
Total . . . . .	2.71	2.81	636,386	692,702	100.0	100.0	100.0	100.0	100.0	100.0
Age										
Under 15 years . . . . .	2.31	2.55	118,768	137,502	15.3	15.8	3.5	1.6	90.1	93.6
15-44 years . . . . .	2.28	2.27	249,688	259,460	42.5	39.7	28.1	30.9	8.8	5.8
45-64 years . . . . .	3.10	3.15	137,391	145,160	22.7	23.2	29.3	29.0	---	---
65 years and over . . . . .	4.85	5.15	130,538	150,580	19.6	21.2	39.2	38.5	---	---
65-74 years . . . . .	4.54	4.69	75,427	83,692	11.2	11.8	22.7	20.0	---	---
75 years and over . . . . .	5.35	5.87	55,111	66,888	8.4	9.5	16.5	18.6	---	---
Sex										
Male . . . . .	2.28	2.39	248,905	275,206	39.3	39.3	38.9	42.1	48.0	52.4
Female . . . . .	3.11	3.20	387,481	417,496	60.7	60.7	61.1	58.0	52.0	47.6
Race										
White . . . . .	2.84	2.81	572,507	587,976	88.4	88.1	91.7	83.3	89.4	84.2
Black . . . . .	1.93	2.16	52,143	62,146	9.5	8.8	7.4	12.9	8.1	11.5

Characteristic	General surgery		Ophthalmology		Orthopedic surgery		Dermatology		Otolaryngology	
	1985	1989	1985	1989	1985	1989	1985	1989	1985	1989
	Percent of visits									
Total . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Age										
Under 15 years . . . . .	5.6	4.1	7.6	5.7	10.8	9.8	7.0	9.0	25.8	20.4
15-44 years . . . . .	36.8	33.2	24.4	18.9	48.7	48.8	53.0	46.9	35.1	36.4
45-64 years . . . . .	30.4	32.3	24.2	22.9	26.6	23.9	21.7	23.3	22.1	22.3
65 years and over . . . . .	27.2	30.4	43.8	52.6	13.9	17.5	18.3	20.9	17.0	20.9
65-74 years . . . . .	16.0	18.5	21.1	24.7	8.5	10.1	10.9	11.9	11.2	11.9
75 years and over . . . . .	11.1	11.9	22.8	27.9	5.4	7.4	7.4	9.0	5.8	9.0
Sex										
Male . . . . .	39.9	39.5	39.3	39.6	51.6	52.1	45.5	40.8	47.3	43.8
Female . . . . .	60.1	60.5	60.7	60.4	48.4	47.9	54.5	59.3	52.8	56.2
Race										
White . . . . .	88.2	82.6	91.6	91.9	90.2	88.0	92.0	92.2	93.9	90.3
Black . . . . .	10.9	15.1	6.1	5.2	8.0	9.8	6.9	4.7	4.8	6.3

<sup>1</sup>Includes other specialties not shown separately.

<sup>2</sup>Total, sex-specific, and race-specific data are age-adjusted.

NOTES: Rates are based on the civilian noninstitutionalized population. In 1985 the survey excluded Alaska and Hawaii. In 1989 the survey was redesigned and included all 50 States.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Ambulatory Medical Care Survey.

**Table 79. Office visits to physicians, according to selected patient and visit characteristics and physician specialty: United States, 1985 and 1989**

[Data are based on reporting by a sample of office-based physicians]

Characteristic	Patient's first visit		Visit lasted 10 minutes or less <sup>1</sup>		Return visit scheduled					
	1985	1989	1985	1989	1985	1989				
Total <sup>2</sup>	17.7	17.5	42.6	41.3	58.8	58.1				
Percent of visits										
Age										
Under 15 years	17.8	15.8	50.8	52.2	49.2	45.0				
15-44 years	20.8	21.8	41.6	39.9	58.9	59.2				
45-64 years	14.8	15.1	36.3	32.9	65.6	66.7				
65 years and over	10.5	9.7	35.6	32.3	72.8	74.6				
65-74 years	11.2	11.0	34.6	32.2	72.6	74.1				
75 years and over	9.6	8.2	36.9	32.4	73.1	75.3				
Sex <sup>2</sup>										
Male	19.5	20.1	43.3	41.6	56.7	56.1				
Female	16.9	16.3	42.2	41.1	59.8	59.0				
Race <sup>2</sup>										
White	17.4	16.8	42.3	41.0	58.4	57.8				
Black	20.1	22.0	45.0	41.1	62.2	61.5				
Characteristic	All specialties		General and family practice		Internal medicine		Pediatrics <sup>3</sup>		General surgery	
	1985	1989	1985	1989	1985	1989	1985	1989	1985	1989
Percent of visits with drug administered or prescribed										
Total <sup>2</sup>	60.4	59.8	71.2	69.3	72.7	67.9	...	...	37.2	32.8
Age										
Under 15 years	62.0	63.0	68.1	64.9	68.1	56.6	67.0	67.3	37.9	36.2
15-44 years	55.9	55.3	68.6	68.5	70.6	69.0	63.1	61.7	35.6	30.6
45-64 years	63.4	61.9	76.1	73.7	79.3	75.4	...	...	35.3	29.2
65 years and over	68.2	64.2	81.2	76.1	81.7	81.2	...	...	46.1	39.7
65-74 years	67.1	62.6	80.2	75.3	81.0	78.7	...	...	43.5	39.3
75 years and over	69.7	66.3	82.5	77.1	82.7	83.9	...	...	49.9	40.2
Sex <sup>2</sup>										
Male	59.0	58.2	69.2	67.5	67.9	66.9	67.0	65.5	39.2	32.0
Female	61.3	60.9	72.5	70.3	76.1	69.1	67.0	69.2	35.2	33.8
Race <sup>2</sup>										
White	59.7	59.4	70.1	69.8	72.6	68.1	66.6	66.0	36.7	31.0
Black	67.0	63.9	78.7	73.1	75.0	83.9	70.5	73.5	42.0	45.7

<sup>1</sup>Time spent in face-to-face contact between physician and patient.

<sup>2</sup>Age adjusted.

<sup>3</sup>Data shown by sex and race are for children under 15 years of age.

NOTES: Rates are based on the civilian noninstitutionalized population. In 1985 the survey excluded Alaska and Hawaii. In 1989, the survey was redesigned and included all 50 States.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Ambulatory Medical Care Survey.

**Table 80. Dental visits and interval since last visit, according to selected patient characteristics: United States, 1964, 1983, and 1989**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Dental visits			Interval since last dental visit <sup>1</sup>						Never visited dentist		
				Less than 1 year			2 years or more					
	1964	1983	1989	1964	1983	1989	1964	1983	1989	1964	1983	1989
	Number per person			Percent of population								
Total <sup>2,3,4</sup> . . . . .	1.6	1.9	2.1	42.7	55.3	57.7	28.7	24.1	21.4	15.5	7.7	6.4
Age												
2-14 years <sup>4</sup> . . . . .	1.3	2.0	2.1	39.6	57.9	60.5	5.4	7.6	6.6	46.6	23.5	19.7
2-4 years <sup>4</sup> . . . . .	0.3	0.7	0.9	11.1	28.4	32.1	0.3	1.0	1.0	87.0	64.2	55.0
5-14 years . . . . .	1.9	2.5	2.5	55.1	67.3	69.5	8.2	9.7	8.4	24.6	10.5	8.6
15-44 years . . . . .	1.9	1.9	2.0	51.8	58.5	59.7	26.9	24.3	22.8	4.0	1.7	1.4
45-64 years . . . . .	1.7	2.0	2.4	39.1	53.1	56.8	46.3	34.3	28.9	1.3	0.6	0.4
65 years and over . . . . .	0.8	1.5	2.0	21.5	38.6	43.2	69.0	51.3	43.7	1.5	0.9	0.5
65-74 years . . . . .	0.9	1.8	2.2	24.9	43.2	47.6	65.2	46.9	39.7	1.1	0.8	0.4
75 years and over . . . . .	0.6	1.1	1.8	14.9	31.1	36.3	76.3	58.4	50.0	2.4	1.0	0.6
Sex <sup>2</sup>												
Male . . . . .	1.4	1.7	2.0	40.9	53.3	55.4	29.6	25.7	23.2	16.1	7.9	6.7
Female . . . . .	1.7	2.1	2.3	44.4	57.2	60.0	28.0	22.7	19.6	15.0	7.6	6.1
Race <sup>2</sup>												
White . . . . .	1.7	2.0	2.3	45.3	57.5	60.0	27.8	23.0	20.2	13.8	7.2	6.1
Black <sup>5</sup> . . . . .	0.8	1.2	1.2	22.3	41.1	44.0	37.6	32.2	29.5	28.0	10.3	7.7
Family income <sup>2,6</sup>												
Less than \$14,000 . . . . .	0.9	1.2	1.3	26.4	40.4	41.9	35.4	35.2	33.7	27.4	11.2	9.6
\$14,000-\$24,999 . . . . .	0.9	1.5	1.6	30.0	46.7	49.5	35.2	29.7	27.5	22.0	9.8	7.8
\$25,000-\$34,999 . . . . .	1.4	2.2	2.2	39.7	58.4	60.3	30.6	22.2	20.3	15.8	7.2	6.3
\$35,000-\$49,999 . . . . .	1.9	2.5	2.7	50.1	68.2	69.7	25.3	16.2	15.1	10.9	4.5	4.5
\$50,000 or more . . . . .	2.7	2.9	3.1	63.9	75.3	76.1	16.8	12.2	10.6	7.2	3.6	3.4
Geographic region <sup>2</sup>												
Northeast . . . . .	2.1	2.4	2.2	48.5	61.5	61.4	26.1	20.9	17.9	12.5	5.7	4.8
Midwest . . . . .	1.6	1.9	2.1	44.6	58.0	62.2	29.3	23.4	20.1	12.9	6.1	5.0
South . . . . .	1.2	1.6	1.8	35.8	49.2	52.5	30.9	27.3	25.4	20.9	10.0	8.0
West . . . . .	1.7	2.0	2.4	43.8	55.9	58.0	27.9	23.3	19.7	14.3	8.0	6.7
Location of residence <sup>2</sup>												
Within MSA . . . . .	1.8	2.1	2.2	44.9	57.4	58.8	27.5	22.4	20.2	14.4	7.2	6.2
Outside MSA . . . . .	1.2	1.6	1.7	37.8	51.0	54.2	31.8	27.6	25.5	17.9	8.6	6.8

<sup>1</sup>Percent not shown for an interval of 1 year-less than 2 years. Denominators exclude persons with unknown interval (5.2 percent in 1989).  
<sup>2</sup>Age adjusted.  
<sup>3</sup>Includes all other races not shown separately and unknown family income.  
<sup>4</sup>Data for 1983 and 1989 are shown for ages 2 years and over because children under 2 years of age rarely visit a dentist. For 1964, data for children under 2 years of age are included.  
<sup>5</sup>1964 data are for all other races.  
<sup>6</sup>Family income categories for 1989. Income categories in 1964 are: less than \$2,000; \$2,000-\$3,999; \$4,000-\$6,999; \$7,000-\$9,999; and \$10,000 or more; and, in 1983 are: less than \$10,000; \$10,000-\$18,999; \$19,000-\$29,999; \$30,000-\$39,999; and \$40,000 or more.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.



**Table 81. Discharges, days of care, and average length of stay in short-stay hospitals, according to selected characteristics: United States, 1964, 1985, and 1990**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Discharges			Days of care			Average length of stay		
	1964	1985	1990	1964	1985	1990	1964	1985	1990
	Number per 1,000 population						Number of days		
Total <sup>1,2</sup> . . . . .	109.1	105.2	91.0	970.9	749.1	607.1	8.9	7.1	6.7
Age									
Under 15 years . . . . .	67.6	51.2	46.7	405.7	269.9	271.3	6.0	5.3	5.8
Under 5 years . . . . .	94.3	81.4	79.9	731.1	413.9	496.4	7.8	5.1	6.2
5-14 years . . . . .	53.1	35.1	29.0	229.1	193.1	150.8	4.3	5.5	5.2
15-44 years . . . . .	100.6	73.1	62.6	760.7	411.0	340.5	7.6	5.6	5.4
45-64 years . . . . .	146.2	162.1	135.7	1,559.3	1,291.2	911.5	10.7	8.0	6.7
65 years and over . . . . .	190.0	281.5	248.8	2,292.7	2,454.7	2,092.4	12.1	8.7	8.4
65-74 years . . . . .	181.2	247.4	215.4	2,150.4	2,072.3	1,719.3	11.9	8.4	8.0
75 years and over . . . . .	206.7	336.5	300.6	2,560.4	3,071.5	2,669.9	12.4	9.1	8.9
Sex <sup>1</sup>									
Male . . . . .	103.8	107.4	91.0	1,010.2	795.8	622.7	9.7	7.4	6.8
Female . . . . .	113.7	103.8	91.7	933.4	708.3	592.9	8.2	6.8	6.5
Race <sup>1</sup>									
White . . . . .	112.4	105.1	89.5	961.4	729.5	580.9	8.6	6.9	6.5
Black <sup>3</sup> . . . . .	84.0	115.2	112.0	1,062.9	983.1	875.9	12.7	8.5	7.8
Family income <sup>1,4</sup>									
Less than \$14,000 . . . . .	102.4	139.1	142.2	1,051.2	1,191.9	1,141.2	10.3	8.6	8.0
\$14,000-\$24,999 . . . . .	116.4	115.6	98.4	1,213.9	838.3	594.5	10.4	7.3	6.0
\$25,000-\$34,999 . . . . .	110.7	106.7	85.1	939.8	699.4	560.6	8.5	6.6	6.6
\$35,000-\$49,999 . . . . .	109.2	98.5	73.2	882.6	605.7	380.3	8.1	6.1	5.2
\$50,000 or more . . . . .	110.7	81.0	72.5	918.9	489.1	446.2	8.3	6.0	6.2
Geographic region <sup>1</sup>									
Northeast . . . . .	98.5	97.5	84.9	993.8	790.3	623.4	10.1	8.1	7.3
Midwest . . . . .	109.2	108.8	91.5	944.9	787.2	570.8	8.7	7.2	6.2
South . . . . .	117.8	116.7	106.4	968.0	832.8	713.6	8.2	7.1	6.7
West . . . . .	110.5	89.0	70.5	985.9	499.0	444.6	8.9	5.6	6.3
Location of residence <sup>1</sup>									
Within MSA . . . . .	107.5	101.7	85.9	1,015.4	736.7	599.6	9.4	7.2	7.0
Outside MSA . . . . .	113.3	117.1	109.5	871.9	795.9	636.0	7.7	6.8	5.8

<sup>1</sup>Age adjusted.

<sup>2</sup>Includes all other races not shown separately and unknown family income.

<sup>3</sup>1964 data include all other races.

<sup>4</sup>Family income categories for 1990. Income categories in 1964 are less than \$2,000; \$2,000-\$3,999; \$4,000-\$6,999; \$7,000-\$9,999; and \$10,000 or more; and, in 1985 are less than \$11,000; \$11,000-\$19,999; \$20,000-\$29,999; \$30,000-\$39,999; and \$40,000 or more.

NOTE: Excludes deliveries.

SOURCE: Division of Health Interview Statistics, National Center for Health Statistics: Data from the National Health Interview Survey.

**Table 82. Discharges, days of care, and average length of stay in non-Federal short-stay hospitals, according to selected characteristics: United States, 1980–90**

[Data are based on a sample of hospital records]

<i>Characteristic</i>	1980 <sup>1</sup>	1981	1982	1983	1984	1985	1986	1987	1988 <sup>2</sup>	1989 <sup>2</sup>	1990 <sup>2</sup>
Discharges per 1,000 population											
Total <sup>3</sup> . . . . .	159.1	160.2	158.5	157.1	148.2	138.0	132.8	127.9	117.8	115.5	113.1
Sex <sup>3</sup>											
Male . . . . .	140.1	141.0	140.5	139.9	131.8	123.5	119.8	115.0	105.8	103.9	99.6
Female . . . . .	178.1	179.5	176.5	174.4	164.7	152.7	146.2	141.2	130.2	127.4	126.9
Age											
Under 15 years . . . . .	71.6	72.9	71.2	70.8	62.0	57.2	53.5	51.3	49.2	48.2	43.9
15–44 years . . . . .	150.2	148.7	145.0	140.3	132.2	125.1	118.9	115.1	104.0	102.8	101.7
45–64 years . . . . .	194.8	195.3	195.5	192.2	183.3	169.5	162.2	156.9	140.5	135.0	133.1
65 years and over . . . . .	383.7	396.5	398.8	412.7	400.4	368.3	367.3	350.5	334.1	330.2	327.1
65–74 years . . . . .	315.9	330.0	324.2	334.2	319.6	294.9	296.8	280.9	262.8	257.3	253.9
75 years and over . . . . .	489.1	498.4	511.4	529.3	520.1	476.5	470.5	451.6	436.5	433.6	430.0
Geographic region <sup>3</sup>											
Northeast . . . . .	148.4	146.5	145.9	144.2	135.1	129.7	124.1	118.9	126.5	125.1	121.5
Midwest . . . . .	176.4	179.9	176.0	167.9	156.7	143.5	139.8	135.3	120.2	116.8	114.7
South . . . . .	166.2	165.2	165.2	167.7	159.5	143.4	136.3	127.9	118.9	119.0	119.1
West . . . . .	138.0	141.1	138.2	139.6	132.3	131.0	127.8	128.6	103.6	98.3	92.6
Days of care per 1,000 population											
Total <sup>3</sup> . . . . .	1,136.5	1,134.0	1,101.7	1,068.8	960.1	877.1	833.1	808.7	754.8	732.2	709.5
Sex <sup>3</sup>											
Male . . . . .	1,072.6	1,075.4	1,047.6	1,025.7	917.6	841.2	803.4	789.2	739.6	720.8	681.0
Female . . . . .	1,201.7	1,196.1	1,157.7	1,115.7	1,005.8	914.7	865.0	831.1	772.6	746.6	738.7
Age											
Under 15 years . . . . .	315.8	337.1	326.4	323.4	277.7	260.8	244.7	240.6	245.3	234.3	212.4
15–44 years . . . . .	787.0	769.6	742.0	707.5	647.3	603.6	575.7	556.9	493.1	481.1	466.2
45–64 years . . . . .	1,597.6	1,564.0	1,536.7	1,460.6	1,316.8	1,192.8	1,101.4	1,068.6	955.3	903.7	898.2
65 years and over . . . . .	4,098.3	4,155.3	4,026.2	4,004.3	3,574.8	3,215.1	3,120.7	3,029.9	2,970.0	2,930.4	2,834.6
65–74 years . . . . .	3,147.6	3,259.2	3,101.1	3,069.5	2,711.0	2,417.8	2,363.8	2,294.4	2,214.8	2,115.5	2,026.3
75 years and over . . . . .	5,576.5	5,529.3	5,423.5	5,392.7	4,855.5	4,389.4	4,227.9	4,097.8	4,054.3	4,087.4	3,972.2
Geographic region <sup>3</sup>											
Northeast . . . . .	1,217.3	1,190.2	1,149.8	1,115.6	1,012.3	963.1	877.6	847.1	928.7	918.1	887.2
Midwest . . . . .	1,309.4	1,306.7	1,283.0	1,184.4	1,059.9	955.7	914.2	885.3	749.3	727.7	715.7
South . . . . .	1,114.5	1,112.9	1,083.3	1,087.1	962.9	851.4	817.6	781.5	729.0	731.5	707.2
West . . . . .	844.6	859.3	825.7	821.9	756.5	717.9	703.0	712.5	606.7	537.0	513.3
Average length of stay in days											
Total <sup>3</sup> . . . . .	7.1	7.1	7.0	6.8	6.5	6.4	6.3	6.3	6.4	6.3	6.3
Sex <sup>3</sup>											
Male . . . . .	7.7	7.6	7.5	7.3	7.0	6.8	6.7	6.9	7.0	6.9	6.8
Female . . . . .	6.7	6.7	6.6	6.4	6.1	6.0	5.9	5.9	5.9	5.9	5.8
Age											
Under 15 years . . . . .	4.4	4.6	4.6	4.6	4.5	4.6	4.6	4.7	5.0	4.9	4.8
15–44 years . . . . .	5.2	5.2	5.1	5.0	4.9	4.8	4.8	4.8	4.7	4.7	4.6
45–64 years . . . . .	8.2	8.0	7.9	7.6	7.2	7.0	6.8	6.8	6.8	6.7	6.7
65 years and over . . . . .	10.7	10.5	10.1	9.7	8.9	8.7	8.5	8.6	8.9	8.9	8.7
65–74 years . . . . .	10.0	9.9	9.6	9.2	8.5	8.2	8.0	8.2	8.4	8.2	8.0
75 years and over . . . . .	11.4	11.1	10.6	10.2	9.3	9.2	9.0	9.1	9.3	9.4	9.2
Geographic region <sup>3</sup>											
Northeast . . . . .	8.2	8.1	7.9	7.7	7.5	7.4	7.1	7.1	7.3	7.3	7.3
Midwest . . . . .	7.4	7.3	7.3	7.1	6.8	6.7	6.5	6.5	6.2	6.2	6.2
South . . . . .	6.7	6.7	6.6	6.5	6.0	5.9	6.0	6.1	6.1	6.1	5.9
West . . . . .	6.1	6.1	6.0	5.9	5.7	5.5	5.5	5.5	5.9	5.5	5.5

<sup>1</sup>Geographic data for 1980 are based on the civilian population as of April 1, 1980.

<sup>2</sup>Comparisons of 1988, 1989, and 1990 data with data for earlier years should be made with caution as estimates of change may reflect improvements in the design (see Appendix I) rather than true changes in hospital use.

<sup>3</sup>Age adjusted.

NOTES: Excludes newborn infants. Rates are based on the civilian population as of July 1.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Hospital Discharge Survey.

**Table 83. Discharges, days of care, and average length of stay in non-Federal short-stay hospitals for patients discharged with the diagnosis of human immunodeficiency virus (HIV) and for all patients: United States, 1984–90**

[Data are based on a sample of hospital records]

Type of discharge, sex, age, and year	Discharges		Days of care		Average length of stay in days
	Number in thousands	Number per 1,000 population	Number in thousands	Number per 1,000 population	
Diagnosis of HIV					
Total:					
1984 <sup>1</sup> .....	10	0.04	123	0.52	12.1
1985 <sup>1</sup> .....	23	0.10	387	1.63	17.1
1986.....	44	0.18	714	2.98	16.4
1987.....	67	0.28	936	3.87	14.1
1988 <sup>2</sup> .....	95	0.39	1,277	5.23	13.4
1989 <sup>2</sup> .....	140	0.57	1,731	7.02	12.4
1990 <sup>2</sup> .....	146	0.59	2,188	8.77	14.9
Male, 20–49 years:					
1984 <sup>1</sup> .....	*9	*0.17	*114	*2.26	*13.2
1985 <sup>1</sup> .....	21	0.41	355	6.90	16.8
1986.....	35	0.67	573	10.96	16.4
1987.....	51	0.97	724	13.64	14.1
1988 <sup>2</sup> .....	73	1.36	914	16.97	12.5
1989 <sup>2</sup> .....	102	1.87	1,235	22.64	12.1
1990 <sup>2</sup> .....	102	1.84	1,645	29.71	16.2
All patients					
Total:					
1984.....	37,162	158.5	244,652	1,043.6	6.6
1985.....	35,056	147.9	226,217	954.4	6.5
1986.....	34,256	143.1	218,496	912.8	6.4
1987.....	33,387	138.2	214,942	889.4	6.4
1988 <sup>2</sup> .....	31,146	127.6	203,678	834.3	6.5
1989 <sup>2</sup> .....	30,947	125.5	200,827	814.5	6.5
1990 <sup>2</sup> .....	30,788	123.5	197,422	791.7	6.4
Male, 20–49 years:					
1984.....	4,497	89.5	27,725	551.5	6.2
1985.....	4,393	85.4	27,117	527.4	6.2
1986.....	4,300	82.2	26,488	506.4	6.2
1987.....	4,075	76.8	26,295	495.3	6.5
1988 <sup>2</sup> .....	3,670	68.2	22,697	421.6	6.2
1989 <sup>2</sup> .....	3,676	67.4	22,967	421.0	6.2
1990 <sup>2</sup> .....	3,649	65.9	22,539	407.0	6.2

<sup>1</sup>During these years, only data for AIDS (ICD-9-CM Code 279.19) were reported.

<sup>2</sup>Comparisons of 1988, 1989, and 1990 data with data for earlier years should be made with caution as estimates of change may reflect improvements in the design (see Appendix I) rather than true changes in hospital use.

\*Based on a sample size of 30–59 discharges and should be used with caution.

NOTES: Excludes newborn infants. Rates are based on the civilian population as of July 1. This table shows data for patients diagnosed with human immunodeficiency virus (HIV) (International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) 042–044, 279.19, and 795.8) beginning with the 1991 edition of Health, United States. Previous editions of Health, United States showed data for patients diagnosed with acquired immunodeficiency syndrome (AIDS) (ICD-9-CM code 279.19 for 1984–85 with additional codes 042.0–042.2 and 042.9 for 1986–89).

SOURCES: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Hospital Discharge Survey; Utilization of short-stay hospitals by patients with AIDS: United States, 1984–1986, by E. J. Graves. Advance Data From Vital and Health Statistics. No. 156. DHHS Pub. No. (PHS) 88–1250. Public Health Service. Hyattsville, Md., 1988; Unpublished data.



**Table 84 (page 1 of 2). Rates of discharges and days of care in non-Federal short-stay hospitals, according to sex, age, and selected first-listed diagnosis: United States, 1980, 1988, 1989, and 1990**

[Data are based on a sample of hospital records]

Sex, age, and first-listed diagnosis	Discharges				Days of care			
	1980 <sup>1</sup>	1988	1989	1990	1980 <sup>1</sup>	1988	1989	1990
Both sexes								
Number per 1,000 population								
Total <sup>2,3</sup>	159.1	117.8	115.5	113.1	1,136.5	754.8	732.2	709.5
Females with delivery	14.7	13.4	13.9	14.2	55.5	39.2	40.5	39.5
Diseases of heart	13.1	13.2	12.6	12.5	123.5	92.2	86.4	84.5
Malignant neoplasms	7.6	6.2	5.8	5.7	90.5	57.6	53.2	52.6
Pneumonia, all forms	3.5	3.6	4.0	4.0	27.7	28.5	30.2	30.8
Fracture, all sites	4.9	3.8	3.8	3.7	51.2	30.8	30.9	28.9
Male								
All ages <sup>2,3</sup>	140.1	105.8	103.9	99.6	1,072.6	739.6	720.8	681.0
Diseases of heart	15.9	16.4	15.6	15.4	145.0	111.8	104.6	102.6
Malignant neoplasms	8.2	6.4	6.3	5.9	98.7	59.9	57.7	55.8
Pneumonia, all forms	4.1	4.1	4.6	4.4	32.5	32.3	34.6	34.7
Fracture, all sites	5.2	4.1	3.9	3.7	46.9	29.3	29.3	24.2
Cerebrovascular diseases	3.5	2.8	2.8	2.8	41.9	26.8	28.2	26.2
Inguinal hernia	4.3	2.0	1.6	1.2	20.0	4.8	4.1	2.7
Under 15 years <sup>3</sup>	78.7	54.6	55.1	48.5	341.5	275.5	268.3	230.7
Acute respiratory infection	5.9	3.8	5.0	3.9	22.0	11.7	17.1	12.7
Pneumonia, all forms	5.2	3.9	4.6	4.3	25.2	16.9	18.7	18.9
Bronchitis, emphysema, and asthma	4.0	4.1	4.2	4.1	16.3	11.0	12.2	11.6
Congenital anomalies	4.0	3.5	3.0	2.6	22.2	18.7	14.5	14.8
Fracture, all sites	3.7	2.6	2.8	1.9	22.7	13.5	15.0	7.8
Chronic disease of tonsils and adenoids	5.4	2.3	1.7	1.0	9.2	3.3	2.0	1.3
Otitis media and eustachian tube disorders	4.5	2.0	1.7	1.5	11.3	4.2	3.4	3.6
15-44 years <sup>3</sup>	91.5	61.5	59.8	58.0	581.0	388.2	371.5	355.4
Fracture, all sites	6.3	4.5	4.2	4.2	50.1	27.1	25.8	23.0
Psychoses	3.0	3.9	3.8	3.8	39.2	51.9	51.3	52.4
Diseases of heart	2.9	2.8	2.6	2.9	21.7	16.1	13.9	15.5
Lacerations and open wounds	3.4	2.2	2.2	2.3	17.9	9.4	8.1	9.6
Intervertebral disc disorders	2.3	2.5	2.1	2.4	20.7	12.6	9.4	10.0
Alcohol dependence syndrome	3.5	2.1	1.9	2.1	33.4	24.8	21.2	20.1
45-64 years <sup>3</sup>	195.4	146.4	142.8	138.3	1,590.3	993.2	962.1	930.3
Diseases of heart	33.7	34.1	32.8	31.2	288.1	210.1	195.4	182.3
Malignant neoplasms	14.4	9.8	10.8	10.5	167.2	95.1	96.8	97.9
Cerebrovascular diseases	4.7	4.2	4.0	4.0	49.6	35.7	34.2	40.1
Fracture, all sites	4.0	3.6	3.6	3.3	36.5	26.6	32.2	23.9
Pneumonia, all forms	3.2	2.9	3.5	3.3	29.8	24.7	29.3	26.7
Inguinal hernia	6.9	3.3	2.4	1.9	36.5	7.7	5.9	4.3
Alcohol dependence syndrome	6.4	2.2	2.0	2.3	67.8	18.8	16.9	21.5
65 years and over <sup>3</sup>	411.8	360.3	354.4	346.2	4,244.0	3,083.5	3,047.0	2,882.8
Diseases of heart	78.5	84.0	79.7	80.2	786.3	635.7	603.6	602.4
Malignant neoplasms	46.2	37.0	35.4	31.8	587.9	351.8	335.6	316.0
Pneumonia, all forms	15.0	20.1	21.4	20.4	166.1	200.4	200.8	204.7
Cerebrovascular diseases	24.4	18.3	18.9	19.1	301.2	191.9	207.7	176.4
Hyperplasia of prostate	18.1	15.4	15.3	15.1	176.7	93.0	84.2	78.6
Female								
All ages <sup>2,3</sup>	178.1	130.2	127.4	126.9	1,201.7	772.6	746.6	738.7
Delivery	29.0	26.5	27.5	28.0	109.4	77.4	80.2	78.1
Diseases of heart	10.7	10.5	10.1	10.0	105.1	75.7	70.8	69.4
Malignant neoplasms	7.3	6.2	5.6	5.7	85.8	56.6	50.2	51.0
Fracture, all sites	4.4	3.3	3.5	3.4	52.1	30.4	30.5	31.4
Pneumonia, all forms	3.0	3.2	3.4	3.6	24.0	25.7	27.0	27.9
Pregnancy with abortive outcome	4.1	1.9	1.6	1.5	8.7	4.3	3.7	3.1
Under 15 years <sup>3</sup>	64.2	43.4	40.9	39.2	288.9	213.6	198.6	193.1
Pneumonia, all forms	3.6	3.1	3.6	3.4	17.7	14.9	16.7	15.8
Acute respiratory infection	4.6	2.5	3.0	2.8	16.0	8.9	10.4	9.4
Bronchitis, emphysema, and asthma	2.5	2.5	2.4	2.5	9.6	7.3	6.8	7.8
Congenital anomalies	3.2	2.1	2.0	1.7	19.4	14.5	12.6	9.9
Chronic disease of tonsils and adenoids	6.4	2.4	1.8	1.4	11.2	2.5	2.1	1.8
Noninfectious enteritis and colitis	3.7	2.0	1.5	1.6	16.8	5.4	5.7	4.7

See footnotes at end of table.

**Table 84 (page 2 of 2). Rates of discharges and days of care in non-Federal short-stay hospitals, according to sex, age, and selected first-listed diagnosis: United States, 1980, 1988, 1989, and 1990**

[Data are based on a sample of hospital records]

Sex, age, and first-listed diagnosis	Discharges				Days of care			
	1980 <sup>1</sup>	1988	1989	1990	1980 <sup>1</sup>	1988	1989	1990
Female—Con.								
Number per 1,000 population								
15–44 years <sup>3</sup> . . . . .	206.9	145.6	144.9	144.5	986.4	595.6	588.2	574.7
Delivery . . . . .	70.7	64.9	67.4	68.4	264.5	189.4	196.2	190.8
Pregnancy with abortive outcome . . . . .	9.9	4.6	3.9	3.5	21.2	10.5	9.0	7.4
Psychoses . . . . .	2.4	3.6	3.4	3.9	36.7	57.7	48.4	56.9
Benign neoplasms . . . . .	4.8	3.0	2.8	2.8	25.7	13.2	11.5	11.2
Inflammatory disease of female pelvic organs . . . . .	5.1	2.5	2.4	2.2	25.7	11.6	10.3	9.0
Disorders of menstruation . . . . .	6.6	1.5	1.1	1.2	21.6	5.5	4.0	3.9
45–64 years <sup>3</sup> . . . . .	194.3	135.1	127.9	128.2	1,604.1	920.5	850.0	868.5
Diseases of heart . . . . .	17.8	17.2	16.0	16.3	152.9	106.5	95.4	98.9
Malignant neoplasms . . . . .	16.6	14.7	11.3	12.7	190.8	122.2	92.2	106.3
Benign neoplasms . . . . .	6.7	4.9	4.4	4.4	44.8	24.8	21.2	21.6
Cholelithiasis . . . . .	4.7	4.1	4.4	4.7	42.9	24.2	23.7	26.5
Psychoses . . . . .	3.1	4.2	4.3	4.2	50.6	62.0	64.0	62.0
Diabetes . . . . .	6.3	2.8	3.2	2.9	63.5	21.8	22.3	25.3
65 years and over <sup>3</sup> . . . . .	364.7	316.2	313.5	313.8	3,999.8	2,892.3	2,850.1	2,801.4
Diseases of heart . . . . .	64.8	65.8	63.8	62.3	701.1	520.6	497.8	472.9
Malignant neoplasms . . . . .	28.5	23.4	23.5	21.5	383.8	258.5	247.7	219.1
Cerebrovascular diseases . . . . .	21.6	19.6	20.1	19.4	287.9	193.0	205.1	187.4
Fracture, all sites . . . . .	19.2	16.6	17.9	18.7	309.5	192.7	206.0	211.0
Pneumonia, all forms . . . . .	9.7	13.4	14.2	15.1	109.2	138.7	139.6	157.8
Eye diseases and conditions . . . . .	16.4	5.8	4.0	3.1	67.3	12.5	10.6	6.3

<sup>1</sup>Comparisons of 1980 with later years should be made with caution as estimates of change may reflect improvements in the design (see Appendix I) rather than true changes in hospital use.

<sup>2</sup>Age adjusted.

<sup>3</sup>Includes discharges with first-listed diagnoses not shown in table.

NOTES: Excludes newborn infants. Rates are based on the civilian population. In each sex and age group, data are shown for diagnoses with the five highest discharge rates in 1980 and 1989. Diagnostic categories are based on the International Classification of Diseases, 9th Revision, Clinical Modification. For a listing of the code numbers, see Appendix II, table VII.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Hospital Discharge Survey.

**Table 85 (page 1 of 2). Discharges and average length of stay in non-Federal short-stay hospitals, according to sex, age, and selected first-listed diagnosis: United States, 1980, 1988, 1989, and 1990**

[Data are based on a sample of hospital records]

<i>Sex, age, and first-listed diagnosis</i>	<i>Discharges</i>				<i>Average length of stay</i>				
	<i>1980<sup>1</sup></i>	<i>1988</i>	<i>1989</i>	<i>1990</i>	<i>1980<sup>1</sup></i>	<i>1988</i>	<i>1989</i>	<i>1990</i>	
<b>Both sexes</b>		<b>Number in thousands</b>				<b>Number of days</b>			
Total <sup>2</sup> . . . . .	37,832	31,146	30,947	30,788	7.3	6.5	6.5	6.4	
Females with delivery . . . . .	3,762	3,781	3,937	4,025	3.8	2.9	2.9	2.8	
Diseases of heart . . . . .	3,201	3,641	3,534	3,556	9.5	7.1	7.0	6.9	
Malignant neoplasms . . . . .	1,829	1,670	1,608	1,571	12.0	9.4	9.2	9.4	
Pneumonia, all forms . . . . .	782	924	1,033	1,052	8.3	8.4	8.1	8.3	
Fracture, all sites . . . . .	1,163	1,014	1,021	1,017	10.8	8.4	8.5	8.3	
<b>Male</b>									
All ages <sup>2</sup> . . . . .	15,145	12,642	12,583	12,280	7.7	7.1	7.0	6.9	
Diseases of heart . . . . .	1,688	1,955	1,892	1,913	9.1	6.9	6.8	6.7	
Malignant neoplasms . . . . .	875	772	770	730	12.0	9.4	9.2	9.5	
Pneumonia, all forms . . . . .	414	472	544	530	8.2	8.3	7.8	8.2	
Fracture, all sites . . . . .	582	506	480	466	9.0	7.2	7.5	6.7	
Cerebrovascular diseases . . . . .	371	336	344	359	12.1	9.8	10.3	9.2	
Inguinal hernia . . . . .	458	232	193	149	4.7	2.5	2.6	2.2	
Under 15 years <sup>2</sup> . . . . .	2,063	1,486	1,521	1,362	4.3	5.0	4.9	4.8	
Acute respiratory infection . . . . .	154	103	137	111	3.8	3.1	3.4	3.2	
Pneumonia, all forms . . . . .	136	105	126	119	4.9	4.4	4.1	4.4	
Bronchitis, emphysema, and asthma . . . . .	105	111	115	115	4.0	2.7	2.9	2.8	
Congenital anomalies . . . . .	106	95	83	74	5.5	5.4	4.8	5.6	
Fracture, all sites . . . . .	97	71	77	54	6.2	5.2	5.4	4.0	
Chronic disease of tonsils and adenoids . . . . .	141	64	46	29	1.7	1.4	1.2	1.3	
Otitis media and eustachian tube disorders . . . . .	118	55	47	41	2.5	2.1	2.0	2.5	
15–44 years <sup>2</sup> . . . . .	4,687	3,485	3,405	3,330	6.3	6.3	6.2	6.1	
Fracture, all sites . . . . .	320	257	241	238	8.0	6.0	6.1	5.5	
Psychoses . . . . .	155	219	217	220	12.9	13.4	13.5	13.6	
Diseases of heart . . . . .	149	159	146	166	7.5	5.7	5.4	5.3	
Lacerations and open wounds . . . . .	176	124	124	134	5.2	4.3	3.7	4.1	
Intervertebral disc disorders . . . . .	120	139	122	138	8.8	5.1	4.4	4.2	
Alcohol dependence syndrome . . . . .	180	118	109	118	9.5	11.9	11.1	9.8	
45–64 years <sup>2</sup> . . . . .	4,127	3,221	3,179	3,115	8.1	6.8	6.7	6.7	
Diseases of heart . . . . .	712	751	730	704	8.5	6.2	6.0	5.8	
Malignant neoplasms . . . . .	304	215	240	236	11.6	9.7	9.0	9.3	
Cerebrovascular diseases . . . . .	99	93	88	91	10.6	8.5	8.7	10.0	
Fracture, all sites . . . . .	85	79	80	74	9.0	7.4	9.0	7.2	
Pneumonia, all forms . . . . .	68	65	77	75	9.3	8.4	8.4	8.0	
Inguinal hernia . . . . .	146	72	53	42	5.3	2.3	2.5	2.3	
Alcohol dependence syndrome . . . . .	134	49	44	51	10.7	8.4	8.5	9.5	
65 years and over <sup>2</sup> . . . . .	4,268	4,450	4,478	4,472	10.3	8.6	8.6	8.3	
Diseases of heart . . . . .	814	1,038	1,007	1,036	10.0	7.6	7.6	7.5	
Malignant neoplasms . . . . .	479	457	447	411	12.7	9.5	9.5	9.9	
Pneumonia, all forms . . . . .	156	248	271	264	11.1	10.0	9.4	10.0	
Cerebrovascular diseases . . . . .	253	226	238	247	12.3	10.5	11.0	9.2	
Hyperplasia of prostate . . . . .	188	191	193	195	9.8	6.0	5.5	5.2	
<b>Female</b>									
All ages <sup>2</sup> . . . . .	22,686	18,504	18,364	18,508	7.0	6.2	6.1	6.1	
Delivery . . . . .	3,762	3,781	3,937	4,025	3.8	2.9	2.9	2.8	
Diseases of heart . . . . .	1,513	1,686	1,642	1,643	10.0	7.4	7.2	7.1	
Malignant neoplasms . . . . .	954	898	838	841	12.0	9.4	9.3	9.2	
Fracture, all sites . . . . .	580	508	541	551	12.6	9.7	9.4	9.7	
Pneumonia, all forms . . . . .	368	452	489	522	8.4	8.6	8.4	8.4	
Pregnancy with abortive outcome . . . . .	531	266	229	208	2.1	2.3	2.3	2.1	

See footnotes at end of table.



**Table 85 (page 2 of 2). Discharges and average length of stay in non-Federal short-stay hospitals, according to sex, age, and selected first-listed diagnosis: United States, 1980, 1988, 1989, and 1990**

[Data are based on a sample of hospital records]

Sex, age, and first-listed diagnosis	Discharges				Average length of stay			
	1980 <sup>1</sup>	1988	1989	1990	1980 <sup>1</sup>	1988	1989	1990
Female – Con.	Number in thousands				Number of days			
Under 15 years <sup>2</sup> . . . . .	1,609	1,125	1,077	1,049	4.5	4.9	4.9	4.9
Pneumonia, all forms . . . . .	91	79	95	92	4.9	4.9	4.6	4.6
Acute respiratory infection . . . . .	115	65	78	75	3.5	3.5	3.5	3.4
Bronchitis, emphysema, and asthma . . . . .	63	66	64	68	3.8	2.9	2.8	3.1
Congenital anomalies . . . . .	80	55	53	46	6.1	6.8	6.2	5.8
Chronic disease of tonsils and adenoids. . . . .	160	61	48	38	1.8	1.1	1.2	1.2
Noninfectious enteritis and colitis . . . . .	92	52	39	43	4.6	2.7	3.8	3.0
15–44 years <sup>2</sup> . . . . .	10,949	8,448	8,443	8,469	4.8	4.1	4.1	4.0
Delivery . . . . .	3,741	3,768	3,926	4,008	3.7	2.9	2.9	2.8
Pregnancy with abortive outcome . . . . .	525	264	227	205	2.1	2.3	2.3	2.1
Psychoses . . . . .	129	210	197	228	15.1	15.9	14.3	14.6
Benign neoplasms . . . . .	253	176	161	163	5.4	4.4	4.2	4.0
Inflammatory disease of female pelvic organs . . . . .	268	145	137	130	5.1	4.6	4.4	4.1
Disorders of menstruation . . . . .	347	88	66	70	3.3	3.6	3.5	3.3
45–64 years <sup>2</sup> . . . . .	4,533	3,235	3,092	3,129	8.3	6.8	6.6	6.8
Diseases of heart . . . . .	415	411	386	397	8.6	6.2	6.0	6.1
Malignant neoplasms . . . . .	387	351	273	309	11.5	8.3	8.2	8.4
Benign neoplasms . . . . .	156	116	108	107	6.7	5.1	4.8	4.9
Cholelithiasis . . . . .	109	97	107	114	9.2	6.0	5.4	5.7
Psychoses . . . . .	72	99	104	103	16.3	14.9	14.9	14.6
Diabetes . . . . .	148	67	78	70	10.0	7.8	6.9	8.9
65 years and over <sup>2</sup> . . . . .	5,596	5,696	5,752	5,861	11.0	9.1	9.1	8.9
Diseases of heart . . . . .	995	1,185	1,170	1,164	10.8	7.9	7.8	7.6
Malignant neoplasms . . . . .	437	422	431	401	13.5	11.0	10.6	10.2
Cerebrovascular diseases . . . . .	331	352	368	362	13.3	9.9	10.2	9.7
Fracture, all sites . . . . .	295	300	329	350	16.1	11.6	11.5	11.3
Pneumonia, all forms . . . . .	150	242	261	283	11.2	10.3	9.8	10.4
Eye diseases and conditions . . . . .	251	105	73	58	4.1	2.1	2.7	2.0

<sup>1</sup>Comparisons of 1980 with later years should be made with caution as estimates of change may reflect improvements in the design (see Appendix I) rather than true changes in hospital use.

<sup>2</sup>Includes discharges with first-listed diagnoses not shown in table.

NOTES: Excludes newborn infants. In each sex and age group, data are shown for diagnoses with the five highest discharge rates in 1980 and 1989. Diagnostic categories are based on the International Classification of Diseases, 9th Revision, Clinical Modification. For a listing of the code numbers, see Appendix II, table VII.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Hospital Discharge Survey.

**Table 86 (page 1 of 2). Operations for inpatients discharged from non-Federal short-stay hospitals, according to sex, age, and surgical category: United States, 1980, 1988, 1989, and 1990**

[Data are based on a sample of hospital records]

Sex, age, and surgical category	Operations in thousands				Operations per 1,000 population			
	1980 <sup>1</sup>	1988	1989 <sup>2</sup>	1990	1980 <sup>1</sup>	1988	1989 <sup>2</sup>	1990
<b>Male</b>								
All ages <sup>2,3,4</sup> . . . . .	8,505	9,069	8,886	8,538	78.1	75.4	72.8	68.8
Cardiac catheterization . . . . .	228	598	601	620	2.2	5.2	5.1	5.2
Prostatectomy . . . . .	335	358	376	364	3.1	2.9	3.0	2.8
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	325	337	342	300	2.9	2.7	2.8	2.4
Direct heart revascularization (coronary bypass) . . . . .	108	270	271	286	1.0	2.3	2.3	2.4
Repair of inguinal hernia . . . . .	483	261	220	181	4.6	2.2	1.8	1.5
Operations on muscles, tendons, fascia, and bursa . . . . .	210	181	191	175	1.9	1.5	1.6	1.4
Under 15 years <sup>2,4</sup> . . . . .	1,068	751	703	598	40.7	27.6	25.5	21.3
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	55	52	54	42	2.1	1.9	2.0	1.5
Tonsillectomy, with or without adenoidectomy . . . . .	138	69	49	33	5.3	2.6	1.8	1.2
Myringotomy . . . . .	115	45	41	30	4.4	1.6	1.5	1.1
Appendectomy, excluding incidental <sup>5</sup> . . . . .	43	33	37	40	1.6	1.2	1.3	1.4
Repair of inguinal hernia . . . . .	86	31	28	19	3.3	1.1	1.0	0.7
Circumcision . . . . .	43	20	19	24	1.6	0.7	0.7	0.8
15-44 years <sup>2,4</sup> . . . . .	2,900	2,489	2,408	2,257	56.6	43.9	42.3	39.3
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	188	178	176	159	3.7	3.1	3.1	2.8
Excision or destruction of intervertebral disc and spinal fusion . . . . .	67	111	115	147	1.3	2.0	2.0	2.6
Debridement of wound, infection, or burn . . . . .	75	84	93	82	1.5	1.5	1.6	1.4
Operations on muscles, tendons, fascia, and bursa . . . . .	110	93	86	93	2.2	1.6	1.5	1.6
Appendectomy, excluding incidental <sup>5</sup> . . . . .	85	88	83	80	1.7	1.5	1.5	1.4
Repair of inguinal hernia . . . . .	127	62	46	37	2.5	1.1	0.8	0.7
Excision of semilunar cartilage of knee . . . . .	94	30	37	25	1.8	0.5	0.6	0.4
45-64 years <sup>2,4</sup> . . . . .	2,313	2,568	2,498	2,499	109.5	116.7	112.2	110.9
Cardiac catheterization . . . . .	129	296	291	306	6.1	13.5	13.0	13.6
Direct heart revascularization (coronary bypass) . . . . .	72	134	129	132	3.4	6.1	5.8	5.9
Prostatectomy . . . . .	83	67	71	80	3.9	3.1	3.2	3.5
Excision or destruction of intervertebral disc and spinal fusion . . . . .	43	69	70	80	2.1	3.1	3.2	3.6
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	43	52	65	47	2.1	2.4	2.9	2.1
Repair of inguinal hernia . . . . .	152	80	58	50	7.2	3.6	2.6	2.2
Operations on muscles, tendons, fascia, and bursa . . . . .	58	44	57	44	2.8	2.0	2.6	2.0
65 years and over <sup>2,4</sup> . . . . .	2,224	3,261	3,277	3,184	214.6	264.0	259.4	246.5
Prostatectomy . . . . .	251	290	304	284	24.2	23.4	24.1	22.0
Cardiac catheterization . . . . .	52	222	230	236	5.0	17.9	18.2	18.3
Direct heart revascularization (coronary bypass) . . . . .	27	122	131	137	2.6	9.8	10.4	10.6
Pacemaker insertion or replacement . . . . .	75	120	106	100	7.3	9.7	8.4	7.7
Repair of inguinal hernia . . . . .	119	88	87	74	11.4	7.1	6.9	5.8
Biopsies on the digestive system . . . . .	61	121	83	76	5.9	9.8	6.6	5.9
Extraction of lens . . . . .	124	24	16	18	12.0	1.9	1.3	1.4
<b>Female</b>								
All ages <sup>2,3,4</sup> . . . . .	15,989	16,555	14,484	14,513	126.1	116.9	101.0	100.3
Procedures to assist delivery <sup>2</sup> . . . . .	2,391	3,131	2,446	2,491	18.4	22.0	17.1	17.3
Cesarean section <sup>6</sup> . . . . .	619	933	938	945	4.8	6.5	6.6	6.6
Repair of current obstetrical laceration . . . . .	355	690	762	795	2.8	4.9	5.3	5.5
Hysterectomy . . . . .	649	578	541	591	5.2	4.3	3.9	4.3
Oophorectomy and salpingo-oophorectomy . . . . .	483	451	421	476	3.9	3.4	3.1	3.4
Bilateral destruction or occlusion of fallopian tubes . . . . .	641	406	389	419	4.9	2.9	2.7	2.9
Diagnostic dilation and curettage of uterus . . . . .	923	143	137	109	7.3	1.1	1.0	0.8
Under 15 years <sup>2,4</sup> . . . . .	771	519	462	413	30.8	20.0	17.6	15.4
Tonsillectomy, with or without adenoidectomy . . . . .	156	66	53	41	6.2	2.5	2.0	1.5
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	32	24	29	18	1.3	0.9	1.1	0.7
Myringotomy . . . . .	87	32	27	22	3.5	1.2	1.0	0.8
Appendectomy, excluding incidental <sup>5</sup> . . . . .	34	25	24	26	1.4	1.0	0.9	1.0
Operations on muscles, tendons, fascia, and bursa . . . . .	23	16	15	11	0.9	0.6	0.6	0.4
Adenoidectomy without tonsillectomy . . . . .	31	*6	*	*	1.2	*0.2	*	*

See footnotes at end of table.

**Table 86 (page 2 of 2). Operations for inpatients discharged from non-Federal short-stay hospitals, according to sex, age, and surgical category: United States, 1980, 1988, 1989, and 1990**

[Data are based on a sample of hospital records]

Sex, age, and surgical category	Operations in thousands				Operations per 1,000 population			
	1980 <sup>1</sup>	1988	1989 <sup>2</sup>	1990	1980 <sup>1</sup>	1988	1989 <sup>2</sup>	1990
Female—Con.								
15–44 years <sup>2,4</sup> . . . . .	9,625	10,007	8,071	8,129	181.9	172.5	138.6	138.7
Procedures to assist delivery <sup>2</sup> . . . . .	2,381	3,121	2,439	2,480	45.0	53.8	41.9	42.3
Cesarean section <sup>6</sup> . . . . .	614	931	936	940	11.6	16.0	16.1	16.0
Repair of current obstetrical laceration . . . . .	352	688	760	793	6.7	11.9	13.0	13.5
Bilateral destruction or occlusion of fallopian tubes . . . . .	632	404	386	418	11.9	7.0	6.6	7.1
Hysterectomy . . . . .	402	340	317	349	7.6	5.9	5.4	6.0
Diagnostic dilation and curettage of uterus . . . . .	625	86	82	67	11.8	1.5	1.4	1.1
45–64 years <sup>2,4</sup> . . . . .	3,113	2,622	2,492	2,586	133.4	109.5	103.1	106.0
Hysterectomy . . . . .	203	188	165	184	8.7	7.9	6.8	7.5
Oophorectomy and salpingo-oophorectomy . . . . .	162	165	144	160	7.0	6.9	5.9	6.5
Cardiac catheterization . . . . .	58	136	135	151	2.5	5.7	5.6	6.2
Cholecystectomy . . . . .	107	101	114	118	4.6	4.2	4.7	4.8
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	61	54	59	55	2.6	2.2	2.5	2.3
Diagnostic dilation and curettage of uterus . . . . .	241	40	41	31	10.3	1.7	1.7	1.3
Biopsies on the integumentary system (breast, skin, and subcutaneous tissue) . . . . .	69	38	30	25	2.9	1.6	1.2	1.0
65 years and over <sup>2,4</sup> . . . . .	2,480	3,407	3,459	3,385	161.6	189.2	188.5	181.3
Cardiac catheterization . . . . .	32	163	185	185	2.1	9.1	10.1	9.9
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	127	156	180	171	8.3	8.6	9.8	9.1
Pacemaker insertion or replacement . . . . .	70	103	115	99	4.6	5.7	6.2	5.3
Biopsies on the digestive system . . . . .	72	144	101	99	4.7	8.0	5.5	5.3
Cholecystectomy . . . . .	83	100	99	83	5.4	5.5	5.4	4.5
Extraction of lens . . . . .	211	61	44	33	13.8	3.4	2.4	1.8
Insertion of prosthetic lens (pseudophakos) . . . . .	93	63	40	31	6.1	3.5	2.2	1.7

<sup>1</sup>Comparisons of 1980 with later years should be made with caution as estimates of change may reflect improvements in the design (see Appendix I) rather than true changes in hospital use.

<sup>2</sup>Beginning in 1989, the definition of some surgical and diagnostic and other nonsurgical procedures was revised, thus causing a discontinuity in the trends for the totals and selected surgical procedures. See Appendix II.

<sup>3</sup>Rates are age adjusted.

<sup>4</sup>Includes operations not listed in table.

<sup>5</sup>Limited to estimated number of appendectomies, excluding those performed incidental to other abdominal surgery.

<sup>6</sup>Cesarean sections accounted for 16.5 percent of all deliveries in 1980, 22.7 percent in 1985, 24.4 percent in 1987, 24.7 percent in 1988, 23.8 percent in 1989, and 23.5 percent in 1990.

\*Estimates based on fewer than 30 discharges are not shown; estimates based on 30–59 discharges should be used with caution.

NOTES: Excludes newborn infants. Data do not reflect total use of operations because operations for outpatients are not included in the National Hospital Discharge Survey. In recent years, for example, lens extractions and myringotomies are frequently performed on outpatients. Rates are based on the civilian population. In each sex and age group, data are shown for the five most common operations in 1980 and 1989. Surgical categories are based on the International Classification of Diseases, 9th Revision, Clinical Modification. For a listing of the code numbers, see Appendix II, table VIII.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Hospital Discharge Survey.

**Table 87 (page 1 of 2). Diagnostic and other nonsurgical procedures for inpatients discharged from non-Federal short-stay hospitals, according to sex, age, and procedure category: United States, 1980, 1988, 1989, and 1990**

[Data are based on a sample of hospital records]

Sex, age, and procedure category	Procedures in thousands				Procedures per 1,000 population			
	1980 <sup>1</sup>	1988	1989 <sup>2</sup>	1990	1980 <sup>1</sup>	1988	1989 <sup>2</sup>	1990
<b>Male</b>								
All ages <sup>2,3,4</sup>	3,386	6,665	7,202	7,378	31.3	55.6	59.3	59.6
Angiocardiology using contrast material	174	749	767	833	1.6	6.4	6.5	6.9
Computerized axial tomography (CAT scan)	152	775	721	736	1.4	6.3	5.8	5.8
Diagnostic ultrasound	114	599	628	667	1.0	5.1	5.2	5.4
Cystoscopy	543	399	356	350	5.1	3.2	2.8	2.7
Radioisotope scan	236	315	287	268	2.1	2.6	2.3	2.1
Arteriography using contrast material	180	246	233	217	1.7	2.0	1.9	1.7
Endoscopy of large intestine without biopsy	228	170	158	148	2.1	1.4	1.2	1.2
Under 15 years <sup>2,4</sup>	217	424	566	546	8.3	15.6	20.5	19.4
Spinal tap	39	84	97	94	1.5	3.1	3.5	3.4
Diagnostic ultrasound	*6	51	49	47	*0.2	1.9	1.8	1.7
Computerized axial tomography (CAT scan)	17	42	46	41	0.7	1.5	1.7	1.5
Electroencephalogram	*5	15	17	17	*0.2	0.5	0.6	0.6
Radioisotope scan	*8	11	14	11	*0.3	0.4	0.5	0.4
Application of cast or splint	21	14	12	10	0.8	0.5	0.4	0.4
Cystoscopy	23	*	*	*	0.9	*	*	*
15-44 years <sup>2,4</sup>	884	1,382	1,477	1,584	17.3	24.4	25.9	27.6
Computerized axial tomography (CAT scan)	37	218	196	215	0.7	3.8	3.4	3.8
Diagnostic ultrasound	25	111	117	118	0.5	2.0	2.0	2.1
Angiocardiology using contrast material	30	89	98	102	0.6	1.6	1.7	1.8
Contrast myelogram	88	79	65	58	1.7	1.4	1.1	1.0
Radioisotope scan	48	62	58	47	0.9	1.1	1.0	0.8
Arthroscopy of knee	94	55	55	43	1.8	1.0	1.0	0.7
Cystoscopy	80	36	37	35	1.6	0.6	0.6	0.6
Endoscopy of large intestine without biopsy	52	25	25	21	1.0	0.4	0.4	0.4
Application of cast or splint	54	27	25	22	1.1	0.5	0.4	0.4
45-64 years <sup>2,4</sup>	1,128	2,038	2,103	2,106	53.4	92.6	94.4	93.5
Angiocardiology using contrast material	106	388	386	428	5.0	17.6	17.3	19.0
Diagnostic ultrasound	41	173	188	184	1.9	7.9	8.5	8.1
Computerized axial tomography (CAT scan)	43	200	179	170	2.0	9.1	8.1	7.5
Radioisotope scan	75	102	88	81	3.5	4.7	3.9	3.6
Cystoscopy	153	93	84	80	7.3	4.2	3.8	3.6
Arteriography using contrast material	76	95	77	65	3.6	4.3	3.4	2.9
Endoscopy of large intestine without biopsy	86	48	36	42	4.0	2.2	1.6	1.9
65 years and over <sup>2,4</sup>	1,158	2,821	3,056	3,143	111.8	228.4	241.8	243.3
Computerized axial tomography (CAT scan)	54	316	299	309	5.2	25.6	23.7	23.9
Angiocardiology using contrast material	35	264	274	297	3.4	21.3	21.7	23.0
Diagnostic ultrasound	42	264	274	319	4.0	21.4	21.7	24.7
Cystoscopy	287	266	232	232	27.7	21.6	18.3	18.0
Endoscopy of small intestine without biopsy	35	113	131	123	3.3	9.1	10.4	9.5
Radioisotope scan	105	139	127	129	10.1	11.3	10.1	10.0
Arteriography using contrast material	72	110	117	109	7.0	8.9	9.3	8.4
Endoscopy of large intestine without biopsy	86	94	95	84	8.3	7.6	7.5	6.5
<b>Female</b>								
All ages <sup>2,3,4</sup>	3,532	6,902	9,471	10,077	27.5	47.3	64.7	68.0
Diagnostic ultrasound	204	963	930	941	1.6	6.6	6.3	6.2
Computerized axial tomography (CAT scan)	154	838	798	770	1.2	5.6	5.3	4.9
Angiocardiology using contrast material	84	439	432	510	0.7	3.1	3.0	3.5
Radioisotope scan	289	390	347	335	2.1	2.6	2.3	2.1
Endoscopy of small intestine without biopsy	164	279	291	294	1.3	1.8	1.9	1.9
Endoscopy of large intestine without biopsy	307	238	255	250	2.3	1.5	1.6	1.5
Cystoscopy	324	143	131	135	2.6	1.0	0.9	0.9
Laparoscopy (excluding that for ligation and division of fallopian tubes)	235	133	125	147	1.8	0.9	0.9	1.0

See footnotes at end of table.



**Table 87 (page 2 of 2). Diagnostic and other nonsurgical procedures for inpatients discharged from non-Federal short-stay hospitals, according to sex, age, and procedure category: United States, 1980, 1988, 1989, and 1990**

[Data are based on a sample of hospital records]

Sex, age, and procedure category	Procedures in thousands				Procedures per 1,000 population			
	1980 <sup>1</sup>	1988	1989 <sup>2</sup>	1990	1980 <sup>1</sup>	1988	1989 <sup>2</sup>	1990
Female—Con.								
Under 15 years <sup>2,4</sup> . . . . .	191	356	418	403	7.6	13.8	15.9	15.0
Spinal tap . . . . .	26	70	75	71	1.0	2.7	2.9	2.7
Computerized axial tomography (CAT scan) . . . . .	10	39	37	27	0.4	1.5	1.4	1.0
Diagnostic ultrasound . . . . .	*5	45	33	43	*0.2	1.7	1.3	1.6
Electroencephalogram . . . . .	*	19	14	14	*	0.7	0.5	0.5
Angiocardiology using contrast material . . . . .	*	*	11	*6	*	*	0.4	*0.2
Application of cast or splint . . . . .	13	*9	*7	*6	0.5	*0.3	*0.3	*0.2
Radioisotope scan . . . . .	*6	*6	*6	*9	*0.2	*0.2	*0.2	*0.3
Cystoscopy . . . . .	38	*5	*	*	1.5	*0.2	*	*
15–44 years <sup>2,4</sup> . . . . .	1,203	1,643	3,850	4,217	22.7	28.3	66.1	72.0
Diagnostic ultrasound . . . . .	94	365	348	309	1.8	6.3	6.0	5.3
Computerized axial tomography (CAT scan) . . . . .	36	156	157	144	0.7	2.7	2.7	2.5
Laparoscopy (excluding that for ligation and division of fallopian tubes) . . . . .	214	124	118	120	4.1	2.1	2.0	2.0
Biliary tract X-ray . . . . .	60	109	94	102	1.1	1.9	1.6	1.7
Radioisotope scan . . . . .	49	62	60	58	0.9	1.1	1.0	1.0
Contrast myelogram . . . . .	66	57	46	36	1.2	1.0	0.8	0.6
Endoscopy of large intestine without biopsy . . . . .	77	29	41	34	1.5	0.5	0.7	0.6
Cystoscopy . . . . .	97	44	38	39	1.8	0.8	0.7	0.7
45–64 years <sup>2,4</sup> . . . . .	1,030	1,711	1,771	1,861	44.2	71.4	73.3	76.3
Diagnostic ultrasound . . . . .	44	176	190	174	1.9	7.3	7.9	7.1
Computerized axial tomography (CAT scan) . . . . .	42	188	176	163	1.8	7.8	7.3	6.7
Angiocardiology using contrast material . . . . .	49	189	173	214	2.1	7.9	7.2	8.8
Radioisotope scan . . . . .	92	113	99	79	3.9	4.7	4.1	3.2
Biliary tract X-ray . . . . .	48	63	73	64	2.1	2.6	3.0	2.6
Endoscopy of small intestine without biopsy . . . . .	55	68	67	71	2.3	2.8	2.8	2.9
Endoscopy of large intestine without biopsy . . . . .	94	54	58	59	4.0	2.3	2.4	2.4
Cystoscopy . . . . .	93	33	37	37	4.0	1.4	1.5	1.5
65 years and over <sup>2,4</sup> . . . . .	1,107	3,192	3,431	3,596	72.1	177.2	187.0	192.6
Computerized axial tomography (CAT scan) . . . . .	66	455	428	436	4.3	25.3	23.3	23.3
Diagnostic ultrasound . . . . .	62	377	359	415	4.0	20.9	19.6	22.2
Angiocardiology using contrast material . . . . .	21	209	220	245	1.4	11.6	12.0	13.1
Radioisotope scan . . . . .	143	209	182	189	9.3	11.6	9.9	10.1
Endoscopy of small intestine without biopsy . . . . .	55	150	163	168	3.6	8.3	8.9	9.0
Endoscopy of large intestine without biopsy . . . . .	131	154	155	156	8.5	8.6	8.4	8.4
Cystoscopy . . . . .	96	61	51	56	6.2	3.4	2.8	3.0

<sup>1</sup>Comparisons of 1980 with later years should be made with caution as estimates of change may reflect improvements in the design (see Appendix I) rather than true changes in hospital use.

<sup>2</sup>Beginning in 1989, the definition of some surgical and diagnostic and other nonsurgical procedures was revised, thus causing a discontinuity in the trends for the totals. See Appendix II.

<sup>3</sup>Rates are age adjusted.

<sup>4</sup>Includes nonsurgical procedures not shown.

\*Estimates based on fewer than 30 discharges are not shown; estimates based on 30–59 discharges should be used with caution.

NOTES: Excludes newborn infants. Data do not reflect total use of procedures because procedures for outpatients are not included in the National Hospital Discharge Survey. For example, CAT scans are frequently performed on outpatients. Rates are based on the civilian population. In each sex and age group, data are shown for the five most common procedures in 1980 and 1989. Procedure categories are based on the International Classification of Diseases, 9th Revision, Clinical Modification. For a listing of the code numbers, see Appendix II, table IX.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Hospital Discharge Survey.

**Table 88. Admissions, average length of stay, outpatient visits, and percent outpatient surgery in short-stay hospitals, according to type of ownership and size of hospital: United States, selected years 1960–89**

[Data are based on reporting by a census of registered hospitals]

Type of ownership and size of hospital	1960	1970	1975	1980	1985	1986	1987	1988	1989
Admissions									
Number in thousands									
All ownerships . . . . .	24,324	30,706	35,270	38,140	35,478	34,399	33,592	33,233	32,842
Federal . . . . .	1,354	1,454	1,751	1,942	1,977	1,988	1,959	1,753	1,701
Non-Federal . . . . .	22,970	29,252	33,519	36,198	33,501	32,410	31,633	31,480	31,141
Nonprofit . . . . .	16,788	20,948	23,735	25,576	24,188	23,492	22,946	22,946	22,798
Proprietary . . . . .	1,550	2,031	2,646	3,165	3,242	3,231	3,157	3,090	3,071
State-local government . . . . .	4,632	6,273	7,138	7,458	6,071	5,687	5,530	5,444	5,271
Size of hospital:									
6–99 beds . . . . .	---	---	5,639	5,436	4,311	4,066	3,968	3,871	3,784
100–199 beds . . . . .	---	---	7,276	7,452	6,713	6,503	6,244	6,196	6,232
200–299 beds . . . . .	---	---	6,287	6,789	6,484	6,514	6,403	6,480	6,472
300–499 beds . . . . .	---	---	8,795	10,137	9,620	9,220	9,016	8,885	8,845
500 beds or more . . . . .	---	---	7,274	8,327	8,348	8,094	7,961	7,802	7,509
Average length of stay									
Number of days									
All ownerships . . . . .	8.4	8.7	8.0	7.8	7.3	7.3	7.4	7.5	7.5
Federal . . . . .	21.4	17.0	14.4	12.9	11.6	11.3	11.3	12.5	12.1
Non-Federal . . . . .	7.6	8.2	7.7	7.6	7.1	7.1	7.2	7.2	7.3
Nonprofit . . . . .	7.4	8.2	7.8	7.7	7.2	7.2	7.2	7.2	7.3
Proprietary . . . . .	5.7	6.8	6.6	6.5	6.1	6.1	6.3	6.2	6.3
State-local government . . . . .	8.8	8.7	7.6	7.4	7.2	7.4	7.6	7.6	7.7
Size of hospital:									
6–99 beds . . . . .	---	---	6.5	6.3	6.0	6.2	6.4	6.5	6.6
100–199 beds . . . . .	---	---	7.2	7.1	6.7	6.7	6.9	6.9	7.0
200–299 beds . . . . .	---	---	7.6	7.5	6.9	6.9	7.0	7.1	7.0
300–499 beds . . . . .	---	---	8.2	8.0	7.3	7.3	7.3	7.4	7.4
500 beds or more . . . . .	---	---	10.2	9.6	8.8	8.8	8.8	9.0	8.9
Outpatient visits <sup>1</sup>									
Number in thousands									
All ownerships . . . . .	---	173,058	245,938	255,320	272,833	285,216	300,960	326,575	342,618
Federal . . . . .	---	39,514	49,627	48,568	50,059	50,946	53,256	55,139	54,709
Non-Federal . . . . .	---	133,545	196,311	206,752	222,773	234,270	247,704	271,436	287,909
Nonprofit . . . . .	---	90,992	132,368	142,864	160,002	168,284	178,089	195,864	209,641
Proprietary . . . . .	---	4,698	7,713	9,696	12,378	14,896	16,566	17,926	19,341
State-local government . . . . .	---	37,854	56,230	54,192	50,394	51,091	53,049	57,646	58,926
Size of hospital:									
6–99 beds . . . . .	---	---	41,346	41,875	41,813	43,111	48,273	52,294	53,875
100–199 beds . . . . .	---	---	40,433	45,686	50,542	56,005	57,267	63,663	67,736
200–299 beds . . . . .	---	---	38,122	41,119	45,805	46,783	50,626	56,570	62,975
300–499 beds . . . . .	---	---	63,019	65,550	68,664	69,883	73,369	78,569	82,532
500 beds or more . . . . .	---	---	63,019	61,089	66,008	69,434	71,426	75,480	75,499
Outpatient surgery									
Percent of total surgeries <sup>2</sup>									
All ownerships . . . . .	---	---	---	16.4	34.5	40.3	44.2	46.9	48.7
Federal . . . . .	---	---	---	18.9	34.0	40.6	49.3	49.0	51.3
Non-Federal . . . . .	---	---	---	16.3	34.5	40.3	43.9	46.8	48.5
Nonprofit . . . . .	---	---	---	17.1	35.5	40.8	44.3	47.0	48.6
Proprietary . . . . .	---	---	---	14.3	34.1	41.9	47.3	50.5	52.5
State-local government . . . . .	---	---	---	13.6	29.7	37.0	39.3	43.1	45.0
Size of hospital:									
6–99 beds . . . . .	---	---	---	17.8	36.5	44.6	49.4	52.8	54.1
100–199 beds . . . . .	---	---	---	15.4	36.4	43.0	47.1	50.2	52.4
200–299 beds . . . . .	---	---	---	16.7	36.5	41.8	45.7	49.3	50.6
300–499 beds . . . . .	---	---	---	17.1	34.5	40.0	43.1	46.6	48.0
500 beds or more . . . . .	---	---	---	15.3	30.5	35.3	39.1	39.5	41.5

<sup>1</sup>Because of modifications in 1977 and 1982 in the collection of outpatient data, there are discontinuities in the trends for this item.

<sup>2</sup>The American Hospital Association defines surgery as a surgical episode in the operating or procedure room. During a single episode, multiple surgical procedures may be performed.

NOTE: Excludes psychiatric and tuberculosis and other respiratory disease hospitals.

SOURCES: American Hospital Association: Hospitals. JAHA 35(15):396–401 and 45(15):463–467, Aug. 1961 and Aug. 1971; Hospital Statistics, 1976, 1981, 1985–91 Editions. Chicago, 1976, 1981, 1985–91. (Copyrights 1961, 1971, 1976, 1981, 1985–90: Used with the permission of the American Hospital Association.)

**Table 89. Nursing home and personal care home residents 65 years of age and over and rate per 1,000 population, according to age, sex, and race: United States, 1963, 1973–74, 1977, and 1985**

[Data are based on a sample of nursing homes]

Age, sex, and race	Residents				Residents per 1,000 population <sup>1</sup>			
	1963	1973–74 <sup>2</sup>	1977 <sup>3</sup>	1985	1963	1973–74 <sup>2</sup>	1977 <sup>3</sup>	1985
<b>Age</b>								
All ages . . . . .	445,600	961,500	1,126,000	1,318,300	25.4	44.7	47.1	46.2
65–74 years . . . . .	89,600	163,100	211,400	212,100	7.9	12.3	14.4	12.5
75–84 years . . . . .	207,200	384,900	464,700	509,000	39.6	57.7	64.0	57.7
85 years and over . . . . .	148,700	413,600	449,900	597,300	148.4	257.3	225.9	220.3
<b>Sex</b>								
Male . . . . .	141,000	265,700	294,000	334,400	18.1	30.0	30.3	29.0
65–74 years . . . . .	35,100	65,100	80,200	80,600	6.8	11.3	12.6	10.8
75–84 years . . . . .	65,200	102,300	122,100	141,300	29.1	39.9	44.9	43.0
85 years and over . . . . .	40,700	98,300	91,700	112,600	105.6	182.7	146.3	145.7
Female . . . . .	304,500	695,800	832,000	983,900	31.1	54.9	58.6	57.9
65–74 years . . . . .	54,500	98,000	131,200	131,500	8.8	13.1	15.8	13.8
75–84 years . . . . .	142,000	282,600	342,600	367,700	47.5	68.9	75.4	66.4
85 years and over . . . . .	108,000	315,300	358,200	484,700	175.1	294.9	262.4	250.1
<b>Race<sup>4</sup></b>								
White . . . . .	431,700	920,600	1,059,900	1,227,400	26.6	46.9	48.9	47.7
65–74 years . . . . .	84,400	150,100	187,500	187,800	8.1	12.5	14.2	12.3
75–84 years . . . . .	202,000	369,700	443,200	473,600	41.7	60.3	67.0	59.1
85 years and over . . . . .	145,400	400,800	429,100	566,000	157.7	270.8	234.2	228.7
Black . . . . .	13,800	37,700	60,800	82,000	10.3	22.0	30.7	35.0
65–74 years . . . . .	5,200	12,200	22,000	22,500	5.9	11.1	17.6	15.4
75–84 years . . . . .	5,300	13,400	19,700	30,600	13.8	26.7	33.4	45.3
85 years and over . . . . .	3,300	12,100	19,100	29,000	41.8	105.7	133.6	141.5

<sup>1</sup>Residents per 1,000 population for 1973–74 and 1977 will differ from those presented in the sources because the rates have been recomputed using revised census estimates for these years (see source note).

<sup>2</sup>Excludes residents in personal care or domiciliary care homes.

<sup>3</sup>Includes residents in domiciliary care homes.

<sup>4</sup>For data years 1973–74 and 1977, all Hispanics were included in the white category. For 1963, black includes all other races.

SOURCES: National Center for Health Statistics: Characteristics of residents in institutions for the aged and chronically ill, United States, April–June 1963, by G. S. Wunderlich. Vital and Health Statistics. Series 12, No. 2. DHEW Pub. No. (PHS) 1000. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1965; Characteristics, social contacts, and activities of nursing home residents, United States: 1973–74 National Nursing Home Survey, by A. Zappolo. Vital and Health Statistics. Series 13, No. 27. DHEW Pub. No. (HRA) 77–1778. Health Resources Administration. Washington. U.S. Government Printing Office, May 1977; Characteristics of nursing home residents, health status, and care received: National Nursing Home Survey, United States, May–December 1977, by E. Hing. Vital and Health Statistics. Series 13, No. 51. DHHS Pub. No. (PHS) 81–1712. Public Health Service. Washington. U.S. Government Printing Office, April 1981; The National Nursing Home Survey: 1985 summary for the United States, by E. Hing, E. Sekscenski, and G. Strahan. Vital and Health Statistics. Series 13, No. 97. DHHS Pub. No. (PHS) 89-1758. Public Health Service. Washington. U.S. Government Printing Office, January 1989. U.S. Bureau of the Census: Preliminary estimates of the population of the United States by age, sex, and race: 1970–1981. Current Population Reports. Series P–25, No. 917. Washington. U.S. Government Printing Office, July 1982.

**Table 90. Nursing home residents, according to selected functional status and age: United States, 1977 and 1985**

[Data are based on a sample of nursing homes]

Functional status	1977					1985				
	All ages	Under 65 years	65-74 years	75-84 years	85 years and over	All ages	Under 65 years	65-74 years	75-84 years	85 years and over
	Number of residents									
All residents . . . . .	1,303,100	177,100	211,400	464,700	449,900	1,491,400	173,100	212,100	509,000	597,300
	Percent distribution									
Total . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Dressing										
Independent . . . . .	30.6	44.8	38.8	27.5	24.2	24.6	41.1	29.8	24.1	18.3
Requires assistance <sup>1</sup> . . . . .	69.4	55.2	61.2	72.5	75.8	75.4	58.9	70.2	75.9	81.7
Using toilet room										
Independent . . . . .	47.5	61.8	53.1	45.7	41.0	39.1	57.1	43.4	39.7	32.0
Requires assistance . . . . .	42.5	28.1	37.8	44.7	48.0	48.9	31.5	45.8	47.8	55.9
Does not use . . . . .	10.1	10.1	9.1	9.6	11.0	12.0	11.4	10.8	12.6	12.1
Mobility										
Walks independently . . . . .	33.9	53.6	43.2	33.2	22.5	29.3	51.0	39.6	30.4	18.4
Walks with assistance . . . . .	28.8	15.7	21.4	30.5	35.6	24.8	13.5	20.4	24.7	29.6
Chairfast . . . . .	32.0	25.5	30.5	31.5	35.9	39.5	29.3	33.7	38.7	45.1
Bedfast . . . . .	5.3	5.2	5.0	4.9	6.1	6.5	6.2	6.3	6.1	6.9
Contenance										
No difficulty controlling bowel or bladder . . . . .	54.7	68.0	62.4	52.9	47.8	48.1	67.7	57.1	45.0	41.9
Difficulty controlling—										
Bowel . . . . .	3.7	3.0	3.7	4.0	3.8	1.9	*1.5	*2.0	1.7	2.2
Bladder . . . . .	9.0	5.8	6.5	9.4	11.1	10.3	6.4	6.8	11.0	12.0
Bowel and bladder . . . . .	25.9	16.8	20.6	26.9	30.8	31.7	16.8	27.5	33.6	35.8
Ostomy in either bowel or bladder . . . . .	6.7	6.4	6.8	6.9	6.5	8.1	7.5	6.6	8.7	8.1
Eating										
Independent . . . . .	67.4	73.8	72.9	66.2	63.5	60.7	68.5	66.6	60.9	56.1
Requires assistance <sup>2</sup> . . . . .	32.6	26.2	27.1	33.8	36.5	39.3	31.5	33.4	39.1	43.9
Vision										
Not impaired . . . . .	67.2	81.0	75.4	67.9	57.2	75.9	88.5	83.3	77.8	68.1
Partially impaired . . . . .	19.0	10.9	13.4	19.6	24.1	14.6	5.9	10.0	14.2	19.1
Severely impaired . . . . .	6.6	2.2	3.3	6.1	10.4	5.6	*1.9	4.3	4.1	8.4
Completely lost . . . . .	2.9	2.2	2.6	2.6	3.8	2.5	*2.5	*1.3	2.1	3.2
Unknown . . . . .	4.3	3.8	5.3	3.9	4.5	1.4	*1.2	*1.0	1.8	1.2
Hearing										
Not impaired . . . . .	69.5	87.6	81.0	71.6	54.9	78.5	96.1	90.4	82.6	65.7
Partially impaired . . . . .	21.7	6.6	11.4	21.2	33.1	16.7	*3.1	7.4	14.8	25.5
Severely impaired . . . . .	4.3	*0.4	1.9	3.0	8.4	3.4	*0.1	*1.1	1.5	6.8
Completely lost . . . . .	0.7	*1.1	*0.7	*0.6	*0.7	0.6	*0.1	*0.4	*0.6	*0.8
Unknown . . . . .	3.7	4.4	5.0	3.6	3.0	0.8	*0.5	*0.7	*0.5	1.1

<sup>1</sup>Includes those who do not dress.

<sup>2</sup>Includes those who are tube or intravenously fed.

\*Relative standard error greater than 30 percent.

SOURCES: Division of Health Care Statistics, National Center for Health Statistics: Characteristics of nursing home residents, health status, and care received: National Nursing Home Survey, United States, May-December 1977, by E. Hing. Vital and Health Statistics. Series 13, No. 51. DHHS Pub. No. (PHS) 81-1712. Public Health Service, Washington. U.S. Government Printing Office, April 1981; The National Nursing Home Survey: 1985 summary for the United States, by E. Hing, E. Sekscenski, and G. Strahan. Vital and Health Statistics. Series 13, No. 97. DHHS Pub. No. (PHS) 89-1758. Public Health Service, Washington. U.S. Government Printing Office, January 1989.



**Table 91. Admissions to mental health organizations and rate per 100,000 civilian population, according to type of service and organization: United States, selected years 1969–88**

[Data are based on inventories of mental health organizations]

Service and organization	Admissions in thousands					Rate per 100,000 civilian population				
	1969	1975	1983	1986	1988 <sup>1</sup>	1969	1975	1983	1986	1988 <sup>1</sup>
<b>Inpatient and residential treatment</b>										
All organizations . . . . .	1,283	1,558	1,633	1,817	2,002	644.2	736.5	701.4	759.9	820.4
State and county mental hospitals . . . . .	487	434	339	330	304	244.4	205.1	146.0	139.1	124.7
Private psychiatric hospitals . . . . .	92	126	165	235	382	46.2	59.4	70.9	98.0	156.4
Non-Federal general hospital psychiatric services . . . . .	478	544	786	849	879	240.1	257.2	336.8	354.8	360.2
Veterans Administration psychiatric services <sup>2</sup> . . . . .	135	181	149	180	246	67.9	85.5	64.3	75.1	100.7
Federally funded community mental health centers . . . . .	60	236	...	...	...	30.0	111.7	...	...	...
Residential treatment centers for emotionally disturbed children . . . . .	8	12	17	25	23	3.8	5.7	7.1	10.2	9.6
All other <sup>3,4</sup> . . . . .	23	25	177	198	168	11.8	11.9	76.3	82.7	68.8
<b>Outpatient treatment</b>										
All organizations . . . . .	1,147	2,291	2,665	2,765	3,014	575.9	1,083.2	1,147.5	1,155.7	1,234.5
State and county mental hospitals . . . . .	164	146	84	62	91	82.5	69.1	36.3	26.0	37.4
Private psychiatric hospitals . . . . .	26	33	78	123	127	12.8	15.6	33.4	51.5	52.1
Non-Federal general hospital psychiatric services . . . . .	171	255	469	494	460	85.7	120.5	202.1	206.3	188.3
Veterans Administration psychiatric services <sup>2</sup> . . . . .	17	94	103	125	214	8.4	44.4	44.5	52.3	87.7
Federally funded community mental health centers . . . . .	177	785	...	...	...	88.7	371.2	...	...	...
Residential treatment centers for emotionally disturbed children . . . . .	8	20	33	62	56	4.0	9.4	14.1	25.8	22.8
Freestanding psychiatric outpatient clinics <sup>4,5</sup> . . . . .	538	871	538	391	558	270.4	411.8	231.7	163.2	228.4
All other <sup>3,4</sup> . . . . .	46	87	1,360	1,508	1,508	23.4	41.2	585.4	630.6	617.8
<b>Partial care treatment</b>										
All organizations . . . . .	55	163	177	189	304	27.8	77.2	76.3	78.9	125.7
State and county mental hospitals . . . . .	11	14	4	6	5	5.3	6.7	1.6	2.4	2.3
Private psychiatric hospitals . . . . .	3	3	6	9	39	1.4	1.5	2.4	3.7	16.0
Non-Federal general hospital psychiatric services . . . . .	18	14	46	39	39	9.1	6.7	19.8	16.4	16.1
Veterans Administration psychiatric services <sup>2</sup> . . . . .	4	8	10	7	16	1.8	3.7	4.4	3.1	6.5
Federally funded community mental health centers . . . . .	13	94	...	...	...	6.5	44.5	...	...	...
Residential treatment centers for emotionally disturbed children . . . . .	1	3	3	5	9	0.3	1.6	1.5	2.3	3.5
Freestanding psychiatric outpatient clinics <sup>4,5</sup> . . . . .	4	22	5	...	...	2.2	10.4	2.3	...	...
All other <sup>3,4,6</sup> . . . . .	2	5	103	123	196	1.2	2.1	44.3	51.0	81.3

<sup>1</sup>Data for 1988 are provisional.

<sup>2</sup>Includes Veterans Administration neuropsychiatric hospitals and Veterans Administration general hospitals with separate psychiatric services.

<sup>3</sup>Includes other multiservice mental health organizations with inpatient and residential treatment services that are not elsewhere classified.

<sup>4</sup>Beginning in 1983 a definitional change sharply increased the number of multiservice mental health organizations while decreasing the number of freestanding psychiatric outpatient clinics. See Appendix I.

<sup>5</sup>Beginning in 1986 outpatient psychiatric clinics providing partial care are counted as multiservice mental health organizations in the "all other" category.

<sup>6</sup>Includes freestanding psychiatric partial care organizations.

NOTES: Changes in reporting procedures in 1981 affect the comparability of data with those from previous years. Some numbers in this table have been revised and differ from previous editions of Health, United States.

SOURCES: Survey and Reports Branch, Division of Biometry and Applied Sciences, National Institute of Mental Health: R. W. Manderscheid and S. A. Barrett: Mental Health, United States, 1987. DHHS Pub. No. (ADM) 87-1518. U.S. Government Printing Office, 1987; Unpublished data.

**Table 92. Inpatient and residential treatment episodes in mental health organizations, rate per 100,000 civilian population, and inpatient days, according to type of organization: United States, selected years 1969–88**

[Data are based on inventories of mental health organizations]

Organization	1969	1975	1981 <sup>1</sup>	1983	1986	1988 <sup>2</sup>
Episodes in thousands						
All organizations . . . . .	1,710	1,817	1,720	1,861	2,055	2,234
State and county mental hospitals . . . . .	767	599	499	459	445	408
Private psychiatric hospitals . . . . .	103	137	177	181	258	411
Non-Federal general hospital psychiatric services . . . . .	535	566	677	820	883	914
Veterans Administration psychiatric services <sup>3</sup> . . . . .	187	214	206	171	204	266
Federally funded community mental health centers . . . . .	65	247	...	...	...	...
Residential treatment centers for emotionally disturbed children . . . . .	21	28	34	33	47	47
All other <sup>4,5</sup> . . . . .	32	26	127	197	218	188
Episodes per 100,000 civilian population						
All organizations . . . . .	859.1	859.6	755.6	799.1	858.9	914.4
State and county mental hospitals . . . . .	385.3	283.3	219.3	197.7	186.0	167.0
Private psychiatric hospitals . . . . .	51.5	64.8	77.5	77.8	107.9	168.3
Non-Federal general hospital psychiatric services . . . . .	269.0	267.6	297.3	351.3	369.0	374.4
Veterans Administration psychiatric services <sup>3</sup> . . . . .	93.9	101.4	90.3	73.4	85.2	108.8
Federally funded community mental health centers . . . . .	32.6	116.8	...	...	...	...
Residential treatment centers for emotionally disturbed children . . . . .	10.7	13.4	15.1	14.0	19.7	19.1
All other <sup>4,5</sup> . . . . .	16.1	12.3	56.1	84.9	91.1	76.8
Days in thousands						
All organizations . . . . .	168,934	104,970	77,053	81,821	83,413	83,167
State and county mental hospitals . . . . .	134,185	70,584	44,558	42,427	39,075	36,310
Private psychiatric hospitals . . . . .	4,237	4,401	5,578	6,010	8,568	10,857
Non-Federal general hospital psychiatric services . . . . .	6,500	8,349	10,727	12,529	12,570	13,126
Veterans Administration psychiatric services <sup>3</sup> . . . . .	17,206	11,725	7,591	7,425	7,753	7,155
Federally funded community mental health centers . . . . .	1,924	3,718	...	...	...	...
Residential treatment centers for emotionally disturbed children . . . . .	4,528	5,900	6,127	5,776	8,267	8,464
All other <sup>4,5</sup> . . . . .	354	293	2,472	7,654	7,180	7,255

<sup>1</sup>In 1981, some organizations were reclassified and data for some organization types were not available, resulting in a particularly large increase for the "all other" category in 1981.

<sup>2</sup>Data for 1988 are provisional.

<sup>3</sup>Includes Veterans Administration neuropsychiatric hospitals and Veterans Administration general hospitals with separate psychiatric services.

<sup>4</sup>Includes other multiservice mental health organizations with inpatient and residential treatment services that are not elsewhere classified.

<sup>5</sup>Beginning in 1983 a definitional change sharply increased the number of multiservice mental health organizations. See Appendix I.

NOTES: Changes in reporting procedures in 1981 affect the comparability of data with those from previous years. Some numbers in this table have been revised and differ from previous editions of Health, United States.

SOURCES: Survey and Reports Branch, Division of Biometry and Applied Sciences, National Institute of Mental Health: R. W. Manderscheid and S. A. Barrett; Mental Health, United States, 1987. DHHS Pub. No. (ADM) 87-1518. U.S. Government Printing Office, 1987; Unpublished data.

**Table 93. Admissions to selected inpatient psychiatric organizations and rate per 100,000 civilian population, according to sex, age, and race: United States, 1975, 1980, and 1986**

[Data are based on a sample survey of patients]

Sex, age, and race	State and county mental hospitals			Private psychiatric hospitals			Non-Federal general hospitals <sup>1</sup>		
	1975	1980	1986	1975	1980	1986	1975	1980	1986
Both sexes									
Number in thousands									
Total	385	369	326	130	141	207	516	564	794
Under 18 years	25	17	16	15	17	42	43	44	46
18-24 years	72	77	58	19	23	22	93	98	120
25-44 years	166	177	189	47	56	91	220	249	405
45-64 years	102	78	48	35	32	34	121	123	142
65 years and over	21	20	15	13	14	18	38	50	82
White	296	265	217	119	123	177	451	469	607
All other	89	104	109	10	18	30	65	95	187
Male									
Total	249	239	205	56	67	107	212	255	379
Under 18 years	16	11	10	8	9	23	20	20	21
18-24 years	52	56	39	10	13	14	45	52	57
25-44 years	107	119	125	20	27	50	85	115	215
45-64 years	61	43	25	14	13	14	48	46	60
65 years and over	13	11	7	5	5	6	14	21	26
White	191	171	135	51	58	89	184	213	274
All other	58	68	69	5	9	18	27	42	105
Female									
Total	136	130	121	74	74	101	304	309	415
Under 18 years	9	5	6	8	7	20	23	23	25
18-24 years	20	22	19	9	10	8	48	45	63
25-44 years	59	58	64	28	29	41	135	135	190
45-64 years	41	35	24	21	18	20	74	77	81
65 years and over	8	9	8	8	9	12	24	29	56
White	105	94	82	69	65	88	267	256	333
All other	31	36	40	5	9	13	37	53	82
Both sexes									
Rate per 100,000 civilian population									
Total	182.2	163.6	136.1	61.4	62.6	86.7	243.8	250.0	331.7
Under 18 years	38.1	26.1	25.2	23.3	26.3	67.1	64.4	68.5	72.0
18-24 years	271.8	264.6	215.5	73.7	79.6	81.3	352.8	334.2	443.7
25-44 years	314.1	282.9	251.9	89.3	89.1	121.6	416.8	399.0	540.4
45-64 years	233.5	175.7	107.0	80.1	71.0	75.2	278.5	276.4	314.9
65 years and over	91.8	78.0	50.9	57.7	54.1	61.9	170.3	195.4	281.5
White	161.1	136.8	106.7	64.9	63.4	87.3	245.4	241.8	299.0
All other	321.9	328.0	299.8	37.9	57.5	83.1	233.3	300.0	514.3
Male									
Total	243.7	219.8	176.6	54.5	61.9	92.1	207.1	233.8	327.6
Under 18 years	48.3	35.4	30.1	22.5	28.9	69.8	59.1	62.6	63.7
18-24 years	409.0	387.9	292.6	78.0	92.2	103.2	350.8	365.3	428.5
25-44 years	418.4	388.1	338.4	76.6	86.8	136.1	332.8	374.7	584.2
45-64 years	291.5	202.3	114.4	66.8	63.2	65.5	228.6	219.1	281.1
65 years and over	136.4	105.3	57.1	50.3	47.3	52.1	152.0	203.4	223.1
White	214.2	182.2	137.1	57.0	61.7	90.3	206.9	226.3	278.3
All other	444.5	457.8	403.0	38.1	62.7	102.8	209.1	281.1	610.3
Female									
Total	124.7	111.1	98.1	67.8	63.3	81.5	278.1	265.1	335.5
Under 18 years	27.5	16.4	20.0	24.1	23.6	64.3	70.0	74.6	80.7
18-24 years	143.1	145.8	141.0	69.6	67.4	60.2	354.6	304.4	458.3
25-44 years	215.9	182.3	168.1	101.2	91.2	107.6	495.8	422.2	498.1
45-64 years	180.5	151.7	100.2	92.3	78.1	84.0	324.3	328.2	345.8
65 years and over	60.8	59.6	46.7	62.8	58.8	68.6	182.9	190.0	321.3
White	111.2	94.1	78.1	72.5	65.0	84.5	281.7	256.4	318.6
All other	212.0	212.6	207.2	37.7	52.8	65.5	254.9	316.7	428.0

<sup>1</sup>Non-Federal general hospitals include public and nonpublic facilities.

SOURCES: National Institute of Mental Health: C. A. Taube and S. A. Barrett: Mental Health, United States, 1985. DHHS Pub. No. (ADM) 85-1378. U.S. Government Printing Office, 1985; R. W. Manderscheid and M. A. Sonnenschein: Mental Health, United States, 1990. DHHS Pub. No. (ADM) 90-1708. U.S. Government Printing Office, 1990: Unpublished data.

**Table 94. Admissions to selected inpatient psychiatric organizations, according to selected primary diagnoses and age: United States, 1975, 1980, and 1986**

[Data are based on a sample survey of patients]

Primary diagnosis and age	State and county mental hospitals			Private psychiatric hospitals			Non-Federal general hospitals <sup>1</sup>		
	1975	1980	1986	1975	1980	1986	1975	1980	1986
All diagnoses <sup>2</sup>									
Rate per 100,000 civilian population									
All ages . . . . .	182.2	163.6	136.1	61.4	62.6	86.7	243.8	250.0	331.7
Under 25 years . . . . .	104.8	101.2	82.1	37.7	43.1	71.4	146.7	152.2	183.1
25-44 years . . . . .	314.1	282.9	251.9	89.3	89.1	121.6	416.8	399.0	540.4
45-64 years . . . . .	233.5	175.7	107.0	80.1	71.0	75.2	278.5	276.4	314.9
65 years and over . . . . .	91.8	78.0	50.9	57.7	54.1	61.9	170.3	195.4	281.5
Alcohol related									
All ages . . . . .	50.4	35.5	22.5	5.1	5.8	6.6	17.0	18.8	41.4
Under 25 years . . . . .	10.7	12.4	15.5	0.4	1.4	2.2	2.4	4.4	13.4
25-44 years . . . . .	86.2	64.0	42.6	7.6	9.3	10.0	31.0	34.3	92.6
45-64 years . . . . .	110.0	57.7	15.3	12.5	10.9	11.0	34.5	30.6	31.8
65 years and over . . . . .	14.8	11.5	*3.2	4.3	4.4	4.5	10.2	12.8	11.3
Drug related									
All ages . . . . .	6.8	7.8	8.7	1.5	1.8	6.1	8.4	7.4	20.2
Under 25 years . . . . .	7.2	9.4	5.8	1.5	1.8	7.5	7.7	7.8	18.4
25-44 years . . . . .	12.6	12.9	14.2	2.3	3.0	9.3	13.8	9.3	41.2
45-64 years . . . . .	*0.6	1.4	10.5	0.1	1.0	*1.8	6.5	7.1	*2.1
65 years and over . . . . .	*3.5	*0.7	*0.8	0.4	0.6	---	*2.6	*2.0	*0.1
Organic disorders <sup>3</sup>									
All ages . . . . .	9.6	6.8	4.3	2.5	2.2	2.0	9.0	7.4	9.8
Under 25 years . . . . .	2.2	1.2	*0.2	0.7	0.5	*0.5	1.1	*0.8	1.7
25-44 years . . . . .	6.4	4.7	2.6	1.1	0.9	*0.3	5.4	5.6	6.1
45-64 years . . . . .	12.2	8.1	7.3	1.7	2.7	*1.5	9.3	6.9	5.7
65 years and over . . . . .	43.3	30.0	17.2	14.5	10.8	11.7	49.3	36.4	50.7
Affective disorders									
All ages . . . . .	21.3	22.0	22.8	26.0	26.8	41.9	91.9	79.2	121.9
Under 25 years . . . . .	7.5	9.1	9.6	9.5	13.5	28.5	35.3	32.2	49.2
25-44 years . . . . .	40.6	36.9	43.2	39.4	38.9	63.4	160.9	123.7	176.8
45-64 years . . . . .	29.4	32.4	25.0	43.3	36.3	38.5	135.6	113.8	147.3
65 years and over . . . . .	16.8	14.3	7.9	29.6	29.2	33.4	78.5	81.0	166.3
Schizophrenia									
All ages . . . . .	61.2	62.1	49.7	13.4	13.3	9.9	58.9	59.9	63.3
Under 25 years . . . . .	35.9	36.6	18.6	11.1	10.6	5.7	42.0	38.3	30.4
25-44 years . . . . .	125.8	125.0	107.5	23.8	22.5	18.9	118.0	114.5	118.6
45-64 years . . . . .	63.5	54.8	35.9	11.3	11.6	8.5	50.3	53.6	68.9
65 years and over . . . . .	9.3	13.9	18.3	2.7	3.6	*1.8	5.6	16.3	14.0

<sup>1</sup>Non-Federal general hospitals include public and nonpublic facilities.

<sup>2</sup>Includes all other diagnoses not listed separately.

<sup>3</sup>Excludes alcohol- and drug-related diagnoses.

\*Based on 5 or fewer sample admissions.

NOTES: Primary diagnosis categories are based on the then current International Classification of Diseases and Diagnostic and Statistical Manual of Mental Disorders. For a listing of the code numbers, see Appendix II, table X.

SOURCES: National Institute of Mental Health: C. A. Taube and S. A. Barrett: Mental Health, United States, 1985. DHHS Pub. No. (ADM) 85-1378. U.S. Government Printing Office, 1985; R.W. Manderscheid and M. A. Sonnenschein: Mental Health, United States, 1990. DHHS Pub. No. (ADM) 90-1708. U.S. Government Printing Office, 1990: Unpublished data.



**Table 95. Persons employed in health service sites: United States, selected years 1970–90**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Site	1970 <sup>1</sup>	1975	1980	1982	1983	1984	1985	1986	1987	1988	1989	1990
Number of persons in thousands												
All employed civilians . . . . .	76,805	85,846	99,303	99,526	100,834	105,005	107,150	109,597	112,440	114,968	117,342	117,914
All health service sites . . . . .	4,246	5,945	7,339	7,810	7,874	7,934	7,910	8,129	8,478	8,781	9,110	9,447
Offices of physicians . . . . .	477	618	777	898	888	896	894	896	950	985	1,039	1,098
Offices of dentists . . . . .	222	331	415	415	441	468	480	497	552	521	560	580
Offices of chiropractors <sup>2</sup> . . . . .	19	30	40	53	54	61	59	66	72	77	97	90
Hospitals . . . . .	2,690	3,441	4,036	4,341	4,348	4,288	4,269	4,368	4,444	4,520	4,568	4,690
Nursing and personal care facilities . . . . .	509	891	1,199	1,217	1,342	1,362	1,309	1,339	1,337	1,467	1,521	1,543
Other health service sites . . . . .	330	634	872	886	801	859	899	963	1,123	1,211	1,325	1,446
Percent of employed civilians												
All health service sites . . . . .	5.5	6.9	7.4	7.8	7.8	7.6	7.4	7.4	7.5	7.6	7.8	8.0
Percent distribution												
All health service sites . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Offices of physicians . . . . .	11.2	10.4	10.6	11.5	11.3	11.3	11.3	11.0	11.2	11.2	11.4	11.6
Offices of dentists . . . . .	5.2	5.6	5.7	5.3	5.6	5.9	6.1	6.1	6.5	5.9	6.1	6.1
Offices of chiropractors <sup>2</sup> . . . . .	0.4	0.5	0.5	0.7	0.7	0.8	0.7	0.8	0.8	0.9	1.1	1.0
Hospitals . . . . .	63.4	57.9	55.0	55.6	55.2	54.0	54.0	53.7	52.4	51.5	50.1	49.6
Nursing and personal care facilities . . . . .	12.0	15.0	16.3	15.6	17.0	17.2	16.5	16.5	15.8	16.7	16.7	16.3
Other health service sites . . . . .	7.8	10.7	11.9	11.3	10.2	10.8	11.4	11.8	13.2	13.8	14.5	15.3

<sup>1</sup>April 1, derived from decennial census; all other data years are annual averages from the Current Population Survey.<sup>2</sup>Data for 1980 and 1982 are from the American Chiropractic Association; data for all other years are from the U.S. Bureau of Labor Statistics.

NOTES: Totals exclude persons in health-related occupations who are working in nonhealth industries, as classified by the U.S. Bureau of the Census, such as pharmacists employed in drugstores, school nurses, and nurses working in private households. Totals include Federal, State, and county health workers. In 1970–82, employed persons were classified according to the industry groups used in the 1970 Census of Population. Beginning in 1983, persons were classified according to the system used in the 1980 Census of Population.

SOURCES: U.S. Bureau of the Census: 1970 Census of Population, occupation by industry. Subject Reports. Final Report PC(2)-7C. Washington. U.S. Government Printing Office, Oct. 1972; U.S. Bureau of Labor Statistics: Labor Force Statistics Derived from the Current Population Survey: A Databook, Vol. I. Washington. U.S. Government Printing Office, Sept. 1982; Employment and Earnings, January 1983–91. Vol. 30, No. 1, Vol. 31, No. 1, Vol. 32, No. 1, Vol. 33, No. 1, Vol. 34, No. 1, Vol. 35, No. 1, Vol. 36, No. 1, Vol. 37, No. 1, and Vol. 38, No. 1. Washington. U.S. Government Printing Office, Jan. 1983–91; American Chiropractic Association: Unpublished data.

Table 96. (page 1 of 2). Active non-Federal physicians per 10,000 civilian population, according to geographic division, State, and primary specialty: United States, 1975, 1985, 1987, and 1989

Geographic division and State	Doctors of medicine <sup>1</sup>											
	Total physicians <sup>2</sup>				Patient care <sup>3</sup>				Primary care <sup>4</sup>			
	1975	1985	1987	1989	1975	1985	1987	1989	1975	1985	1987	1989
	Number per 10,000 civilian population											
United States . . . . .	15.3	20.7	21.4	21.9	13.5	18.0	18.9	19.3	4.1	5.4	5.5	5.6
New England . . . . .	19.1	26.7	27.7	28.6	16.9	22.9	24.2	25.1	4.6	6.2	6.2	6.4
Maine . . . . .	12.8	18.7	19.3	20.0	10.7	15.6	16.0	16.7	3.8	5.4	5.4	5.6
New Hampshire . . . . .	14.3	18.1	18.5	19.4	13.1	16.7	17.2	18.1	4.6	5.6	5.7	6.0
Vermont . . . . .	18.2	23.8	24.5	25.2	15.5	20.3	21.5	22.0	5.2	6.5	6.6	6.8
Massachusetts . . . . .	20.8	30.2	31.2	32.3	18.3	25.4	27.0	28.2	4.7	6.4	6.4	6.6
Rhode Island . . . . .	17.8	23.3	24.9	25.6	16.1	20.2	21.8	22.2	4.4	5.5	5.6	5.7
Connecticut . . . . .	19.8	27.6	29.0	29.6	17.7	24.3	25.7	26.3	4.7	6.4	6.5	6.7
Middle Atlantic . . . . .	19.5	26.1	27.3	27.9	17.0	22.2	23.6	24.2	4.5	5.9	6.0	6.2
New York . . . . .	22.7	29.0	30.1	30.7	20.2	25.2	26.9	27.3	5.1	6.3	6.3	6.6
New Jersey . . . . .	16.2	23.4	24.5	25.2	14.0	19.8	21.1	21.8	4.1	5.5	5.8	5.9
Pennsylvania . . . . .	16.6	23.6	24.8	25.5	13.9	19.2	20.4	20.9	4.0	5.4	5.5	5.6
East North Central . . . . .	13.9	19.3	19.9	20.3	12.0	16.4	17.1	17.4	3.7	5.0	5.1	5.1
Ohio . . . . .	14.1	19.9	20.6	21.0	12.2	16.8	17.5	17.8	3.7	4.8	4.8	4.9
Indiana . . . . .	10.6	14.7	15.4	15.8	9.6	13.2	14.0	14.3	3.8	4.6	4.7	4.8
Illinois . . . . .	14.5	20.5	21.1	21.5	13.1	18.2	18.9	19.2	4.1	5.5	5.7	5.7
Michigan . . . . .	15.4	20.8	21.3	21.6	12.0	16.0	16.4	16.6	3.2	4.5	4.4	4.5
Wisconsin . . . . .	12.5	17.7	18.4	18.8	11.4	15.9	16.7	17.1	4.0	5.4	5.6	5.8
West North Central . . . . .	13.3	18.3	19.1	19.6	11.4	15.6	16.4	16.9	3.8	5.2	5.3	5.4
Minnesota . . . . .	14.9	20.5	21.1	21.6	13.7	18.5	19.3	19.9	4.6	6.5	6.5	6.8
Iowa . . . . .	11.4	15.6	16.5	16.9	9.4	12.4	13.1	13.5	3.5	4.3	4.4	4.4
Missouri . . . . .	15.0	20.5	21.3	21.7	11.6	16.3	17.1	17.5	3.3	4.7	4.6	4.6
North Dakota . . . . .	9.7	15.8	16.7	16.9	9.2	14.9	15.8	15.9	4.1	5.8	6.0	6.1
South Dakota . . . . .	8.2	13.4	14.0	14.2	7.7	12.3	13.0	13.2	3.4	5.0	5.6	5.6
Nebraska . . . . .	12.1	15.7	16.7	17.0	10.9	14.4	15.5	15.8	4.2	5.3	5.4	5.6
Kansas . . . . .	12.8	17.3	17.8	18.4	11.2	15.1	15.7	16.2	3.9	5.2	5.1	5.4
South Atlantic . . . . .	14.0	19.7	20.8	21.3	12.6	17.6	18.6	19.1	3.7	5.2	5.4	5.5
Delaware . . . . .	14.3	19.7	20.2	20.3	12.7	17.1	17.7	17.8	3.8	4.7	4.7	4.8
Maryland . . . . .	18.6	30.4	31.5	32.3	16.5	24.9	26.7	27.5	4.2	6.5	6.8	7.0
District of Columbia . . . . .	39.6	55.3	57.2	58.0	34.6	45.6	47.5	48.2	7.2	10.3	10.6	10.9
Virginia . . . . .	12.9	19.5	20.1	20.6	11.9	17.8	18.6	19.0	3.8	5.4	5.6	5.6
West Virginia . . . . .	11.0	16.3	17.2	17.4	10.0	14.6	15.2	15.4	3.3	4.4	4.6	4.8
North Carolina . . . . .	11.7	16.9	17.7	18.5	10.6	15.0	16.1	16.8	3.5	4.7	4.9	5.1
South Carolina . . . . .	10.0	14.7	15.5	15.9	9.3	13.6	14.5	14.8	3.3	4.5	4.7	4.6
Georgia . . . . .	11.5	16.2	16.8	17.3	10.6	14.7	15.4	15.9	3.3	4.3	4.4	4.5
Florida . . . . .	15.2	20.2	21.1	21.5	13.4	17.8	18.7	19.2	3.9	5.3	5.6	5.7
East South Central . . . . .	10.5	15.0	15.9	16.4	9.7	14.0	14.9	15.4	3.2	4.5	4.7	4.8
Kentucky . . . . .	10.9	15.1	16.0	16.4	10.1	13.9	15.1	15.5	3.6	4.8	5.0	5.1
Tennessee . . . . .	12.4	17.7	18.6	19.1	11.3	16.2	17.3	17.7	3.2	4.7	4.9	5.0
Alabama . . . . .	9.2	14.2	15.0	15.5	8.6	13.1	14.0	14.4	3.0	4.2	4.4	4.6
Mississippi . . . . .	8.4	11.8	12.5	12.9	8.0	11.1	11.9	12.2	3.1	4.2	4.3	4.3
West South Central . . . . .	11.9	16.4	17.1	17.5	10.5	14.5	15.2	15.6	3.5	4.5	4.5	4.6
Arkansas . . . . .	9.1	13.8	14.4	14.6	8.5	12.8	13.5	13.8	3.4	4.8	4.9	5.0
Louisiana . . . . .	11.4	17.3	17.9	18.4	10.5	16.1	16.8	17.3	3.3	4.5	4.5	4.7
Oklahoma . . . . .	11.6	16.1	16.7	16.9	9.4	12.9	13.4	13.6	3.2	4.0	4.4	4.4
Texas . . . . .	12.5	16.8	17.3	17.8	11.0	14.7	15.3	15.8	3.6	4.5	4.5	4.6
Mountain . . . . .	14.3	17.8	18.5	19.0	12.6	15.7	16.3	16.8	4.1	5.0	5.2	5.2
Montana . . . . .	10.6	14.0	15.2	15.8	10.1	13.2	14.4	14.9	4.5	5.4	5.7	5.9
Idaho . . . . .	9.5	12.1	12.2	12.4	8.9	11.4	11.5	11.8	4.0	4.8	4.8	4.9
Wyoming . . . . .	9.5	12.9	13.3	14.0	8.9	12.0	12.6	13.3	4.1	4.6	5.1	5.1
Colorado . . . . .	17.3	20.7	21.0	21.7	15.0	17.7	18.3	18.9	4.6	5.6	5.6	5.7
New Mexico . . . . .	12.2	17.0	17.7	18.5	10.1	14.7	15.5	16.3	3.4	4.8	5.2	5.2
Arizona . . . . .	16.7	20.2	20.9	21.3	14.1	17.1	17.8	18.1	4.2	5.1	5.2	5.2
Utah . . . . .	14.1	17.2	17.7	18.1	13.0	15.5	16.1	16.5	3.8	4.4	4.5	4.5
Nevada . . . . .	11.9	16.0	16.1	16.3	10.9	14.5	14.7	14.9	3.6	4.6	4.7	4.7

See footnotes at end of table.

**Table 96. (page 2 of 2). Active non-Federal physicians per 10,000 civilian population, according to geographic division, State, and primary specialty: United States, 1975, 1985, 1987, and 1989**

Geographic division and State	Total physicians <sup>2</sup>				Doctors of medicine <sup>1</sup>							
					Patient care <sup>3</sup>				Primary care <sup>4</sup>			
	1975	1985	1987	1989	1975	1985	1987	1989	1975	1985	1987	1989
	Number per 10,000 civilian population											
Pacific . . . . .	17.9	22.5	22.9	23.3	16.3	20.5	20.9	21.2	5.2	6.6	6.5	6.5
Washington . . . . .	15.3	20.2	20.8	21.3	13.6	17.9	18.5	19.0	4.7	6.3	6.4	6.5
Oregon . . . . .	15.6	19.7	20.0	20.7	13.8	17.6	18.1	18.6	4.6	6.1	6.0	6.1
California . . . . .	18.8	23.7	23.8	24.1	17.3	21.5	21.7	22.0	5.5	6.7	6.6	6.6
Alaska . . . . .	8.4	13.0	13.8	14.2	7.8	12.1	12.7	13.2	3.5	5.6	5.7	5.9
Hawaii . . . . .	16.2	21.5	22.5	23.1	14.7	19.8	20.7	21.3	4.9	7.0	7.1	7.3

<sup>1</sup>Excludes doctors of osteopathy; States with large numbers are Florida, Michigan, Missouri, New Jersey, Ohio, Pennsylvania, and Texas.

<sup>2</sup>Includes active non-Federal doctors of medicine and doctors of osteopathy in all other specialties not shown separately.

<sup>3</sup>Excludes doctors of medicine in medical teaching, administration, research, and other nonpatient care activities.

<sup>4</sup>Includes doctors of medicine in patient care office-based general practice and family practice, internal medicine, and pediatrics.

NOTES: Starting in 1989 data for doctors of medicine are as of January 1; in earlier years these data are as of December 31. See Appendix II for physician definitions.

SOURCES: Compiled by Health Resources and Services Administration, Bureau of Health Professions based on data from the American Medical Association Physician Distribution and Licensure in the U.S., 1975, Physician Characteristics and Distribution in the U.S., 1986 Edition, 1989 and 1990 Editions; American Osteopathic Association: 1975-76 Yearbook and Directory of Osteopathic Physicians, 1985-86 Yearbook and Directory of Osteopathic Physicians, and 1987-88 Yearbook and Directory of Osteopathic Physicians; American Association of Colleges of Osteopathic Medicine: Annual Statistical Report, 1988.

**Table 97. Active physicians, according to type of physician, and number per 10,000 population: United States and outlying U.S. areas, selected 1950–89 estimates and 2000 projections**

[Data are based on reporting by physicians and medical schools]

<i>Year</i>	<i>All active physicians</i>	<i>Doctors of medicine</i>	<i>Doctors of osteopathy</i>	<i>Active physicians per 10,000 population</i>
	Number of physicians			
1950 . . . . .	219,900	209,000	10,900	14.1
1960 . . . . .	259,400	247,300	12,200	14.0
1970 . . . . .	326,500	314,200	12,300	15.6
1971 . . . . .	337,400	325,000	12,400	16.1
1972 . . . . .	348,300	335,500	12,800	16.4
1973 . . . . .	355,700	342,500	13,200	16.4
1974 . . . . .	370,000	356,400	13,600	16.9
1975 . . . . .	384,500	370,400	14,100	17.4
1976 . . . . .	399,500	385,000	14,500	17.9
1977 . . . . .	405,900	390,800	15,100	18.0
1978 . . . . .	424,000	408,300	15,700	18.6
1979 . . . . .	440,400	424,000	16,400	19.1
1980 . . . . .	457,500	440,400	17,100	19.7
1981 . . . . .	467,000	448,700	18,000	19.9
1982 . . . . .	482,000	465,000	18,700	20.5
1983 . . . . .	501,100	481,500	19,700	21.1
1984 . . . . .	---	---	20,800	---
1985 . . . . .	534,400	512,900	21,900	22.0
1986 . . . . .	544,800	520,900	23,200	22.2
1987 . . . . .	560,300	536,200	24,100	22.6
1988 . . . . .	---	---	25,300	---
1989 . . . . .	577,200	550,700	26,500	23.3
Projections				
2000 . . . . .	721,600	682,100	39,500	26.9

NOTES: Starting in 1989 data for doctors of medicine are as of January 1; in earlier years these data are as of December 31. Population estimates include residents in the United States, Puerto Rico, and other U.S. outlying areas; U.S. citizens in foreign countries; and the Armed Forces in the United States and abroad. For 2000, the Series II projections of the total population from the U.S. Bureau of the Census are used. Estimation and projection methods are from the Bureau of Health Professions. See Appendix II for physician definitions. The numbers for doctors of medicine differ from American Medical Association figures because physicians not classified by activity status and whose addresses are unknown are included in this table.

SOURCES: Bureau of Health Professions: Sixth Report to the President and Congress on the Status of Health Personnel in the United States. Health Resources and Services Administration. DHHS Pub. No. HRS-P-OD-88-1, Rockville, Md., 1988. Seventh Report to the President and Congress on the Status of Health Personnel in the United States. Health Resources and Services Administration. DHHS Pub. No. HRS-P-OD-90-1, Rockville, Md., 1990; Unpublished data; American Medical Association: data from annual surveys; Unpublished data.



**Table 98. Physicians, according to activity and place of medical education: United States and outlying U.S. areas, selected years 1970–89**

[Data are based on reporting by physicians]

<i>Activity and place of medical education</i>	1970	1975	1980	1985	1986	1987	1989
	Number of physicians						
Doctors of medicine . . . . .	334,028	393,742	467,679	552,716	569,160	585,597	600,789
Professionally active . . . . .	310,845	340,280	414,916	497,140	505,750	521,328	536,755
Place of medical education:							
U.S. medical graduates . . . . .	256,427	---	333,325	392,007	398,314	410,300	423,172
Foreign medical graduates <sup>1</sup> . . . . .	54,418	---	81,591	105,133	107,436	111,028	113,583
Activity:							
Non-Federal . . . . .	281,344	312,089	397,129	475,573	483,812	499,582	516,396
Patient care . . . . .	255,027	287,837	361,915	431,527	436,877	453,230	468,902
Office-based practice . . . . .	188,924	213,334	271,268	329,041	325,757	337,507	350,066
General and family practice . . . . .	50,816	46,347	47,772	53,862	53,622	55,117	56,318
Cardiovascular diseases . . . . .	3,882	5,046	6,725	9,054	9,413	9,925	10,235
Dermatology . . . . .	2,932	3,442	4,372	5,325	5,354	5,532	5,721
Gastroenterology . . . . .	1,112	1,696	2,735	4,135	4,409	4,764	4,942
Internal medicine . . . . .	22,950	28,188	40,514	52,712	52,287	55,452	56,946
Pediatrics . . . . .	10,310	12,687	17,436	22,392	22,530	23,370	24,692
Pulmonary diseases . . . . .	785	1,166	2,040	3,035	3,188	3,474	3,578
General surgery . . . . .	18,068	19,710	22,409	24,708	23,542	23,689	24,737
Obstetrics and gynecology . . . . .	13,847	15,613	19,503	23,525	23,580	24,271	25,161
Ophthalmology . . . . .	7,627	8,795	10,598	12,212	12,134	12,538	12,847
Orthopedic surgery . . . . .	6,533	8,148	10,719	13,033	13,061	13,520	14,071
Otolaryngology . . . . .	3,914	4,297	5,262	5,751	5,768	6,022	6,223
Plastic surgery . . . . .	1,166	1,706	2,437	3,299	3,355	3,520	3,648
Urological surgery . . . . .	4,273	5,025	6,222	7,081	7,030	7,182	7,338
Anesthesiology . . . . .	7,369	8,970	11,336	15,285	15,310	15,986	16,720
Diagnostic radiology . . . . .	896	1,978	4,190	7,735	8,065	8,557	9,012
Emergency medicine . . . . .	---	---	---	---	7,277	7,564	8,041
Neurology . . . . .	1,192	1,862	3,245	4,691	4,797	5,087	5,374
Pathology, anatomical/clinical . . . . .	2,993	4,195	5,952	6,877	6,529	6,747	7,022
Psychiatry . . . . .	10,078	12,173	15,946	18,521	18,162	18,695	19,625
Radiology . . . . .	5,781	6,970	7,791	7,355	6,144	6,149	6,164
Other specialty . . . . .	12,400	15,320	24,064	28,453	20,200	20,346	21,651
Hospital-based practice . . . . .	66,103	74,503	90,647	102,486	111,120	115,723	118,836
Residents and interns . . . . .	45,840	53,527	59,615	72,159	77,618	79,483	80,019
Full-time hospital staff . . . . .	20,263	20,976	31,032	30,327	33,502	36,240	38,817
Other professional activity <sup>2</sup> . . . . .	26,317	24,252	35,214	44,046	46,935	46,352	47,494
Federal . . . . .	29,501	28,191	17,787	21,567	21,938	21,746	20,359
Patient care . . . . .	23,508	24,100	14,597	17,293	16,985	16,902	15,570
Office-based practice . . . . .	3,515	2,095	732	1,156	1,221	1,149	1,135
Hospital-based practice . . . . .	19,993	22,005	13,865	16,137	15,764	15,753	14,435
Residents and interns . . . . .	5,388	4,275	2,427	3,252	2,858	2,717	2,084
Full-time hospital staff . . . . .	14,605	17,730	11,438	12,885	12,906	13,036	12,351
Other professional activity <sup>2</sup> . . . . .	5,993	4,091	3,190	4,274	4,953	4,844	4,789
Inactive . . . . .	19,621	21,449	25,744	38,646	46,835	48,042	48,804
Not classified <sup>3</sup> . . . . .	358	26,145	20,629	13,950	13,661	13,364	12,405
Unknown address . . . . .	3,204	5,868	6,390	2,980	2,914	2,863	2,825

<sup>1</sup>Foreign medical graduates received their medical education in schools outside the United States and Canada.

<sup>2</sup>Includes medical teaching, administration, research, clinical fellows, and other.

<sup>3</sup>Not classified established in 1970; however, complete data not available until 1972.

NOTES: Starting in 1989 data for doctors of medicine are as of January 1; in earlier years these data are as of December 31. See Appendix II for physician definitions.

SOURCES: Haug, J. N., Roback, G. A., and Martin, B. C.: *Distribution of Physicians in the United States, 1970*. Chicago. American Medical Association, 1971; Goodman, L. J., and Mason, H. R.: *Physician Distribution and Medical Licensure in the U.S., 1975*. Chicago. American Medical Association, 1976; Bidese, C. M., and Danais, D. G.: *Physician Characteristics and Distribution in the U.S., 1981*. Chicago. American Medical Association, 1982; Roback, G. A., Mead, D., and Randolph, L. L.: *Physician Characteristics and Distribution in the U.S., 1986*. Chicago. American Medical Association, 1986; Department of Data Release Services: *Physician Characteristics and Distribution in the U.S., 1987*. Chicago. American Medical Association, 1987; Roback, G. A., Randolph, L. L., and Seidman, B.: *Physician Characteristics and Distribution in the U.S., 1989*. Chicago. American Medical Association, 1989; Roback, G. A., Randolph, L. L., and Seidman, B.: *Physician Characteristics and Distribution in the U.S., 1990*. Chicago. American Medical Association, 1990. (Copyrights 1971, 1976, 1982, 1986–87, 1989, and 1990: Used with the permission of the American Medical Association.)

**Table 99. Active health personnel and number per 100,000 population, according to occupation and geographic region: United States, 1970, 1980, and 1989**

Year and occupation	Number of active health personnel	United States	Geographic region			
			Northeast	Midwest	South	West
1970			Number per 100,000 population <sup>1</sup>			
Physicians . . . . .	---	---	---	---	---	---
Federal <sup>2</sup> . . . . .	---	---	---	---	---	---
Non-Federal . . . . .	290,862	142.7	185.0	127.5	114.8	158.2
Doctors of medicine <sup>2,3</sup> . . . . .	279,212	137.0	178.7	118.2	111.5	154.8
Doctors of osteopathy . . . . .	11,650	5.7	6.3	9.3	3.3	3.4
Dentists <sup>4</sup> . . . . .	95,700	47.0	58.9	46.3	35.3	54.9
Optometrists . . . . .	18,400	9.0	9.7	10.3	6.6	10.5
Pharmacists . . . . .	112,570	55.4	60.1	57.5	50.6	52.9
Podiatrists . . . . .	7,110	3.5	6.0	3.6	1.6	3.0
Registered nurses . . . . .	750,000	368.9	491.2	367.5	281.8	355.9
Veterinarians . . . . .	25,900	12.7	8.3	16.1	11.8	15.0
1980						
Physicians . . . . .	427,028	189.8	---	---	---	---
Federal <sup>2</sup> . . . . .	17,548	7.8	---	---	---	---
Non-Federal . . . . .	409,480	182.0	224.5	165.2	157.0	200.0
Doctors of medicine <sup>2,3</sup> . . . . .	393,407	174.9	216.1	153.3	152.8	195.8
Doctors of osteopathy . . . . .	16,073	7.1	8.4	11.9	4.2	4.2
Dentists <sup>4</sup> . . . . .	121,240	53.5	66.2	52.7	42.6	59.2
Optometrists . . . . .	22,330	9.8	9.9	10.9	7.7	11.6
Pharmacists . . . . .	142,780	62.5	66.5	67.8	62.1	51.8
Podiatrists . . . . .	8,880	4.0	6.3	3.9	2.5	4.1
Registered nurses . . . . .	1,272,900	560.0	736.0	583.6	443.4	533.7
Associate and diploma . . . . .	908,300	399.9	536.0	429.2	316.5	351.1
Baccalaureate . . . . .	297,300	130.9	161.0	127.8	103.8	148.1
Masters and doctorate . . . . .	67,300	29.6	39.0	26.7	23.0	34.6
Veterinarians . . . . .	36,000	16.3	10.8	19.9	16.0	18.5
1989						
Physicians . . . . .	562,839	230.6	---	---	---	---
Federal <sup>2</sup> . . . . .	20,359	8.3	---	---	---	---
Non-Federal . . . . .	542,480	222.2	313.2	222.0	215.7	254.2
Doctors of medicine <sup>2,3</sup> . . . . .	516,396	236.6	298.4	203.5	208.2	247.3
Doctors of osteopathy . . . . .	26,084	10.7	14.8	18.5	7.5	6.9
Dentists <sup>4</sup> . . . . .	144,000	58.1	---	---	---	---
Optometrists . . . . .	25,500	10.2	---	---	---	---
Pharmacists . . . . .	160,000	64.1	---	---	---	---
Podiatrists . . . . .	11,950	5.0	---	---	---	---
Registered nurses . . . . .	1,666,200	671.0	843.7	729.5	562.2	613.8
Associate and diploma . . . . .	1,052,000	423.8	531.7	467.9	365.1	363.8
Baccalaureate . . . . .	497,300	200.3	247.9	214.7	160.3	203.0
Masters and doctorate . . . . .	116,900	47.1	69.0	47.1	37.1	46.9
Veterinarians . . . . .	49,300	19.8	---	---	---	---

<sup>1</sup>Ratios for physicians and dentists are based on civilian population; ratios for all other health occupations are based on resident population.

<sup>2</sup>Starting in 1989 data for doctors of medicine are as of January 1; in earlier years these data are as of December 31.

<sup>3</sup>Excludes physicians not classified according to activity status from the number of active health personnel.

<sup>4</sup>Excludes dentists in military service.

NOTE: See Appendix II for physician definitions.

SOURCES: Division of Health Professions Analysis, Bureau of Health Professions: Supply and Characteristics of Selected Health Personnel. DHHS Pub. No. (HRA) 81-20. Health Resources Administration. Hyattsville, Md., June 1981; American Medical Association: Physician Characteristics and Distribution in the U.S., 1981 Edition. Chicago, 1981; Unpublished data; American Osteopathic Association: 1980-81 Yearbook and Directory of Osteopathic Physicians. Chicago, 1980. American Association of Colleges of Osteopathic Medicine: Annual Statistical Report 1989. Rockville, Md., 1989; American Medical Association: Physician Characteristics and Distribution in the U.S., 1990 Edition. Chicago, 1990; Unpublished data.

**Table 100. Full-time equivalent employment in selected occupations for community hospitals: United States, 1981 and 1986–89**

[Data are based on reporting by a census of registered hospitals]

Occupation	1981	1986	1987	1988	1989	Average annual percent change	
						1981–86	1986–89
All hospital personnel <sup>1</sup> . . . . .	3,069,955	3,055,071	3,143,077	3,231,745	3,328,509	-0.1	2.9
Administrators and assistant administrators . . . . .	26,734	32,990	32,978	35,715	37,269	5.4	4.1
Registered nurses . . . . .	629,354	736,253	758,976	770,613	791,521	4.0	2.4
Licensed practical nurses . . . . .	234,226	174,154	170,433	170,637	172,143	-7.1	-0.4
Ancillary nursing personnel . . . . .	280,614	226,821	234,162	244,297	252,500	-5.2	3.6
Medical record administrators and technicians . . . . .	38,186	44,057	45,064	46,937	47,834	3.6	2.8
Licensed pharmacists and pharmacy technicians . . . . .	47,053	54,679	57,297	58,759	60,984	3.8	3.7
Medical technologists and other laboratory personnel . . . . .	147,451	145,622	146,183	148,635	152,122	-0.3	1.5
Dietitians and dietetic technicians . . . . .	40,192	34,241	34,539	35,126	34,416	-3.9	0.2
Radiologic service personnel . . . . .	90,738	94,683	97,944	101,098	104,494	1.1	3.3
Occupational therapists and recreational therapists . . . . .	8,481	11,210	12,331	13,133	13,604	7.2	6.7
Physical therapists and physical therapy assistants and aides . . . . .	27,675	30,216	31,692	32,680	33,104	2.2	3.1
Speech pathologists and audiologists . . . . .	2,463	3,776	4,035	4,346	4,608	11.3	6.9
Respiratory therapists and respiratory therapy technicians . . . . .	47,312	52,751	54,103	55,690	57,355	2.8	2.8
Medical social workers . . . . .	13,915	16,042	17,747	18,685	19,698	3.6	7.1
Total trainee personnel <sup>2</sup> . . . . .	66,906	67,366	65,284	67,587	68,641	0.2	0.6

<sup>1</sup>Includes occupational categories not shown.

<sup>2</sup>This category is primarily composed of medical residents.

SOURCE: Compiled by the Office of Data Analysis and Management, Bureau of Health Professions, from the American Hospital Association's 1981, 1986, 1987, 1988, and 1989 Annual Survey of Hospitals.

**Table 101 (page 1 of 2). Full-time equivalent patient care staff in mental health organizations, according to type of organization and staff discipline: United States, selected years 1978–88**

[Data are based on inventories of mental health organizations]

<i>Organization and discipline</i>	<i>1978</i>	<i>1984<sup>1</sup></i>	<i>1986</i>	<i>1988<sup>2</sup></i>	<i>1978</i>	<i>1984<sup>1</sup></i>	<i>1986</i>	<i>1988<sup>2</sup></i>
	Number				Percent distribution			
<b>All organizations</b>								
All patient care staff . . . . .	292,699	313,243	346,630	382,065	100.0	100.0	100.0	100.0
Professional patient care staff . . . . .	153,598	202,474	232,481	257,382	52.5	64.6	67.1	67.4
Psychiatrists . . . . .	14,492	18,482	17,874	18,114	5.0	5.9	5.2	4.7
Psychologists <sup>3</sup> . . . . .	16,501	21,052	20,210	22,812	5.6	6.7	5.8	6.0
Social workers . . . . .	28,125	36,397	40,951	46,051	9.6	11.6	11.8	12.1
Registered nurses . . . . .	42,399	54,406	66,180	73,429	14.5	17.4	19.1	19.2
Other professional staff <sup>4</sup> . . . . .	52,081	72,137	87,266	96,976	17.8	23.0	25.2	25.4
Other mental health workers . . . . .	139,101	110,769	114,149	124,683	47.5	35.4	32.9	32.6
<b>State and county mental hospitals</b>								
All patient care staff . . . . .	131,187	117,630	119,073	116,903	100.0	100.0	100.0	100.0
Professional patient care staff . . . . .	45,131	51,290	54,853	57,935	34.4	43.6	46.1	49.6
Psychiatrists . . . . .	3,712	4,108	3,762	3,950	2.8	3.5	3.2	3.4
Psychologists <sup>3</sup> . . . . .	3,149	3,239	3,412	3,512	2.4	2.8	2.9	3.0
Social workers . . . . .	5,924	6,175	6,238	7,203	4.5	5.2	5.2	6.2
Registered nurses . . . . .	14,859	16,051	19,425	20,266	11.3	13.6	16.3	17.3
Other professional staff <sup>4</sup> . . . . .	17,487	21,717	22,016	23,004	13.3	18.5	18.5	19.7
Other mental health workers . . . . .	86,056	66,340	64,220	58,968	65.6	56.4	53.9	50.4
<b>Private psychiatric hospitals</b>								
All patient care staff . . . . .	18,728	26,359	35,480	57,207	100.0	100.0	100.0	100.0
Professional patient care staff . . . . .	11,419	19,524	27,246	44,148	61.0	74.1	76.8	77.2
Psychiatrists . . . . .	1,285	1,447	1,554	1,904	6.9	5.5	4.4	3.3
Psychologists <sup>3</sup> . . . . .	590	1,461	1,557	1,810	3.2	5.5	4.4	3.2
Social workers . . . . .	920	2,179	2,893	4,162	4.9	8.3	8.2	7.3
Registered nurses . . . . .	3,967	6,818	10,147	15,128	21.2	25.9	28.6	26.4
Other professional staff <sup>4</sup> . . . . .	4,657	7,619	11,095	21,144	24.9	28.9	31.3	37.0
Other mental health workers . . . . .	7,309	6,835	8,234	13,059	39.0	25.9	23.2	22.8
<b>Non-Federal general hospitals' psychiatric services</b>								
All patient care staff . . . . .	34,966	59,848	61,148	61,817	100.0	100.0	100.0	100.0
Professional patient care staff . . . . .	22,401	46,335	50,233	48,201	64.1	77.4	82.1	78.0
Psychiatrists . . . . .	3,583	6,679	6,009	5,229	10.2	11.2	9.8	8.5
Psychologists <sup>3</sup> . . . . .	1,512	3,283	2,983	3,593	4.3	5.5	4.9	5.8
Social workers . . . . .	2,552	4,898	5,634	5,490	7.3	8.2	9.2	8.9
Registered nurses . . . . .	10,611	20,454	23,454	24,463	30.3	34.2	38.4	39.6
Other professional staff <sup>4</sup> . . . . .	4,143	11,021	12,153	9,426	11.8	18.4	19.9	15.2
Other mental health workers . . . . .	12,565	13,513	10,915	13,616	35.9	22.6	17.9	22.0
<b>Veterans Administration psychiatric services</b>								
All patient care staff . . . . .	26,282	22,948	23,559	21,581	100.0	100.0	100.0	100.0
Professional patient care staff . . . . .	13,954	16,265	17,782	14,714	53.1	70.9	75.5	68.2
Psychiatrists . . . . .	1,471	2,463	2,245	2,108	5.6	10.7	9.5	9.8
Psychologists <sup>3</sup> . . . . .	1,255	1,247	1,439	1,318	4.8	5.4	6.1	6.1
Social workers . . . . .	1,620	1,545	1,680	1,360	6.2	6.7	7.1	6.3
Registered nurses . . . . .	5,326	5,699	6,761	6,285	20.3	24.8	28.7	29.1
Other professional staff <sup>4</sup> . . . . .	4,282	5,311	5,657	3,643	16.3	23.1	24.0	16.9
Other mental health workers . . . . .	12,328	6,683	5,777	6,867	46.9	29.1	24.5	31.8
<b>Residential treatment centers for emotionally disturbed children</b>								
All patient care staff . . . . .	16,464	15,297	25,146	29,842	100.0	100.0	100.0	100.0
Professional patient care staff . . . . .	10,824	10,551	17,599	19,382	65.7	69.0	70.0	64.9
Psychiatrists . . . . .	140	240	335	425	0.9	1.6	1.3	1.4
Psychologists <sup>3</sup> . . . . .	497	820	911	1,224	3.0	5.4	3.6	4.1
Social workers . . . . .	2,196	2,283	4,585	4,175	13.3	14.9	18.2	14.0
Registered nurses . . . . .	324	485	746	807	2.0	3.2	3.0	2.7
Other professional staff <sup>4</sup> . . . . .	7,667	6,723	11,022	12,751	46.6	43.9	43.8	42.7
Other mental health workers . . . . .	5,640	4,746	7,547	10,460	34.3	31.0	30.0	35.1

See footnotes at end of table.



**Table 101 (page 2 of 2). Full-time equivalent patient care staff in mental health organizations, according to type of organization and staff discipline: United States, selected years 1978–88**

[Data are based on inventories of mental health organizations]

<i>Organization and discipline</i>	<i>1978</i>	<i>1984<sup>1</sup></i>	<i>1986</i>	<i>1988<sup>2</sup></i>	<i>1978</i>	<i>1984<sup>1</sup></i>	<i>1986</i>	<i>1988<sup>2</sup></i>
All other organizations <sup>5</sup>	Number				Percent distribution			
All patient care staff . . . . .	65,072	71,161	82,224	94,715	100.0	100.0	100.0	100.0
Professional patient care staff . . . . .	49,869	58,509	64,768	73,002	76.6	82.2	78.8	77.1
Psychiatrists . . . . .	4,301	3,545	3,969	4,498	6.6	5.0	4.8	4.7
Psychologists <sup>3</sup> . . . . .	9,498	11,002	9,908	11,355	14.6	15.5	12.1	12.0
Social workers . . . . .	14,913	19,317	19,921	23,661	22.9	27.1	24.2	25.0
Registered nurses . . . . .	7,312	4,899	5,647	6,480	11.2	6.9	6.9	6.8
Other professional staff <sup>4</sup> . . . . .	13,845	19,746	25,323	27,008	21.3	27.7	30.8	28.5
Other mental health workers . . . . .	15,203	12,652	17,456	21,713	23.4	17.8	21.2	22.9

<sup>1</sup>In 1984 some organizations were reclassified.

<sup>2</sup>Data for 1988 are provisional.

<sup>3</sup>During 1978 this category included all psychologists with a B.A. degree and above. Beginning in 1984, only psychologists with an M.A. degree and above are included.

<sup>4</sup>Includes occupational therapists, recreation therapists, vocational rehabilitation counselors, and teachers.

<sup>5</sup>Includes freestanding outpatient, partial care, and multiservice organizations. 1978 also includes community mental health centers.

SOURCES: Survey and Reports Branch, Division of Biometry and Applied Sciences, National Institute of Mental Health; R. W. Manderscheid and S. A. Barrett: Mental Health, United States, 1987. DHHS Pub. No. (ADM) 87-1518. U.S. Government Printing Office, 1987; Unpublished data.

**Table 102. First-year enrollment and graduates of health professions schools and number of schools, according to profession: United States, selected 1950–90 estimates and 2000 projections**

[Data are based on reporting by health professions schools]

Year	Registered nursing										
	Medicine	Osteopathy	Total	Baccalaureate	Associate degree	Diploma	Licensed practical nursing	Dentistry	Optometry	Pharmacy	Chiropractic
<b>First-year enrollment</b>											
1980.	17,014	1,426	105,952	35,414	53,633	16,905	56,316	6,132	1,202	8,035	---
1981.	17,204	1,496	110,201	35,808	56,899	17,494	58,479	6,030	1,258	7,551	---
1982.	17,320	1,582	115,279	35,928	60,423	18,928	60,426	5,855	1,249	6,899	---
1983.	17,230	1,682	120,579	37,264	63,947	19,368	61,453	5,498	1,147	6,574	---
1984.	17,175	1,746	123,824	39,400	66,576	17,848	57,865	5,274	1,219	6,715	---
1985.	16,992	1,750	118,224	39,573	63,776	14,875	47,034	5,047	1,187	6,849	---
1986.	16,929	1,737	100,791	34,310	56,635	9,846	44,477	4,843	1,251	7,084	---
1987.	16,779	1,724	90,693	28,026	54,330	8,337	42,452	4,554	1,234	7,632	---
1988.	16,686	1,692	94,269	28,505	57,375	8,389	43,774	4,370	1,268	7,864	---
1989.	16,781	1,780	103,025	29,042	63,973	10,010	---	4,196	1,271	8,067	---
1990.	16,749	1,844	108,580	29,858	68,634	10,088	---	3,979	1,258	8,088	---
<b>Graduates</b>											
1950 <sup>1</sup>	5,553	373	25,790	---	---	---	2,828	2,565	961	---	---
1960.	7,081	427	30,113	4,136	789	25,188	16,491	3,253	364	3,497	660
1970.	8,367	432	43,103	9,069	11,483	22,551	36,456	3,749	445	4,758	642
1975.	12,714	702	73,915	20,170	32,183	21,562	45,375	4,969	806	6,712	1,093
1980.	15,135	1,059	75,523	24,994	36,034	14,495	41,892	5,256	1,073	7,432	2,049
1981.	15,667	1,151	73,985	24,370	36,712	12,903	41,002	5,550	1,092	7,323	2,526
1982.	15,985	1,017	74,052	24,081	38,289	11,682	43,299	5,371	1,106	6,859	2,631
1983.	15,824	1,317	77,408	23,855	41,849	11,704	45,174	5,756	1,166	6,374	2,948
1984.	16,327	1,287	80,312	23,718	44,394	12,200	44,654	5,337	1,188	5,963	---
1985.	16,319	1,474	82,075	24,975	45,208	11,892	36,955	5,353	1,114	5,724	---
1986.	16,125	1,560	77,027	25,170	41,333	10,524	29,599	4,957	1,085	5,800	---
1987.	15,836	1,587	70,561	23,761	38,528	8,272	27,285	4,717	1,081	5,854	---
1988.	15,887	1,572	64,839	21,504	37,397	5,938	26,912	4,581	1,106	6,171	2,797
1989 <sup>2</sup>	15,620	1,617	61,660	18,997	37,837	4,826	---	4,312	1,143	6,557	2,400
1990 <sup>3</sup>	15,433	1,520	---	---	---	---	---	---	1,115	---	---
2000 <sup>4</sup>	15,774	1,557	---	---	---	---	---	3,242	1,200	7,120	2,950
<b>Schools<sup>5</sup></b>											
1950 <sup>1</sup>	79	6	1,170	---	---	---	85	42	10	---	20
1960.	86	6	1,137	172	57	908	661	47	10	76	12
1970.	103	7	1,340	267	437	636	1,233	53	11	74	11
1975.	114	9	1,362	326	608	428	1,315	59	12	73	12
1980.	126	14	1,385	377	697	311	1,299	60	15	72	14
1981.	126	15	1,401	383	715	303	1,309	60	16	72	16
1982.	127	15	1,432	402	742	288	1,295	60	16	72	16
1983.	127	15	1,466	421	764	281	1,297	60	16	72	17
1984.	127	15	1,477	427	777	273	1,254	60	16	72	17
1985.	127	15	1,473	441	776	256	1,165	60	16	72	17
1986.	127	15	1,469	455	776	238	1,087	59	16	73	17
1987.	127	15	1,465	467	789	209	1,068	58	16	74	17
1988.	127	15	1,442	479	792	171	1,095	58	16	74	17
1989.	127	15	1,457	488	812	157	---	58	16	74	17
1990.	126	15	---	---	---	---	---	58	16	74	17

<sup>1</sup>Data for total registered nursing are for 1951.

<sup>2</sup>Data for chiropractic medicine are estimated.

<sup>3</sup>Data for medicine are estimated.

<sup>4</sup>Projected.

<sup>5</sup>Some nursing schools offer more than one type of program. Numbers shown for nursing are number of nursing programs.

NOTE: Some numbers in this table have been revised and differ from previous editions of Health, United States.

SOURCES: Bureau of Health Professions: Seventh Report to the President and Congress on the Status of Health Personnel in the United States. Health Resources and Services Administration. DHHS Pub. No. HRS-P-OD-90-1. Health Resources and Services Administration: Unpublished data; National League for Nursing: Nursing Student Census, 1989. New York, 1990; National League for Nursing: Nursing Datasource, 1990, Vol. 1; National League for Nursing: Nursing Data Review, 1989; American Nurses Association: Facts About Nursing, 1951 and 1961; American Dental Association Council on Dental Education: Annual Report on Dental Education 1989–90. Chicago, 1990; American Medical Association: Medical education in the United States. JAMA. Vol. 264, No. 7. August 15, 1990; American Association of Colleges of Osteopathic Medicine: Annual Statistical Report 1990. Rockville, Md., 1990; American Chiropractic Association: Unpublished data.

**Table 103 (page 1 of 2). First-year and total enrollment of minorities in schools for selected health occupations, according to race and Hispanic origin: United States, academic years 1979–80 and 1989–90**

Occupation, race, and Hispanic origin	First-year enrollment				Total enrollment			
	1979–80 <sup>3</sup>	1989–90	1979–80 <sup>1</sup>	1989–90	1979–80 <sup>1</sup>	1989–90	1979–80 <sup>1</sup>	1989–90
Allopathic medicine								
	Number of students		Percent of students		Number of students		Percent of students	
All races <sup>2</sup> . . . . .	16,930	16,756	100.0	100.0	63,800	65,016	100.0	100.0
Non-Hispanic white . . . . .	14,259	12,039	84.2	71.8	54,854	48,961	86.0	75.3
Non-Hispanic black . . . . .	1,108	1,221	6.5	7.3	3,627	4,145	5.7	6.4
Hispanic . . . . .	790	964	4.7	5.8	2,514	3,537	3.9	5.4
Mexican American . . . . .	290	307	1.7	1.8	964	1,087	1.5	1.7
Mainland Puerto Rican . . . . .	86	139	0.5	0.8	283	452	0.4	0.7
Other Hispanic <sup>3</sup> . . . . .	414	518	2.4	3.1	1,267	1,998	2.0	3.1
American Indian . . . . .	63	82	0.4	0.5	212	258	0.3	0.4
Asian . . . . .	502	2,257	3.0	13.5	1,777	7,489	2.8	11.5
Osteopathic medicine								
All races . . . . .	1,426	1,844	100.0	100.0	4,571	6,615	100.0	100.0
Non-Hispanic white <sup>2</sup> . . . . .	1,333	1,524	93.5	82.6	4,330	5,694	94.7	86.1
Non-Hispanic black . . . . .	40	68	2.8	3.7	100	173	2.2	2.6
Hispanic . . . . .	18	79	1.3	4.3	45	246	1.0	3.7
American Indian . . . . .	6	15	0.4	0.8	26	39	0.6	0.6
Asian . . . . .	29	158	2.0	8.6	70	463	1.5	7.0
Podiatry								
All races . . . . .	718	579	100.0	100.0	2,531	2,397	100.0	100.0
Non-Hispanic white <sup>2</sup> . . . . .	641	427	89.3	73.7	2,342	1,869	92.5	78.0
Non-Hispanic black . . . . .	41	62	5.7	10.7	93	240	3.7	10.0
Hispanic . . . . .	8	46	1.1	7.9	28	123	1.1	5.1
American Indian . . . . .	2	3	0.3	0.5	5	6	0.2	0.3
Asian . . . . .	26	41	3.6	7.1	63	156	2.5	6.5
Dentistry <sup>4</sup>								
All races . . . . .	6,066	3,938	100.0	100.0	22,482	16,198	100.0	100.0
Non-Hispanic white <sup>2</sup> . . . . .	5,321	2,769	87.7	70.3	20,029	11,701	89.1	72.2
Non-Hispanic black . . . . .	274	263	4.5	6.7	1,009	983	4.5	6.1
Hispanic . . . . .	163	243	2.7	6.2	489	1,064	2.2	6.6
American Indian . . . . .	19	15	0.3	0.4	60	57	0.3	0.4
Asian . . . . .	289	648	4.8	16.5	895	2,393	4.0	14.8
Optometry								
All races . . . . .	1,209	1,258	100.0	100.0	4,500	4,723	100.0	100.0
Non-Hispanic white <sup>2</sup> . . . . .	---	961	---	76.4	4,156	3,748	92.4	79.4
Non-Hispanic black . . . . .	---	43	---	3.4	56	132	1.2	2.8
Hispanic . . . . .	---	87	---	6.9	67	293	1.5	6.2
American Indian . . . . .	---	3	---	0.2	13	16	0.3	0.3
Asian . . . . .	---	164	---	13.1	208	534	4.6	11.3
Pharmacy <sup>5</sup>								
All races . . . . .	7,905	8,009	100.0	100.0	22,560	22,764	100.0	100.0
Non-Hispanic white <sup>2</sup> . . . . .	6,971	---	88.2	---	20,185	18,325	89.5	80.5
Non-Hispanic black . . . . .	387	---	4.9	---	958	1,301	4.2	5.7
Hispanic . . . . .	162	---	2.0	---	410	945	1.8	4.2
American Indian . . . . .	18	---	0.2	---	36	63	0.2	0.3
Asian . . . . .	367	---	4.6	---	971	2,130	4.3	9.4
Veterinary medicine								
All races <sup>2</sup> . . . . .	2,255	2,194	100.0	100.0	7,803	8,456	100.0	100.0
Non-Hispanic white . . . . .	---	2,019	---	92.0	---	7,847	---	92.8
Non-Hispanic black . . . . .	---	62	---	2.8	---	219	---	2.6
Hispanic . . . . .	---	65	---	3.0	---	220	---	2.6
American Indian . . . . .	---	11	---	0.5	---	37	---	0.4
Asian . . . . .	---	37	---	1.7	---	133	---	1.6

See footnotes at end of table.

**Table 103 (page 2 of 2). First-year and total enrollment of minorities in schools for selected health occupations, according to race and Hispanic origin: United States, academic years 1979–80 and 1989–90**

<i>Occupation, race, and Hispanic origin</i>	<i>First-year enrollment</i>				<i>Total enrollment</i>			
	<i>1979–80<sup>1</sup></i>	<i>1989–90</i>	<i>1979–80<sup>1</sup></i>	<i>1989–90</i>	<i>1979–80<sup>1</sup></i>	<i>1989–90</i>	<i>1979–80<sup>1</sup></i>	<i>1989–90</i>
Registered nurses <sup>6</sup>	Number of students		Percent of students		Number of students		Percent of students	
All races <sup>2</sup> . . . . .	107,476	108,580	100.0	100.0	239,486	201,458	100.0	100.0
Non-Hispanic white . . . . .	96,406	88,975	89.7	81.9	219,369	168,358	91.6	83.6
Non-Hispanic black . . . . .	7,295	12,146	6.8	11.2	12,630	20,789	5.3	10.3
Hispanic . . . . .	1,664	3,532	1.5	3.3	3,079	6,046	1.3	3.0
American Indian . . . . .	---	704	---	0.6	---	1,064	---	0.5
Asian . . . . .	---	3,223	---	3.0	---	5,201	---	2.6

<sup>1</sup>First-year and total enrollments for registered nurse students are for 1978–79.

<sup>2</sup>Includes race/ethnicity unspecified.

<sup>3</sup>Includes Puerto Rican Commonwealth students.

<sup>4</sup>Excludes Puerto Rican schools.

<sup>5</sup>Pharmacy first-year enrollment data are for students in the first year of the final three years of pharmacy education. Pharmacy total enrollment data are for students in the final 3 years of pharmacy education.

<sup>6</sup>Minority distribution based only on programs reporting minority data.

SOURCES: Bureau of Health Professions: Minorities and Women in the Health Fields. 1990. Association of American Medical Colleges, Section for Student Services: Unpublished data; American Association of Colleges of Osteopathic Medicine: Annual Statistical Report, 1990. Rockville, Md., 1990; National League for Nursing: Nursing Datasource. New York, 1990. Nursing Data Book, 1980. New York, 1981. State-Approved Schools of Nursing-RN, 1973. New York, 1973; U.S. Department of Health, Education, and Welfare: Division of Nursing: Source Book-Nursing Personnel. Health Resources Administration. DHEW Pub. No. (HRA) 75–43. Washington, 1975; American Dental Association: Annual Report on Dental Education 1989/90. Chicago, 1990; Association of Schools and Colleges of Optometry: Unpublished data. Washington, D.C., 1991; American Association of Colleges of Pharmacy: Unpublished data. Alexandria, Va., 1991; Association of American Veterinary Medical Colleges: Unpublished data. Washington, D.C., 1991; Colleges of Podiatric Medicine: Annual Report to the American Association of Colleges of Podiatric Medicine 1980–1989; Unpublished data.



**Table 104. First-year and total enrollment of women in schools for selected health occupations, according to race and Hispanic origin: United States, academic years 1971–72, 1979–80, and 1989–90**

Enrollment, occupation, race, and Hispanic origin	Both sexes			Women		
	1971–72 <sup>1</sup>	1979–80 <sup>2</sup>	1989–90	1971–72 <sup>1</sup>	1979–80 <sup>2</sup>	1989–90
<b>First-year enrollment</b>						
	Number of students			Percent of students		
Allopathic medicine <sup>3</sup> . . . . .	12,361	16,930	16,756	13.7	27.8	38.3
Non-Hispanic white . . . . .	---	14,259	12,039	---	26.3	36.5
Non-Hispanic black . . . . .	881	1,108	1,221	22.7	44.7	55.6
Hispanic . . . . .	---	790	964	---	30.4	40.4
Mexican American . . . . .	118	290	307	8.5	25.5	36.2
Mainland Puerto Rican . . . . .	40	86	139	15.0	34.9	44.6
Other Hispanic <sup>4</sup> . . . . .	---	414	518	---	32.9	41.7
American Indian . . . . .	23	63	82	34.8	25.0	40.2
Asian . . . . .	217	502	2,257	19.4	30.7	38.1
Osteopathic medicine . . . . .	670	1,426	1,844	4.3	18.6	32.1
Dentistry <sup>5</sup> . . . . .	4,705	6,066	3,938	3.1	17.5	34.2
Optometry . . . . .	906	1,209	1,258	5.3	22.9	49.9
Pharmacy <sup>6</sup> . . . . .	6,532	7,905	8,009	25.8	45.3	---
Veterinary medicine . . . . .	1,453	2,255	2,194	15.3	40.4	62.6
Registered nurses . . . . .	93,344	107,476	108,580	94.5	95.3	---
<b>Total enrollment</b>						
Allopathic medicine <sup>3</sup> . . . . .	43,650	63,800	65,016	10.9	25.3	36.2
Non-Hispanic white . . . . .	---	54,854	48,961	---	23.8	34.4
Non-Hispanic black . . . . .	2,055	3,627	4,145	20.4	42.7	54.5
Hispanic . . . . .	---	2,514	3,537	---	29.4	37.7
Mexican American . . . . .	252	964	1,087	9.5	23.8	36.4
Mainland Puerto Rican . . . . .	76	283	452	17.1	36.7	41.8
Other Hispanic <sup>4</sup> . . . . .	---	1,267	1,998	---	32.0	37.5
American Indian . . . . .	42	212	258	23.8	25.9	40.2
Asian . . . . .	647	1,777	7,489	17.9	29.2	37.1
Osteopathic medicine . . . . .	2,304	4,571	6,615	3.4	17.3	31.1
Podiatry . . . . .	1,268	2,531	2,397	1.2	12.1	26.4
Optometry . . . . .	3,094	4,500	4,723	---	---	45.0
Veterinary medicine . . . . .	5,149	7,803	8,456	11.5	36.6	59.1
Registered nurses . . . . .	211,239	239,486	201,458	95.5	95.3	---

<sup>1</sup>Total enrollments for registered nurse students are for 1972–73.

<sup>2</sup>First-year and total enrollments for nursing students are for 1978–79.

<sup>3</sup>Includes race/ethnicity unspecified.

<sup>4</sup>Includes Puerto Rican Commonwealth students.

<sup>5</sup>Excludes Puerto Rican schools.

<sup>6</sup>Pharmacy first-year enrollment data are for students in the first year of the final three years of pharmacy education.

NOTE: Data not available on first-year enrollment of women in schools of podiatry and total enrollment of women in schools of dentistry and pharmacy.

SOURCES: Bureau of Health Professions: Minorities and Women in the Health Fields. 1990. Association of American Medical Colleges, Section for Student Services: Unpublished data; American Association of Colleges of Osteopathic Medicine: Annual Statistical Report, 1990. Rockville, Md., 1990; National League for Nursing: Nursing Datasource, 1990. New York, 1990. Nursing Data Review, 1985. New York, 1986. State-Approved Schools of Nursing-RN, 1973. New York, 1973; U.S. Department of Health, Education, and Welfare: Division of Nursing: Source Book-Nursing Personnel. Health Resources Administration. DHEW Pub. No. (HRA) 75-43. Washington, 1975; American Dental Association: Annual Report on Dental Education 1989/90. Chicago, 1990; Association of Schools and Colleges of Optometry: Unpublished data. Washington, D.C., 1991; American Association of Colleges of Pharmacy: Unpublished data. Alexandria, Va., 1991; Association of American Veterinary Medical Colleges: Unpublished data. Washington, D.C., 1991; Colleges of Podiatric Medicine: Annual Report to the American Association of Colleges of Podiatric Medicine 1980–1989.

**Table 105. Short-stay hospitals, beds, and occupancy rates, according to type of ownership and size of hospital: United States, selected years 1960-89**

[Data are based on reporting by a census of registered hospitals]

Type of ownership and size of hospital	1960	1970	1975	1980	1984	1985	1986	1987	1988	1989
<b>Hospitals</b>										
	<b>Number</b>									
All ownerships . . . . .	5,768	6,193	6,310	6,229	6,118	6,091	6,035	5,967	5,892	5,808
Federal . . . . .	361	334	331	325	304	307	307	308	313	311
Non-Federal . . . . .	5,407	5,859	5,979	5,904	5,814	5,784	5,728	5,659	5,579	5,497
Nonprofit . . . . .	3,291	3,386	3,364	3,339	3,366	3,364	3,338	3,289	3,256	3,233
Proprietary . . . . .	856	769	775	730	786	805	834	828	790	769
State-local government . . . . .	1,260	1,704	1,840	1,835	1,662	1,615	1,556	1,542	1,533	1,495
Size of hospital:										
6-99 beds . . . . .	---	---	3,196	2,953	2,769	2,751	2,732	2,736	2,694	2,646
100-199 beds . . . . .	---	---	1,413	1,436	1,436	1,458	1,445	1,408	1,391	1,388
200-299 beds . . . . .	---	---	701	742	764	765	781	776	779	766
300-499 beds . . . . .	---	---	651	724	761	736	706	686	671	664
500 beds or more . . . . .	---	---	349	374	388	381	371	361	357	344
<b>Beds</b>										
All ownerships . . . . .	735,451	935,724	1,036,025	1,080,164	1,102,166	1,087,750	1,066,611	1,046,013	1,033,881	1,014,965
Federal . . . . .	96,394	87,492	89,049	88,144	82,415	84,612	85,071	84,523	84,419	79,202
Non-Federal . . . . .	639,057	848,232	946,976	992,020	1,019,751	1,003,138	981,540	961,490	949,462	935,763
Nonprofit . . . . .	445,753	591,937	658,948	692,929	716,869	707,806	689,685	673,308	668,101	660,947
Proprietary . . . . .	37,029	52,739	73,495	87,033	99,980	103,921	106,716	105,746	103,623	102,416
State-local government . . . . .	156,275	203,556	214,533	212,058	202,902	191,411	185,139	182,436	177,738	172,400
Size of hospital:										
6-99 beds . . . . .	---	---	165,148	155,259	148,882	147,703	146,202	145,541	143,006	139,478
100-199 beds . . . . .	---	---	201,587	203,023	202,855	206,029	204,139	198,777	196,555	196,322
200-299 beds . . . . .	---	---	171,057	180,047	184,450	185,033	189,017	188,294	189,236	186,675
300-499 beds . . . . .	---	---	247,410	276,201	289,737	279,700	266,477	258,841	253,110	251,987
500 beds or more . . . . .	---	---	250,823	265,634	276,242	269,285	260,776	254,560	251,974	240,503
<b>Occupancy rate</b>										
	<b>Percent of beds occupied</b>									
All ownerships . . . . .	75.7	77.9	75.0	75.6	69.5	65.5	64.9	65.5	65.9	66.5
Federal . . . . .	82.5	77.5	77.6	77.8	76.6	74.3	72.6	71.8	71.2	71.0
Non-Federal . . . . .	74.7	78.0	74.8	75.4	68.9	64.8	64.2	64.9	65.5	66.2
Nonprofit . . . . .	76.6	80.1	77.4	78.2	71.4	67.2	66.8	67.6	68.2	68.8
Proprietary . . . . .	65.4	72.2	65.9	65.2	57.0	52.1	50.7	51.1	50.9	51.7
State-local government . . . . .	71.6	73.2	69.7	70.7	65.9	62.8	62.6	63.1	63.8	64.8
Size of hospital:										
6-99 beds . . . . .	---	---	61.1	60.6	53.0	48.4	47.3	47.8	48.3	49.0
100-199 beds . . . . .	---	---	71.3	71.6	64.1	60.0	58.8	59.2	59.7	60.8
200-299 beds . . . . .	---	---	77.1	77.3	70.2	65.9	65.5	65.6	66.0	66.9
300-499 beds . . . . .	---	---	80.0	80.0	73.5	69.4	69.0	70.1	70.9	70.9
500 beds or more . . . . .	---	---	80.9	81.9	77.6	74.9	74.9	75.6	75.8	76.5

NOTE: Excludes psychiatric and tuberculosis and other respiratory disease hospitals.

SOURCES: American Hospital Association: Hospitals. JAHA 35(15):396-401 and 45(15):463-467, Aug. 1961 and Aug. 1971; Hospital Statistics, 1976, 1981, 1985-91 Editions. Chicago, 1976, 1981, 1985-91. (Copyrights 1961, 1971, 1976, 1981, 1985-90: Used with the permission of the American Hospital Association.)

**Table 106. Long-term hospitals, beds, and occupancy rates, according to type of hospital and ownership: United States, selected years 1970-89**

[Data are based on reporting by a census of registered hospitals]

Type of hospital and ownership	1970	1975	1980	1984	1985	1986	1987	1988	1989
<b>Hospitals</b>									
General . . . . .	75	44	17	25	23	21	21	20	25
Federal . . . . .	38	23	9	15	14	13	13	10	10
Non-Federal . . . . .	37	21	8	10	9	8	8	10	15
Psychiatric . . . . .	459	419	381	382	383	390	391	393	382
Federal . . . . .	33	26	23	19	19	18	18	17	17
Nonprofit . . . . .	56	45	47	54	57	55	51	53	50
Proprietary . . . . .	39	51	57	77	81	91	96	103	96
State-local government . . . . .	331	297	254	232	226	226	226	220	219
Tuberculosis and other respiratory diseases . . . . .	103	34	10	5	5	2	3	3	3
All other . . . . .	200	196	150	124	122	129	126	121	125
Federal . . . . .	1	2	1	3	3	4	3	2	2
Nonprofit . . . . .	110	94	66	61	59	61	58	55	58
Proprietary . . . . .	2	9	11	10	13	15	17	15	19
State-local government . . . . .	87	91	72	50	47	49	48	49	46
<b>Beds</b>									
General . . . . .	42,569	17,329	8,253	13,846	12,985	11,112	11,508	9,807	11,275
Federal . . . . .	31,403	14,406	7,205	11,994	10,073	9,079	9,232	7,449	8,373
Non-Federal . . . . .	11,166	2,923	1,048	1,852	2,912	2,033	2,276	2,358	2,902
Psychiatric . . . . .	551,847	344,257	218,400	171,367	162,968	157,378	150,727	143,853	135,968
Federal . . . . .	41,500	27,523	20,871	16,205	15,739	15,167	14,585	12,285	12,046
Nonprofit . . . . .	8,892	5,366	6,645	6,941	6,708	6,668	5,994	5,950	5,486
Proprietary . . . . .	3,399	4,821	5,877	8,458	8,832	9,270	9,786	10,014	9,200
State-local government . . . . .	498,056	306,547	185,007	139,763	131,689	126,273	120,362	115,604	109,236
Tuberculosis and other respiratory diseases . . . . .	19,937	5,699	1,500	664	574	183	339	312	348
All other . . . . .	49,152	49,268	37,911	30,124	29,519	29,614	27,541	26,013	25,612
Federal . . . . .	357	968	357	1,694	1,599	1,812	1,451	1,043	1,010
Nonprofit . . . . .	12,638	12,733	10,038	9,049	9,391	9,829	8,785	8,107	8,878
Proprietary . . . . .	101	879	1,356	1,067	1,364	1,844	1,681	1,472	1,606
State-local government . . . . .	36,056	34,688	26,160	18,314	17,165	16,129	15,624	15,391	14,118
<b>Occupancy rate</b>									
				Percent of beds occupied					
General . . . . .	79.2	84.4	83.9	83.9	80.2	79.1	76.5	78.3	81.3
Federal . . . . .	80.4	85.2	84.6	84.1	80.7	77.8	74.7	76.9	81.1
Non-Federal . . . . .	75.8	80.4	79.0	83.0	78.6	85.0	83.8	82.6	81.7
Psychiatric . . . . .	84.9	81.3	85.9	87.6	87.2	87.0	87.9	87.5	87.7
Federal . . . . .	83.4	88.3	87.9	86.9	83.5	79.6	83.1	84.5	83.0
Nonprofit . . . . .	85.2	84.8	87.2	86.8	86.5	85.5	81.7	78.9	77.1
Proprietary . . . . .	78.4	74.1	76.3	77.2	77.6	75.8	75.8	77.8	77.3
State-local government . . . . .	85.0	80.8	86.0	88.4	88.3	88.8	89.8	89.1	89.7
Tuberculosis and other respiratory diseases . . . . .	61.9	57.6	66.4	62.3	64.3	59.6	70.5	76.6	73.0
All other . . . . .	83.3	82.3	85.9	88.8	88.7	87.5	87.2	87.6	86.0
Federal . . . . .	73.4	86.3	65.3	84.4	81.9	80.1	82.2	83.9	87.1
Nonprofit . . . . .	82.8	83.3	87.3	90.0	89.9	88.4	87.9	89.2	86.2
Proprietary . . . . .	87.1	86.0	86.5	92.1	85.6	82.6	76.3	80.6	79.5
State-local government . . . . .	83.6	81.7	85.6	88.4	88.9	88.4	88.5	87.6	86.5

SOURCES: American Hospital Association: Hospitals, JAHA 45(15):463-467, Aug. 1971; Hospital Statistics, 1976, 1981, 1985-91 Editions. Chicago, 1976, 1981, 1985-91. (Copyrights 1971, 1976, 1981, 1985-90: Used with the permission of the American Hospital Association.)

**Table 107. Inpatient and residential treatment beds in mental health organizations and rate per 100,000 civilian population, according to type of organization: United States, selected years 1970–88**

[Data are based on inventories of mental health organizations]

Organization	1970	1976	1980 <sup>1</sup>	1982 <sup>2</sup>	1984	1986	1988 <sup>3</sup>
	Number						
All organizations . . . . .	524,878	338,963	274,713	247,312	262,673	267,613	271,997
State and county mental hospitals . . . . .	413,066	222,202	156,482	140,140	130,411	119,033	106,705
Private psychiatric hospitals . . . . .	14,295	16,091	17,157	19,011	21,474	30,201	42,340
Non-Federal general hospital psychiatric services . . . . .	22,394	28,706	29,384	36,525	46,045	45,808	48,499
Veterans Administration psychiatric services <sup>4</sup> . . . . .	50,688	35,913	33,796	24,646	23,546	26,874	25,742
Federally funded community mental health centers . . . . .	8,108	17,029	16,264	...	...	...	...
Residential treatment centers for emotionally disturbed children . . . . .	15,129	18,029	20,197	18,475	16,745	24,547	25,271
All other <sup>5,6</sup> . . . . .	1,198	993	1,433	8,515	24,452	21,150	23,440
	Number per 100,000 civilian population						
All organizations . . . . .	263.6	160.3	124.3	108.1	112.9	111.7	111.5
State and county mental hospitals . . . . .	207.4	105.1	70.2	61.2	56.1	49.7	43.8
Private psychiatric hospitals . . . . .	7.2	7.6	7.7	8.3	9.2	12.6	17.3
Non-Federal general hospital psychiatric services . . . . .	11.2	13.6	13.7	16.0	19.8	19.1	19.9
Veterans Administration psychiatric services <sup>4</sup> . . . . .	25.5	17.0	15.7	10.8	10.1	11.2	10.5
Federally funded community mental health centers . . . . .	4.1	8.0	7.3	...	...	...	...
Residential treatment centers for emotionally disturbed children . . . . .	7.6	8.5	9.1	8.1	7.2	10.3	10.4
All other <sup>5,6</sup> . . . . .	0.6	0.5	0.6	3.7	10.5	8.8	9.6

<sup>1</sup>During 1979–80, comparable data were not available for certain organization types, and data for either an earlier or later period were substituted.

<sup>2</sup>During 1981–82, some organizations were reclassified and data for some organization types were not available, resulting in a particularly large increase for the “all other” category in 1982.

<sup>3</sup>Data for 1988 are provisional.

<sup>4</sup>Includes Veterans Administration neuropsychiatric hospitals and Veterans Administration general hospitals with separate psychiatric services.

<sup>5</sup>Includes other multiservice mental health organizations with inpatient and residential treatment services that are not elsewhere classified.

<sup>6</sup>Beginning in 1983 a definitional change sharply increased the number of multiservice mental health organizations. See Appendix I.

NOTE: Changes in reporting procedures in 1979–80 and 1981–82 affect the comparability of data with those from previous years.

SOURCES: Survey and Reports Branch, Division of Biometry and Applied Sciences, National Institute of Mental Health; R. W. Manderscheid and S. A. Barrett: Mental Health, United States, 1987. DHHS Pub. No. (ADM) 87–1518. U.S. Government Printing Office, 1987; Unpublished data.



**Table 108 (page 1 of 2). Community hospital beds per 1,000 population and average annual percent change, according to geographic division and State: United States, selected years 1940–89**

[Data are based on reporting by facilities]

Geographic division and State	Beds per 1,000 civilian population									Average annual percent change			
	1940 <sup>1</sup>	1950 <sup>1</sup>	1960 <sup>2</sup>	1970	1980	1985	1987	1988	1989	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–89
United States . . . . .	3.2	3.3	3.6	4.3	4.5	4.2	4.0	3.9	3.8	0.6	1.8	0.5	-1.9
New England . . . . .	4.4	4.2	3.9	4.1	4.1	4.0	3.6	3.6	3.5	-0.6	0.5	0.0	-1.7
Maine . . . . .	3.0	3.2	3.4	4.7	4.7	4.2	4.0	3.9	3.8	0.6	3.3	0.0	-2.3
New Hampshire . . . . .	4.2	4.2	4.4	4.0	3.9	3.4	3.2	3.2	3.1	0.2	-0.9	-0.3	-2.5
Vermont . . . . .	3.3	4.0	4.5	4.5	4.4	3.8	3.3	3.1	3.1	1.6	0.0	-0.2	-3.8
Massachusetts . . . . .	5.1	4.8	4.2	4.4	4.4	4.4	4.0	4.0	3.8	-1.0	0.5	0.0	-1.6
Rhode Island . . . . .	3.9	3.8	3.7	4.0	3.8	3.6	3.4	3.3	3.2	-0.3	0.8	-0.5	-1.9
Connecticut . . . . .	3.7	3.6	3.4	3.4	3.5	3.3	3.0	3.0	3.0	-0.4	0.0	0.3	-1.7
Middle Atlantic . . . . .	3.9	3.8	4.0	4.4	4.6	4.4	4.2	4.1	4.1	0.1	1.0	0.4	-1.3
New York . . . . .	4.3	4.1	4.3	4.6	4.5	4.4	4.2	4.2	4.2	0.0	0.7	-0.2	-0.8
New Jersey . . . . .	3.5	3.2	3.1	3.6	4.2	3.9	3.8	3.7	3.7	-0.6	1.5	1.6	-1.4
Pennsylvania . . . . .	3.5	3.8	4.1	4.7	4.8	4.7	4.4	4.4	4.3	0.8	1.4	0.2	-1.2
East North Central . . . . .	3.2	3.2	3.6	4.4	4.7	4.5	4.2	4.1	4.0	0.6	2.0	0.7	-1.8
Ohio . . . . .	2.7	2.9	3.4	4.2	4.7	4.6	4.3	4.2	4.0	1.2	2.1	1.1	-1.8
Indiana . . . . .	2.3	2.6	3.1	4.0	4.5	4.2	4.1	4.1	3.9	1.5	2.6	1.2	-1.6
Illinois . . . . .	3.4	3.6	4.0	4.7	5.1	4.7	4.4	4.3	4.1	0.8	1.6	0.8	-2.4
Michigan . . . . .	4.0	3.3	3.3	4.3	4.4	4.1	3.9	3.8	3.7	-1.0	2.7	0.2	-1.9
Wisconsin . . . . .	3.4	3.7	4.3	5.2	4.9	4.6	4.2	4.0	3.9	1.2	1.9	-0.6	-2.5
West North Central . . . . .	3.1	3.7	4.3	5.7	5.8	5.4	5.2	5.1	4.9	1.6	2.9	0.2	-1.9
Minnesota . . . . .	3.9	4.4	4.8	6.1	5.7	5.2	4.8	4.8	4.5	1.0	2.4	-0.7	-2.6
Iowa . . . . .	2.7	3.2	3.9	5.6	5.7	5.2	5.2	5.2	5.0	1.9	3.7	0.2	-1.4
Missouri . . . . .	2.9	3.3	3.9	5.1	5.7	5.2	4.9	4.9	4.8	1.5	2.7	1.1	-1.9
North Dakota . . . . .	3.5	4.3	5.2	6.8	7.4	7.4	7.3	7.0	7.0	2.0	2.7	0.8	-0.6
South Dakota . . . . .	2.8	4.4	4.5	5.6	5.5	6.6	6.3	5.6	5.8	2.4	2.2	-0.2	0.6
Nebraska . . . . .	3.4	4.2	4.4	6.2	6.0	6.0	5.9	5.8	5.5	1.3	3.5	-0.3	-1.0
Kansas . . . . .	2.8	3.4	4.2	5.4	5.8	5.2	4.9	4.7	4.8	2.0	2.5	0.7	-2.1
South Atlantic . . . . .	2.5	2.8	3.3	4.0	4.5	4.1	3.9	3.8	3.7	1.4	1.9	1.2	-2.2
Delaware . . . . .	4.4	3.9	3.7	3.7	3.6	3.5	3.1	3.1	3.0	-0.9	0.0	-0.3	-2.0
Maryland . . . . .	3.9	3.6	3.3	3.1	3.6	3.4	3.0	2.9	2.9	-0.8	-0.6	1.5	-2.4
District of Columbia . . . . .	5.5	5.5	5.9	7.4	7.3	7.8	7.6	7.8	7.9	0.4	2.3	-0.1	0.9
Virginia . . . . .	2.2	2.5	3.0	3.7	4.1	3.8	3.6	3.5	3.4	1.6	2.1	1.0	-2.1
West Virginia . . . . .	2.7	3.1	4.1	5.4	5.5	5.1	4.8	4.7	4.7	2.1	2.8	0.2	-1.7
North Carolina . . . . .	2.2	2.6	3.4	3.8	4.2	3.7	3.4	3.4	3.4	2.2	1.1	1.0	-2.3
South Carolina . . . . .	1.8	2.4	2.9	3.7	3.9	3.6	3.4	3.3	3.2	2.4	2.5	0.5	-2.2
Georgia . . . . .	1.7	2.0	2.8	3.8	4.6	4.3	4.3	4.1	4.1	2.5	3.1	1.9	-1.3
Florida . . . . .	2.8	2.9	3.1	4.4	5.1	4.6	4.2	4.2	4.0	0.5	3.6	1.5	-2.7
East South Central . . . . .	1.7	2.1	3.0	4.4	5.1	5.0	4.9	4.7	4.7	2.9	3.9	1.5	-0.9
Kentucky . . . . .	1.8	2.2	3.0	4.0	4.5	4.4	4.5	4.3	4.3	2.6	2.9	1.2	-0.5
Tennessee . . . . .	1.9	2.3	3.4	4.7	5.5	5.3	5.0	4.8	4.8	3.0	3.3	1.6	-1.5
Alabama . . . . .	1.5	2.0	2.8	4.3	5.1	5.0	4.8	4.6	4.6	3.2	4.4	1.7	-1.1
Mississippi . . . . .	1.4	1.7	2.9	4.4	5.3	5.2	5.3	5.4	5.2	3.7	4.3	1.9	-0.2
West South Central . . . . .	2.1	2.7	3.3	4.3	4.7	4.2	4.0	3.9	3.8	2.3	2.7	0.9	-2.3
Arkansas . . . . .	1.4	1.6	2.9	4.2	5.0	4.8	4.5	4.5	4.5	3.7	3.8	1.8	-1.2
Louisiana . . . . .	3.1	3.8	3.9	4.2	4.8	4.6	4.5	4.4	4.4	1.2	0.7	1.3	-1.0
Oklahoma . . . . .	1.9	2.5	3.2	4.5	4.6	4.1	4.0	4.0	3.9	2.6	3.5	0.2	-1.8
Texas . . . . .	2.0	2.7	3.3	4.3	4.7	4.1	3.7	3.7	3.6	2.5	2.7	0.9	-2.9
Mountain . . . . .	3.6	3.8	3.5	4.3	3.8	3.5	3.3	3.3	3.1	-0.1	2.1	-1.2	-2.2
Montana . . . . .	4.9	5.3	5.1	5.8	5.9	5.5	5.6	5.6	5.7	0.2	1.3	0.2	-0.4
Idaho . . . . .	2.6	3.4	3.2	4.0	3.7	3.5	3.2	3.2	3.2	1.0	2.3	-0.8	-1.6
Wyoming . . . . .	3.5	3.9	4.6	5.5	3.6	4.3	4.6	4.8	4.7	1.4	1.8	-4.1	3.0
Colorado . . . . .	3.9	4.2	3.8	4.6	4.2	3.6	3.3	3.3	3.0	-0.1	1.9	-0.9	-3.7
New Mexico . . . . .	2.7	2.2	2.9	3.5	3.1	2.9	2.8	2.8	2.9	0.4	1.9	-1.2	-0.7
Arizona . . . . .	3.4	4.0	3.0	4.1	3.6	3.2	3.0	2.9	2.8	-0.6	3.2	-1.3	-2.8
Utah . . . . .	3.2	2.9	2.8	3.6	3.1	2.7	2.7	2.7	2.6	-0.7	2.5	-1.5	-1.9
Nevada . . . . .	5.0	4.4	3.9	4.2	4.2	3.7	3.5	3.2	3.0	-1.2	0.7	0.0	-3.7

See footnotes at end of table.

**Table 108 (page 2 of 2). Community hospital beds per 1,000 population and average annual percent change, according to geographic division and State: United States, selected years 1940–89**

[Data are based on reporting by facilities]

<i>Geographic division and State</i>	<i>Beds per 1,000 civilian population</i>									<i>Average annual percent change</i>			
	1940 <sup>1</sup>	1950 <sup>1</sup>	1960 <sup>2</sup>	1970	1980	1985	1987	1988	1989	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–89
Pacific .....	4.1	3.2	3.1	3.7	3.5	3.2	3.0	2.9	2.8	-1.4	1.8	-0.6	-2.4
Washington .....	3.4	3.6	3.3	3.5	3.1	3.0	2.9	2.7	2.6	-0.1	0.6	-1.2	-1.9
Oregon .....	3.5	3.1	3.5	4.0	3.5	3.2	3.0	2.9	2.9	0.0	1.3	-1.3	-2.1
California .....	4.4	3.3	3.0	3.8	3.6	3.2	3.0	2.9	2.9	-1.9	2.4	-0.5	-2.4
Alaska .....	...	...	2.4	2.3	2.7	2.2	2.4	2.4	2.5	...	-0.4	1.6	-0.9
Hawaii .....	...	...	3.7	3.4	3.1	2.8	2.5	2.7	2.7	...	-0.8	-0.9	-1.5

<sup>1</sup>1940 and 1950 data are estimated based on published figures.

<sup>2</sup>1960 includes hospital units of institutions.

SOURCES: American Medical Association: Hospital service in the United States. JAMA 116(11):1055–1144, 1941, and 146(2):109–184, 1951. (Copyright 1941 and 1951: Used with the permission of the American Medical Association.); American Hospital Association: Hospitals. JAHA 35(15):383–430, Aug. 1, 1961. (Copyright 1961: Used with the permission of the American Hospital Association.); Data computed by the Division of Analysis, National Center for Health Statistics from data compiled by the Division of Health Care Statistics, National Master Facility Inventory and the American Hospital Association 1989 annual survey; U.S. Bureau of the Census: Current Population Reports. Series P-25, Nos. 72, 304, 460, 640, 970, 1010, 1044, and 1058. Washington. U.S. Government Printing Office, 1953, 1965, 1971, 1976, 1980, 1985, 1989, and 1990.

**Table 109 (page 1 of 2). Occupancy rates in community hospitals and average annual percent change, according to geographic division and State: United States, selected years 1940–89**

[Data are based on reporting by facilities]

Geographic division and State	Percent of beds occupied								Average annual percent change			
	1940 <sup>1</sup>	1960 <sup>2</sup>	1970	1980	1985	1987	1988	1989	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–89
United States . . . . .	69.9	74.7	77.3	75.2	65.1	65.0	65.7	66.1	0.3	0.3	-0.3	-1.4
New England . . . . .	72.5	75.2	79.7	80.1	72.8	71.9	73.6	74.9	0.2	0.6	0.1	-0.7
Maine . . . . .	72.4	73.2	73.0	74.5	66.8	68.0	70.8	71.4	0.1	-0.0	0.2	-0.5
New Hampshire . . . . .	65.3	66.5	73.4	73.2	63.4	64.9	65.7	66.8	0.1	1.0	-0.0	-1.0
Vermont . . . . .	68.8	68.5	76.3	73.7	68.0	67.1	66.8	65.9	-0.0	1.1	-0.3	-1.2
Massachusetts . . . . .	71.8	75.8	80.3	81.7	74.1	71.0	73.4	75.7	0.3	0.6	0.2	-0.8
Rhode Island . . . . .	77.7	75.7	82.9	85.9	76.2	80.5	83.2	79.9	-0.1	0.9	0.4	-0.8
Connecticut . . . . .	75.9	78.2	82.6	80.4	75.4	76.4	76.4	77.7	0.1	0.5	-0.3	-0.4
Middle Atlantic . . . . .	75.5	78.1	82.4	83.2	77.1	77.9	79.4	79.8	0.2	0.5	0.1	-0.5
New York . . . . .	78.9	79.4	82.9	85.9	83.9	83.4	85.4	85.6	0.0	0.4	0.4	0.0
New Jersey . . . . .	72.4	78.4	82.5	82.8	74.8	76.8	78.2	79.3	0.4	0.5	0.0	-0.5
Pennsylvania . . . . .	71.3	76.0	81.5	79.5	68.7	70.7	71.3	71.8	0.3	0.7	-0.2	-1.1
East North Central . . . . .	71.0	78.4	79.5	76.9	64.2	62.9	63.8	63.9	0.5	0.1	-0.3	-2.0
Ohio . . . . .	72.1	81.3	81.8	79.2	63.9	64.4	65.5	65.0	0.6	0.1	-0.3	-2.2
Indiana . . . . .	68.5	79.6	80.3	77.6	61.6	58.0	58.3	59.8	0.8	0.1	-0.3	-2.9
Illinois . . . . .	73.1	76.0	79.3	74.9	64.4	63.2	63.1	63.8	0.2	0.4	-0.6	-1.8
Michigan . . . . .	71.5	80.5	80.6	78.2	67.4	64.7	66.2	65.7	0.6	0.0	-0.3	-1.9
Wisconsin . . . . .	65.2	73.9	73.2	73.6	61.8	61.1	63.5	63.2	0.6	-0.1	0.1	-1.7
West North Central . . . . .	65.7	71.8	73.6	71.2	60.3	60.4	60.9	61.5	0.4	0.2	-0.3	-1.6
Minnesota . . . . .	71.0	72.3	73.9	73.7	63.8	63.4	64.1	65.9	0.1	0.2	-0.0	-1.2
Iowa . . . . .	63.6	72.6	71.9	68.7	57.3	59.4	60.8	61.9	0.7	-0.1	-0.5	-1.2
Missouri . . . . .	68.6	75.8	79.3	75.1	63.0	63.0	61.9	62.5	0.5	0.5	-0.5	-2.0
North Dakota . . . . .	61.9	71.3	67.1	68.6	61.1	61.1	64.1	63.1	0.7	-0.6	0.2	-0.9
South Dakota . . . . .	59.1	66.0	66.3	60.6	57.5	57.7	59.4	60.8	0.6	0.0	-0.9	0.0
Nebraska . . . . .	59.0	65.6	69.9	67.4	58.4	55.7	56.1	55.9	0.5	0.6	-0.4	-2.1
Kansas . . . . .	60.4	69.1	71.4	68.8	54.3	55.3	56.5	55.5	0.7	0.3	-0.4	-2.4
South Atlantic . . . . .	66.7	74.8	77.9	75.5	65.5	66.4	66.6	66.6	0.6	0.4	-0.3	-1.4
Delaware . . . . .	59.2	70.2	78.8	81.8	68.0	74.8	77.2	75.7	0.9	1.2	0.4	-0.9
Maryland . . . . .	74.6	73.9	79.3	84.0	73.5	77.6	77.8	78.3	-0.0	0.7	0.6	-0.8
District of Columbia . . . . .	76.2	80.8	77.7	83.0	75.9	78.2	75.9	79.7	0.3	-0.4	0.7	-0.4
Virginia . . . . .	70.0	78.0	81.1	77.8	67.2	67.6	67.3	66.4	0.5	0.4	-0.4	-1.7
West Virginia . . . . .	62.1	74.5	79.3	75.6	60.7	60.2	60.8	60.3	0.9	0.6	-0.5	-2.5
North Carolina . . . . .	64.6	73.9	78.5	77.8	64.9	69.0	71.3	72.2	0.7	0.6	-0.1	-0.8
South Carolina . . . . .	69.1	76.9	76.4	77.0	67.7	67.5	67.0	69.1	0.5	-0.1	0.1	-1.2
Georgia . . . . .	62.7	71.7	76.5	70.4	64.4	65.7	65.7	65.0	0.7	0.7	-0.8	-0.9
Florida . . . . .	57.5	73.9	76.2	71.7	62.5	61.5	61.5	61.0	1.3	0.3	-0.6	-1.8
East South Central . . . . .	62.6	71.8	78.2	74.6	62.7	60.8	61.2	61.4	0.7	0.9	-0.5	-2.1
Kentucky . . . . .	61.6	73.4	79.6	77.4	64.0	60.2	60.8	61.1	0.9	0.8	-0.3	-2.6
Tennessee . . . . .	65.5	75.9	78.2	75.9	64.6	64.3	64.8	64.4	0.7	0.3	-0.3	-1.8
Alabama . . . . .	59.0	70.8	80.0	73.3	62.3	59.3	60.1	60.7	0.9	1.2	-0.9	-2.1
Mississippi . . . . .	63.8	62.8	73.6	70.5	58.1	57.2	57.1	57.5	-0.1	1.6	-0.4	-2.2
West South Central . . . . .	62.5	68.7	73.2	69.7	56.9	55.9	55.9	56.9	0.5	0.6	-0.5	-2.2
Arkansas . . . . .	55.6	70.0	74.4	69.6	56.0	58.1	56.8	59.2	1.2	0.6	-0.7	-1.8
Louisiana . . . . .	75.0	67.9	73.6	69.7	58.6	55.9	55.8	56.4	-0.5	0.8	-0.5	-2.3
Oklahoma . . . . .	54.5	71.0	72.5	68.1	56.2	56.9	57.2	58.0	1.3	0.2	-0.6	-1.8
Texas . . . . .	59.6	68.2	73.0	70.1	56.6	55.3	55.5	56.4	0.7	0.7	-0.4	-2.4
Mountain . . . . .	60.9	69.9	71.2	69.6	58.6	58.7	59.7	60.6	0.7	0.2	-0.2	-1.5
Montana . . . . .	62.8	60.3	65.9	66.1	59.1	60.1	62.6	61.5	-0.2	0.9	0.0	-0.8
Idaho . . . . .	65.4	55.9	66.1	65.2	56.6	55.0	56.7	55.2	-0.8	1.7	-0.1	-1.8
Wyoming . . . . .	47.5	61.1	63.1	57.2	52.0	50.7	50.5	53.0	1.3	0.3	-1.0	-0.8
Colorado . . . . .	62.1	80.6	74.0	71.6	59.0	59.9	60.7	63.8	1.3	-0.9	-0.3	-1.3
New Mexico . . . . .	47.8	65.1	69.8	66.2	60.0	60.1	57.9	59.0	1.6	0.7	-0.5	-1.3
Arizona . . . . .	61.2	74.2	73.3	74.2	61.5	61.8	63.6	62.8	1.0	-0.1	0.1	-1.8
Utah . . . . .	65.8	70.0	73.7	70.0	58.7	57.4	56.6	58.1	0.3	0.5	-0.5	-2.0
Nevada . . . . .	67.9	70.7	72.7	68.8	52.6	52.4	55.9	58.3	0.2	0.3	-0.5	-1.8

See footnotes at end of table.

**Table 109 (page 2 of 2). Occupancy rates in community hospitals and average annual percent change, according to geographic division and State: United States, selected years 1940–89**

[Data are based on reporting by facilities]

Geographic division and State	Percent of beds occupied								Average annual percent change			
	1940 <sup>1</sup>	1960 <sup>2</sup>	1970	1980	1985	1987	1988	1989	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–89
Pacific . . . . .	69.7	71.4	71.0	69.0	61.6	63.3	63.6	63.4	0.1	-0.1	-0.3	-0.9
Washington . . . . .	67.5	63.4	69.7	71.7	58.5	59.0	59.9	61.2	-0.3	1.0	0.3	-1.7
Oregon . . . . .	71.2	65.8	69.3	69.3	55.6	55.5	56.4	58.2	-0.4	0.5	0.0	-1.9
California . . . . .	69.9	74.3	71.3	68.5	62.3	64.3	64.4	63.8	0.3	-0.4	-0.4	-0.8
Alaska . . . . .	...	53.8	59.1	58.3	62.6	52.6	49.7	48.8	...	0.9	-0.1	-2.0
Hawaii . . . . .	...	61.5	75.7	74.7	76.4	79.9	83.5	83.2	...	2.1	-0.1	1.2

<sup>1</sup>1940 data are estimated based on published figures.  
<sup>2</sup>1960 includes hospital units of institutions.

SOURCES: American Medical Association: Hospital service in the United States. JAMA 116(11):1055–1144, 1941. (Copyright 1941: Used with the permission of the American Medical Association.); American Hospital Association: Hospitals. JAHA 35(15):383–430, Aug. 1, 1961. (Copyright 1961: Used with the permission of the American Hospital Association.); Data computed by the Division of Analysis, National Center for Health Statistics from data compiled by the Division of Health Care Statistics, National Master Facility Inventory and the American Hospital Association 1989 annual survey.



**Table 110 (page 1 of 2). Full-time equivalent employees per 100 average daily patients in community hospitals and average annual percent change, according to geographic division and State: United States, selected years 1960–89**

[Data are based on reporting by facilities]

<i>Geographic division and State</i>	<i>Employees per 100 average daily patients</i>							<i>Average annual percent change</i>		
	1960 <sup>1</sup>	1970	1980	1985	1987	1988	1989	1960–70 <sup>1</sup>	1970–80	1980–89
United States . . . . .	226	302	394	472	511	526	546	2.9	2.7	3.7
New England . . . . .	249	351	456	532	587	599	617	3.5	2.7	3.4
Maine . . . . .	227	289	409	494	525	534	550	2.4	3.5	3.3
New Hampshire . . . . .	240	310	400	517	539	558	581	2.6	2.6	4.2
Vermont . . . . .	227	318	348	434	522	528	553	3.4	0.9	5.3
Massachusetts . . . . .	252	365	488	547	625	632	651	3.8	2.9	3.3
Rhode Island . . . . .	270	383	454	547	547	549	579	3.6	1.7	2.7
Connecticut . . . . .	247	347	440	529	568	594	605	3.5	2.4	3.6
Middle Atlantic . . . . .	225	311	383	450	488	494	507	3.3	2.1	3.2
New York . . . . .	233	336	396	436	481	480	492	3.7	1.7	2.4
New Jersey . . . . .	225	278	332	423	438	453	465	2.1	1.8	3.8
Pennsylvania . . . . .	214	287	390	491	529	544	559	3.0	3.1	4.1
East North Central . . . . .	226	299	396	494	546	559	582	2.8	2.8	4.4
Ohio . . . . .	232	302	392	526	567	579	605	2.7	2.6	4.9
Indiana . . . . .	216	280	374	482	556	575	590	2.6	2.9	5.2
Illinois . . . . .	226	301	407	492	538	553	569	2.9	3.1	3.8
Michigan . . . . .	239	313	417	513	569	579	612	2.7	2.9	4.4
Wisconsin . . . . .	199	277	367	405	464	471	497	3.4	2.9	3.4
West North Central . . . . .	212	273	357	422	457	477	493	2.6	2.7	3.7
Minnesota . . . . .	220	273	347	384	407	428	433	2.2	2.4	2.5
Iowa . . . . .	208	258	349	427	452	468	478	2.2	3.1	3.6
Missouri . . . . .	217	289	385	471	535	557	579	2.9	2.9	4.6
North Dakota . . . . .	177	254	295	326	342	354	376	3.7	1.5	2.7
South Dakota . . . . .	188	247	352	323	364	399	404	2.8	3.6	1.5
Nebraska . . . . .	220	276	326	397	424	445	476	2.3	1.7	4.3
Kansas . . . . .	210	270	368	478	487	508	525	2.5	3.1	4.0
South Atlantic . . . . .	217	295	379	458	491	516	536	3.1	2.5	3.9
Delaware . . . . .	243	328	405	526	573	601	608	3.0	2.1	4.6
Maryland . . . . .	237	354	403	473	514	535	553	4.1	1.3	3.6
District of Columbia . . . . .	240	363	483	599	601	619	614	4.2	2.9	2.7
Virginia . . . . .	193	289	369	435	475	504	525	4.1	2.5	4.0
West Virginia . . . . .	198	255	351	452	481	504	511	2.6	3.2	4.3
North Carolina . . . . .	196	277	363	464	502	521	531	3.5	2.7	4.3
South Carolina . . . . .	185	257	356	426	466	483	501	3.3	3.3	3.9
Georgia . . . . .	233	294	396	458	476	499	524	2.4	3.0	3.2
Florida . . . . .	245	295	375	450	486	514	546	1.9	2.4	4.3
East South Central . . . . .	227	275	348	409	448	468	490	1.9	2.4	3.9
Kentucky . . . . .	229	276	332	403	451	464	480	1.9	1.9	4.2
Tennessee . . . . .	231	284	359	420	456	488	522	2.1	2.4	4.2
Alabama . . . . .	233	266	357	410	458	477	494	1.3	3.0	3.7
Mississippi . . . . .	207	270	334	392	411	422	435	2.7	2.1	3.0
West South Central . . . . .	225	297	384	471	519	537	560	2.8	2.6	4.3
Arkansas . . . . .	209	274	355	429	451	476	494	2.7	2.6	3.7
Louisiana . . . . .	218	292	392	483	529	547	567	3.0	3.0	4.2
Oklahoma . . . . .	218	296	404	480	503	529	548	3.1	3.2	3.4
Texas . . . . .	232	304	383	473	532	547	574	2.7	2.3	4.6
Mountain . . . . .	226	299	413	486	536	535	551	2.8	3.3	3.3
Montana . . . . .	216	247	302	351	366	370	386	1.4	2.0	2.8
Idaho . . . . .	255	281	374	427	511	491	524	1.0	2.9	3.8
Wyoming . . . . .	217	251	445	417	442	437	447	1.5	5.9	0.0
Colorado . . . . .	221	306	398	481	565	555	586	3.3	2.7	4.4
New Mexico . . . . .	228	314	430	536	557	546	543	3.3	3.2	2.6
Arizona . . . . .	222	327	455	523	574	564	571	3.9	3.4	2.6
Utah . . . . .	243	304	460	579	615	661	669	2.3	4.2	4.2
Nevada . . . . .	224	284	427	490	502	534	558	2.4	4.2	3.0

See footnote at end of table.

**Table 110 (page 2 of 2). Full-time equivalent employees per 100 average daily patients in community hospitals and average annual percent change, according to geographic division and State: United States, selected years 1960–89**

[Data are based on reporting by facilities]

<i>Geographic division and State</i>	<i>Employees per 100 average daily patients</i>							<i>Average annual percent change</i>		
	<i>1960<sup>1</sup></i>	<i>1970</i>	<i>1980</i>	<i>1985</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>	<i>1960–70<sup>1</sup></i>	<i>1970–80</i>	<i>1980–89</i>
Pacific . . . . .	243	327	467	545	561	578	602	3.0	3.6	2.9
Washington . . . . .	263	313	428	544	585	613	617	1.8	3.2	4.1
Oregon . . . . .	232	303	417	548	638	669	674	2.7	3.2	5.5
California . . . . .	241	334	481	550	555	570	594	3.3	3.7	2.4
Alaska . . . . .	220	301	454	515	546	584	599	3.2	4.2	3.1
Hawaii . . . . .	226	278	401	435	475	457	580	2.1	3.7	4.2

<sup>1</sup>1960 includes hospital units of institutions, but excludes students, interns, and residents.

SOURCES: American Hospital Association: Hospitals. JAHA 35(15):383–430, Aug. 1, 1961. (Copyright 1961: Used with the permission of the American Hospital Association.); Data computed by the Division of Analysis, National Center for Health Statistics from data compiled by the Division of Health Care Statistics, National Master Facility Inventory and the American Hospital Association 1989 annual survey.

**Table 111 (page 1 of 2). Nursing homes with 25 or more beds, beds, and bed rates, according to geographic division and State: United States, 1976, 1982, and 1986**

[Data are based on reporting by facilities]

Geographic division and State	Nursing homes			Beds			Bed rate <sup>1</sup>		
	1976	1982	1986	1976	1982	1986	1976	1982	1986
United States . . . . .	14,133	14,565	16,033	1,291,632	1,469,357	1,615,771	681.4	603.0	582.2
New England . . . . .	1,211	1,246	1,235	91,885	105,293	108,474	719.7	643.4	597.2
Maine . . . . .	121	155	144	7,027	9,717	9,685	602.9	630.1	561.3
New Hampshire . . . . .	68	70	75	5,633	6,729	6,987	702.1	636.4	557.4
Vermont . . . . .	53	51	47	3,477	3,196	3,083	678.0	501.5	434.1
Massachusetts . . . . .	645	620	612	47,169	50,366	51,126	744.0	634.2	585.4
Rhode Island . . . . .	85	95	101	6,766	8,885	9,927	682.6	679.6	681.2
Connecticut . . . . .	239	255	256	21,813	26,400	27,666	738.0	680.7	645.8
Middle Atlantic . . . . .	1,567	1,587	1,921	187,435	210,010	243,962	554.3	491.9	517.0
New York . . . . .	708	732	777	97,489	108,898	114,192	587.7	524.7	501.7
New Jersey . . . . .	313	332	356	31,147	36,638	39,071	511.7	465.5	439.6
Pennsylvania . . . . .	546	523	788	58,799	64,474	90,699	527.9	458.2	583.6
East North Central . . . . .	2,904	2,966	2,999	281,144	326,171	330,342	786.4	730.3	666.5
Ohio . . . . .	750	830	886	60,680	74,276	82,522	646.4	636.2	641.8
Indiana . . . . .	420	449	449	35,799	47,196	47,257	747.5	807.3	724.0
Illinois . . . . .	805	809	775	84,085	99,777	96,684	844.8	813.8	713.3
Michigan . . . . .	508	471	480	53,966	55,349	53,651	782.5	628.4	542.7
Wisconsin . . . . .	421	407	409	46,614	49,573	50,228	986.5	816.6	745.3
West North Central . . . . .	1,965	2,171	2,142	157,057	185,774	187,781	772.8	734.6	683.6
Minnesota . . . . .	385	390	399	38,177	42,500	44,357	862.1	735.5	697.3
Iowa . . . . .	440	475	440	31,785	38,150	34,942	812.5	790.9	686.1
Missouri . . . . .	408	530	552	32,539	46,403	50,204	602.4	705.7	692.0
North Dakota . . . . .	82	80	81	6,413	6,402	6,789	901.8	730.2	718.9
South Dakota . . . . .	117	116	114	8,047	7,938	7,918	897.6	706.0	652.9
Nebraska . . . . .	210	225	214	18,408	18,516	18,132	898.7	726.7	665.4
Kansas . . . . .	323	355	342	21,688	25,865	25,439	741.6	725.7	655.9
South Atlantic . . . . .	1,475	1,745	2,152	142,245	177,495	212,382	539.2	485.5	484.1
Delaware . . . . .	22	27	36	2,123	2,194	3,345	490.5	376.3	485.5
Maryland . . . . .	165	179	200	18,559	21,164	24,402	685.9	584.4	575.2
District of Columbia . . . . .	17	16	19	2,604	2,556	3,029	440.2	377.0	383.7
Virginia . . . . .	208	267	288	23,816	29,251	29,653	696.8	652.7	561.8
West Virginia . . . . .	73	95	103	4,858	7,505	8,692	281.0	356.2	374.6
North Carolina . . . . .	276	346	402	20,903	28,156	34,049	569.1	560.5	562.5
South Carolina . . . . .	102	130	157	8,311	11,560	14,071	507.1	515.9	518.1
Georgia . . . . .	304	306	298	28,732	32,194	31,738	862.4	742.0	607.5
Florida . . . . .	308	379	649	32,339	42,915	63,403	365.0	318.2	382.9
East South Central . . . . .	856	865	887	66,994	85,565	90,180	579.0	589.1	541.4
Kentucky . . . . .	267	276	277	19,929	25,837	26,426	646.5	681.5	621.3
Tennessee . . . . .	258	251	267	19,448	26,111	28,599	556.9	576.2	544.7
Alabama . . . . .	209	190	203	19,207	20,490	21,736	646.7	555.6	506.5
Mississippi . . . . .	122	148	140	8,410	13,127	13,419	415.2	522.2	469.0
West South Central . . . . .	1,740	1,789	1,922	157,173	177,237	189,920	912.1	802.5	736.3
Arkansas . . . . .	208	200	237	19,322	19,327	21,910	861.1	689.7	703.2
Louisiana . . . . .	200	224	276	18,969	24,836	32,747	713.9	748.7	836.4
Oklahoma . . . . .	341	359	382	25,990	28,902	30,359	877.6	788.6	751.0
Texas . . . . .	991	1,006	1,027	92,892	104,172	104,904	991.4	846.9	712.7
Mountain . . . . .	495	529	631	41,881	47,857	57,414	597.9	503.5	506.1
Montana . . . . .	69	59	57	4,725	5,120	4,804	584.3	553.3	491.5
Idaho . . . . .	54	47	60	4,263	4,102	5,240	598.1	448.6	517.0
Wyoming . . . . .	22	25	27	1,753	2,060	2,301	595.2	556.8	550.0
Colorado . . . . .	174	157	183	17,792	16,848	18,402	873.1	644.3	610.2
New Mexico . . . . .	30	31	56	2,489	2,351	4,915	360.0	241.5	416.5
Arizona . . . . .	67	109	134	5,832	9,888	12,740	402.6	428.9	424.3
Utah . . . . .	63	76	84	3,707	5,025	5,995	503.3	518.8	511.2
Nevada . . . . .	16	25	30	1,320	2,463	3,017	481.6	570.5	534.5

See footnote at end of table.

**Table 111 (page 2 of 2). Nursing homes with 25 or more beds, beds, and bed rates, according to geographic division and State: United States, 1976, 1982, and 1986**

[Data are based on reporting by facilities]

<i>Geographic division and State</i>	<i>Nursing homes</i>			<i>Beds</i>			<i>Bed rate<sup>1</sup></i>		
	<i>1976</i>	<i>1982</i>	<i>1986</i>	<i>1976</i>	<i>1982</i>	<i>1986</i>	<i>1976</i>	<i>1982</i>	<i>1986</i>
Pacific . . . . .	1,920	1,667	2,144	165,818	153,955	195,316	670.9	481.0	520.8
Washington . . . . .	318	309	328	29,415	30,017	32,021	835.1	670.0	623.9
Oregon . . . . .	202	177	214	15,758	15,711	17,404	660.1	503.9	495.1
California . . . . .	1,369	1,148	1,569	118,144	105,325	143,179	646.1	445.5	512.7
Alaska . . . . .	8	10	10	738	1,031	1,082	1,232.1	1,458.3	950.0
Hawaii . . . . .	23	23	23	1,763	1,871	1,630	384.0	269.4	200.5

<sup>1</sup>Number of beds per 1,000 resident population 85 years of age and over.

NOTE: The 1982 inventory excluded certain types of nursing homes that the 1976 and 1986 inventories included (nursing home units of hospitals, nursing homes for the blind, etc.). To make the data comparable, these types of homes and their beds were subtracted from the 1976 and 1986 figures.

SOURCES: Division of Health Care Statistics, National Center for Health Statistics: Trends in nursing and related care homes and hospitals, United States, selected years 1969–80, by G. W. Strahan. Vital and Health Statistics. Series 14, No. 30. DHHS Pub. No. (PHS) 84-1825. Public Health Service. Washington. U.S. Government Printing Office, Mar. 1984; Nursing and related care homes as reported from the 1982 National Master Facility Inventory Survey, by D. A. Roper. Vital and Health Statistics. Series 14, No. 32. DHHS Pub. No. (PHS) 86-1827. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1986; data from the National Master Facility Inventory; Final data from the 1986 Inventory of Long-term Care Places; Resident population computed by the Division of Analysis, National Center for Health Statistics from the Compressed Mortality File, a county-level national mortality and population data base.



**Table 112. Gross national product, national health expenditures, and Federal government expenditures: United States, selected years 1929–90**

[Data are compiled by the Health Care Financing Administration]

Year	Gross national product in billions	National health expenditures			Federal government expenditures		
		Amount in billions	Percent of gross national product	Amount per capita	Total in billions	Health in billions	Health as a percent of total
1929.....	\$ 103.1	\$ 3.6	3.5	\$ 29	\$ 2.7	---	---
1935.....	72.2	2.9	4.0	23	6.6	---	---
1940.....	99.7	4.0	4.0	29	10.0	---	---
1950.....	284.8	12.7	4.5	80	41.2	\$ 1.6	3.9
1955.....	398.0	17.7	4.4	101	68.6	2.0	2.9
1960.....	515.3	27.1	5.3	143	93.9	2.9	3.1
1965.....	705.1	41.6	5.9	204	125.3	4.8	3.8
1966.....	772.0	45.9	5.9	222	145.3	7.5	5.2
1967.....	816.4	51.7	6.3	248	165.8	12.2	7.4
1968.....	892.6	58.5	6.6	278	182.9	14.1	7.7
1969.....	963.9	65.7	6.8	309	191.3	16.1	8.4
1970.....	1,015.5	74.4	7.3	346	207.8	17.7	8.5
1971.....	1,102.7	82.3	7.5	379	224.8	20.4	9.1
1972.....	1,212.8	92.3	7.6	421	249.0	22.9	9.2
1973.....	1,359.3	102.5	7.5	464	269.3	25.2	9.4
1974.....	1,472.8	116.1	7.9	521	305.5	30.5	10.0
1975.....	1,598.4	132.9	8.3	592	364.2	36.4	10.0
1976.....	1,782.8	152.2	8.5	672	393.7	42.9	10.9
1977.....	1,990.5	172.0	8.6	753	430.1	47.6	11.1
1978.....	2,249.7	193.7	8.6	839	470.7	54.3	11.5
1979.....	2,508.2	217.2	8.7	932	521.1	61.4	11.8
1980.....	2,731.9	250.1	9.2	1,063	615.1	72.0	11.7
1981.....	3,052.6	290.2	9.5	1,221	703.3	84.0	11.9
1982.....	3,166.0	326.1	10.3	1,358	781.2	93.3	11.9
1983.....	3,405.7	358.6	10.5	1,479	835.9	103.2	12.3
1984.....	3,772.2	389.6	10.3	1,592	895.6	112.6	12.6
1985.....	4,014.9	422.6	10.5	1,710	985.6	123.6	12.5
1986.....	4,231.6	454.8	10.7	1,822	1,034.8	133.1	12.9
1987.....	4,515.6	494.1	10.9	1,961	1,071.9	144.0	13.4
1988.....	4,873.7	546.0	11.2	2,146	1,114.2	156.7	14.1
1989.....	5,200.8	602.8	11.6	2,346	1,187.2	175.0	14.7
1990.....	5,465.1	666.2	12.2	2,566	1,275.7	195.4	15.3

NOTES: These data include revisions back to 1978 and differ from previous editions of Health, United States. These data reflect Bureau of Economic Analysis, Department of Commerce revisions to the gross national product and Federal government expenditures as of May 1991 and Social Security Administration population revisions as of May 1991.

SOURCE: Office of National Health Statistics, Office of the Actuary: National health expenditures, 1990. Health Care Financing Review. Vol. 13, No. 1. HCFA Pub. No. 03321. Health Care Financing Administration. Washington. U.S. Government Printing Office, October 1991.

**Table 113. Total health expenditures as a percentage of gross domestic product and per capita expenditures in dollars: Selected countries and years 1960–90**

Country	1960	1965	1970	1975	1980	1985	1988	1989	1990
Health expenditures as a percent of gross domestic product									
Australia . . . . .	4.9	5.1	5.7	7.5	7.4	7.8	7.7	7.6	7.5
Austria . . . . .	4.4	4.7	5.4	7.3	7.9	8.1	8.4	8.4	8.4
Belgium . . . . .	3.4	3.9	4.1	5.9	6.7	7.4	7.5	7.4	7.4
Canada . . . . .	5.5	6.0	7.1	7.2	7.4	8.5	8.7	8.7	9.0
Denmark . . . . .	3.6	2.7	6.1	6.5	6.8	6.3	6.5	6.4	6.2
Finland . . . . .	4.2	4.9	5.7	6.3	6.5	7.2	7.2	7.2	7.4
France . . . . .	4.2	5.2	5.8	7.0	7.6	8.5	8.6	8.8	8.9
Germany . . . . .	4.8	5.1	5.9	8.1	8.4	8.7	8.9	8.2	8.1
Greece . . . . .	2.9	3.1	4.0	4.1	4.3	4.9	5.0	5.3	5.3
Iceland . . . . .	3.5	4.2	5.2	6.2	6.5	7.4	8.5	8.6	8.5
Ireland . . . . .	4.0	4.4	5.6	7.6	9.0	8.3	7.9	7.3	7.1
Italy . . . . .	3.3	4.0	5.2	6.1	6.9	7.0	7.6	7.6	7.7
Japan . . . . .	2.9	4.3	4.4	5.5	6.4	6.4	6.6	6.6	6.5
Luxembourg . . . . .	---	---	4.1	5.6	6.8	6.8	7.3	7.4	7.2
Netherlands . . . . .	3.9	4.4	6.0	7.6	8.0	8.0	8.2	8.1	8.0
New Zealand . . . . .	4.3	---	5.2	6.7	7.2	6.6	7.4	7.3	7.2
Norway . . . . .	3.3	3.9	5.0	6.7	6.6	6.4	7.5	7.6	7.2
Portugal . . . . .	---	---	3.1	6.4	5.9	7.0	7.1	7.2	6.7
Spain . . . . .	---	2.6	3.7	4.8	5.6	5.7	6.0	6.3	6.6
Sweden . . . . .	4.7	5.6	7.2	7.9	9.2	8.8	8.5	8.7	8.7
Switzerland . . . . .	3.3	3.8	5.2	7.0	7.3	7.6	7.8	7.6	7.4
Turkey . . . . .	---	---	---	3.5	4.0	2.8	3.7	3.9	4.0
United Kingdom . . . . .	3.9	4.1	4.5	5.5	5.8	6.0	6.0	6.0	6.2
United States . . . . .	5.2	6.0	7.4	8.4	9.3	10.7	11.4	11.7	12.4
Per capita health expenditures <sup>1</sup>									
Australia . . . . .	\$95	\$121	\$205	\$433	\$595	\$952	\$1,102	\$1,123	\$1,151
Austria . . . . .	60	81	149	336	618	871	1,046	1,112	1,192
Belgium . . . . .	50	76	123	286	541	802	949	1,007	1,087
Canada . . . . .	117	165	274	478	806	1,315	1,585	1,683	1,795
Denmark . . . . .	64	64	209	335	571	770	892	922	963
Finland . . . . .	58	91	163	305	513	826	998	1,090	1,156
France . . . . .	66	109	192	365	656	991	1,174	1,277	1,379
Germany . . . . .	86	119	199	420	739	1,046	1,243	1,224	1,287
Greece . . . . .	17	29	62	110	196	292	343	382	406
Iceland . . . . .	60	96	152	321	638	964	1,350	1,353	1,372
Ireland . . . . .	37	52	99	225	448	577	639	658	693
Italy . . . . .	46	75	147	270	548	766	990	1,061	1,138
Japan . . . . .	26	63	126	252	515	785	978	1,060	1,145
Luxembourg . . . . .	---	---	150	319	616	879	1,140	1,190	1,300
Netherlands . . . . .	71	102	207	411	693	908	1,048	1,109	1,182
New Zealand . . . . .	89	---	174	354	523	667	811	341	853
Norway . . . . .	55	86	154	350	624	900	1,223	1,219	1,281
Portugal . . . . .	---	---	46	158	252	385	479	528	529
Spain . . . . .	---	37	82	186	322	437	571	648	730
Sweden . . . . .	92	145	274	475	842	1,125	1,258	1,344	1,421
Switzerland . . . . .	87	127	250	482	742	1,115	1,308	1,363	1,406
Turkey . . . . .	---	---	---	57	100	100	165	175	197
United Kingdom . . . . .	76	98	146	272	454	662	817	864	932
United States . . . . .	142	206	346	592	1,063	1,711	2,145	2,346	2,566

<sup>1</sup>Per capita health expenditures for each country have been adjusted to U.S. dollars using the annual average daily exchange rate for each year.

NOTES: Gross domestic product differs slightly from gross national product shown in the previous table. For definitions, see Appendix II. Some numbers in this table have been revised and differ from previous editions of Health, United States.

SOURCE: Organization for Economic Cooperation and Development: Measuring Health Care 1960–1983, OECD Pub. No. 43239, Paris, France, 1985; OECD Health Data 1991, and OECD Health Systems: Facts and Trends. Forthcoming.

**Table 114. National health expenditures, percent distribution, and average annual percent change, according to type of expenditure: United States, selected years 1960–90**

[Data are compiled by the Health Care Financing Administration]

Type of expenditure	1960	1965	1970	1975	1980	1985	1987	1988	1989	1990
Amount in billions										
Total . . . . .	\$27.1	\$41.6	\$74.4	\$132.9	\$250.1	\$422.6	\$494.1	\$546.0	\$602.8	\$666.2
Percent distribution										
All expenditures . . . . .	100	100	100	100	100	100	100	100	100	100
Health services and supplies . . . . .	94	92	93	94	95	96	97	96	97	97
Personal health care . . . . .	88	86	87	88	88	87	89	88	88	88
Hospital care . . . . .	34	34	38	39	41	40	39	39	39	38
Physician services . . . . .	19	20	18	18	17	17	19	19	19	19
Dentist services . . . . .	7	7	6	6	6	6	5	5	5	5
Nursing home care . . . . .	4	4	7	7	8	8	8	8	8	8
Other professional services . . . . .	2	2	2	3	3	4	4	4	4	5
Home health care . . . . .	0	0	0	0	1	1	1	1	1	1
Drugs and other medical nondurables . . . . .	16	14	12	10	9	9	9	8	8	8
Vision products and other medical durables . . . . .	3	3	3	2	2	2	2	2	2	2
Other personal health care . . . . .	3	2	2	2	2	2	2	2	2	2
Program administration and net cost of health insurance . . . . .	4	5	4	4	5	6	5	5	6	6
Government public health activities . . . . .	1	2	2	2	3	3	3	3	3	3
Research and construction . . . . .	6	8	7	6	5	4	3	4	3	3
Noncommercial research . . . . .	3	4	3	3	2	2	2	2	2	2
Construction . . . . .	4	5	5	4	2	2	2	2	2	2
Type of expenditure	1960–65	1965–70	1970–75	1975–80	1980–85	1985–87	1987–88	1988–89	1989–90	
Average annual percent change										
All expenditures . . . . .	8.9	12.3	12.3	13.5	11.1	8.1	10.5	10.4	10.5	
Health services and supplies . . . . .	8.5	12.6	12.5	13.9	11.3	8.2	10.3	10.6	10.5	
Personal health care . . . . .	8.3	12.8	12.4	13.5	11.0	9.0	9.9	9.8	10.5	
Hospital care . . . . .	8.6	14.7	13.4	14.3	10.4	7.4	9.2	9.7	10.1	
Physician services . . . . .	9.2	10.6	11.4	12.5	12.1	12.1	13.1	8.0	10.7	
Dentist services . . . . .	7.3	10.8	12.1	11.7	10.1	8.0	8.5	7.3	7.6	
Nursing home care . . . . .	11.6	23.4	15.4	15.0	11.3	7.8	7.8	11.5	11.4	
Other professional services . . . . .	7.4	11.8	18.3	19.9	13.8	12.8	12.4	14.0	16.6	
Home health care . . . . .	9.6	19.7	23.2	27.2	23.3	3.6	9.6	24.9	22.5	
Drugs and other medical nondurables . . . . .	6.8	8.4	8.1	10.7	10.8	9.3	7.2	9.3	7.9	
Vision products and other medical durables . . . . .	9.0	10.1	8.8	8.2	9.4	12.7	11.8	12.9	6.1	
Other personal health care . . . . .	3.5	10.7	14.6	11.0	6.9	10.6	12.1	11.2	16.4	
Program administration and net cost of health insurance . . . . .	10.5	7.5	12.8	19.3	15.5	-4.6	16.9	26.6	14.1	
Government public health activities . . . . .	10.8	17.1	17.0	18.9	11.3	8.9	13.5	10.4	5.6	
Research and construction . . . . .	15.2	9.0	9.2	6.4	6.4	5.9	14.9	4.3	10.2	
Noncommercial research . . . . .	17.1	5.1	11.2	10.4	7.4	7.6	14.5	6.8	11.9	
Construction . . . . .	13.9	11.8	8.0	3.3	5.4	4.2	15.3	1.5	8.3	

NOTE: These data include revisions back to 1978 and differ from previous editions of Health, United States.

SOURCE: Office of National Health Statistics, Office of the Actuary: National health expenditures, 1990. Health Care Financing Review. Vol. 13, No. 1. HCFA Pub. No. 03321. Health Care Financing Administration. Washington, U.S. Government Printing Office, October 1991.

**Table 115. Personal health care expenditures average annual percent change and percent distribution of factors affecting growth: United States, 1960–90**

[Data are compiled by the Health Care Financing Administration]

Period	Average annual percent change	Factors affecting growth			
		All factors	Prices	Population	Intensity <sup>1</sup>
Percent distribution					
1960–90	11.3	100	57	10	33
1960–61	6.1	100	29	27	44
1961–62	7.6	100	29	20	51
1962–63	9.3	100	22	16	62
1963–64	9.9	100	22	14	64
1964–65	8.6	100	36	15	49
1965–66	10.5	100	45	11	44
1966–67	13.6	100	45	8	47
1967–68	13.1	100	45	8	47
1968–69	13.0	100	44	8	48
1969–70	13.7	100	47	8	45
1970–71	9.9	100	62	11	27
1971–72	11.3	100	39	9	52
1972–73	11.7	100	40	7	53
1973–74	14.6	100	62	6	32
1974–75	14.7	100	72	6	22
1975–76	14.0	100	64	6	30
1976–77	12.3	100	68	7	25
1977–78	12.2	100	66	8	26
1978–79	13.0	100	69	8	23
1979–80	15.9	100	72	6	22
1980–81	16.2	100	70	6	24
1981–82	12.4	100	78	8	14
1982–83	10.0	100	72	10	18
1983–84	8.4	100	75	12	13
1984–85	8.3	100	66	12	22
1985–86	8.4	100	60	12	28
1986–87	9.6	100	60	10	30
1987–88	9.9	100	69	10	21
1988–89	9.8	100	71	10	19
1989–90	10.5	100	63	10	27

<sup>1</sup>Represents changes in use or kinds of services and supplies.

NOTE: These data include revisions back to 1960 and differ from previous editions of Health, United States.

SOURCE: Office of National Health Statistics, Office of the Actuary: National health expenditures, 1990. Health Care Financing Review. Vol. 13, No. 1. HCFA Pub. No. 03321. Health Care Financing Administration. Washington. U.S. Government Printing Office, October 1991.



**Table 116. Consumer Price Index and average annual percent change for all items and selected items: United States, selected years 1950–90**

[Data are based on reporting by samples of providers and other retail outlets]

Year	All items	Medical care	Food	Apparel and upkeep	Housing	Energy	Personal care
Consumer Price Index							
1950	24.1	15.1	25.4	40.3	---	---	26.2
1955	26.8	18.2	27.8	42.9	---	---	29.9
1960	29.6	22.3	30.0	45.7	---	22.4	34.6
1965	31.5	25.2	32.2	47.8	---	22.9	36.6
1970	38.8	34.0	39.2	59.2	36.4	25.5	43.5
1975	53.8	47.5	59.8	72.5	50.7	42.1	57.9
1976	56.9	52.0	61.6	75.2	53.8	45.1	61.7
1977	60.6	57.0	65.5	78.6	57.4	49.4	65.7
1978	65.2	61.8	72.0	81.4	62.4	52.5	69.9
1979	72.6	67.5	79.9	84.9	70.1	65.7	75.2
1980	82.4	74.9	86.8	90.9	81.1	86.0	81.9
1981	90.9	82.9	93.6	95.3	90.4	97.7	89.1
1982	96.5	92.5	97.4	97.8	96.9	99.2	95.4
1983	99.6	100.6	99.4	100.2	99.5	99.9	100.3
1984	103.9	106.8	103.2	102.1	103.6	100.9	104.3
1985	107.6	113.5	105.6	105.0	107.7	101.6	108.3
1986	109.6	122.0	109.6	105.9	110.9	88.2	111.9
1987	113.6	130.1	113.5	110.6	114.2	88.6	115.1
1988	118.3	138.6	118.2	115.4	118.5	89.3	119.4
1989	124.0	149.3	125.1	118.6	123.0	94.3	125.0
1990	130.7	162.8	132.4	124.1	128.5	102.1	130.4
Average annual percent change							
1950–90	4.3	6.1	4.2	2.9	16.5	25.2	4.1
1950–55	2.1	3.8	1.8	1.3	---	---	2.7
1955–60	2.0	4.1	1.5	1.3	---	---	3.0
1960–65	1.3	2.5	1.4	0.9	---	0.4	1.1
1965–70	4.3	6.2	4.0	4.4	---	2.2	3.5
1970–75	6.8	6.9	8.8	4.1	6.9	10.5	5.9
1975–80	8.9	9.5	7.7	4.6	9.9	15.4	7.2
1975–76	5.8	9.5	3.0	3.7	6.1	7.1	6.6
1976–77	6.5	9.6	6.3	4.5	6.7	9.5	6.5
1977–78	7.6	8.4	9.9	3.6	8.7	6.3	6.4
1978–79	11.3	9.2	11.0	4.3	12.3	25.1	7.6
1979–80	13.5	11.0	8.6	7.1	15.7	30.9	8.9
1980–85	5.5	8.7	4.0	2.9	5.8	3.4	5.7
1980–81	10.3	10.7	7.8	4.8	11.5	13.6	8.8
1981–82	6.2	11.6	4.1	2.6	7.2	1.5	7.1
1982–83	3.2	8.8	2.1	2.5	2.7	0.7	5.1
1983–84	4.3	6.2	3.8	1.9	4.1	1.0	4.0
1984–85	3.6	6.3	2.3	2.8	4.0	0.7	3.8
1985–90	4.0	7.5	4.6	3.4	3.6	0.1	3.8
1985–86	1.9	7.5	3.2	0.9	3.0	-13.2	3.3
1986–87	3.6	6.6	4.1	4.4	3.0	0.5	2.9
1987–88	4.1	6.5	4.1	4.3	3.8	0.8	3.7
1988–89	4.8	7.7	5.8	2.8	3.8	5.6	4.7
1989–90	5.4	9.0	5.8	4.6	4.5	8.3	4.3

<sup>1</sup>Data are for 1970–90.

<sup>2</sup>Data are for 1960–90.

NOTE: 1982–84 = 100.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor: Consumer Price Index. Various releases.

**Table 117. Consumer Price Index and average annual percent change for all items and medical care components: United States, selected years 1950–90**

[Data are based on reporting by samples of providers and other retail outlets]

<i>Item and medical care component</i>	1950	1960	1965	1970	1975	1980	1985	1988	1989	1990
Consumer Price Index										
CPI, all items . . . . .	24.1	29.6	31.5	38.8	53.8	82.4	107.6	118.3	124.0	130.7
Less medical care . . . . .	---	30.2	32.0	39.2	54.3	82.8	107.2	117.0	122.4	128.8
CPI, all services . . . . .	16.9	24.1	26.6	35.0	48.0	77.9	109.9	125.7	131.9	139.2
All medical care . . . . .	15.1	22.3	25.2	34.0	47.5	74.9	113.5	138.6	149.3	162.8
Medical care services . . . . .	12.8	19.5	22.7	32.3	46.6	74.8	113.2	138.3	148.9	162.7
Professional medical services . . . . .	---	---	---	37.0	50.8	77.9	113.5	137.5	146.4	156.1
Physicians' services . . . . .	15.7	21.9	25.1	34.5	48.1	76.5	113.3	139.8	150.1	160.8
Dental services . . . . .	21.0	27.0	30.3	39.2	53.2	78.9	114.2	137.5	146.1	155.8
Eye care <sup>1</sup> . . . . .	---	---	---	---	---	---	---	108.7	112.4	117.3
Services by other medical professionals <sup>1</sup> . . . . .	---	---	---	---	---	---	---	108.3	114.2	120.2
Hospital and related services . . . . .	---	---	---	---	---	69.2	116.1	143.9	160.5	178.0
Hospital rooms . . . . .	4.9	9.3	12.3	23.6	38.3	68.0	115.4	143.3	158.1	175.4
Other inpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	114.0	128.9	142.7
Outpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	112.5	124.7	138.7
Medical care commodities . . . . .	39.7	46.9	45.0	46.5	53.3	75.4	115.2	139.9	150.8	163.4
Prescription drugs . . . . .	43.4	54.0	47.8	47.4	51.2	72.5	120.1	152.0	165.2	181.7
Nonprescription drugs and medical supplies <sup>1</sup> . . . . .	---	---	---	---	---	---	---	108.1	114.6	120.6
Internal and respiratory over-the-counter drugs . . . . .	---	---	39.0	42.3	51.8	74.9	112.2	130.8	138.8	145.9
Nonprescription medical equipment and supplies . . . . .	---	---	---	---	---	79.2	109.6	123.9	131.1	138.0
<i>Item and medical care component</i>	1950–60	1960–65	1965–70	1970–75	1975–80	1980–85	1985–88	1988–89	1989–90	
Average annual percent change										
CPI, all items . . . . .	2.1	1.3	4.3	6.8	8.9	5.5	3.2	4.8	5.4	
Less medical care . . . . .	---	1.2	4.1	6.7	8.8	5.3	3.0	4.6	5.2	
CPI, all services . . . . .	3.6	2.0	5.6	6.5	10.2	7.1	4.6	4.9	5.5	
All medical care . . . . .	4.0	2.5	6.2	6.9	9.5	8.7	6.9	7.7	9.0	
Medical care services . . . . .	4.3	3.1	7.3	7.6	9.9	8.6	6.9	7.7	9.3	
Professional medical services . . . . .	---	---	---	6.5	8.9	7.8	6.6	6.5	6.6	
Physicians' services . . . . .	3.4	2.8	6.6	6.9	9.7	8.2	7.3	7.4	7.1	
Dental services . . . . .	2.5	2.3	5.3	6.3	8.2	7.7	6.4	6.3	6.6	
Eye care <sup>1</sup> . . . . .	---	---	---	---	---	---	---	3.4	4.4	
Services by other medical professionals <sup>1</sup> . . . . .	---	---	---	---	---	---	---	5.4	5.3	
Hospital and related services . . . . .	---	---	---	---	---	10.9	7.4	11.5	10.9	
Hospital rooms . . . . .	6.6	5.8	13.9	10.2	12.2	11.2	7.5	10.3	10.9	
Other inpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	13.1	10.7	
Outpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	10.8	11.2	
Medical care commodities . . . . .	1.7	-0.8	0.7	2.8	7.2	8.8	6.7	7.8	8.4	
Prescription drugs . . . . .	2.2	-2.4	-0.2	1.6	7.2	10.6	8.2	8.7	10.0	
Nonprescription drugs and medical supplies <sup>1</sup> . . . . .	---	---	---	---	---	---	---	6.0	5.2	
Internal and respiratory over-the-counter drugs . . . . .	---	---	1.6	4.1	7.7	8.4	5.2	6.1	5.1	
Nonprescription medical equipment and supplies . . . . .	---	---	---	---	---	6.7	4.2	5.8	5.3	

<sup>1</sup>Dec. 1986 = 100.

NOTE: 1982–84 = 100, except where noted.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor: Consumer Price Index. Various releases.

**Table 118. Hospital expenses and personnel and average annual percent change in non-Federal short-stay hospitals: United States, 1971-89**

[Data are based on reporting by a census of registered hospitals]

Year and period	Expenses for inpatient care			Personnel <sup>2</sup>		
	Total in billions	Per inpatient day	Per inpatient stay	Employee costs as percent of total <sup>1</sup>	Number in thousands	Number per 100 patients
1971.....	\$ 22.4	\$ 83	\$ 667	63.9	1,999	272
1972.....	25.5	95	747	62.6	2,056	278
1973.....	28.5	102	794	61.8	2,149	280
1974.....	32.8	113	883	60.7	2,289	289
1975.....	39.1	133	1,025	59.4	2,399	298
1976.....	45.4	152	1,172	57.9	2,483	304
1977.....	51.8	173	1,317	57.5	2,581	315
1978.....	58.3	194	1,470	57.2	2,662	323
1979.....	66.2	216	1,631	57.0	2,762	328
1980.....	77.0	244	1,844	56.4	2,879	334
1981.....	90.7	284	2,168	56.7	3,039	347
1982.....	105.1	327	2,493	56.7	3,110	353
1983.....	116.6	368	2,776	56.5	3,102	357
1984.....	123.6	410	2,984	56.1	3,023	367
1985.....	130.7	460	3,239	55.2	3,003	385
1986.....	140.9	499	3,530	53.9	3,032	392
1987.....	152.9	537	3,849	53.1	3,120	400
1988.....	168.9	581	4,194	52.9	3,209	404
1989.....	185.2	631	4,572	53.0	3,307	411
Average annual percent change						
1971-89.....	12.5	11.9	11.3	...	2.8	2.3
1971-72.....	14.1	14.5	12.0	...	2.9	2.2
1972-73.....	11.5	7.4	6.3	...	4.5	0.7
1973-74.....	14.9	10.8	11.2	...	6.5	3.2
1974-75.....	19.4	17.7	16.1	...	4.8	3.1
1975-76.....	16.1	14.3	14.3	...	3.5	2.0
1976-77.....	14.2	13.8	12.4	...	3.9	3.6
1977-78.....	12.6	12.1	11.6	...	3.1	2.5
1978-79.....	13.4	11.3	11.0	...	3.8	1.5
1979-80.....	16.3	13.0	13.1	...	4.2	1.8
1980-81.....	17.9	16.4	17.6	...	5.6	3.9
1981-82.....	15.8	15.1	15.0	...	2.3	1.7
1982-83.....	11.0	12.5	11.4	...	-0.3	1.1
1983-84.....	5.9	11.4	7.5	...	-2.5	2.8
1984-85.....	5.8	12.2	8.5	...	-0.7	4.9
1985-86.....	7.8	8.5	9.0	...	1.0	1.8
1986-87.....	8.5	7.6	9.0	...	2.9	2.0
1987-88.....	10.5	8.2	9.0	...	2.9	1.0
1988-89.....	9.7	8.6	9.0	...	3.1	1.7

<sup>1</sup>Includes employee payroll and benefit costs. Does not include contracted labor services.

<sup>2</sup>Full-time equivalent personnel.

NOTE: Data refer to non-Federal short-term general and other specialty hospitals.

SOURCE: American Hospital Association: Hospital Statistics, 1990 Edition, Chicago, 1990. (Copyright 1990: Used with the permission of the American Hospital Association.)

**Table 119. Hospital expenses and average annual percent change in short-stay hospitals, according to type of ownership and size of hospital: United States, selected years 1970–89**

[Data are based on reporting by a census of registered hospitals]

<i>Type of ownership and size of hospital</i>	1970	1975	1980	1985	1986	1987	1988	1989	1980–85	1985–89
Total expenses	Amount in billions								Average annual percent change	
All ownership . . . . .	\$ 19.7	\$ 42.7	\$ 83.8	\$ 141.3	\$ 152.4	\$ 164.9	\$ 182.0	\$ 198.6	11.0	8.9
Federal <sup>1</sup> . . . . .	1.1	3.6	6.8	10.6	11.5	12.0	13.1	13.4	9.2	6.0
Department of Defense . . . . .	0.2	1.1	1.9	3.5	3.8	4.0	4.5	4.3	13.0	5.3
Department of Veterans Affairs . . . . .	0.9	2.3	4.5	6.6	7.2	7.5	8.0	8.5	8.0	6.5
Indian Health Service . . . . .	0.0	0.1	0.2	0.3	0.3	0.3	0.4	0.4	8.4	7.5
Non-Federal short-stay <sup>2</sup> . . . . .	18.6	39.1	77.0	130.7	140.9	152.9	168.9	185.2	11.2	9.1
Nonprofit . . . . .	13.6	28.0	55.8	96.2	103.6	112.4	124.8	136.9	11.5	9.2
Proprietary . . . . .	0.7	2.6	5.8	11.5	13.0	14.1	15.5	17.2	14.5	10.6
State-local government . . . . .	4.1	8.6	15.3	23.0	24.3	26.4	28.6	31.0	8.5	7.8
Size of hospital:										
6–99 beds . . . . .	2.2	4.4	8.0	12.5	13.3	14.6	16.1	17.5	9.2	8.9
100–199 beds . . . . .	3.4	7.1	13.4	22.5	24.7	26.5	29.4	32.7	10.9	9.8
200–299 beds . . . . .	3.4	7.0	13.8	23.9	27.0	29.4	33.0	36.5	11.5	11.2
300–499 beds . . . . .	5.6	11.3	23.7	40.3	42.4	45.5	50.0	55.0	11.2	8.1
500 beds or more . . . . .	5.1	12.9	24.9	42.2	45.1	48.9	53.5	56.9	11.2	7.7
Expenses per inpatient day	Amount									
Non-Federal short-stay <sup>2</sup> . . . . .	68	133	244	460	499	537	581	631	13.5	8.2
Nonprofit . . . . .	72	133	246	463	504	544	591	642	13.5	8.5
Proprietary . . . . .	50	133	257	500	552	585	649	708	14.2	9.1
State-local government . . . . .	67	132	236	429	458	490	514	554	12.7	6.6
Size of hospital:										
6–99 beds . . . . .	45	102	198	381	400	426	456	483	14.0	6.1
100–199 beds . . . . .	58	119	218	409	447	481	520	561	13.4	8.2
200–299 beds . . . . .	68	128	235	447	488	523	572	614	13.7	8.3
300–499 beds . . . . .	74	138	257	482	528	569	615	679	13.4	8.9
500 beds or more . . . . .	72	155	275	503	548	600	654	717	12.8	9.3
Expenses per inpatient stay	Amount									
Non-Federal short-stay <sup>2</sup> . . . . .	579	1,025	1,844	3,239	3,530	3,849	4,194	4,572	11.9	9.0
Nonprofit . . . . .	597	1,045	1,900	3,308	3,588	3,912	4,267	4,638	11.7	8.8
Proprietary . . . . .	348	886	1,676	3,033	3,342	3,617	4,023	4,406	12.6	9.8
State-local government . . . . .	585	1,016	1,724	3,073	3,396	3,720	3,990	4,389	12.3	9.3
Size of hospital:										
6–99 beds . . . . .	339	665	1,234	2,276	2,444	2,700	2,971	3,173	13.0	8.7
100–199 beds . . . . .	470	865	1,554	2,739	2,999	3,301	3,603	3,913	12.0	9.3
200–299 beds . . . . .	585	990	1,773	3,070	3,390	3,684	4,023	4,376	11.6	9.3
300–499 beds . . . . .	665	1,147	2,047	3,535	3,832	4,161	4,569	5,007	11.6	9.1
500 beds or more . . . . .	870	1,637	2,627	4,387	4,770	5,216	5,756	6,310	10.8	9.5

<sup>1</sup>Includes other Federal hospitals not listed separately.

<sup>2</sup>Includes non-Federal short-stay general and other specialty hospitals.

SOURCES: American Hospital Association: Hospitals. JAHA 45(15):463–467, Aug. 1971; Hospital Statistics, 1976, 1981, 1985–89 Editions. Chicago, 1976, 1981, 1985–89. (Copyrights 1971, 1976, 1981, 1985–89: Used with the permission of the American Hospital Association.)



**Table 120. National health expenditures and average annual percent change, according to source of funds: United States, selected years 1929–90**

[Data are compiled by the Health Care Financing Administration]

Year	All health expenditures in billions	Private funds			Public funds		
		Amount in billions	Amount per capita	Percent of total	Amount in billions	Amount per capita	Percent of total
1929	\$ 3.6	\$ 3.2	\$ 25	86.4	\$ 0.5	\$ 4	13.6
1935	2.9	2.4	18	80.8	0.6	4	19.2
1940	4.0	3.2	23	79.7	0.8	6	20.3
1950	12.7	9.2	58	72.8	3.4	21	27.2
1955	17.7	13.2	75	74.3	4.6	26	25.7
1960	27.1	20.5	108	75.5	6.7	35	24.5
1965	41.6	31.3	154	75.3	10.3	50	24.7
1966	45.9	32.3	157	70.4	13.6	66	29.6
1967	51.7	32.5	156	62.9	19.2	92	37.1
1968	58.5	36.7	174	62.8	21.8	103	37.2
1969	65.7	41.1	193	62.5	24.6	116	37.5
1970	74.4	46.7	217	62.8	27.7	129	37.2
1971	82.3	51.1	235	62.1	31.2	144	37.9
1972	92.3	57.2	261	62.0	35.1	160	38.0
1973	102.5	63.2	286	61.6	39.3	178	38.4
1974	116.1	69.4	312	59.8	46.6	209	40.2
1975	132.9	77.8	346	58.5	55.1	245	41.5
1976	152.2	89.8	396	59.0	62.4	275	41.0
1977	172.0	102.0	446	59.3	70.1	307	40.7
1978	193.7	113.9	494	58.8	79.8	346	41.2
1979	217.2	126.9	545	58.4	90.4	388	41.6
1980	250.1	145.0	616	58.0	105.2	447	42.0
1981	290.2	168.5	709	58.0	121.8	512	42.0
1982	326.1	191.3	797	58.7	134.8	561	41.3
1983	358.6	211.0	870	58.8	147.6	609	41.2
1984	389.6	230.0	940	59.0	159.6	652	41.0
1985	422.6	247.9	1,003	58.6	174.8	707	41.4
1986	454.8	264.6	1,060	58.2	190.2	762	41.8
1987	494.1	285.7	1,134	57.8	208.4	827	42.2
1988	546.0	318.9	1,253	58.4	227.1	893	41.6
1989	602.8	350.2	1,363	58.1	252.6	983	41.9
1990	666.2	383.6	1,478	57.6	282.6	1,089	42.4
Average annual percent change							
1929–65	7.0	6.6	5.2	...	8.8	7.3	...
1965–90	11.7	10.5	9.5	...	14.2	13.1	...
1929–35	-3.6	-4.6	-5.1	...	2.2	1.4	...
1935–40	6.3	6.0	4.7	...	7.6	6.8	...
1940–50	12.2	11.2	9.7	...	15.5	13.3	...
1950–55	7.0	7.4	5.3	...	5.8	4.4	...
1955–60	8.9	9.2	7.5	...	7.9	6.1	...
1960–65	8.9	8.9	7.3	...	9.1	7.6	...
1965–70	12.3	8.3	7.2	...	21.9	20.6	...
1970–75	12.3	10.7	9.8	...	14.8	13.8	...
1975–80	13.5	13.3	12.2	...	13.8	12.7	...
1980–85	11.1	11.3	10.2	...	10.7	9.6	...
1980–81	16.0	16.2	15.1	...	15.8	14.6	...
1981–82	12.4	13.6	12.4	...	10.7	9.6	...
1982–83	10.0	10.3	9.2	...	9.6	8.5	...
1983–84	8.7	9.0	8.0	...	8.1	7.1	...
1984–85	8.5	7.7	6.7	...	9.5	8.4	...
1985–90	9.5	9.1	8.1	...	10.1	9.0	...
1985–86	7.6	6.8	5.7	...	8.8	7.8	...
1986–87	8.6	8.0	6.9	...	9.5	8.5	...
1987–88	10.5	11.6	10.5	...	9.0	8.0	...
1988–89	10.4	9.8	8.8	...	11.2	10.1	...
1989–90	10.5	9.5	8.4	...	11.9	10.8	...

NOTES: These data include revisions back to 1978 and differ from previous editions of Health, United States. They reflect Social Security Administration population revisions as of May 1991.

SOURCE: Office of National Health Statistics, Office of the Actuary: National health expenditures, 1990. Health Care Financing Review. Vol. 13, No. 1. HCFA Pub. No. 03321. Health Care Financing Administration. Washington. U.S. Government Printing Office, October 1991.

**Table 121. Personal health care expenditures and percent distribution, according to source of funds: United States, selected years 1929–90**

[Data are compiled by the Health Care Financing Administration]

Year	Total in billions <sup>1</sup>	Per capita	All sources	Out-of-pocket payments	Private health insurance	Other private funds	Government		
							Total	Federal	State and local
Percent distribution									
1929	\$ 3.2	\$ 26	100.0	<sup>2</sup> 88.4	( <sup>2</sup> )	2.6	9.0	2.7	6.3
1935	2.7	21	100.0	<sup>2</sup> 82.4	( <sup>2</sup> )	2.8	14.7	3.4	11.3
1940	3.5	26	100.0	<sup>2</sup> 81.3	( <sup>2</sup> )	2.6	16.1	4.1	12.0
1950	10.9	70	100.0	65.5	9.1	2.9	22.4	10.4	12.0
1955	15.7	93	100.0	58.1	16.1	2.8	23.0	10.5	12.5
1960	23.9	126	100.0	55.9	21.0	1.7	21.4	8.9	12.5
1965	35.6	175	100.0	53.4	24.3	1.9	20.4	8.3	12.0
1970	64.9	302	100.0	39.5	23.4	2.6	34.6	22.6	12.0
1971	71.3	328	100.0	38.0	23.8	2.6	35.6	23.7	11.9
1972	79.4	362	100.0	37.5	23.6	2.7	36.1	24.0	12.2
1973	88.6	401	100.0	37.1	23.9	2.6	36.4	23.8	12.6
1974	101.6	456	100.0	35.0	24.6	2.5	37.8	25.6	12.2
1975	116.6	519	100.0	33.1	25.6	2.5	38.9	26.6	12.3
1976	132.8	586	100.0	32.0	26.4	3.0	38.6	27.6	11.0
1977	149.2	653	100.0	31.0	27.3	2.9	38.8	27.6	11.2
1978	167.5	726	100.0	30.0	27.9	3.0	39.1	28.0	11.1
1979	189.3	812	100.0	28.6	28.9	3.0	39.5	28.4	11.1
1980	219.4	933	100.0	27.1	29.7	3.5	39.7	28.9	10.8
1981	254.8	1,073	100.0	26.4	30.3	3.5	39.9	29.4	10.5
1982	286.4	1,193	100.0	25.9	30.9	3.6	39.6	29.3	10.3
1983	314.9	1,299	100.0	25.8	30.9	3.5	39.8	29.7	10.1
1984	341.2	1,394	100.0	25.7	31.2	3.4	39.8	29.8	9.9
1985	369.7	1,496	100.0	25.5	30.8	3.5	40.1	30.2	9.9
1986	400.8	1,606	100.0	25.2	30.9	3.5	40.5	30.1	10.3
1987	439.3	1,743	100.0	24.8	31.3	3.4	40.5	29.8	10.7
1988	482.8	1,897	100.0	24.7	31.9	3.5	39.9	29.4	10.5
1989	529.9	2,062	100.0	23.8	32.0	3.6	40.6	30.0	10.6
1990	585.3	2,255	100.0	23.3	31.8	3.6	41.3	30.3	11.0

<sup>1</sup>Includes all expenditures for health services and supplies other than expenses for program administration, net cost of private health insurance, and government public health activities.

<sup>2</sup>Out-of-pocket payments and private health insurance are combined for these years.

NOTE: These data include revisions back to 1978 and differ from previous editions of Health, United States.

SOURCE: Office of National Health Statistics, Office of the Actuary: National health expenditures, 1990. Health Care Financing Review. Vol. 13, No. 1. HCFA Pub. No. 03321. Health Care Financing Administration. Washington. U.S. Government Printing Office, October 1991.

**Table 122 (page 1 of 2). Expenditures for health services and supplies and percent distribution, by type of payer: United States, selected calendar years 1965–90**

[Data are compiled by the Health Care Financing Administration]

Type of payer	1965	1967	1970	1975	1980	1985	1986	1987	1988	1989	1990
	Amount in billions <sup>1</sup>										
Total	\$38.2	\$47.9	\$69.1	\$124.7	\$238.9	\$407.2	\$438.9	\$476.8	\$526.2	\$582.1	\$643.4
Private	30.3	35.0	50.1	86.2	162.1	278.9	302.9	327.2	362.8	397.5	430.4
Private business	6.5	8.9	15.1	28.8	64.8	115.0	127.3	133.6	153.1	169.7	186.2
Private employer share of private health insurance premiums	5.4	6.2	11.2	20.9	48.4	85.4	93.6	96.7	112.9	125.7	139.1
Private employer contribution to Medicare hospital insurance trust fund <sup>2</sup>	0.0	1.4	2.1	5.0	10.5	20.3	23.3	24.7	26.3	28.4	29.7
Workers' compensation and temporary disability insurance medical benefits and administration	0.8	1.0	1.4	2.4	5.1	7.8	8.8	10.5	12.0	13.6	15.2
Industrial inplant health services	0.2	0.2	0.3	0.5	0.9	1.4	1.6	1.7	1.9	2.1	2.2
Household (individuals)	23.1	25.3	33.6	54.9	90.3	152.0	162.7	179.8	194.3	210.3	224.7
Employee share of private health insurance premiums and individual policy premiums	4.1	4.2	4.6	8.9	16.2	28.4	28.9	35.3	34.9	39.2	42.6
Employee and self-employment contributions and voluntary premiums paid to Medicare hospital insurance trust fund <sup>2</sup>	0.0	1.6	2.4	5.7	12.0	24.0	27.6	29.5	31.4	33.8	35.7
Premiums paid by individuals to Medicare supplementary medical insurance trust fund	0.0	0.6	1.0	1.7	2.7	5.2	5.2	6.1	8.7	11.2	10.2
Out-of-pocket health spending by individuals	19.0	18.9	25.6	38.5	59.5	94.4	100.9	108.8	119.3	126.1	136.1
Nonpatient revenue	0.6	0.8	1.5	2.5	7.0	12.0	12.9	13.8	15.4	17.5	19.6
Public	7.9	12.8	18.9	38.5	76.7	128.3	135.9	149.6	163.4	184.6	212.9
Federal Government	3.4	7.0	10.4	21.3	42.5	69.0	70.4	77.3	84.2	96.2	113.9
Employer contributions to private health insurance	0.2	0.2	0.3	1.2	2.2	4.3	3.9	4.9	6.4	8.1	9.2
Other <sup>3</sup>	3.3	6.8	10.1	20.1	40.3	64.7	66.5	72.4	77.8	88.1	104.7
State and local government	4.5	5.8	8.5	17.2	34.2	59.3	65.5	72.3	79.1	88.4	99.1
Employer contributions to private health insurance	0.3	0.4	0.6	1.9	6.7	16.0	16.7	17.9	20.2	23.4	25.9
Other <sup>4</sup>	4.2	5.5	7.9	15.2	27.5	43.4	48.8	54.5	58.9	64.9	73.2
	Percent distribution										
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Private	79.3	73.2	72.6	69.2	67.9	68.5	69.0	68.6	69.0	68.3	66.9
Private business	17.0	18.6	21.8	23.1	27.1	28.2	29.0	28.0	29.1	29.2	28.9
Private employer share of private health insurance premiums	14.3	13.0	16.2	16.7	20.3	21.0	21.3	20.3	21.5	21.6	21.6
Private employer contribution to Medicare hospital insurance trust fund <sup>2</sup>	0.0	2.9	3.0	4.0	4.4	5.0	5.3	5.2	5.0	4.9	4.6
Workers' compensation and temporary disability insurance medical benefits and administration	2.2	2.2	2.1	2.0	2.1	1.9	2.0	2.2	2.3	2.3	2.4
Industrial inplant health services	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3
Household (individuals)	60.6	52.8	48.7	44.1	37.8	37.3	37.1	37.7	36.9	36.1	34.9
Employee share of private health insurance premiums and individual policy premiums	10.8	8.8	6.7	7.2	6.8	7.0	6.6	7.4	6.6	6.7	6.6
Employee and self-employment contributions and voluntary premiums paid to Medicare hospital insurance trust fund <sup>2</sup>	0.0	3.3	3.4	4.6	5.0	5.9	6.3	6.2	6.0	5.8	5.5
Premiums paid by individuals to Medicare supplementary medical insurance trust fund	0.0	1.3	1.4	1.4	1.1	1.3	1.2	1.3	1.7	1.9	1.6
Out-of-pocket health spending by individuals	49.8	39.5	37.1	30.9	24.9	23.2	23.0	22.8	22.7	21.7	21.2
Nonpatient revenue	1.7	1.7	2.2	2.0	2.9	2.9	2.9	2.9	2.9	3.0	3.0

See footnotes at end of table.

**Table 122 (page 2 of 2). Expenditures for health services and supplies and percent distribution, by type of payer: United States, selected calendar years 1965–90**

[Data are compiled by the Health Care Financing Administration]

Type of payer	1965	1967	1970	1975	1980	1985	1986	1987	1988	1989	1990
	Percent distribution										
Public . . . . .	20.7	26.8	27.4	30.8	32.1	31.5	31.0	31.4	31.0	31.7	33.1
Federal Government . . . . .	9.0	14.6	15.0	17.1	17.8	16.9	16.1	16.2	16.0	16.5	17.7
Employer contributions to private health insurance. . . . .	0.4	0.5	0.4	0.9	0.9	1.1	0.9	1.0	1.2	1.4	1.4
Other <sup>3</sup> . . . . .	8.6	14.1	14.7	16.1	16.9	15.9	15.2	15.2	14.8	15.1	16.3
State and local government . . . . .	11.7	12.2	12.3	13.8	14.3	14.6	14.9	15.2	15.0	15.2	15.4
Employer contributions to private health insurance. . . . .	0.7	0.8	0.9	1.5	2.8	3.9	3.8	3.7	3.8	4.0	4.0
Other <sup>4</sup> . . . . .	11.0	11.4	11.4	12.2	11.5	10.6	11.1	11.4	11.2	11.2	11.4

<sup>1</sup>Excludes research and construction.

<sup>2</sup>Includes one-half of self-employment contribution to Medicare hospital insurance trust fund.

<sup>3</sup>Includes expenditures for Federal programs such as Medicaid and Medicare with adjustments for contributions by employers and individuals and premiums paid to the Medicare insurance trust fund.

<sup>4</sup>Includes expenditures for State and local programs such as Medicaid and maternal and child health, and employer contributions to Medicare hospital insurance trust fund.

NOTES: This table disaggregates health expenditures according to four classes of payers: businesses, households (individuals), Federal Government, and State and local governments. Where businesses or households pay dedicated funds into government health programs (e.g., Medicare) or employers and employees share in the cost of health premiums, these costs are assigned to businesses or households accordingly. This results in a lower share of expenditures being assigned to the Federal Government than for tabulations of expenditures by source of funds. Estimates of national health expenditure by source of funds aim to track government-sponsored health programs over time, and do not delineate the role of business employers in paying for health care.

SOURCE: Office of National Health Statistics, Office of the Actuary: The burden of health care costs: Business, households, and governments. Health Care Financing Review. Vol. 13, No. 2. Health Care Financing Administration. Washington. U.S. Government Printing Office, Winter 1991.



**Table 123. Expenditures on hospital care, nursing home care, physician services, and all other personal health care expenditures and percent distribution, according to source of funds: United States, selected years, 1960–90**

[Data are compiled by the Health Care Financing Administration]

Service and year	Total in billions	Out-of-pocket payments	Private health insurance	Other private funds	Government		
					Total <sup>1</sup>	Medicaid	Medicare
Hospital care					Percent distribution		
1960	\$ 9.3	20.7	35.6	1.2	42.5	...	...
1965	14.0	19.6	40.9	1.9	37.6	...	...
1970	27.9	9.0	34.4	3.2	53.4	8.1	18.8
1975	52.4	8.4	34.4	2.8	54.5	8.8	21.9
1980	102.4	5.2	36.6	4.9	53.3	9.4	25.8
1983	147.2	5.2	36.6	4.9	53.3	9.0	28.0
1984	157.5	5.1	36.1	4.6	54.1	9.1	28.8
1985	168.3	5.2	35.3	4.9	54.5	9.2	28.9
1986	179.8	4.8	35.2	5.0	55.0	9.2	28.5
1987	194.2	4.5	35.6	5.0	54.9	9.5	27.8
1988	212.0	5.3	35.6	5.3	53.9	9.4	27.1
1989	232.6	5.2	35.8	5.4	53.6	9.9	26.7
1990	256.0	5.0	34.9	5.4	54.7	11.1	26.7
Nursing home care							
1960	1.0	80.0	0.0	6.4	13.6	...	...
1965	1.7	64.5	0.1	5.8	29.5	...	...
1970	4.9	48.2	0.3	4.9	46.6	28.0	5.0
1975	9.9	42.1	0.7	4.8	52.3	47.5	2.9
1980	20.0	43.3	0.9	3.1	52.7	48.6	2.1
1983	28.9	47.1	1.0	2.3	49.5	45.7	1.8
1984	31.2	47.8	1.1	2.1	48.9	44.9	1.8
1985	34.1	48.6	1.0	1.9	48.5	44.6	1.7
1986	36.7	49.1	1.0	1.9	48.0	44.1	1.6
1987	39.7	47.9	1.0	1.9	49.2	45.2	1.6
1988	42.8	48.1	1.1	1.9	48.9	44.4	2.2
1989	47.7	43.7	1.1	1.9	53.3	43.2	8.0
1990	53.1	44.9	1.1	1.9	52.1	45.4	4.7
Physician services							
1960	5.3	62.7	30.2	0.1	7.1	...	...
1965	8.2	60.6	32.5	0.1	6.8	...	...
1970	13.6	42.8	35.2	0.1	21.9	4.6	11.8
1975	23.3	32.8	39.3	0.1	27.9	7.1	14.6
1980	41.9	26.9	42.9	0.1	30.2	5.1	19.0
1983	60.6	24.1	43.9	0.0	32.0	4.0	22.0
1984	67.1	23.4	45.2	0.0	31.4	3.8	21.6
1985	74.0	21.8	45.6	0.0	32.6	3.9	22.5
1986	82.1	20.8	45.6	0.0	33.5	3.9	23.2
1987	93.0	20.4	45.7	0.0	33.8	3.8	23.4
1988	105.1	19.9	46.7	0.0	33.4	3.6	23.0
1989	113.6	18.8	46.5	0.0	34.7	3.7	24.1
1990	125.7	18.7	46.3	0.0	35.0	4.2	23.9
All other personal health care <sup>2</sup>							
1960	8.4	87.8	1.4	2.7	8.0	...	...
1965	11.7	87.4	2.2	2.6	7.8	...	...
1970	18.5	80.6	4.3	2.7	12.4	4.4	0.7
1975	31.0	72.2	8.5	3.0	16.4	6.2	1.7
1980	55.1	62.1	17.5	3.5	16.9	6.0	3.1
1983	78.3	58.2	21.1	3.8	16.8	6.0	4.4
1984	85.5	57.4	21.9	4.0	16.7	6.1	4.7
1985	93.4	56.6	21.9	4.3	17.2	6.5	4.8
1986	102.2	56.1	22.2	4.1	17.7	6.9	4.8
1987	112.4	55.3	22.9	3.9	17.9	7.3	4.7
1988	122.9	54.3	23.7	3.9	18.1	7.6	4.7
1989	136.1	52.8	24.3	4.0	18.9	8.4	5.1
1990	150.5	50.4	25.2	4.2	20.1	9.0	5.4

<sup>1</sup>Includes other government expenditures for these health care services, for example, care funded by the Department of Veterans Affairs and State and locally financed subsidies to hospitals.

<sup>2</sup>Includes expenditures for dental services, other professional services, home health care, drugs and other medical nondurables, vision products and other medical durables, and other personal health care.

NOTE: These data include revisions back to 1978 and differ from previous editions of Health, United States.

SOURCE: Office of National Health Statistics, Office of the Actuary: National health expenditures, 1990. Health Care Financing Review. Vol. 13, No. 1. HCFA Pub. No. 03321. Health Care Financing Administration. Washington. U.S. Government Printing Office, October 1991.

**Table 124. Nursing home average monthly charges per resident and percent of residents, according to primary source of payments and selected facility characteristics: United States, 1977 and 1985**

[Data are based on a sample of nursing homes]

Facility characteristic	Own income or family support		Medicare		Medicaid		Public assistance welfare		All other sources	
	1977	1985	1977	1985	1977	1985	1977	1985	1977	1985
	Average monthly charge <sup>1</sup>									
All facilities . . . . .	\$690	\$1,450	\$1,167	\$2,141	\$720	\$1,504	\$508	\$ 863	\$440	\$1,099
Ownership										
Proprietary . . . . .	686	1,444	1,048	2,058	677	1,363	501	763	562	1,174
Nonprofit and government . . . . .	698	1,462	1,325	*2,456	825	1,851	534	1,237	324	1,029
Certification										
Skilled nursing facility . . . . .	866	1,797	1,136	2,315	955	2,000	575	*1,338	606	1,589
Skilled nursing and intermediate facility . . . . .	800	1,643	1,195	2,156	739	1,509	623	1,215	630	1,702
Intermediate facility . . . . .	567	1,222	...	...	563	1,150	479	900	*456	1,460
Not certified . . . . .	447	999	...	...	...	...	401	664	*155	464
Bed size										
Less than 50 beds . . . . .	516	886	*869	*1,348	663	1,335	394	*835	*295	*749
50-99 beds . . . . .	686	1,388	*1,141	1,760	634	1,323	493	774	468	1,116
100-199 beds . . . . .	721	1,567	1,242	2,192	691	1,413	573	855	551	1,504
200 beds or more . . . . .	823	1,701	*1,179	2,767	925	1,919	602	1,071	370	*866
Geographic region										
Northeast . . . . .	909	1,645	1,369	2,109	975	2,035	*511	738	395	1,244
Midwest . . . . .	652	1,398	*1,160	2,745	639	1,382	537	1,241	524	1,416
South . . . . .	585	1,359	*1,096	2,033	619	1,200	452	727	342	1,057
West . . . . .	663	1,498	*868	1,838	663	1,501	564	837	*499	*843
	Percent of residents									
All facilities . . . . .	38.4	41.6	2.0	1.4	47.8	50.4	6.4	3.4	5.3	3.2
Ownership										
Proprietary . . . . .	37.5	40.1	1.7	1.6	49.6	52.1	7.3	3.9	3.8	2.3
Nonprofit and government . . . . .	40.4	44.9	2.7	*0.9	43.8	46.6	4.4	2.3	8.6	5.3
Certification										
Skilled nursing facility . . . . .	41.5	39.1	4.6	2.6	41.4	53.7	7.7	2.1	4.8	2.4
Skilled nursing and intermediate facility . . . . .	31.6	36.8	2.6	1.9	58.3	57.8	3.2	1.3	4.1	2.2
Intermediate facility . . . . .	36.3	41.4	...	...	55.3	55.9	5.3	*1.5	3.1	*1.1
Not certified . . . . .	64.2	65.5	...	...	...	...	19.0	18.0	16.7	12.9
Bed size										
Less than 50 beds . . . . .	49.6	53.1	*1.8	*1.2	32.7	33.8	10.5	11.2	5.4	*0.6
50-99 beds . . . . .	39.5	49.5	*1.2	*1.3	46.5	42.9	8.1	3.9	4.7	2.5
100-199 beds . . . . .	38.4	39.6	2.6	1.5	50.4	55.2	4.6	1.6	4.0	2.1
200 beds or more . . . . .	28.6	30.1	2.3	*1.5	55.5	57.7	4.6	3.0	9.1	7.7
Geographic region										
Northeast . . . . .	34.6	34.8	3.3	1.7	53.3	52.9	3.8	7.1	5.1	3.5
Midwest . . . . .	44.5	49.1	1.5	*0.8	42.1	45.9	6.5	2.5	5.4	1.6
South . . . . .	32.2	39.4	*1.4	*1.2	52.5	53.8	8.2	2.5	5.7	3.1
West . . . . .	41.3	40.4	2.5	*2.7	44.7	49.2	6.7	*1.2	4.8	6.6

<sup>1</sup>Includes life-care residents and no-charge residents.

\*Relative standard error greater than 30 percent.

SOURCES: National Center for Health Statistics: The National Nursing Home Survey, 1977 summary for the United States, by J. F. Van Nostrand, A. Zappolo, E. Hing, et al. Vital and Health Statistics. Series 13, No. 43. DHEW Pub. No. (PHS) 79-1794. Public Health Service. Washington. U.S. Government Printing Office, July 1979; and The National Nursing Home Survey: 1985 summary for the United States, by E. Hing, E. Sekscenski, and G. Strahan. Vital and Health Statistics. Series 13, No. 97. DHHS Pub. No. (PHS) 89-1758. Public Health Service. Washington. U.S. Government Printing Office, January 1989.

**Table 125. Nursing home average monthly charges per resident and percent of residents, according to selected facility and resident characteristics: United States, 1964, 1973-74, 1977, and 1985**

[Data are based on reporting by a sample of nursing homes]

Facility and resident characteristic	Average monthly charge <sup>1</sup>				Percent of residents			
	1964	1973-74 <sup>2</sup>	1977	1985	1964	1973-74 <sup>2</sup>	1977	1985
<b>Facility</b>								
All facilities . . . . .	\$186	\$479	\$689	\$1,456	100.0	100.0	100.0	100.0
<b>Ownership:</b>								
Proprietary . . . . .	205	489	670	1,379	60.2	69.8	68.2	68.7
Nonprofit and government . . . . .	145	456	732	1,624	39.8	30.2	31.8	31.3
<b>Certification:<sup>3</sup></b>								
Skilled nursing facility . . . . .	...	566	880	1,905	...	39.8	20.7	18.5
Skilled nursing and intermediate facility . . . . .	...	514	762	1,571	...	24.5	40.5	45.2
Intermediate facility . . . . .	...	376	556	1,179	...	22.4	28.3	24.9
Not certified . . . . .	...	329	390	875	...	13.3	10.6	11.4
<b>Bed size:</b>								
Less than 50 beds . . . . .	---	397	546	1,036	---	15.2	12.9	8.9
50-90 beds . . . . .	---	448	643	1,335	---	34.1	30.5	27.6
100-199 beds . . . . .	---	502	706	1,478	---	35.6	38.8	43.2
200 beds or more . . . . .	---	576	837	1,759	---	15.1	17.9	20.2
<b>Geographic region:</b>								
Northeast . . . . .	213	651	918	1,781	28.6	22.0	22.4	23.6
Midwest . . . . .	171	433	640	1,399	36.6	34.6	34.5	32.5
South . . . . .	161	410	585	1,256	18.1	26.0	27.2	29.4
West . . . . .	204	454	653	1,458	16.7	17.4	15.9	14.5
<b>Resident</b>								
All residents . . . . .	186	479	689	1,456	100.0	100.0	100.0	100.0
<b>Age:</b>								
Under 65 years . . . . .	155	434	585	1,379	12.0	10.6	13.6	11.6
65-74 years . . . . .	184	473	669	1,372	18.9	15.0	16.2	14.2
75-84 years . . . . .	191	488	710	1,468	41.7	35.5	35.7	34.1
85 years and over . . . . .	194	485	719	1,497	27.5	38.8	34.5	40.0
<b>Sex:</b>								
Male . . . . .	171	466	652	1,438	35.0	29.1	28.8	28.4
Female . . . . .	194	484	705	1,463	65.0	70.9	71.2	71.6

<sup>1</sup>Includes life-care residents and no-charge residents.

<sup>2</sup>Data exclude residents of personal care homes.

<sup>3</sup>Medicare extended care facilities and Medicaid skilled nursing homes from the 1973-74 survey were considered to be equivalent to Medicare or Medicaid skilled nursing facilities in 1977 and 1985 for the purposes of this comparison.

SOURCES: National Center for Health Statistics: Charges for care and sources of payment for residents in nursing homes, United States, June-August 1969, by J. F. Van Nostrand and J. F. Sutton. Vital and Health Statistics. Series 12, No. 21. DHEW Pub. No. (HRA) 74-1706. Public Health Service. Washington. U.S. Government Printing Office, July 1973; Charges for care and sources of payment for residents in nursing homes, United States, National Nursing Home Survey, Aug. 1973-Apr. 1974, by E. Hing. Vital and Health Statistics. Series 13, No. 32. DHEW Pub. No. (PHS) 78-1783. Public Health Service. Washington. U.S. Government Printing Office. Nov. 1977; The National Nursing Home Survey: 1977 summary for the United States, by J. F. Van Nostrand, A. Zappolo, E. Hing, et al. Vital and Health Statistics. Series 13, No. 43. DHEW Pub. No. (PHS) 79-1794. Public Health Service. Washington. U.S. Government Printing Office, July 1979; and The National Nursing Home Survey: 1985 summary for the United States, by E. Hing, E. Sekscenski, and G. Strahan. Vital and Health Statistics. Series 13, No. 97. DHHS Pub. No. (PHS) 89-1758. Public Health Service. Washington. U.S. Government Printing Office, January 1989.

**Table 126. National funding for health research and development and average annual percent change, according to source of funds: United States, selected years 1960–90**

[Data are based on multiple sources]

Year and period	Source of funds				
	All funding	Federal	State and local	Industry <sup>1</sup>	Private nonprofit organizations
Amount in millions					
1960	\$886	\$448	\$46	\$253	\$139
1965	1,890	1,174	90	450	176
1970	2,847	1,667	170	795	215
1971	3,168	1,877	198	860	233
1972	3,536	2,147	228	934	227
1973	3,750	2,225	245	1,048	232
1974	4,443	2,754	254	1,183	252
1975	4,701	2,832	286	1,319	264
1976	5,107	3,059	312	1,469	267
1977	5,568	3,396	338	1,614	220
1978	6,262	3,811	416	1,800	236
1979	7,150	4,321	465	2,093	271
1980	7,953	4,723	480	2,459	292
1981	8,723	4,848	564	2,998	312
1982 <sup>2</sup>	9,548	4,970	642	3,593	343
1983 <sup>2</sup>	10,753	5,399	718	4,205	431
1984 <sup>2</sup>	12,143	6,087	799	4,765	491
1985 <sup>2</sup>	13,512	6,791	884	5,352	486
1986 <sup>2</sup>	14,832	6,895	1,034	6,188	715
1987 <sup>2</sup>	16,868	7,847	1,191	7,103	728
1988 <sup>2</sup>	18,905	8,425	1,295	8,432	753
1989 <sup>2</sup>	20,900	9,230	1,465	9,404	801
1990 <sup>3</sup>	22,584	9,856	1,517	10,368	843
Average annual percent change					
1960–90	11.4	10.9	12.4	13.2	6.2
1960–65	16.4	21.2	14.4	12.2	4.8
1965–70	8.5	7.3	13.6	12.1	4.1
1970–75	10.6	11.2	11.0	10.7	4.2
1970–71	11.3	12.6	16.5	8.2	8.4
1971–72	11.6	14.4	15.2	8.6	-2.6
1972–73	6.1	3.6	7.5	12.2	2.2
1973–74	18.5	23.8	3.7	12.9	8.6
1974–75	5.8	2.8	12.6	11.5	4.8
1975–80	11.1	10.8	10.9	13.3	2.0
1975–76	8.6	8.0	9.1	11.4	1.1
1976–77	9.0	11.0	8.3	9.9	-17.6
1977–78	12.5	12.2	23.1	11.5	7.3
1978–79	14.2	13.4	11.8	16.3	14.8
1979–80	11.2	9.3	3.2	17.5	7.7
1980–85	11.2	7.5	13.0	16.8	10.7
1980–81	9.7	2.6	17.5	21.9	6.8
1981–82	9.5	2.5	13.8	19.8	9.9
1982–83	12.6	8.6	11.8	17.0	25.7
1983–84	12.9	12.7	11.3	13.3	13.9
1984–85	11.3	11.6	10.6	12.3	-1.0
1985–90	10.8	7.7	11.4	14.1	11.6
1985–86	9.8	1.5	17.0	15.6	47.1
1986–87	13.7	13.8	15.2	14.8	1.8
1987–88	12.1	7.4	8.7	18.7	3.4
1988–89	10.6	9.6	13.1	11.5	6.4
1989–90	8.1	6.8	3.5	10.3	5.2

<sup>1</sup>Includes expenditures for drug research. These expenditures are included in the "drugs and sundries" component of the Health Care Financing Administration's National Health Expenditure Series, not under "research."

<sup>2</sup>Revised figures.

<sup>3</sup>Preliminary figures.

SOURCES: National Institutes of Health: NIH Data Book, 1991. Public Health Service, U.S. Department of Health and Human Services, NIH Pub. No. 91-1261, Sept. 1991; National Institutes of Health, Office of Science Policy and Legislation: Selected data.



**Table 127. Federal funding for health research and development and percent distribution, according to agency: United States, selected fiscal years 1970–90**

[Data are compiled from Federal Government sources]

Agency	1970 <sup>1</sup>	1975 <sup>1</sup>	1980	1984	1985	1986	1987	1988	1989	1990 <sup>2</sup>
Amount in millions										
Total	\$1,667	\$2,832	\$4,723	\$6,087	\$6,791	\$6,895	\$7,847	\$8,425	\$9,230	\$9,856
Percent distribution										
All Federal agencies	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Department of Health and Human Services	70.6	77.6	78.2	78.9	79.7	81.1	83.3	84.1	84.7	85.2
National Institutes of Health	52.4	66.4	67.4	69.9	71.1	72.6	74.6	74.7	73.4	72.5
Centers for Disease Control	---	1.5	1.8	0.7	0.7	0.8	0.8	1.1	1.3	1.0
Other Public Health Service	16.2	8.3	7.9	7.5	7.3	7.3	7.7	8.0	9.4	11.3
Other Department of Health and Human Services	2.0	1.3	1.1	0.7	0.6	0.5	0.4	0.4	0.6	0.6
Other agencies	29.4	22.4	21.8	21.1	20.3	18.9	16.7	15.9	15.3	14.8
Department of Agriculture	3.0	2.2	3.1	2.4	2.1	1.1	1.3	1.3	1.2	1.1
Department of Defense	7.5	4.1	4.5	6.8	6.5	7.2	5.2	5.1	4.8	4.1
Department of Education <sup>3</sup>	...	...	0.7	0.7	0.6	0.6	0.6	0.7	0.6	0.6
Department of Energy <sup>4</sup>	6.3	5.8	4.5	3.0	2.6	2.4	2.3	2.4	2.4	2.8
Department of the Interior	0.7	0.3	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Environmental Protection Agency	...	1.3	1.7	0.7	0.8	0.5	0.6	0.3	0.3	0.3
International Development Cooperation Agency <sup>5</sup>	0.6	0.2	0.3	0.3	0.6	0.4	0.4	0.3	0.3	0.2
National Aeronautics and Space Administration	5.2	2.6	1.5	1.8	1.7	1.9	1.7	1.6	1.5	1.6
National Science Foundation	1.7	1.6	1.6	1.4	1.3	1.2	1.1	1.0	1.0	0.9
Department of Veterans Affairs	3.5	3.3	2.8	3.1	3.3	2.7	2.7	2.6	2.5	2.4
All other departments and agencies	0.9	1.0	0.4	0.3	0.4	0.4	0.4	0.3	0.3	0.3

<sup>1</sup>Data for fiscal year ending June 30; all other data for fiscal year ending September 30.

<sup>2</sup>Estimates.

<sup>3</sup>Office of Handicapped Research, formerly included in other Department of Health and Human Services.

<sup>4</sup>Includes Atomic Energy Commission and Energy Research and Development Administration.

<sup>5</sup>Includes Department of State and Agency for International Development.

SOURCES: National Institutes of Health: NIH Data Book, 1991. Public Health Service, U.S. Department of Health and Human Services, NIH Pub. No. 91-1261, Sept. 1991; Office of Science Policy and Legislation, National Institutes of Health, Public Health Service: Unpublished data.

**Table 128. Federal spending for human immunodeficiency virus (HIV)-related activities, according to agency and type of activity: United States, fiscal years 1982–90**

<i>Agency and type of activity</i>	1982	1983	1984	1985	1986	1987	1988	1989	1990
Agency	Amount in millions								
All Federal spending . . . . .	\$8	\$44	\$104	\$208	\$507	\$926	\$1,591	\$2,275	\$2,973
Department of Health and Human Services, total . . . . .	6	39	97	197	402	777	1,420	2,002	2,592
Public Health Service, total . . . . .	6	29	61	109	234	502	962	1,301	1,590
National Institutes of Health . . . . .	4	22	44	64	135	261	474	602	744
Alcohol, Drug Abuse, and Mental Health Administration . . . . .	—	1	3	3	12	48	112	173	215
Centers for Disease Control . . . . .	2	6	14	33	62	136	305	378	443
Food and Drug Administration . . . . .	—	—	1	9	10	16	30	74	57
Health Resources and Services Administration . . . . .	—	—	—	—	15	12	37	60	113
Agency for Health Care Policy and Research . . . . .	—	—	—	—	—	—	1	7	8
Office of the Assistant Secretary for Health . . . . .	—	—	—	—	—	30	3	6	8
Indian Health Service . . . . .	—	—	—	—	—	—	—	1	3
Health Care Financing Administration . . . . .	—	10	30	75	135	215	360	545	780
Social Security Administration . . . . .	—	—	6	13	33	60	98	153	219
Other Department of Health and Human Services Agencies . . . . .	—	—	—	—	—	—	—	3	3
Department of Veterans Affairs . . . . .	2	5	7	11	23	55	84	142	208
Department of Defense . . . . .	—	—	—	—	79	74	53	86	125
Agency for International Development . . . . .	—	—	—	—	2	17	30	40	41
Other departments . . . . .	—	—	—	—	1	3	4	5	7
Activity									
Research . . . . .	4	24	47	85	193	344	659	981	1,164
Public Health Service . . . . .	4	23	47	84	166	316	635	943	1,116
Department of Veterans Affairs . . . . .	—	1	—	1	2	4	7	11	14
Department of Defense . . . . .	—	—	—	—	25	24	17	27	34
Education and prevention . . . . .	3	7	15	27	84	197	367	403	470
Public Health Service . . . . .	2	6	14	25	52	145	300	303	366
Department of Veterans Affairs . . . . .	1	1	1	2	5	11	17	28	29
Department of Defense . . . . .	—	—	—	—	24	22	16	26	28
Agency for International Development . . . . .	—	—	—	—	2	17	30	40	41
Other . . . . .	—	—	—	—	1	2	4	6	6
Medical care . . . . .	1	13	36	83	197	325	467	738	1,120
Health Care Financing Administration:									
Medicaid (Federal share) . . . . .	—	10	30	70	130	200	330	490	670
Medicare . . . . .	—	—	—	5	5	15	30	55	110
Public Health Service . . . . .	—	—	—	—	16	41	27	55	108
Department of Veterans Affairs . . . . .	1	3	6	8	16	40	60	103	165
Department of Defense . . . . .	—	—	—	—	30	28	20	33	63
Other . . . . .	—	—	—	—	—	1	—	2	4
Cash assistance . . . . .	—	—	6	13	33	60	98	153	219
Social Security Administration:									
Disability Insurance . . . . .	—	—	5	10	25	45	80	125	180
Supplemental Security Income . . . . .	—	—	1	3	8	15	18	28	39

NOTES: These data include revisions and differ from previous editions of Health, United States. Federal expenditures on HIV-related activities are estimated at about 35 to 40 percent of total HIV-related expenditures which include, for example, expenditures covered by private health insurance, out-of-pocket costs to patients, and the States' share of Medicaid, public hospital, and other local expenditures.

SOURCE: Budget Office, Public Health Service: Unpublished data.

**Table 129. Public health expenditures by State and territorial health agencies, according to source of funds and program area: United States, selected fiscal years 1976–89**

<i>Funds and program area</i>	1976	1978	1980	1982	1984	1985	1986	1987	1988	1989
Amount in millions										
Total . . . . .	\$2,540	\$3,256	\$4,451	\$5,145	\$6,242	\$6,950	\$7,491	\$8,128	\$8,540	\$9,669
Source of funds										
Federal grants and contracts . . . . .	797	1,133	1,573	1,778	2,344	2,556	2,700	2,822	3,072	3,503
Department of Agriculture . . . . .	154	351	678	916	1,307	1,455	1,551	1,652	1,690	1,988
Other . . . . .	643	782	895	861	1,037	1,101	1,148	1,170	1,381	1,515
State . . . . .	1,486	1,802	2,513	2,923	3,352	3,810	4,124	4,562	4,696	5,184
Local . . . . .	96	87	114	123	151	149	148	140	144	154
Fees, reimbursements, and other . . . . .	161	234	250	321	395	435	520	604	628	829
Program area										
WIC <sup>1</sup> . . . . .	138	337	661	890	1,269	1,431	1,534	1,622	1,660	1,938
Noninstitutional personal health other than WIC <sup>2</sup> . . . . .	1,079	1,356	1,698	1,905	2,380	2,521	2,777	3,130	3,483	3,972
State health agency-operated institutions . . . . .	531	641	819	950	979	1,153	1,236	1,227	1,342	1,459
Environmental health . . . . .	199	237	298	355	415	467	480	528	464	520
Health resources . . . . .	208	297	357	360	563	627	651	709	720	824
Laboratory . . . . .	104	131	161	182	214	229	238	265	279	308
Other <sup>3</sup> . . . . .	281	256	457	504	423	521	576	647	592	649
Percent distribution										
Total . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Source of funds										
Federal grants and contracts . . . . .	31.4	34.8	35.3	34.6	37.6	36.8	36.0	34.7	36.0	36.2
Department of Agriculture . . . . .	6.1	10.8	15.2	17.8	20.9	20.9	20.7	20.3	19.8	20.6
Other . . . . .	25.3	24.0	20.1	16.7	16.6	15.8	15.3	14.4	16.2	15.7
State . . . . .	58.5	55.3	56.5	56.8	53.7	54.8	55.0	56.1	55.0	53.6
Local . . . . .	3.8	2.7	2.6	2.4	2.4	2.1	2.0	1.7	1.7	1.6
Fees, reimbursements, and other . . . . .	6.3	7.2	5.6	6.2	6.3	6.3	6.9	7.4	7.3	8.6
Program area										
WIC <sup>1</sup> . . . . .	5.4	10.4	14.8	17.3	20.3	20.6	20.5	20.0	19.4	20.0
Noninstitutional personal health other than WIC <sup>2</sup> . . . . .	42.5	41.6	38.2	37.0	38.1	36.3	37.1	38.5	40.8	41.1
State health agency-operated institutions . . . . .	20.9	19.7	18.4	18.5	15.7	16.6	16.5	15.1	15.7	15.1
Environmental health . . . . .	7.8	7.3	6.7	6.9	6.6	6.7	6.4	6.5	5.4	5.4
Health resources . . . . .	8.2	9.1	8.0	7.0	9.0	9.0	8.7	8.7	8.4	8.5
Laboratory . . . . .	4.1	4.0	3.6	3.5	3.4	3.3	3.2	3.3	3.3	3.2
Other <sup>3</sup> . . . . .	11.0	7.9	10.3	9.8	6.8	7.5	7.7	8.0	6.9	6.7

<sup>1</sup>Supplemental Food Program for Women, Infants, and Children.

<sup>2</sup>Includes funds for maternal and child health services other than WIC, handicapped children's services, communicable disease control, dental health, chronic disease control, mental health, alcohol and drug abuse, and supporting personal health programs.

<sup>3</sup>Funds for general administration and funds to local health departments not allocated to program areas.

NOTE: Data are reported for 55 health agencies in 50 States, the District of Columbia, and 4 territories (Puerto Rico, American Samoa, Guam, and the Virgin Islands).

SOURCES: Public Health Foundation: Public Health Agencies 1987: Expenditures and Sources of Funds. Washington, 1987; Unpublished data.

**Table 130 (page 1 of 2). Personal health care per capita expenditures and average annual percent change, according to geographic division and State: United States, selected years 1966–82**

[Data are compiled by the Health Care Financing Administration]

Geographic division and State	1966	1969	1972	1976	1980	1982	Average annual percent change	
							1966–80	1980–82
Amount per capita								
United States . . . . .	\$201	\$280	\$381	\$ 605	\$ 958	\$1,220	11.8	12.8
New England . . . . .	234	328	441	686	1,058	1,356	11.4	13.2
Maine . . . . .	173	242	328	542	870	1,091	12.2	12.0
New Hampshire . . . . .	188	245	330	507	759	986	10.5	14.0
Vermont . . . . .	197	274	352	531	778	978	10.3	12.1
Massachusetts . . . . .	253	360	489	760	1,175	1,508	11.6	13.3
Rhode Island . . . . .	231	315	413	672	1,062	1,351	11.5	12.8
Connecticut . . . . .	236	330	438	675	1,046	1,348	11.2	13.5
Middle Atlantic . . . . .	227	319	425	662	1,017	1,310	11.3	13.5
New York . . . . .	258	366	488	745	1,107	1,417	11.0	13.1
New Jersey . . . . .	192	264	355	578	877	1,115	11.5	12.8
Pennsylvania . . . . .	201	279	372	590	972	1,273	11.9	14.4
East North Central . . . . .	203	278	378	610	978	1,249	11.9	13.0
Ohio . . . . .	195	264	361	597	958	1,247	12.0	14.1
Indiana . . . . .	182	252	337	542	861	1,101	11.7	13.1
Illinois . . . . .	220	300	407	634	1,033	1,308	11.7	12.5
Michigan . . . . .	211	286	388	635	1,014	1,281	11.9	12.4
Wisconsin . . . . .	192	269	373	610	952	1,219	12.1	13.2
West North Central . . . . .	200	273	369	597	973	1,241	12.0	12.9
Minnesota . . . . .	216	287	389	602	976	1,229	11.4	12.2
Iowa . . . . .	197	265	351	563	935	1,176	11.8	12.1
Missouri . . . . .	198	273	365	627	997	1,285	12.2	13.5
North Dakota . . . . .	197	273	367	676	1,034	1,325	12.6	13.2
South Dakota . . . . .	181	241	327	522	887	1,154	12.0	14.1
Nebraska . . . . .	195	268	371	598	948	1,216	12.0	13.3
Kansas . . . . .	195	270	379	568	988	1,271	12.3	13.4
South Atlantic . . . . .	169	242	342	551	879	1,115	12.5	12.6
Delaware . . . . .	209	286	381	599	912	1,153	11.1	12.4
Maryland . . . . .	190	273	390	609	957	1,232	12.2	13.5
District of Columbia . . . . .	430	667	958	1,349	2,198	2,838	12.4	13.6
Virginia . . . . .	151	213	301	493	811	1,054	12.8	14.0
West Virginia . . . . .	161	227	313	508	808	1,057	12.2	14.4
North Carolina . . . . .	143	204	282	461	737	931	12.4	12.4
South Carolina . . . . .	125	182	251	423	686	857	12.9	11.8
Georgia . . . . .	150	217	319	515	843	1,048	13.1	11.5
Florida . . . . .	184	264	377	623	975	1,228	12.6	12.2
East South Central . . . . .	148	211	294	483	798	1,025	12.8	13.3
Kentucky . . . . .	155	218	286	444	739	957	11.8	13.8
Tennessee . . . . .	166	232	324	531	874	1,144	12.6	14.4
Alabama . . . . .	145	210	300	501	809	1,033	13.1	13.0
Mississippi . . . . .	115	163	242	425	730	897	14.1	10.8
West South Central . . . . .	170	242	331	533	859	1,096	12.3	13.0
Arkansas . . . . .	142	198	284	470	766	994	12.8	13.9
Louisiana . . . . .	156	226	322	511	857	1,106	12.9	13.6
Oklahoma . . . . .	183	263	351	539	852	1,086	11.6	12.9
Texas . . . . .	177	249	338	549	876	1,110	12.1	12.6
Mountain . . . . .	189	259	346	541	849	1,070	11.3	12.3
Montana . . . . .	175	236	325	510	801	1,036	11.5	13.7
Idaho . . . . .	153	210	292	455	695	868	11.4	11.8
Wyoming . . . . .	200	268	327	451	710	873	9.5	10.9
Colorado . . . . .	233	311	396	605	942	1,209	10.5	13.3
New Mexico . . . . .	157	214	282	458	722	904	11.5	11.9
Arizona . . . . .	190	271	376	582	882	1,112	11.6	12.3
Utah . . . . .	158	211	286	458	714	896	11.4	12.0
Nevada . . . . .	196	282	389	658	1,163	1,380	13.6	8.9

See notes at end of table.



**Table 130 (page 2 of 2). Personal health care per capita expenditures and average annual percent change, according to geographic division and State: United States, selected years 1966–82**

[Data are compiled by the Health Care Financing Administration]

<i>Geographic division and State</i>	1966	1969	1972	1976	1980	1982	<i>Average annual percent change</i>	
							1966–80	1980–82
Amount per capita								
Pacific .....	\$234	\$328	\$440	\$691	\$1,093	\$1,380	11.6	12.4
Washington .....	219	297	390	584	915	1,165	10.8	12.8
Oregon .....	197	274	364	587	912	1,165	11.6	13.0
California .....	242	340	460	727	1,152	1,451	11.8	12.2
Alaska .....	227	289	340	560	961	1,187	10.9	11.1
Hawaii .....	208	300	401	598	932	1,228	11.3	14.8

NOTE: Per capita spending estimates are the expenditure level of services rendered in a geographic area per resident population. Per capita figures cannot be interpreted directly as spending per resident unless substantially all of the services provided in a State are consumed by residents of that State. U.S. estimates do not include services provided in U.S. territories or possessions, services rendered by U.S. taxpayers while living abroad, and services furnished to U.S. personnel living abroad or on military vessels.

SOURCE: Office of the Actuary: Personal health care expenditures by State, selected years 1966–1982, by K. R. Levit. Health Care Financing Review. HCFA Pub. No. 03199. Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1985.

**Table 131 (page 1 of 2). Hospital care per capita expenditures and average annual percent change, according to geographic division and State: United States, selected years 1966–82**

[Data are compiled by the Health Care Financing Administration]

Geographic division and State	1966	1969	1972	1976	1980	1982	Average annual percent change	
							1966–80	1980–82
Amount per capita								
United States . . . . .	\$ 80	\$119	\$166	\$276	\$ 441	\$ 577	13.0	14.4
New England . . . . .	101	151	207	335	515	669	12.3	14.0
Maine . . . . .	74	107	138	246	411	517	13.0	12.2
New Hampshire . . . . .	73	98	134	213	334	458	11.5	17.1
Vermont . . . . .	86	126	162	242	338	443	10.3	14.5
Massachusetts . . . . .	116	178	247	400	624	810	12.8	13.9
Rhode Island . . . . .	101	148	196	328	492	623	12.0	12.5
Connecticut . . . . .	91	133	185	296	444	578	12.0	14.1
Middle Atlantic . . . . .	94	144	200	328	495	641	12.6	13.8
New York . . . . .	110	171	236	377	540	679	12.0	12.1
New Jersey . . . . .	71	103	145	254	371	498	12.5	15.9
Pennsylvania . . . . .	82	127	178	300	505	675	13.9	15.6
East North Central . . . . .	81	117	167	286	465	615	13.3	15.0
Ohio . . . . .	74	107	154	273	446	599	13.7	15.9
Indiana . . . . .	63	95	134	235	383	512	13.8	15.6
Illinois . . . . .	90	132	195	323	539	700	13.6	14.0
Michigan . . . . .	90	123	170	295	477	628	12.7	14.7
Wisconsin . . . . .	76	117	163	268	401	539	12.6	15.9
West North Central . . . . .	79	117	158	270	451	592	13.3	14.6
Minnesota . . . . .	89	122	168	272	425	540	11.8	12.7
Iowa . . . . .	69	103	139	238	404	536	13.5	15.2
Missouri . . . . .	81	123	164	295	510	679	14.0	15.4
North Dakota . . . . .	83	121	156	283	479	624	13.3	14.1
South Dakota . . . . .	75	101	133	234	398	530	12.7	15.4
Nebraska . . . . .	75	115	157	259	429	568	13.3	15.1
Kansas . . . . .	76	116	160	269	451	593	13.6	14.7
South Atlantic . . . . .	68	103	151	252	411	539	13.7	14.5
Delaware . . . . .	91	131	174	291	437	552	11.9	12.4
Maryland . . . . .	84	122	185	287	464	606	13.0	14.3
District of Columbia . . . . .	192	334	564	903	1,516	2,021	15.9	15.5
Virginia . . . . .	63	92	132	218	372	506	13.5	16.6
West Virginia . . . . .	70	107	152	264	424	564	13.7	15.3
North Carolina . . . . .	57	85	121	201	324	428	13.2	14.9
South Carolina . . . . .	51	79	107	188	303	397	13.6	14.5
Georgia . . . . .	56	86	135	228	386	492	14.8	12.9
Florida . . . . .	66	103	151	268	434	569	14.4	14.5
East South Central . . . . .	60	91	131	226	383	507	14.2	15.1
Kentucky . . . . .	60	91	121	202	326	433	12.9	15.2
Tennessee . . . . .	67	102	149	252	430	578	14.2	15.9
Alabama . . . . .	61	92	134	238	408	541	14.5	15.2
Mississippi . . . . .	48	73	111	198	343	431	15.1	12.1
West South Central . . . . .	66	97	135	229	380	500	13.3	14.7
Arkansas . . . . .	56	77	114	197	324	443	13.4	16.9
Louisiana . . . . .	63	94	145	239	412	549	14.4	15.4
Oklahoma . . . . .	63	102	132	224	378	498	13.7	14.8
Texas . . . . .	69	101	137	233	379	495	12.9	14.3
Mountain . . . . .	76	109	145	234	377	483	12.1	13.2
Montana . . . . .	67	95	122	193	336	445	12.2	15.1
Idaho . . . . .	50	75	104	162	254	335	12.3	14.8
Wyoming . . . . .	85	116	123	188	313	398	9.8	12.8
Colorado . . . . .	100	136	171	274	422	557	10.8	14.9
New Mexico . . . . .	69	96	122	222	348	449	12.3	13.6
Arizona . . . . .	78	119	169	256	396	498	12.3	12.1
Utah . . . . .	58	81	114	188	307	399	12.6	14.0
Nevada . . . . .	68	108	151	273	540	630	16.0	8.0

See notes at end of table.

**Table 131 (page 2 of 2). Hospital care per capita expenditures and average annual percent change, according to geographic division and State: United States, selected years 1966–82**

[Data are compiled by the Health Care Financing Administration]

<i>Geographic division and State</i>	1966	1969	1972	1976	1980	1982	<i>Average annual percent change</i>		
							1966–80	1980–82	
	Amount per capita								
Pacific . . . . .	\$ 85	\$123	\$169	\$280	\$445	\$583	12.6	14.5	
Washington . . . . .	72	102	133	223	337	434	11.7	13.5	
Oregon . . . . .	66	96	127	219	347	468	12.6	16.1	
California . . . . .	88	129	180	298	479	626	12.9	14.3	
Alaska . . . . .	149	173	164	255	446	552	8.1	11.3	
Hawaii . . . . .	79	115	146	222	352	479	11.3	16.7	

NOTES: Per capita spending estimates are the expenditure level of services rendered in a geographic area per resident population. Per capita figures cannot be interpreted directly as spending per resident unless substantially all of the services provided in a State are consumed by residents of that State.

SOURCE: Office of the Actuary: Personal health care expenditures by State, selected years 1966–1982, by K. R. Levit. Health Care Financing Review. HCFA Pub. No. 03199. Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1985.

**Table 132 (page 1 of 2). Nursing home care per capita expenditures and average annual percent change, according to geographic division and State: United States, selected years 1966–82**

[Data are compiled by the Health Care Financing Administration]

Geographic division and State	1966	1969	1972	1976	1980	1982	Average annual percent change	
							1966–80	1980–82
Amount per capita								
United States . . . . .	\$12	\$19	\$31	\$52	\$ 90	\$114	15.5	12.5
New England . . . . .	20	28	47	85	145	186	15.2	13.3
Maine . . . . .	15	23	40	70	134	176	16.9	14.6
New Hampshire . . . . .	16	20	35	43	71	90	11.2	12.6
Vermont . . . . .	19	27	39	75	121	149	14.1	11.0
Massachusetts . . . . .	22	32	52	94	152	192	14.8	12.4
Rhode Island . . . . .	15	21	34	78	169	214	18.9	12.5
Connecticut . . . . .	19	29	49	90	156	206	16.2	14.9
Middle Atlantic . . . . .	14	21	36	66	108	145	15.7	15.9
New York . . . . .	16	26	46	85	135	184	16.5	16.7
New Jersey . . . . .	10	15	24	45	77	97	15.7	12.2
Pennsylvania . . . . .	12	18	28	48	88	116	15.3	14.8
East North Central . . . . .	12	19	31	54	97	125	16.1	13.5
Ohio . . . . .	12	18	27	53	99	143	16.3	20.2
Indiana . . . . .	12	20	33	57	102	129	16.5	12.5
Illinois . . . . .	13	20	33	52	90	109	14.8	10.1
Michigan . . . . .	10	17	27	48	86	106	16.6	11.0
Wisconsin . . . . .	14	22	39	71	120	150	16.6	11.8
West North Central . . . . .	18	28	44	69	131	172	15.2	14.6
Minnesota . . . . .	22	33	57	91	175	235	16.0	15.9
Iowa . . . . .	22	36	51	81	143	168	14.3	8.4
Missouri . . . . .	12	19	29	47	95	139	15.9	21.0
North Dakota . . . . .	19	33	47	60	112	154	13.5	17.3
South Dakota . . . . .	18	30	49	69	132	165	15.3	11.8
Nebraska . . . . .	17	27	42	68	112	140	14.4	11.8
Kansas . . . . .	18	26	42	65	130	163	15.2	12.0
South Atlantic . . . . .	8	12	20	33	59	77	15.3	14.2
Delaware . . . . .	8	12	20	42	67	86	16.4	13.3
Maryland . . . . .	9	17	24	46	75	102	16.4	16.6
District of Columbia . . . . .	6	10	18	22	43	55	15.1	13.1
Virginia . . . . .	6	9	16	30	63	85	18.3	16.2
West Virginia . . . . .	3	5	12	20	41	62	20.5	23.0
North Carolina . . . . .	6	11	16	30	58	75	17.6	13.7
South Carolina . . . . .	6	9	16	28	62	76	18.2	10.7
Georgia . . . . .	8	13	23	37	67	79	16.4	8.6
Florida . . . . .	11	15	25	31	48	65	11.1	16.4
East South Central . . . . .	7	11	20	35	67	86	17.5	13.3
Kentucky . . . . .	9	14	23	40	81	104	17.0	13.3
Tennessee . . . . .	6	10	17	28	56	76	17.3	16.5
Alabama . . . . .	8	14	22	40	62	79	15.8	12.9
Mississippi . . . . .	4	7	15	30	71	90	22.8	12.6
West South Central . . . . .	12	19	31	48	79	94	14.4	9.1
Arkansas . . . . .	13	21	34	50	95	112	15.3	8.6
Louisiana . . . . .	8	13	22	38	68	89	16.5	14.4
Oklahoma . . . . .	19	31	47	58	91	111	11.8	10.4
Texas . . . . .	11	18	30	48	78	88	15.0	6.2
Mountain . . . . .	10	15	23	35	59	74	13.5	12.0
Montana . . . . .	12	17	33	43	66	92	12.9	18.1
Idaho . . . . .	12	17	26	45	69	84	13.3	10.3
Wyoming . . . . .	6	12	23	24	38	49	14.1	13.6
Colorado . . . . .	15	21	33	54	86	104	13.3	10.0
New Mexico . . . . .	5	9	15	16	34	49	14.7	20.0
Arizona . . . . .	8	13	17	22	41	53	12.4	13.7
Utah . . . . .	9	12	17	30	55	63	13.8	7.0
Nevada . . . . .	7	10	20	29	60	82	16.6	16.9

See notes at end of table.



**Table 132 (page 2 of 2). Nursing home care per capita expenditures and average annual percent change, according to geographic division and State: United States, selected years 1966–82**

[Data are compiled by the Health Care Financing Administration]

<i>Geographic division and State</i>	1966	1969	1972	1976	1980	1982	<i>Average annual percent change</i>		
							1966–80	1980–82	
	Amount per capita								
Pacific . . . . .	\$12	\$18	\$31	\$48	\$ 82	\$ 97	14.7	8.8	
Washington . . . . .	16	21	43	61	109	137	14.7	12.1	
Oregon . . . . .	17	24	37	57	94	113	13.0	9.6	
California . . . . .	11	18	30	47	78	91	15.0	8.0	
Alaska . . . . .	1	2	9	17	14	26	20.7	36.3	
Hawaii . . . . .	6	10	18	28	36	63	13.7	32.3	

NOTE: Per capita spending estimates are the expenditure level of services rendered in a geographic area per resident population. Per capita figures cannot be interpreted directly as spending per resident unless substantially all of the services provided in a State are consumed by residents of that State.

SOURCE: Office of the Actuary: Personal health care expenditures by State, selected years 1966–1982, by K. R. Levit. Health Care Financing Review. HCFA Pub. No. 03199. Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1985.

**Table 133. Health care coverage for persons under 65 years of age, according to type of coverage and selected characteristics: United States, 1980, 1984, and 1989**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Private insurance			Medicaid <sup>1</sup>			Not covered <sup>2</sup>		
	1980	1984	1989	1980	1984	1989	1980	1984	1989
Percent of population									
Total <sup>3,4</sup> . . . . .	78.8	76.9	76.6	5.9	6.0	6.4	12.5	15.4	15.7
Age									
Under 15 years . . . . .	74.7	71.9	71.7	10.2	10.8	11.4	12.8	16.1	15.9
Under 5 years . . . . .	70.3	67.6	68.1	12.0	13.4	13.3	15.2	18.0	17.0
5-14 years . . . . .	76.7	74.2	73.6	9.4	9.4	10.4	11.7	15.0	15.3
15-44 years . . . . .	79.3	77.0	76.6	4.2	4.4	4.4	14.2	17.6	18.1
45-64 years . . . . .	83.6	83.6	83.3	3.1	2.7	3.4	8.6	10.2	10.6
Sex <sup>3</sup>									
Male . . . . .	79.5	77.5	76.9	4.7	5.0	5.2	12.7	15.8	16.4
Female . . . . .	78.2	76.3	76.2	7.1	7.1	7.6	12.2	15.1	14.9
Race <sup>3</sup>									
White . . . . .	81.9	80.0	79.7	3.9	4.1	4.5	11.4	14.2	14.5
Black . . . . .	60.1	58.9	59.2	17.9	17.5	17.1	19.0	22.3	22.0
Family income <sup>3,5</sup>									
Less than \$14,000 . . . . .	38.6	34.1	34.6	27.6	26.5	26.6	31.0	37.8	37.3
\$14,000-\$24,999 . . . . .	61.1	71.3	71.4	9.2	4.2	4.8	25.9	22.1	21.4
\$25,000-\$34,999 . . . . .	79.0	88.3	87.9	3.0	1.2	1.2	15.0	8.7	9.3
\$35,000-\$49,999 . . . . .	90.2	93.1	92.4	1.1	0.4	0.8	6.2	4.8	5.6
\$50,000 or more . . . . .	93.7	95.2	95.7	0.6	0.4	0.4	3.9	3.1	3.2
Geographic region <sup>3</sup>									
Northeast . . . . .	81.7	80.4	83.4	7.0	7.4	5.8	10.3	11.8	10.3
Midwest . . . . .	83.8	80.6	81.9	5.8	7.0	7.1	9.0	11.8	10.7
South . . . . .	75.6	74.4	71.8	4.8	4.4	5.7	15.0	18.4	20.0
West . . . . .	74.3	72.3	72.1	6.5	6.2	7.2	15.3	19.0	19.1
Location of residence <sup>3</sup>									
Within MSA . . . . .	79.7	77.6	77.2	6.2	6.5	6.4	11.3	14.4	15.1
Outside MSA . . . . .	77.0	75.4	74.3	5.2	5.2	6.5	14.8	17.5	17.8

<sup>1</sup>Includes persons receiving Aid to Families with Dependent Children or Supplemental Security Income or those with current Medicaid cards.

<sup>2</sup>Includes persons not covered by private insurance, Medicaid, Medicare, and military plans.

<sup>3</sup>Age adjusted.

<sup>4</sup>Includes all other races not shown separately and unknown family income.

<sup>5</sup>Family income categories for 1989. Income categories for 1980 are: less than \$7,000; \$7,000-\$9,999; \$10,000-\$14,999; \$15,000-\$24,999; \$25,000 or more; and, in 1984 are: less than \$10,000; \$10,000-\$18,999; \$19,000-\$29,999; \$30,000-\$39,999; and \$40,000 or more.

NOTES: Percents do not add to 100 because the percent with other types of health insurance (e.g., Medicare, military) are not shown, and because persons with both private insurance and Medicaid appear in both columns. 1980 denominators include persons with unknown health insurance (1.0 percent).

SOURCE: Division of Health Interview Statistics and Division of Analysis, National Center for Health Statistics: Data from the National Health Interview Survey.

**Table 134. Health care coverage for persons 65 years of age and over, according to type of coverage and selected characteristics: United States, 1980, 1984, and 1989**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Medicare and private insurance			Medicare and Medicaid <sup>1</sup>			Medicare only <sup>2</sup>		
	1980	1984	1989	1980	1984	1989	1980	1984	1989
Percent of population									
Total <sup>3,4</sup> . . . . .	64.4	70.9	73.5	8.1	5.4	5.7	22.7	20.0	16.8
Age									
65-74 years . . . . .	67.0	73.3	74.2	6.8	4.5	5.0	20.6	17.7	15.5
75 years and over . . . . .	59.9	66.8	72.3	10.3	7.0	6.8	26.4	24.1	19.0
75-84 years . . . . .	61.9	69.2	74.1	9.7	6.5	6.4	24.8	22.0	17.4
85 years and over . . . . .	51.2	56.2	64.8	12.7	9.3	8.5	33.0	33.4	26.1
Sex <sup>3</sup>									
Male . . . . .	65.6	71.6	73.9	5.7	3.3	4.0	23.1	20.8	17.2
Female . . . . .	63.6	70.5	73.4	9.6	6.9	6.8	22.4	19.4	16.4
Race <sup>3</sup>									
White . . . . .	68.3	74.4	77.3	6.6	4.0	4.5	21.0	18.5	14.7
Black . . . . .	26.5	38.1	39.3	23.3	19.9	16.5	40.6	35.4	37.9
Family income <sup>3,5</sup>									
Less than \$14,000 . . . . .	53.4	57.5	64.8	15.7	12.3	11.4	28.2	27.3	21.5
\$14,000-\$24,999 . . . . .	72.9	79.8	81.2	4.8	1.8	2.6	19.1	15.1	13.4
\$25,000-\$34,999 . . . . .	74.1	80.3	80.0	3.9	2.2	2.4	18.3	13.7	12.5
\$35,000-\$49,999 . . . . .	74.4	81.0	80.3	2.5	*2.3	*1.9	16.8	11.9	10.2
\$50,000 or more . . . . .	71.9	78.5	76.5	2.2	*1.8	*1.1	18.3	14.4	12.6
Geographic region <sup>3</sup>									
Northeast . . . . .	67.4	74.3	73.1	5.6	3.5	4.0	22.3	18.4	18.0
Midwest . . . . .	71.2	77.6	79.6	4.9	3.2	2.9	19.9	16.8	14.1
South . . . . .	58.9	65.1	70.6	10.8	7.9	7.7	25.6	23.0	18.3
West . . . . .	60.7	68.2	71.4	10.9	6.5	7.6	21.7	21.0	16.0
Location of residence <sup>3</sup>									
Within MSA . . . . .	64.2	71.6	73.6	7.5	4.7	5.1	23.0	19.6	16.8
Outside MSA . . . . .	64.9	69.8	73.4	9.2	6.6	7.2	22.2	20.7	16.8

<sup>1</sup>Includes persons receiving Aid to Families with Dependent Children or Supplemental Security Income or those with current Medicaid cards.  
<sup>2</sup>Includes persons not covered by private insurance or Medicaid and a small proportion of persons with other types of coverage, such as CHAMPUS or public assistance.  
<sup>3</sup>Age adjusted.  
<sup>4</sup>Includes all other races not shown separately and unknown family income.  
<sup>5</sup>Family income categories for 1989. Income categories for 1980 are: less than \$7,000; \$7,000-\$9,999; \$10,000-\$14,999; \$15,000-\$24,999; \$25,000 or more; and, in 1984 are: less than \$10,000; \$10,000-\$18,999; \$19,000-\$29,999; \$30,000-\$39,999; and \$40,000 or more.  
\*Relative standard error greater than 30 percent.

NOTES: Persons with Medicare, private insurance, and Medicaid appear in both columns. 1980 denominators include persons with unknown health insurance (less than 1 percent). In 1989, 5.2 percent of all persons 65 years of age and over had no Medicare but only 0.9 percent were without health insurance.  
SOURCE: Division of Health Interview Statistics and Division of Analysis, National Center for Health Statistics: Data from the National Health Interview Survey.

**Table 135. Health maintenance organizations and enrollment, according to model type, geographic region, and Federal program: United States, selected years 1976–91**

<i>Plans and enrollment</i>	1976	1980	1982	1984	1985 <sup>1</sup>	1986	1987	1989	1990	1991
Plans										
	Number									
All plans .....	174	235	264	304	478	623	647	604	572	553
Model type: <sup>2</sup>										
Individual practice association <sup>3</sup> .....	41	97	97	125	244	384	409	385	360	346
Group .....	122	138	167	179	234	239	238	219	212	168
Mixed .....	---	---	---	---	---	---	---	---	---	39
Geographic region:										
Northeast .....	29	55	59	67	81	105	114	118	115	116
Midwest .....	52	72	87	105	157	202	203	183	160	157
South .....	23	45	52	67	141	188	194	172	176	163
West .....	70	63	66	65	99	128	136	131	121	117
Enrollment <sup>4</sup>										
	Number of persons in thousands									
Total .....	5,987	9,078	10,807	15,101	21,005	25,725	29,232	31,883	33,028	34,004
Model type: <sup>2</sup>										
Individual practice association <sup>3</sup> .....	390	1,694	1,471	2,929	6,379	9,932	12,014	13,542	13,741	13,619
Group .....	5,562	7,384	9,336	12,172	14,625	15,793	17,217	18,342	19,287	17,063
Mixed .....	---	---	---	---	---	---	---	---	---	3,322
Federal program: <sup>5</sup>										
Medicaid <sup>6</sup> .....	---	265	197	349	561	802	811	1,043	1,187	---
Medicare .....	---	391	431	671	1,064	1,490	1,674	1,761	1,842	2,029
Number per 1,000 population										
Geographic region:										
Northeast .....	19.9	31.4	39.0	57.8	79.4	100.5	117.0	137.7	145.6	153.7
Midwest .....	15.2	28.1	37.2	61.6	96.8	116.4	130.5	129.2	126.2	126.5
South .....	4.3	8.3	11.1	20.4	37.5	54.4	64.2	70.5	70.5	71.4
West .....	96.9	121.8	128.7	148.0	172.5	190.4	205.6	225.5	232.1	237.7

<sup>1</sup>Increases partly due to changes in reporting methods (see Appendix I).

<sup>2</sup>Eleven HMO's with 35,000 enrollment did not report model type in 1976.

<sup>3</sup>An individual practice association is a health maintenance organization that contracts with an association of physicians from various settings (a mixture of solo and group practices) to provide health services.

<sup>4</sup>Open-ended enrollment in HMO plans, amounting to 1.2 million on Jan. 1, 1991, is not included in this table.

<sup>5</sup>Federal program enrollment in HMO's refers to enrollment by Medicaid or Medicare beneficiaries, where the Medicaid or Medicare program contracts directly with the HMO to pay the appropriate annual premium.

<sup>6</sup>Data for 1989 and 1990 includes enrollment in managed care health insuring organizations.

NOTES: Data as of June 30 in 1976–84, December 31 in 1985–87, and January 1 in 1989–91. Medicaid enrollment in 1989–90 as of June 30. HMO's in Guam are not included.

SOURCES: Office of Health Maintenance Organizations: Summary of the National HMO census of prepaid plans, June 1976 and National HMO Census 1980. Public Health Service, Washington, U.S. Government Printing Office, DHHS Pub. No. (PHS) 80–50159; InterStudy: National HMO Census: Annual Report on the Growth of HMO's in the U.S., 1982–1985 Editions; The InterStudy Edge, Spring 1987, 1988, 1989, 1990, vol. 2; Competitive Edge, vol. 1, issue 1, 1991; 1986 December Update of Medicare Enrollment in HMO's, 1988 January Update of Medicare Enrollment in HMO's, Excelsior, Minnesota (Copyrights 1983, 1984, 1985, 1986, 1987, 1988, 1989; Used with the permission of InterStudy); U.S. Bureau of the Census: Current Population Reports, Series P–25, Nos. 998 and 1058, Washington, U.S. Government Printing Office, Dec. 1986 and Mar. 1990. U.S. Dept. of Commerce: Press release CB 91–100, Mar. 11, 1991. Health Care Financing Administration: Unpublished data; Data computed by the National Center for Health Statistics, Division of Analysis.



**Table 136. Medicare enrollees and expenditures and percent distribution, according to type of service: United States, selected years 1967–90**

[Data are compiled by the Health Care Financing Administration]

Type of service	1967	1970	1975	1980	1985	1988	1989	1990 <sup>1</sup>
Enrollees <sup>2</sup>								
Number in millions								
Total <sup>3</sup> . . . . .	19.5	20.5	25.0	28.5	31.1	33.0	33.6	34.2
Hospital insurance . . . . .	19.5	20.4	24.6	28.1	30.6	32.4	33.0	33.7
Supplementary medical insurance . . . . .	17.9	19.6	23.9	27.4	30.0	31.6	32.1	32.6
Expenditures								
Amount in millions								
Total . . . . .	\$4,737	\$7,493	\$16,316	\$36,822	\$72,294	\$88,561	\$100,586	\$110,984
Total hospital insurance <sup>4</sup> . . . . .	3,430	5,281	11,581	25,577	48,414	53,331	60,803	66,997
Inpatient hospital . . . . .	3,034	4,827	10,877	24,082	44,680	49,062	53,822	59,301
Skilled nursing facility . . . . .	282	246	278	401	577	816	2,978	2,876
Home health agency . . . . .	29	51	160	568	2,144	2,313	2,765	3,517
Hospice . . . . .	...	...	...	...	43	156	238	356
Administrative expenses <sup>5</sup> . . . . .	77	157	266	512	834	815	792	758
Total supplementary medical insurance . . . . .	1,307	2,212	4,735	11,245	23,880	35,230	39,783	43,987
Physician . . . . .	1,128	1,790	3,415	8,188	17,311	24,372	27,057	29,628
Outpatient hospital . . . . .	33	114	652	1,935	4,304	6,534	7,662	8,475
Home health agency . . . . .	10	34	87	195	54	62	73	81
Group practice prepayment . . . . .	19	26	80	203	720	2,019	2,308	2,827
Independent laboratory . . . . .	7	11	39	114	558	983	1,194	1,457
Administrative expenses . . . . .	110	237	462	610	933	1,260	1,489	1,519
Percent distribution of expenditures								
Total hospital insurance <sup>4</sup> . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Inpatient hospital . . . . .	88.5	91.4	93.9	94.2	92.3	92.0	89.3	88.5
Skilled nursing facility . . . . .	8.2	4.7	0.5	1.6	1.2	1.6	4.6	4.3
Home health agency . . . . .	0.8	1.0	1.4	2.2	4.4	4.4	4.3	5.2
Hospice . . . . .	...	...	...	...	0.0	0.2	0.2	0.5
Administrative expenses <sup>5</sup> . . . . .	2.2	3.0	2.3	2.0	1.7	1.5	1.3	1.1
Total supplementary medical insurance . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Physician . . . . .	86.3	80.9	72.1	72.8	72.5	69.2	68.0	67.4
Outpatient hospital . . . . .	2.5	5.2	13.8	17.2	18.0	18.5	19.3	19.3
Home health agency . . . . .	0.8	1.5	1.8	1.7	0.2	0.2	0.2	0.2
Group practice prepayment . . . . .	1.5	1.2	1.7	1.8	3.0	5.7	5.8	6.4
Independent laboratory . . . . .	0.5	0.5	0.8	1.0	2.3	2.8	3.0	3.3
Administrative expenses . . . . .	8.4	10.7	9.8	5.4	3.9	3.6	3.7	3.5

<sup>1</sup>Preliminary figures.

<sup>2</sup>Includes the U.S. population residing in the United States, Puerto Rico, Virgin Islands, Guam, other outlying areas, and foreign countries, and residence unknown.

<sup>3</sup>Number enrolled in the hospital insurance and/or supplementary medical insurance programs on July 1.

<sup>4</sup>Includes coverage for outpatient hospital diagnostic service under hospital insurance terminated after Mar. 31, 1968, and Medicaid and Maternal and Child Health Professional Standard Review Organization activity through 1981, Peer Review Organization activity after 1983; is counted as an inpatient hospital benefit in other actuarial tables presenting benefit payments by type of benefit.

<sup>5</sup>Includes costs of experiments and demonstration projects.

SOURCE: Office of Medicare Cost Estimates, Office of the Actuary and Bureau of Data Management and Strategy, Health Care Financing Administration, Washington, April 1991.

**Table 137. Medicare enrollment, persons served, and payments for Medicare enrollees 65 years of age and over, according to selected characteristics: United States and other areas, selected years 1967–89**

[Data are compiled by the Health Care Financing Administration]

Characteristic	Enrollment in millions <sup>1</sup>				Persons served per 1,000 enrollees <sup>2</sup>				Payments per person served <sup>3</sup>				Payments per enrollee			
	1967	1977	1987	1989	1967	1977	1987	1989	1967	1977	1987	1989	1967	1977	1987	1989
Total . . . . .	19.5	23.8	29.4	30.4	367	570	754	785	\$592	\$1,332	\$3,025	\$3,445	\$217	\$ 759	\$2,281	\$2,704
Age																
65–66 years . . . . .	2.8	3.3	4.0	3.9	300	533	700	730	496	1,075	2,214	2,381	149	573	1,550	1,737
67–68 years . . . . .	2.6	3.2	3.7	3.9	326	511	667	703	521	1,173	2,536	2,864	170	599	1,691	2,015
69–70 years . . . . .	2.4	2.9	3.4	3.5	339	531	705	732	530	1,211	2,700	3,029	180	643	1,902	2,217
71–72 years . . . . .	2.3	2.6	3.1	3.2	351	555	740	764	560	1,228	2,904	3,204	197	681	2,150	2,449
73–74 years . . . . .	2.1	2.3	2.9	2.9	369	576	762	795	574	1,319	3,048	3,486	212	759	2,322	2,772
75–79 years . . . . .	3.9	4.5	5.7	5.9	398	597	787	820	624	1,430	3,312	3,755	248	853	2,608	3,079
80–84 years . . . . .	2.2	3.0	3.7	3.9	430	623	828	857	693	1,549	3,496	4,074	298	965	2,894	3,493
85 years and over . . . . .	1.3	2.1	3.0	3.2	465	652	841	869	740	1,636	3,708	4,384	345	1,068	3,119	3,809
Sex																
Male . . . . .	8.3	9.6	11.8	12.2	357	546	712	742	647	1,505	3,432	3,869	231	821	2,443	2,870
Female . . . . .	11.3	14.2	17.6	18.2	373	586	782	814	554	1,223	2,778	3,186	207	717	2,173	2,593
Race <sup>4</sup>																
White . . . . .	17.4	21.1	25.7	26.5	375	576	760	792	593	1,328	2,993	3,391	222	765	2,275	2,686
Other . . . . .	1.5	2.1	2.8	3.0	260	514	699	724	557	1,404	3,403	3,990	145	722	2,379	2,889
Geographic region <sup>5</sup>																
Northeast . . . . .	5.1	5.7	6.6	6.7	385	613	793	817	604	1,426	3,171	3,703	233	874	2,513	3,026
Midwest . . . . .	5.6	6.3	7.4	7.5	352	541	756	799	599	1,401	2,969	3,217	211	757	2,246	2,571
South . . . . .	5.6	7.5	9.6	10.1	351	556	768	811	528	1,198	2,893	3,350	186	666	2,221	2,717
West . . . . .	2.9	3.8	5.2	5.4	455	632	726	727	620	1,341	3,222	3,704	282	848	2,339	2,693

<sup>1</sup>Includes fee-for-service and Health Maintenance Organization (HMO) enrollees and is as of July 1 each year.

<sup>2</sup>Excludes HMO enrollees.

<sup>3</sup>Excludes amounts for HMO services.

<sup>4</sup>Excludes persons of unknown race.

<sup>5</sup>Includes the resident population of the United States but not residence unknown.

NOTES: Data include the United States, residence unknown, Puerto Rico, Virgin Islands, Guam, other outlying areas, and foreign countries.

SOURCE: Bureau of Data Management and Strategy, Health Care Financing Administration: Unpublished data.

**Table 138. Hospital utilization and benefit payments for aged and disabled Medicare enrollees in non-Federal short-stay hospitals, according to geographic division: United States, 1980, 1985, and 1989**

[Data are compiled by the Health Care Financing Administration]

Geographic division	Discharges			Average length of stay			Average days of care		
	1980	1985	1989	1980	1985	1989	1980	1985	1989
	Number per 1,000 hospital insurance enrollees			Number of days per hospital discharge			Number per 1,000 hospital insurance enrollees		
United States <sup>1</sup> . . . . .	372	347	313	10.6	8.2	8.9	4,016	2,835	2,792
New England . . . . .	333	312	290	12.1	10.0	10.5	4,130	3,125	3,062
Middle Atlantic . . . . .	329	421	309	13.4	8.5	11.6	4,528	3,569	3,573
East North Central . . . . .	373	325	319	11.2	8.6	8.7	4,243	2,791	2,770
West North Central . . . . .	426	355	307	9.9	7.7	7.9	4,371	2,745	2,424
South Atlantic . . . . .	372	314	309	10.3	8.5	9.0	3,880	2,655	2,779
East South Central . . . . .	436	415	394	9.6	8.0	8.2	4,260	3,311	3,242
West South Central . . . . .	433	374	347	9.1	7.5	8.1	4,025	2,792	2,811
Mountain . . . . .	360	312	281	8.7	7.0	7.1	3,243	2,195	1,998
Pacific . . . . .	338	293	275	8.7	7.2	7.4	2,988	2,111	2,027

Geographic division	Benefit payments								
	Average total charges <sup>2</sup>			Hospital insurance <sup>3</sup>			Supplementary medical insurance		
	1980	1985	1989	1980	1985	1989	1980	1985	1989
	Amount per day			Amount per enrollee					
United States <sup>1</sup> . . . . .	\$296	\$623	\$ 980	\$ 909	\$1,585	\$1,848	\$390	\$ 770	\$1,197
New England . . . . .	295	559	838	978	1,661	1,932	402	769	1,141
Middle Atlantic . . . . .	304	559	825	965	1,792	2,094	428	893	1,372
East North Central . . . . .	298	623	971	1,008	1,603	1,849	370	706	1,142
West North Central . . . . .	246	580	915	888	1,476	1,581	304	643	889
South Atlantic . . . . .	277	613	963	818	1,486	1,736	384	771	1,254
East South Central . . . . .	249	561	902	754	1,413	1,905	281	544	1,026
West South Central . . . . .	259	599	1,003	798	1,488	1,871	352	653	1,224
Mountain . . . . .	310	706	1,173	782	1,309	1,616	368	667	1,095
Pacific . . . . .	424	907	1,480	1,003	1,713	1,865	509	1,008	1,286

<sup>1</sup>Includes residence unknown.

<sup>2</sup>Includes charges for Medicare covered and noncovered services and days.

<sup>3</sup>Benefit payments represent cash-flow disbursements from the Medicare Hospital Insurance and Supplementary Medical Insurance Trust Funds for all types of covered services and include retroactive adjustments for nonbilling reimbursement such as (capital, direct medical education, kidney acquisitions, and bad debts by Medicare patients), indirect medical education, lump sum interim payments, and audited fiscal year cost adjustments. Approximately 90 percent of total benefit payments are for short-stay hospital services.

SOURCE: Bureau of Data Management and Strategy, Health Care Financing Administration: Unpublished data.

**Table 139. Medicaid recipients and medical vendor payments, according to basis of eligibility: United States, selected fiscal years 1972–90**

[Data are compiled by the Health Care Financing Administration]

<i>Basis of eligibility</i>	1972	1975	1980	1985	1986	1987	1988	1989	1990
<b>Recipients</b>									
	Number in millions								
All recipients . . . . .	17.6	22.0	21.6	21.8	22.5	23.1	22.9	23.5	25.3
	Percent of recipients <sup>1</sup>								
Aged (65 years and over) . . . . .	18.8	16.4	15.9	14.0	13.9	14.1	13.8	13.3	12.7
Blind and disabled . . . . .	9.8	11.2	13.5	13.8	14.2	14.6	15.2	15.3	14.7
Adults in AFDC <sup>2</sup> families . . . . .	17.8	20.6	22.6	25.3	25.1	24.2	24.0	24.3	23.8
Children in AFDC <sup>2</sup> families . . . . .	44.5	43.6	43.2	44.7	44.4	44.0	43.8	43.9	44.4
Other Title XIX <sup>3</sup> . . . . .	9.0	8.2	6.9	5.6	6.0	6.1	5.9	5.0	3.9
<b>Vendor payments</b>									
	Amount in billions								
All payments . . . . .	\$ 6.3	\$ 12.2	\$ 23.3	\$ 37.5	\$ 41.0	\$ 45.0	\$ 48.7	\$ 54.5	\$ 64.9
	Percent distribution								
Total . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Aged (65 years and over) . . . . .	30.6	35.6	37.5	37.6	36.8	35.6	35.2	34.1	33.2
Blind and disabled . . . . .	22.2	25.7	32.7	35.9	36.4	37.3	38.2	38.3	37.6
Adults in AFDC <sup>2</sup> families . . . . .	15.3	16.8	13.9	12.7	11.9	12.4	12.1	12.7	13.2
Children in AFDC <sup>2</sup> families . . . . .	18.1	17.9	13.4	11.8	12.5	12.2	12.0	12.6	14.0
Other Title XIX <sup>3</sup> . . . . .	13.9	4.0	2.6	2.1	2.4	2.4	2.5	2.1	1.6
<b>Vendor payments per recipient</b>									
	Amount								
All recipients . . . . .	\$358	\$ 556	\$1,079	\$1,719	\$1,821	\$1,949	\$2,126	\$2,318	\$2,568
Aged (65 years and over) . . . . .	580	1,206	2,540	4,605	4,808	4,974	5,426	5,926	6,717
Blind and disabled . . . . .	807	1,276	2,618	4,459	4,686	4,974	5,332	5,817	6,564
Adults in AFDC <sup>2</sup> families . . . . .	307	455	662	860	864	999	1,069	1,206	1,429
Children in AFDC <sup>2</sup> families . . . . .	145	228	335	452	512	542	583	668	811
Other Title XIX <sup>3</sup> . . . . .	555	273	398	657	720	763	892	967	1,062

<sup>1</sup>Recipients included in more than one category for 1980–89. From 1988 to 1990 between 0.2 and 0.5 percent of recipients have unknown basis of eligibility.

<sup>2</sup>Aid to Families with Dependent Children.

<sup>3</sup>Includes some participants in Supplemental Security Income program and other people deemed medically needy in participating States.

NOTES: 1972 and 1975 data are for fiscal year ending June 30. All other years are for fiscal year ending September 30.

SOURCE: Bureau of Data Management and Strategy, Health Care Financing Administration; Unpublished data.



**Table 140 (page 1 of 2). Medicaid recipients and medical vendor payments, according to type of service: United States, selected fiscal years 1972–90**

[Data are compiled by the Health Care Financing Administration]

Type of service	1972	1975	1980	1985	1986	1987	1988	1989	1990
Recipients									
Number in millions									
All recipients . . . . .	17.6	22.0	21.6	21.8	22.5	23.1	22.9	23.5	25.3
Percent of recipients									
Inpatient services:									
General hospitals . . . . .	16.1	15.6	17.0	15.7	15.7	16.3	16.7	17.7	18.2
Mental hospitals . . . . .	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.4
Skilled nursing facility services . . . . .	3.1	2.9	2.8	2.5	2.5	2.5	2.5	2.4	2.4
Intermediate care facility services:									
Mentally retarded . . . . .	---	0.3	0.6	0.7	0.6	0.6	0.6	0.6	0.6
All other . . . . .	---	3.1	3.7	3.8	3.7	3.7	3.8	3.8	3.4
Physician services . . . . .	69.8	69.1	63.7	66.0	66.2	66.5	66.6	66.7	67.6
Dental services . . . . .	13.6	17.9	21.5	21.4	22.9	22.2	22.1	17.9	18.0
Other practitioner services . . . . .	9.1	12.1	15.0	15.4	15.3	15.3	15.2	15.1	15.3
Outpatient hospital services . . . . .	29.6	33.8	44.9	46.2	47.5	47.5	46.0	48.3	49.0
Clinic services . . . . .	2.8	4.9	7.1	9.7	9.0	9.4	9.8	10.2	11.1
Laboratory and radiological services . . . . .	20.0	21.5	14.9	29.1	31.6	32.9	33.1	33.0	35.5
Home health services . . . . .	0.6	1.6	1.8	2.5	2.6	2.6	2.5	2.6	2.8
Prescribed drugs . . . . .	63.3	64.3	63.4	63.8	65.3	65.3	66.9	67.7	68.5
Family planning services . . . . .	...	5.5	5.2	7.5	7.7	7.1	6.7	6.7	6.9
Early and periodic screening . . . . .	...	...	...	8.7	9.5	9.7	10.0	10.7	11.7
Rural health clinic services . . . . .	...	...	...	0.4	0.5	0.6	0.6	0.7	0.9
Other care . . . . .	14.4	13.2	11.9	15.5	14.7	15.6	18.2	19.5	20.3
Vendor payments									
Amount in billions									
All payments . . . . .	\$ 6.3	\$ 12.2	\$ 23.3	\$ 37.5	\$ 41.0	\$ 45.1	\$ 48.7	\$ 54.5	\$ 64.9
Percent distribution									
Total . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Inpatient services:									
General hospitals . . . . .	40.6	27.6	27.5	25.2	25.3	25.1	24.8	24.5	25.7
Mental hospitals . . . . .	1.8	3.3	3.3	3.2	2.7	3.1	2.8	2.7	2.6
Skilled nursing facility services . . . . .	23.3	19.9	15.8	13.5	13.8	13.2	13.0	12.2	12.4
Intermediate care facility services:									
Mentally retarded . . . . .	---	3.1	8.5	12.6	12.4	12.4	12.4	12.2	11.3
All other . . . . .	---	15.4	18.0	17.4	16.5	16.2	16.3	16.3	14.9
Physician services . . . . .	12.6	10.0	8.0	6.3	6.2	6.2	6.1	6.3	6.2
Dental services . . . . .	2.7	2.8	2.0	1.2	1.3	1.2	1.2	0.9	0.9
Other practitioner services . . . . .	0.9	1.0	0.8	0.7	0.6	0.6	0.6	0.6	0.6
Outpatient hospital services . . . . .	5.8	3.0	4.7	4.8	4.8	4.9	5.0	5.2	5.1
Clinic services . . . . .	0.7	3.2	1.4	1.9	2.0	2.1	2.3	2.3	2.6
Laboratory and radiological services . . . . .	1.3	1.0	0.5	0.9	1.0	1.1	1.1	1.1	1.1
Home health services . . . . .	0.4	0.6	1.4	3.0	3.3	3.8	4.1	4.7	5.2
Prescribed drugs . . . . .	8.1	6.7	5.7	6.2	6.6	6.6	6.8	6.8	6.8
Family planning services . . . . .	...	0.5	0.3	0.5	0.6	0.5	0.4	0.4	0.4
Early and periodic screening . . . . .	...	...	...	0.2	0.2	0.3	0.3	0.3	0.3
Rural health clinic services . . . . .	...	...	...	0.0	0.0	0.0	0.0	0.0	0.1
Other care . . . . .	1.8	1.9	1.9	2.5	2.7	2.7	2.9	3.5	3.7

See footnotes at end of table.

**Table 140 (page 2 of 2). Medicaid recipients and medical vendor payments, according to type of service: United States, selected fiscal years 1972–90**

[Data are compiled by the Health Care Financing Administration]

Type of service	1972	1975	1980	1985	1986	1987	1988	1989	1990
Vendor payments per recipient					Amount				
Total payment per recipient . . . . .	\$ 358	\$ 556	\$ 1,079	\$ 1,719	\$ 1,821	\$ 1,949	\$ 2,126	\$ 2,318	\$ 2,568
Inpatient services:									
General hospitals . . . . .	903	983	1,742	2,753	2,924	3,000	3,151	3,208	3,630
Mental hospitals . . . . .	2,825	6,045	11,742	19,867	21,000	24,719	22,917	16,397	18,548
Skilled nursing facility services . . . . .	2,665	3,863	6,081	9,274	9,912	10,432	10,974	11,809	13,356
Intermediate care facility services:									
Mentally retarded . . . . .	---	5,507	16,438	32,102	34,979	37,523	41,531	44,999	50,048
All other . . . . .	---	2,764	5,326	7,882	8,180	8,575	9,149	9,994	11,236
Physician services . . . . .	65	81	136	163	171	181	193	217	235
Dental services . . . . .	71	86	99	98	103	105	114	118	130
Other practitioner services . . . . .	37	48	61	75	73	74	82	89	96
Outpatient hospital services . . . . .	70	50	113	178	185	203	229	250	269
Clinic services . . . . .	82	358	209	337	398	441	490	523	602
Laboratory and radiological services . . . . .	23	27	38	53	60	63	72	76	80
Home health services . . . . .	229	204	847	2,093	2,280	2,775	3,541	4,225	4,733
Prescribed drugs . . . . .	46	58	96	166	183	198	215	232	256
Family planning services . . . . .	...	55	72	119	130	138	135	145	151
Early and periodic screening . . . . .	...	...	...	45	48	51	54	58	67
Rural health clinic services . . . . .	...	...	...	81	93	101	107	133	154
Other care . . . . .	44	80	172	274	331	340	343	418	465

NOTES: 1972 and 1975 data are for fiscal year ending June 30. All other years are for fiscal year ending September 30.

SOURCE: Bureau of Data Management and Strategy, Health Care Financing Administration; Unpublished data.

**Table 141. Department of Veterans Affairs health care expenditures and use, and persons treated according to selected characteristics: United States, selected fiscal years 1965–90**

[Data are compiled by Department of Veterans Affairs]

	1965 <sup>1</sup>	1970 <sup>1</sup>	1975 <sup>1</sup>	1980	1985	1988	1989	1990
Health care expenditures								
				Amount in millions				
All expenditures <sup>2</sup>	\$1,150	\$1,689	\$3,328	\$5,981	\$8,936	\$10,230	\$10,949	\$11,500
Percent distribution								
All services	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Inpatient hospital	81.9	71.3	66.4	64.3	60.3	53.9	54.1	57.5
Outpatient care	12.0	14.0	17.8	19.1	18.9	22.6	23.3	25.3
Department of Veterans Affairs nursing homes and domiciliaries								
Department of Veterans Affairs nursing homes and domiciliaries	2.9	4.3	4.8	5.1	5.4	6.5	6.7	7.1
Community nursing homes	0.0	1.2	1.4	2.0	3.0	3.5	2.6	2.4
All other <sup>3</sup>	3.2	9.1	9.6	9.6	12.4	13.4	13.3	7.7
Health care use								
				Number in thousands				
Inpatient hospital stays <sup>4</sup>	731	787	1,114	1,248	1,306	1,086	1,028	1,029
Outpatient visits	5,987	7,312	14,630	17,971	19,601	23,232	22,643	22,602
Department of Veterans Affairs nursing home and domiciliary stays								
Department of Veterans Affairs nursing home and domiciliary stays	32	32	29	28	34	44	44	46
Community nursing home stays	0	15	22	29	39	42	32	29
Inpatients								
				Number in thousands				
Total	---	---	---	---	---	650	617	598
Percent distribution								
Total	---	---	---	---	---	100.0	100.0	100.0
Veterans with service connected disability								
Veterans with service connected disability	---	---	---	---	---	36.9	38.2	38.9
Veterans without service connected disability								
Veterans without service connected disability	---	---	---	---	---	62.2	61.1	60.3
Low income	---	---	---	---	---	51.9	53.9	54.8
Exempt <sup>5</sup>	---	---	---	---	---	2.8	2.5	2.5
Other <sup>6</sup>	---	---	---	---	---	5.6	4.2	2.8
Unknown	---	---	---	---	---	1.9	0.5	0.2
Non-veterans	---	---	---	---	---	0.8	0.8	0.8
Outpatients								
				Number in thousands				
Total	---	---	---	---	---	2,763	2,597	2,564
Percent distribution								
Total	---	---	---	---	---	100.0	100.0	100.0
Veterans with service connected disability								
Veterans with service connected disability	---	---	---	---	---	34.5	37.6	38.3
Veterans without service connected disability								
Veterans without service connected disability	---	---	---	---	---	48.4	50.3	49.8
Low income	---	---	---	---	---	34.5	39.9	41.1
Exempt <sup>5</sup>	---	---	---	---	---	2.7	2.8	2.9
Other <sup>6</sup>	---	---	---	---	---	5.7	5.2	3.6
Unknown	---	---	---	---	---	5.5	2.4	2.2
Non-veterans	---	---	---	---	---	17.0	12.0	11.8

<sup>1</sup>Data for fiscal year ending June 30; all other data for fiscal year ending September 30.

<sup>2</sup>Health care expenditures exclude construction, medical administration, and miscellaneous operating expenses.

<sup>3</sup>Includes miscellaneous benefits and services, contract hospitals, education and training, subsidies to State veterans hospitals, nursing homes, and domiciliaries, and the Civilian Health and Medical Program of the Department of Veterans Affairs.

<sup>4</sup>One-day dialysis patients were included in fiscal years 1975, 1980, and 1985. Interfacility transfers were included in fiscal year 1990.

<sup>5</sup>Prisoner of war, exposed to agent orange, etc.

<sup>6</sup>Financial means tested veterans who receive medical care subject to copayments according to income level.

NOTES: The veteran population was estimated at 27 million in 1990 with 26 percent age 65 or over compared with 17 percent in 1980. Thirty percent had served prior to and during World War II, 16 percent during the Korean conflict, 31 percent during the Vietnam era, and 23 percent during peacetime.

SOURCE: Office of Policy and Planning and the Office of Finance and Information Resources Management, Department of Veterans Affairs: Unpublished data.

**Table 142. Mental health expenditures, percent distribution, and per capita expenditures, according to type of mental health organization: United States, selected years 1969–88**

[Data are based on inventories of mental health organizations]

Type of organization	1969	1975	1979	1983	1986	1988 <sup>1</sup>
Amount in millions						
All organizations . . . . .	\$3,293	\$6,564	\$8,764	\$14,432	\$18,458	\$23,071
State and county mental hospitals . . . . .	1,814	3,185	3,757	5,491	6,326	6,990
Private psychiatric hospitals . . . . .	220	467	743	1,712	2,629	4,604
Non-Federal general hospitals with separate psychiatric services . . . . .	298	621	723	2,176	2,878	3,617
Veterans Administration medical centers <sup>2</sup> . . . . .	450	699	848	1,316	1,338	1,290
Federally funded community mental health centers . . . . .	143	776	1,481	—	—	—
Residential treatment centers for emotionally disturbed children . . . . .	123	279	436	573	978	1,311
Freestanding psychiatric outpatient clinics . . . . .	186	422	589	430	518	668
All other organizations <sup>3</sup> . . . . .	59	116	187	2,734	3,792	4,591
Percent distribution						
All organizations . . . . .	100.0	100.0	100.0	100.0	100.0	100.0
State and county mental hospitals . . . . .	55.1	48.5	42.9	38.0	34.4	30.2
Private psychiatric hospitals . . . . .	6.7	7.1	8.5	11.9	14.2	20.0
Non-Federal general hospitals with separate psychiatric services . . . . .	9.0	9.5	8.2	15.1	15.6	15.7
Veterans Administration medical centers <sup>2</sup> . . . . .	13.7	10.6	9.7	9.1	7.2	5.6
Federally funded community mental health centers . . . . .	4.4	11.8	16.9	—	—	—
Residential treatment centers for emotionally disturbed children . . . . .	3.7	4.3	5.0	4.0	5.3	5.7
Freestanding psychiatric outpatient clinics . . . . .	5.6	6.4	6.7	3.0	2.8	2.9
All other organizations <sup>3</sup> . . . . .	1.8	1.8	2.1	18.9	20.5	19.9
Amount per capita <sup>4</sup>						
All organizations . . . . .	\$17	\$31	\$40	\$62	\$77	\$95
State and county mental hospitals . . . . .	9	15	17	24	26	29
Private psychiatric hospitals . . . . .	1	2	3	7	11	19
Non-Federal general hospitals with separate psychiatric services . . . . .	2	3	3	9	12	15
Veterans Administration medical centers <sup>2</sup> . . . . .	2	3	4	6	6	5
Federally funded community mental health centers . . . . .	1	4	7	—	—	—
Residential treatment centers for emotionally disturbed children . . . . .	1	1	2	2	4	5
Freestanding psychiatric outpatient clinics . . . . .	1	2	3	2	2	3
All other organizations <sup>3</sup> . . . . .	0	1	1	12	16	19

<sup>1</sup>Preliminary data.

<sup>2</sup>Includes Veterans Administration neuropsychiatric hospitals, general hospital psychiatric services, and psychiatric outpatient clinics.

<sup>3</sup>Includes freestanding psychiatric partial care organizations and multiservice mental health organizations. Multiservice mental health organizations were redefined in 1984; see Appendix I.

<sup>4</sup>Civilian population.

NOTE: Changes in reporting procedures in 1983 affect the comparability of data with those from previous years.

SOURCES: Survey and Reports Branch, Division of Biometry and Applied Sciences, National Institute of Mental Health; R. W. Manderscheid and S. A. Barrett: Mental Health, United States, 1987. DHHS Pub. No. (ADM) 87-1518. U.S. Government Printing Office, 1987; Unpublished data.



**Table 143. State mental health agency per capita expenditures for mental health services, and average annual percent change, according to State: United States, selected fiscal years 1981–87**

<i>State</i>	<i>1981</i>	<i>1983</i>	<i>1985</i>	<i>1987</i>	<i>Average annual percent change 1981–87</i>
	Amount per capita				
United States . . . . .	\$ 27	\$ 31	\$ 35	\$ 38	5.9
Alabama . . . . .	20	24	28	29	6.5
Alaska . . . . .	38	41	45	50	4.8
Arizona . . . . .	10	10	12	16	8.4
Arkansas . . . . .	17	20	24	23	5.7
California . . . . .	28	29	34	30	0.7
Colorado . . . . .	24	25	28	30	3.6
Connecticut . . . . .	32	39	44	56	9.9
Delaware . . . . .	44	51	46	41	-1.2
District of Columbia <sup>1</sup> . . . . .	---	23	28	130	---
Florida . . . . .	20	23	26	25	4.0
Georgia . . . . .	25	26	23	32	4.4
Hawaii . . . . .	19	22	23	26	5.5
Idaho . . . . .	13	15	15	17	3.9
Illinois . . . . .	18	21	24	25	5.5
Indiana . . . . .	19	23	27	31	8.5
Iowa . . . . .	8	10	11	12	6.9
Kansas . . . . .	17	22	27	28	7.9
Kentucky . . . . .	15	17	19	23	7.7
Louisiana . . . . .	19	23	26	25	5.0
Maine . . . . .	25	32	36	42	9.0
Maryland . . . . .	33	37	40	49	6.8
Massachusetts . . . . .	32	36	46	62	11.7
Michigan . . . . .	32	39	49	61	11.1
Minnesota <sup>2</sup> . . . . .	17	30	32	42	---
Mississippi . . . . .	14	16	24	22	8.2
Missouri . . . . .	24	25	28	31	4.9
Montana . . . . .	24	28	29	28	2.0
Nebraska . . . . .	16	19	21	21	4.5
Nevada . . . . .	22	25	26	28	4.2
New Hampshire . . . . .	35	39	42	36	0.6
New Jersey . . . . .	26	31	36	43	8.4
New Mexico . . . . .	24	25	25	24	0.3
New York . . . . .	67	74	90	99	6.8
North Carolina . . . . .	24	29	38	41	9.5
North Dakota . . . . .	38	42	36	42	1.6
Ohio . . . . .	25	28	30	33	5.2
Oklahoma . . . . .	22	33	31	30	5.0
Oregon . . . . .	20	21	25	28	5.6
Pennsylvania . . . . .	41	47	52	50	3.7
Rhode Island . . . . .	36	32	35	41	2.0
South Carolina . . . . .	31	33	33	45	6.6
South Dakota . . . . .	17	21	22	27	7.7
Tennessee . . . . .	18	20	23	24	5.3
Texas . . . . .	13	16	17	18	5.9
Utah . . . . .	13	16	17	19	6.5
Vermont . . . . .	32	40	44	44	5.4
Virginia . . . . .	23	29	32	35	7.5
Washington . . . . .	18	24	30	37	12.9
West Virginia . . . . .	20	20	22	23	2.6
Wisconsin . . . . .	22	27	28	31	5.6
Wyoming . . . . .	23	28	31	30	4.6

<sup>1</sup>Between 1985 and 1987, St. Elizabeths Hospital was transferred from the National Institute of Mental Health to the District of Columbia Office of Mental Health.

<sup>2</sup>Data for 1981 not comparable with 1983–87 data for Minnesota.

SOURCE: National Association of State Mental Health Program Directors and the National Association of State Mental Health Program Directors Research Institute, Inc.: Final Report: Funding Sources and Expenditures of State Mental Health Agencies: Revenue/Expenditure Study Results, Fiscal Year 1987. Apr. 1990.

# Appendix Contents

## I. Sources and Limitations of Data

Introduction	305
Department of Health and Human Services	
Public Health Service	
Centers for Disease Control	
National Center for Health Statistics	
National Vital Statistics System	305
Population Estimates for Death Rates	306
National Linked File of Live Births and Infant Deaths	307
National Survey of Family Growth	307
National Health Interview Survey	308
National Health and Nutrition Examination Survey	308
National Master Facility Inventory	309
National Hospital Discharge Survey	310
National Nursing Home Survey	310
National Ambulatory Medical Care Survey	311
National Center for Infectious Diseases	
AIDS Surveillance	311
Epidemiology Program Office	
National Notifiable Diseases Surveillance System	312
National Center for Chronic Disease Prevention and Health Promotion	312
Abortion surveillance	312
National Center for Prevention Services	
U.S. Immunization Survey	312
National Institute for Occupational Safety and Health	
National Traumatic Occupational Fatalities Data Base	313
National Occupational Hazard Survey	313
National Occupational Exposure Survey	313
Health Resources and Services Administration	
Bureau of Health Professions	
Physician Supply Projections	313
Nurse Supply Estimates	314
Alcohol, Drug Abuse, and Mental Health Administration	
National Institute on Alcohol Abuse and Alcoholism	
National Survey of Drinking	314
National Institute on Drug Abuse	
High School Senior Survey (Monitoring the Future Survey)	314
National Household Surveys on Drug Abuse	314
The Drug Abuse Warning Network	315
National Institute of Mental Health	
Surveys of Mental Health Organizations	315
National Institutes of Health	
National Cancer Institute	

Surveillance, Epidemiology, and End Results Program	315
Health Care Financing Administration	
Office of the Actuary	
Estimates of National Health Expenditures	316
Medicare Statistical System	316
Medicaid Data System	317
Department of Commerce	
Bureau of the Census	317
U.S. Census of Population	317
Current Population Survey	317
Population Estimates	317
Department of Labor	
Bureau of Labor Statistics	318
Annual Survey of Occupational Injuries and Illnesses	318
Consumer Price Index	318
Employment and Earnings	318
Environmental Protection Agency	
National Aerometric Surveillance Network	319
United Nations	
Demographic Yearbook	319
World Health Statistics Annual	319
Alan Guttmacher Institute	
Abortion Survey	319
American Association of Colleges of Osteopathic Medicine	320
American Dental Association	320
American Hospital Association	
Annual Survey of Hospitals	320
American Medical Association	
Physician Masterfile	320
Annual Census of Hospitals	320
Association of American Medical Colleges	320
InterStudy	
National Health Maintenance Organization Census	321
National League for Nursing	321
Public Health Foundation	
Association of State and Territorial Health Officials Reporting System	321

## II. Glossary

General Terms	322
Social and Demographic Terms	322
Geographic Terms	323
Health Status and Determinants	324
Fertility	324
Mortality	324
Determinants and Measures of Health	326
Utilization and Resources	327
Ambulatory Care	327
Inpatient Care	328
Psychiatric Care	330
Personnel	331
Health Expenditures	332



# 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 National Center for Health Statistics, M.G. Kovar: Data systems of the National Center for Health Statistics. *Vital and Health Statistics*. Series 1, No. 23. DHHS Pub. No. (PHS) 89-1325. Public Health Service. Hyattsville, Md. 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. Conversely, 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 population 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 time 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

#### 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.

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. Beginning 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. All 50 States and the District of Columbia participated in the VSCP starting in 1985.

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.

The standard certificates of birth, death, and fetal death recommended by NCHS are modified in each registration area to serve the area's needs. However, most certificates conform closely in content and arrangement to the standard certificate, and all certificates contain a minimum data set specified by NCHS.

Birth certificates in certain States and years do not provide specific data. Data on education of mother are not available from California, Texas, and Washington for 1980–88. In 1988, education was also missing for New York State outside of New York City. Data on education were not available from Alabama, Arkansas, California, Connecticut, Delaware, District of Columbia, Georgia, Idaho, Maryland, New Mexico, Pennsylvania, Texas, and Washington for 1970. Data on prenatal care were not available from Alabama, Alaska, Arkansas, Colorado, Connecticut, Delaware, Georgia, Idaho, Massachusetts, New Mexico, Pennsylvania, and Virginia for 1970. Data on marital status were not available from California, Connecticut, Georgia, Idaho, Maryland, Massachusetts, Montana, New Mexico, New York, Ohio, and Vermont for 1970.

Information on births of Hispanic parentage was available for 22 States in 1980 and 1981. The 22 States that included items on their birth certificates on the ethnic or Hispanic

origin of the mother and father were 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 these data also became available in Tennessee, and in 1983 the District of Columbia began reporting information on births of Hispanic parentage. In 1988 these data became available for Alabama, Connecticut, Kentucky, Massachusetts, Montana, North Carolina, and Washington; so that since 1988 information on births of Hispanic parentage is available for 30 States and the District of Columbia. In 1988 about 95 percent of the total U.S. Hispanic population resided in these States.

In 1987 information on deaths for persons of Hispanic origin was available for the District of Columbia and the following 18 States: Arizona, Arkansas, California, Colorado, Georgia, Hawaii, Illinois, Indiana, Kansas, Mississippi, Nebraska, New Jersey, New York (including New York City), North Dakota, Ohio, Texas, Utah, and Wyoming. In 1988 these data were also available in Alabama, Kentucky, Maine, Montana, North Carolina, Oregon, Rhode Island, and Washington. In 1989 information on deaths for persons of Hispanic origin was available in 44 States and the District of Columbia, which accounted for about 97 percent of the Hispanic population in the United States. The six States without Hispanic mortality data in 1989 are Connecticut, Louisiana, Maryland, New Hampshire, Oklahoma, and Virginia.

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, *Vital Statistics of the United States, 1987*, Vol. I, DHHS Pub. No. (PHS)

89–1100 and Vol. II, Part A, DHHS Pub. No. (PHS) 90–1101, Public Health Service, Washington, U.S. Government Printing Office, 1991.

### Population Estimates for Death Rates

The U.S. Bureau of the Census publishes annual population estimates needed as denominators to calculate national death rates for the white and black populations. In order to estimate death rates for other minority populations the Office of Analysis and Epidemiology, National Center for Health Statistics calculated 1987–89 annual population estimates for Asians, American Indians, and Hispanic persons in the following six age groups: under 1 year, 1–14 years, 15–24 years, 25–44 years, 45–64 years, and 65 years of age and over.

Population estimates for Asians and American Indians were calculated for the entire United States, and population estimates for Hispanics were calculated for the subset of States with Hispanic origin data on the death certificate.

Annual age-specific resident population estimates for Asians and American Indians were calculated using the method of iterative proportional fitting and the following data sources: (a) annual total resident population estimates for Asians and American Indians from the U.S. Bureau of the Census, (b) annual age-specific resident population estimates for the “all other” races group from the U.S. Bureau of the Census, (c) 1980 age-specific resident population estimates for Asians and American Indians from the U.S. Bureau of the Census, and (d) annual numbers of live births for Asian and American Indian mothers from the National Center for Health Statistics.

Annual age-specific resident population estimates for persons of Hispanic origin were calculated for those States reporting Hispanic mortality data using the following data sources from the U.S. Bureau of the Census: (a) 1980 age-specific Hispanic resident population estimates for each State and for the entire United States and (b) annual national age-specific Hispanic resident population estimates. For example, the 1987 Hispanic origin population 15–24 years of age in the mortality reporting States (18 States



and the District of Columbia) was estimated as the 1987 national population estimate for Hispanic persons 15–24 years multiplied by the proportion of all Hispanic persons 15–24 years who resided in the mortality reporting States in 1980.

### **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. The match completeness for the 1983–86 files is 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: National Center for Health Statistics, K. Prager: Infant mortality by birthweight, age of mother, and other characteristics: United States, 1985 birth cohort. Monthly Vital Statistics Report. Forthcoming.

### **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 birth weight, and 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–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 both 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.

Detailed information on the NSFG sample design is available in the following reports: National Center for Health Statistics, D. K. French: National Survey of Family Growth, Cycle I, sample design, estimation procedures, and variance estimation. *Vital and Health Statistics*. Series 2, No. 76. DHEW Pub. No. (PHS) 78–1350. Public Health Service. Washington. U.S. Government Printing Office, Jan. 1979; National Center for Health Statistics, W. R. Grady: National Survey of Family Growth, Cycle II: Sample design, estimation procedures, and variance estimation. *Vital and Health Statistics*. Series 2, No. 87. DHHS Pub. No. (PHS) 81–1361. Public Health Service. Washington. U.S. Government Printing Office, Feb. 1981; and National Center for Health

Statistics, C. Bachrach, M. Horn, W. Mosher, and I. Shimizu: National Survey of Family Growth, Cycle III: Estimation procedures, weighting, and variance estimation. *Vital and Health Statistics*. Series 2, No. 98. DHHS Pub. No. (PHS) 85-1372. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1985.

### 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, 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 survey has been between 95 and 98 percent over the years.

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 1989, there was a sample of 116,929 persons and in 1990, a sample of 119,631 persons.

A description of the survey design, the methods used in estimation, and general qualifications of the data obtained from the survey are presented in: National Center for Health Statistics, P. F. Adams and V. Benson: Current estimates from the National Health Interview Survey, United States, 1990. *Vital and Health Statistics*. Series 10, No. 181. DHHS Pub. No. (PHS) 92-1509. Public Health Service. Washington. U.S. Government Printing Office, Dec. 1991.

### 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 111 million civilian noninstitutionalized adults 18-79 years of age in the United States at that time. The sample areas consisted of 42 primary sampling units 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: National Center for Health Statistics: Cycle I of the National Health Examination Survey, sample and response, United States, 1960-62. T. Gordon and H. W. Miller. *Vital and Health Statistics*. Series 11, No. 1. PHS Pub. No. 1000. Public Health Service. Washington. U.S. Government Printing Office, May 1964.

In the first National Health and Nutrition Examination Survey (NHANES I), conducted from 1971 through 1974, a major purpose was to measure and monitor indicators of the nutritional 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 primary sampling units (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.

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: National Center for Health Statistics, H. W. Miller: Plan and operation of the National Health and Nutrition Examination Survey, United States, 1971-73. *Vital and Health Statistics*. Series 1, Nos. 10a and 10b. DHEW Pub. No. (HSM) 73-1310. Health Services and Mental Health Administration. Washington. U.S. Government Printing Office, Feb. 1973; and National Center for Health Statistics, A. Engel, R. S. Murphy, K. Maurer, and E. Collins: Plan and operation of the NHANES I Augmentation Survey of Adults 25-74 Years, United States, 1974-75. *Vital and Health Statistics*. Series 1, No. 14. DHEW Pub. No. (PHS) 78-1314. Public Health Service. Washington. U.S. Government Printing Office, June 1978.

For more information on NHANES II, see: National Center for Health Statistics, A. McDowell, A. Engel, J. T. Massey, and K. Maurer: Plan and operation of the Second National Health and Nutrition Examination Survey, 1976-80. *Vital and Health Statistics*. Series 1, No. 15. DHHS Pub. No. (PHS) 81-1317. Public Health Service. Washington. U.S. Government Printing Office, July 1981. For information on nutritional applications of these surveys, see: Yetley, E., and C. Johnson, 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.

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: National Center for Health Statistics: Plan and operation of the Hispanic Health and Nutrition Examination Survey, 1982-84. *Vital and Health Statistics*. Series 1, No. 19. DHHS Pub. No. (PHS) 85-1321. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1985.

### **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 1968-75, 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 the National Center for Health Statistics (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.

Hospitals are requested to report data for the full year ending September 30. More than half of the responding hospitals used this reporting period for the 1982 survey. The remaining hospitals used various other reporting periods. The response rate for the 1982 hospital survey was about 90 percent and was 96 percent for the 1986 survey.

The nursing home and other facilities survey was conducted by NCHS in 1963, 1967, 1969, 1971, 1973, 1976, 1978, 1980, 1982, and 1986. In the 1980 and 1982 NMFI surveys, only nursing and related care homes were covered. 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 1982, arrangements were made with 35 States for obtaining their data on nursing and related care homes. NCHS surveyed certain types of homes that were excluded from the State surveys.

Statistics derived from the hospital and nursing home and other facilities surveys were adjusted for both facility and item nonresponse. Missing items on the questionnaire were imputed, when possible, by using information reported by the same facility in a previous survey. When data were not available from a previous census for a responding facility, the data were imputed by using data from similar responding facilities. Similar facilities are defined as those with the same types of business, ownership, service, and approximately the same bed size.

For more detailed information on NMFI, see: National Center for Health Statistics, D. A. Roper: Nursing and related care homes as reported from the 1982 NMFI survey. *Vital and Health Statistics*. Series 14, No. 32. DHHS Pub. No. (PHS) 86-1827. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1986; and

National Center for Health Statistics, A. Sirrocco. The 1986 Inventory of Long-Term Care Places: An overview of facilities for the mentally retarded. *Advance Data From Vital and Health Statistics*. No. 143. DHHS Pub. No. (PHS) 87-1250. Public Health Service. Hyattsville, Md., 1987.

### 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 Veterans Administration 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. Beginning 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 the National Center for Health Statistics (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 primary sampling units (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 (approximately 34 percent of sample hospitals in 1990) were arrayed by primary diagnoses, patient sex and age group, and date of discharge prior to sampling. Otherwise, the procedures for sampling discharges within hospitals is the same as that used in the prior design.

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 542 hospitals selected for the survey, 519 were within the scope of the survey, and 474 participated in the survey in

1990. Data were abstracted from about 267,000 medical records.

For more detailed information on the design of NHDS and the magnitude of sampling errors associated with NHDS estimates, see: National Center for Health Statistics, E. J. Graves: National Hospital Discharge Survey: Annual Summary, 1988. *Vital and Health Statistics*. Series 13, No. 106. DHHS Pub. No. (PHS) 91-1767. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1991.

### National Nursing Home Survey

The National Center for Health Statistics (NCHS) has conducted three National Nursing Home Surveys. The first survey was conducted from August 1973-April 1974; the second survey from May-December 1977; and the third from August 1985-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, respectively. 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. Thus, 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 either 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: National Center for Health Statistics, M. R. Meiners: Selected operating and financial characteristics of nursing homes, United States, 1973-74 National Nursing Home Survey. *Vital and Health Statistics*. Series 13, No. 22. DHEW Pub. No. (HRA) 76-1773. Health Resources Administration. Washington. U.S. Government Printing Office, Dec. 1975. For more information on the 1977 NNHS, see: National Center for Health Statistics, J. F. Van Nostrand, A. Zappolo, E. Hing, et al.: The National Nursing Home Survey, 1977 Summary for the United States. *Vital and Health Statistics*. Series 13, No. 43. DHHS Pub. No. (PHS) 79-1794. Public Health Service. Washington. U.S. Government Printing Office, July 1979. For more information on the 1985 NNHS, see: National Center for Health Statistics, E. Hing, E. Sekscenski, G. Strahan: The National Nursing Home Survey, 1985 Summary for the United States. *Vital and Health Statistics*. Series 13, No. 97. DHHS Pub. No. (PHS) 89-1758. Public Health Service. Washington. U.S. Government Printing Office, Jan. 1989.

### **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 non-Federally 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 1989 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 masterfiles 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. In 1989 the survey included all 50 states.

For the 1985 survey a sample of 5,032 physicians were selected. The physician response rate for 1985 was 70 percent providing data on 71,594 patient records. For the 1989 survey a sample of 2,535 physicians was selected. The physician response rate for 1989 was 74 percent providing data on 38,384 patient records.

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 design of NAMCS and the magnitude of sampling errors associated with NAMCS estimates, see: National Center for Health Statistics, J. DeLozier and R. Gagnon. 1989 Summary: National Ambulatory Medical Care Survey. *Advance Data From Vital and Health Statistics*. No. 203. DHHS Pub. No. (PHS) 91-1250. Public Health Service. Hyattsville, Md. 1991.

## **National Center for Infectious Diseases**

### **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 non-hospital 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 (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 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, contact: Chief, Surveillance Section, Surveillance and Evaluation Branch, AIDS Program, National Center for Infectious Diseases, Centers for Disease Control, Atlanta, Ga. 30333.

## Epidemiology Program Office

### National Notifiable Diseases Surveillance System

The Epidemiology Program Office (EPO) of the Centers for Disease Control (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 (chickenpox) 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 31 in 1985, 33 in 1987 and 1988, 30 in 1989, and 31 in 1990. The number of areas reporting mumps was 48 in 1985, 49 in 1987, 48 in 1988, and 50 in 1989 and 1990.

Estimates of underreporting of some diseases have been made. For example, it is estimated that only 10 percent of cases of congenital rubella syndrome are reported. Only 10–15 percent of all measles cases were reported prior to the institution of the Measles Elimination Program in 1978; but now it is estimated that all cases are reported in most areas of the country. 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, Final 1990 reports of notifiable diseases, *Morbidity and Mortality Weekly Report*, 39(53), Public Health Service, DHHS, Atlanta, Ga., Oct. 1991, or write to Centers for Disease Control, Director, Division of Surveillance and Epidemiology, Atlanta, Ga. 30333.

## National Center for Chronic Disease Prevention and Health Promotion

### Abortion Surveillance

The Centers for Disease Control (CDC) acquires abortion service statistics by State of occurrence from three sources—central health agencies, hospitals and other medical

facilities, and the National Center for Health Statistics. 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, and now statewide abortion data are also reported by the remaining States.

The total number of abortions reported to CDC is about 16 percent less than the total estimated independently by the Alan Guttmacher Institute, the research and development division of the Planned Parenthood Federation of America, Inc.

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

## National Center for Prevention Services

### U.S. Immunization Survey

This system is the result of a contractual agreement between the Centers for Disease Control and the U.S. Bureau of the Census. Estimates from the U.S. Immunization Survey are based on data obtained during the third week of September in certain years for a subsample of households interviewed for the Current Population Survey, which is described separately in this appendix.

The reporting system contains demographic variables and vaccine history along with disease history when relevant to vaccine history. The system is used to estimate the immunization level of the Nation's child population against the vaccine-preventable diseases; from time to time, immunization level data on the adult population are collected.

The scope of the U.S. Immunization Survey covers the 50 States and the District of Columbia. For example, the 1981 sample included approximately 45,000 household units. Six thousand sample units were found to be vacant or otherwise not to be interviewed. Of the approximately 39,000 occupied households eligible for interview, about 1,500 were not interviewed because the occupants either were



not at home after repeated calls or were unavailable for some other reason.

The estimating procedure that was used involves the inflation of weighted sample results to independent estimates of the civilian noninstitutionalized population of the United States by age and race.

Starting in 1979, the questionnaire was modified to solicit information regarding the source of immunization responses given by the interviewee. This change was made to measure the percent of responses for which a family immunization record was the source of the information.

For more information about the survey methodology, contact: Director, Division of Immunization, Center for Preventive Services, Centers for Disease Control, Atlanta, Ga. 30333.

## National Institute for Occupational Safety and Health

### National Traumatic Occupational Fatalities Data Base

The National Traumatic Occupational Fatalities (NTOF) data base 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: (1) age 16 years or older; (2) an external cause of death (ICD-9, E800-E999); and (3) a positive response to the injury at work item.

There is no standardized definition of a work-related injury and no national guidelines exist regarding the completion of this 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. 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 1980-86. The rates presented are for the U.S. civilian labor force.

For further information on NTOF, contact: Director, Division of Safety Research, National Institute for Occupational Safety and Health, 944 Chestnut Ridge Road, Mailstop S-133, Morgantown, West Virginia 26505.

### National Occupational Hazard Survey

The National Occupational Hazard Survey (NOHS) was conducted by the National Institute for Occupational Safety and Health (NIOSH) to obtain data on employee exposure to particular chemicals and physical agents in various industries.

A random sample of 4,636 urban workplaces was selected by the U.S. Department of Labor, Bureau of Labor Statistics. Because mining and government activities are not within the coverage of the Occupational Safety and Health Act and agricultural and rural areas were beyond the logistical capacity of the survey, the sample excluded those types of facilities. Included were facilities in 66 different two-digit Standard Industrial Classifications (SIC's), located in 67 standard metropolitan statistical areas. Field work was performed by 20 industrial hygiene surveyors who collected data from February 1972 through June 1974.

Information in Part I, elicited during a questionnaire interview of management, profiled the SIC and size of facility, along with its medical, safety, and industrial hygiene programs. Part II, the greatest part of the NOHS data, contained the recorded observations of the surveyor's management-escorted "walk-through" of all facility work areas. Part II listed, by job title, the number of employees who were potentially exposed to the same chemicals and physical agents. The surveyor recorded all materials and physical agents each employee group encountered, regardless of toxicity; hazardous nature; conditions of use; and the presence, absence, or effectiveness of any exposure control measures. For each potential exposure listed within an occupational group, the surveyor also recorded the duration, intensity, form, and the

control utilized and whether it functioned.

For more information on NOHS, see: National Institute for Occupational Safety and Health, National Occupational Hazard Survey, Vol. I, Survey manual, DHEW Pub. No. (NIOSH) 74-127; Vol. II, Data editing and data base development, DHEW Pub. No. (NIOSH) 77-213; Vol. III, Survey analysis and supplemental tables, DHEW Pub. No. (NIOSH) 78-114.

### National Occupational Exposure Survey

During 1981-83, NIOSH conducted a second national survey of worksites, patterned after the NOHS. In this second survey, known as the National Occupational Exposure Survey (NOES), information was collected essentially identical to the NOHS in a sample of 4,490 facilities over a 30-month period.

For further information on NOES, see: National Institute for Occupational Safety and Health, National Occupational Exposure Survey, Field Guidelines, DHHS Pub. No. (NIOSH) 86-116.

## 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 Professions to forecast the supply of physicians by specialty, activity, and by 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 foreign-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 foreign 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, *Seventh Report to the President and Congress on the Status of Health Personnel in the United States*, DHHS Pub. No. HRS-P-OD-90-1, 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: (1) nurse population—those with current licenses to practice; (2) nurse supply—all practicing nurses either full or part time (or all of those available to practice at that time); and (3) full-time equivalent supply—nurses practicing full time plus one-half of those practicing part time (or available on that basis)

Each of the three estimates are divided into three levels of highest educational preparation: associate degree or diploma; baccalaureate; 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. Data sources include data on nursing education from the National League for Nursing and data on licensure from the National Council of State Boards of Nursing. Data on the number and characteristics of registered nurses are based on data from the National Sample Survey of Registered Nurses conducted by the Division of Nursing, Bureau of Health Professions in March 1988.

## **Alcohol, Drug Abuse, and Mental Health Administration**

### **National Institute on Alcohol Abuse and Alcoholism**

#### **National Survey of Drinking**

Data on trends in alcohol consumption were drawn from national surveys funded by the National Institute on Alcohol Abuse and Alcoholism and the National Institute on Drug Abuse. The 1979 survey was based on self-reported consumption and was designed to represent adults 18 years of age and over living in households in the coterminous United States. A total of 1,772 interviews were conducted, representing a response rate of 66 percent.

For more information on the National Survey of Drinking, write: Laboratory for Epidemiology and Population Studies, National Institute on Alcohol Abuse and Alcoholism, 5600 Fishers Lane, Rockville, Md. 20857. For further information on alcoholism services, see: National Institute on Alcohol Abuse and Alcoholism, *Characteristics of alcoholism services in the United States, 1984*. Data from the September 1984 National Alcoholism and Drug Abuse Program Inventory. P. G. Reed and D. S. Sanchez. Division of Biometry and Epidemiology. June 1986.

### **National Institute on Drug Abuse**

#### **High School Senior Survey (Monitoring the Future Survey)**

The High School Senior Survey is a large-scale epidemiological survey of drug abuse initiated by the National Institute on Drug Abuse (NIDA) in 1975 and conducted annually through a NIDA grant awarded to the University of Michigan's Institute for Social Research. Each year data are collected in 125-35 public and private high schools, yielding a sample of approximately 17,000 high school seniors. The survey design is a multi-stage random sample with stage one being the selection of particular geographic areas, stage two the selection of one or more high schools in each area, and stage three the selection of seniors within each high

school. Data are collected through written questionnaires administered in the classroom by the Institute for Social Research representatives. High school dropouts and absentees (on the day of the survey) are excluded from the survey. Data from the Census Bureau show that between 1980 and 1990 the percent of persons 16-24 years of age who had not finished high school and were not enrolled in school declined slightly from 11 to 9 percent of white persons; dropped from 19 to 13 percent of black persons; and remained stable at about one-third of Hispanic persons. For further information on the High School Senior Survey see: National Institute for Drug Abuse, *Drug Use Among American High School Seniors, College Students, and Young Adults, 1975-1990, Volume 1*. DHHS Pub. No. (ADM) 91-1813, U.S. Government Printing Office, 1991.

#### **National Household Surveys on Drug Abuse**

Data on trends in use of marijuana, cigarettes, and alcohol among youths 12-17 years of age and young adults 18-25 years of age are from the National Household Survey on Drug Abuse. The 1991 survey is the 11th in a series that began in 1971 under the auspices of the National Commission on Marijuana and Drug Abuse. Since 1974, the survey has been sponsored by the National Institute on Drug Abuse.

The survey covers the population group 12 years of age and over living in households in the United States. Alaska and Hawaii were included in the National Household Survey for the first time in 1991. Youths (12-17 years) and young adults (18-25 years of age) are oversampled as are black persons and Hispanics.

The most recent survey (1991) is based on home personal interviews of 32,594 randomly selected persons 12 years of age and over. The interview response rate in this survey was 85 percent for the youth and young adult sample.

For more information on the National Household Survey on Drug Abuse, see: *Population Estimates, 1991*. For further information on the National Household Survey on Drug Abuse, write: Division of Epidemiology and Prevention



Research, National Institute on Drug Abuse, 5600 Fishers Lane, Rockwall II, Suite 6-15, 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, identification of substances associated with drug abuse episodes, and the assessment of drug-related consequences and other health hazards.

Before 1989, DAWN data were collected from a nonrandom panel of emergency rooms located primarily in 21 metropolitan areas throughout the continental United States. The same group of emergency rooms contributed DAWN data during these years, and were referred to as a consistent panel. In 1989, the DAWN was redesigned from a nonrandom sample to a national probability sample of emergency rooms located throughout the continental United States. For the 1989 sample, a sample of 685 hospitals was selected from the American Hospital Association inventory of non-Federal short-stay hospitals. A response rate of 80 percent was obtained in 1990.

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, 1990*, or write to: Division of Epidemiology and Prevention Research, National Institute on Drug Abuse, 5600 Fishers Lane, Rockwall II, Suite 6-15, Rockville, Md. 20857.

## **National Institute of Mental Health**

### **Surveys of Mental Health Organizations**

The Statistical Research Branch of the Division of Applied and Services Research 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 National Institute of Mental Health (NIMH) 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, Veterans Administration psychiatric services, residential treatment centers for emotionally disturbed children, freestanding outpatient psychiatric clinics, partial care organizations, and freestanding 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 NIMH, 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. Before 1983 an organization had to have either inpatient or residential treatment services in combination with at least one other service to be a "multiservice mental health

organization." The result of this definitional change is to increase sharply the number of multiservice mental health organizations while decreasing the number of freestanding psychiatric outpatient clinics.

Other surveys conducted by the Statistical Research Branch encompass samples of patients admitted to State, county, and private mental hospitals, outpatient psychiatric services, and Veterans Administration psychiatric services. The purpose of these surveys is to determine the sociodemographic, clinical, and treatment characteristics of patients served by these facilities.

For more information, write: Statistical Research Branch, Division of Applied and Services Research, National Institute of Mental Health, Room 18C-07, 5600 Fishers Lane, Rockville, Md. 20857. For further information on mental health, see: *National Institute of Mental Health, Mental Health, United States, 1990*. R. W. Manderscheid and M. A. Sonnenschein, eds. DHHS Pub. No. (ADM) 90-1708, U.S. Government Printing Office, 1990.

## **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. Further, 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/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 the National Center for Health Statistics. 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, 1973-89* by L. Gloeckler Ries et al., NIH Pub. No. 92-2789. Public Health Service, Bethesda, Md., 1992.

## 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 expenditure 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 services of health professionals (doctors, dentists, chiropractors, private duty nurses, therapists, podiatrists, etc.) are estimated using data from the Internal Revenue

Service and from tabulations on the operations of health maintenance organizations. Since 1977, data from the U.S. Bureau of the Census' Services Annual Survey and the quinquennial census of Service Industries have been used to augment the IRS data. Expenditures for drugs and other medical nondurables and vision products and other medical durables purchased in retail outlets are based on estimates of personal consumption expenditures prepared by the U.S. Department of Commerce's Bureau of Economic Analysis and on industry data on prescription drug transactions. Those durable and nondurable products provided to inpatients in hospitals, nursing homes, those provided by licensed professionals, or through home health agencies are excluded here, but are included with the expenditure estimates for those provider service category. Nursing home expenditures cover care rendered in establishments providing inpatient nursing and health-related personal care through active treatment programs for medical and health-related conditions. These establishments cover skilled nursing and intermediate care facilities, including those for the mentally retarded. Spending estimates are based upon revenue data from the National Nursing Home Survey conducted by the National Center for Health Statistics. Expenditures for construction include the erection or renovation of hospitals, nursing homes, medical clinics, and medical research facilities, but not for private office building 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 time 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. Information on out-of-pocket spending from the U.S. Bureau of Labor Statistics' Consumer Expenditure Survey, from the 1977 National Medical Care Expenditure Survey conducted by the National Center for Health Services Research and from private surveys conducted by the American Hospital Association, American Medical Association, and the American Dental Association is 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, 1990, by the Office of National Health Statistics, Office of the Actuary, *Health Care Financing Review*, Vol. 13, No. 1, HCFA Pub. No. 03321, Health Care Financing Administration, Washington, U.S. Government Printing Office, October 1991.

#### 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; and 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.

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

#### U.S. Census of Population

The census of population has been taken in the United States every 10 years since 1790. In the 1980 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 20-percent sample. The 20-percent sample was dichotomized by size of place of residence, with 50 percent of households in places of less than 2,500 population and 1 out of 6 households in places of 2,500 or more

population receiving the more detailed questionnaire.

For more information on the 1980 census, see: U.S. Bureau of the Census, *1980 Census of Population and Housing, Users Guide, Part A Text*, PHC 80-R1-A.

#### 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.

A list of housing units from the 1980 census, supplemented by newly constructed units and households known to be missed in the 1980 census, provides the sampling frame in most areas for the present CPS. In some rural locations, current household listings of selected land areas serve as the frame.

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 1990, the number of housing units or living quarters eligible for the national sample was about 70,000, of which about 55,800 were interviewed households, and 2,600 were households at which the members were not available for interview. About 11,500 households were visited but were not eligible for interview.

The estimation procedure used involves inflation by the reciprocal of the probability of selection, adjustment for nonresponse, and ratio adjustment.

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.

#### Population Estimates

National estimates are derived by use of decennial census data as benchmarks and of data available from various agencies as follows: births and deaths (Public Health Service); immigrants (Immigration and Naturalization Service); the



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 generally consistent with official decennial census figures and do not reflect the amount of estimated decennial census under enumeration.

For more information, see: U.S. Bureau of the Census, *Estimates of the Population of the United States, by age, sex, and race: 1980-1989, Current Population Reports, Series P-25, No. 1057*, Washington, U.S. Government Printing Office, 1990.

## 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 which 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, which 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 which 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, August 1990.

#### Consumer Price Index

The Consumer Price Index 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 Bureau of Labor Statistics 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 1991*, Vol. 38, No. 1, Washington, U.S. Government Printing Office, Jan. 1991.

## **Environmental Protection Agency**

### **National Aerometric Surveillance Network**

The Environmental Protection Agency (EPA), through extensive monitoring of activities conducted by Federal, State, and local air pollution control agencies, collects data on the six pollutants for which National Ambient Air Quality Standards have been set. These pollution control agencies submit data quarterly to EPA's National Aerometric Data Bank (NADB). There are about 3,400 total stations reporting. Data from some short-term or sporadic monitoring for such purposes as special studies and complaint investigations are usually not included in NADB because the data are not extensive enough to provide equitable comparisons with routine data from permanent monitoring sites.

For more information, see: Environmental Protection Agency, *National Air Pollutant Emission Estimates, 1940-89*, EPA-450/4-91-004, Research Triangle Park, N.C., Mar. 1991, or write to Office of Air Quality Planning and Standards, Environmental Protection Agency, Research Triangle Park, N.C. 27711.

## **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 insure comparability, rates, ratios, and percentages 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 (1) the definitions of the total population, (2) the definitions used to classify the population into its urban and rural components, (3) difficulties relating to age reporting, (4) the extent of over- or underenumeration, and (5) 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 1989*, Pub. No. ST/ESA/STAT/SER.R/17, United Nations, New York, N.Y., 1989.

### **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 1990*, World Health Organization, Geneva, Switzerland, 1990.

## **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 is about 20 percent more than the number reported to the Centers for Disease Control.

For more information, write to: The Alan Guttmacher Institute, 111 5th Avenue, 11th Floor, New York, N.Y. 10003-1089.

## **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, 1990*, American Association of Colleges of Osteopathic Medicine, Rockville, Md., 1990.

## **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 1989/90*. Chicago, Ill.

## **American Hospital Association**

### **Annual Survey of Hospitals**

Data from this survey are based on questionnaires that are sent to all hospitals in the United States and its associated areas accepted for registration by the American Hospital Association (AHA). In 1989, questionnaires were mailed to all hospitals on AHA files. Overall, 6,328 hospitals reported data, a response rate of 91 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; 38.7 percent of the responding hospitals used this reporting period. In the 1989 survey, the remaining hospitals used various reporting periods.

For more information on the AHA Annual Survey of Hospitals, see: American Hospital Association, *Hospital Statistics, 1990-91 Edition, Data from the American Hospital Association 1989 Annual Survey*, Chicago, 1990.

## **American Medical Association**

### **Physician Masterfile**

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

Masterfile data are obtained from over 2,100 organizations and institutions. These data are collected and processed on an ongoing basis for the maintenance and updating of over 550,000 individual physician records.

A file is initiated on each individual upon entry into medical school or, in the case of foreign graduates, upon entry into the United States. A census of physicians is conducted every 4 years to update the file information on professional activities, specialization, and present employment status. Between censuses, AMA keeps the file current

by continuous checks of professional publications and State licensure notices for changes in any physician's activities. When a change is noted, the physician may be sent a questionnaire to verify the change.

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.*, 1990 edition, Chicago, 1990.

### **Annual Census of Hospitals**

From 1920 to 1953 the Council on Medical Education and Hospitals of the American Medical Association (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 AAMC collects information on student enrollment in medical schools through the annual Liaison Committee on Medical Education questionnaire, the fall enrollment questionnaire, and the American Medical College Application Service (AMCAS) data system. Other data sources are the institutional profile system, the premedical students questionnaire, the graduation 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 Minority Students in Medical Education Facts and Figures V, June, 1989.

## **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: Both 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: InterStudy, *National HMO Census: Annual Report on the Growth of HMO's in the U.S., 1982-1986 Editions; The InterStudy Edge*, Spring 1987 and 1988 editions and 1989, 1990, volume 2. Excelsior, Minn., 1983-90.

## **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 RNs, basic RN programs (baccalaureate, associate degree, and diploma), and licensed practical nursing programs. A 100-percent response rate has been achieved for many years on questionnaire items on enrollments, first-time admissions, and graduates. Response rates of approximately 80 percent are achieved for other areas of inquiry.

For more information, see: National League for Nursing, Nursing Data Source 1990, N.Y.

## **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 four U.S. territories. The survey includes extensive detail on the agencies' expenditures, funding sources, staffing, services, and activities.

Recently, 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, contact: Public Health Foundation, 1220 L Street, N.W., Suite 350, Washington, D.C. 20005.

# Appendix II

## Glossary

### General Terms

### Social and Demographic Terms

**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. population enumerated in 1940. Computations may be simplified by expressing the 1940 U.S. population on a per million basis (table I). Adjustment is based on 11 age groups with two exceptions. First, age-adjusted death rates for black males and black females in 1950 are based on 9 age groups, with under 1 and 1–4 years of age combined as one group and 75–84 and 85 years of age and over combined as one group. Second, cause-specific provisional death rates, which are based on 10 age groups

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

with 1–4 and 5–14 years of age combined as one group. 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 live births in the United States in 1970 using the intervals for mother's age in table II.

The data from the National Health Interview Survey (NHIS), National Health Examination Survey (NHES), National Health and Nutrition Examination Survey (NHANES), National Ambulatory Medical Care Survey (NAMCS), and the National Hospital Discharge Survey (NHDS) are age adjusted to the 1970 civilian noninstitutionalized population. Most of the data from the NHIS, NAMCS, 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 NHES and NHANES data are age adjusted using the following six age groups: 20–24 years, 25–34 years, 35–44 years, 45–54 years, 55–64 years, and 65–74 years. 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) × total population on July 1, 1970. Civilian noninstitutionalized population = civilian population on July 1, 1970 – institutionalized population.

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

$$\left( \frac{P_n}{P_o} \right)^{1/N} - 1 \times 100$$

where  $P_n$  = later time period  
 $P_o$  = earlier time period  
 $N$  = number of years in interval

Table III. Population and age groups used to adjust data to the U.S. civilian noninstitutionalized population in 1970: Selected surveys

Survey and age	Number in thousands
NHIS, NAMCS, 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
NHES and NHANES	
20–74 years . . . . .	116,182
20–24 years . . . . .	15,378
25–34 years . . . . .	24,430
35–44 years . . . . .	22,614
45–54 years . . . . .	23,070
55–64 years . . . . .	18,467
65–74 years . . . . .	12,223

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.

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

**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 1989, in the National Vital Statistics System, newborn infants are assigned the race of their mother. Before 1989, if the parents were of different races and one was white, the child was assigned the other parent's race. If either parent was Hawaiian, the child was classified as Hawaiian. In all other cases the child was assigned the father's race. Before 1964, the National Vital Statistics



System classified all births for which race was unknown as "white." Beginning in 1964 these births are classified according to information on the previous record. The National Health Interview Survey assigns children whose parents are of different races to the race of the mother.

**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, then, is the total income received by the members of a family (or by an unrelated individual) in the 12 months prior to interview, including 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.

**Marital status**—The population is classified through self-reporting into the categories married and unmarried. Married includes 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 classify separated people as unmarried for all States except Rhode Island.

**Population**—The U.S. Bureau of the Census collects and publishes data on several different types of population in the United States. Various statistical systems then use the appropriate population in 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** is the population living in the United States. This includes members of the Armed Forces stationed in the United States and their families as well as foreigners working or studying here; it excludes foreign military, naval, and diplomatic personnel and their families located here and residing in embassies or similar quarters as well as Americans living abroad. The resident population is often 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 National Center for Health Statistics' National Health Interview Survey, National Health and Nutrition Examination Survey, and National Ambulatory Medical Care Survey.

**Poverty level**—Poverty statistics are based on definitions 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 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 \$12,675 in 1989 and \$12,091 in 1988.

## Geographic Terms

**Division and region**—The 50 States and the District of Columbia are grouped for statistical purposes by the U.S. Bureau of the Census into 9 divisions within 4 regions. 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

**Registration area**—The United States has separate registration areas for birth, death, marriage, and divorce statistics, which collect data annually from States whose registration data are at least 90-percent complete.

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, the U.S. Virgin Islands, and Guam are also included, although in statistical tabulations they are not part of the U.S. total.

**Reporting area**—In the National Vital Statistics System, reporting requirements on birth certificates vary according to State. Thus, different numbers of States report various characteristics. For example, in 1986, the educational attainment of mother was reported in 47 States and the District of Columbia.

**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. The metropolitan population in this report is based on MSA's as defined in the 1980 census and does not include any subsequent additions or changes.

## Health Status and Determinants

### Fertility

**Abortion**—The Centers for Disease Control's 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.

**Birth rate**—This measure divides the number of live births in a population in a given period by the

resident population at the middle of that period. It is 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, or it may be related to the entire population.

**Completed fertility rate**—Sum of the central birth rates over all ages (14–49 years) of childbearing for a given birth cohort.

**Gestation**—For both the National Vital Statistics System and the Centers for Disease Control'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.

**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 or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born.

**Live-birth order**—In the National Vital Statistics System, this item from the birth certificate indicates the number of live births a woman has had, counting the birth being recorded.

**Low birth weight**—Before 1979 low birth weight was defined as 2,500 grams or less. Beginning in 1979, low birth weight is defined as less than 2,500 grams.

### Mortality

**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. For data years 1979–89 the *International Classification of Diseases, Ninth Revision* is used for coding. Earlier data used the then current revision of the *International Classification of Diseases* (tables IV and V).

Use of successive revisions for classification of diseases may introduce discontinuities in the comparability of cause-of-death statistics over time. For further discussion, see National Center for Health Statistics: *Vital Statistics of the United States, 1987*, Volume II, Mortality, Part A DHHS Pub. No. (PHS) 90–1101, Public Health Service, Washington, U.S. Government Printing Office, 1989.

**Codes for HIV infection**—Beginning with data for 1987, NCHS introduced category numbers \*042–\*044 for classifying and coding human immunodeficiency virus (HIV) infection, formerly referred to as human T-cell lymphotropic virus-III/lymphadenopathy-associated virus (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). For 1986 and previous years, 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

Table IV. Revision of the *International Classification of Diseases*, according to year of conference by which adopted and years in use in 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
Accidents and adverse effects . . . . .	E800-E962	E800-E962	E800-E949	E800-E949
Motor vehicle accidents . . . . .	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
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
Malignant neoplasm of peritoneum and pleura . . . . .	...	...	158, 163.0	158, 163
Coalworkers' pneumoconiosis . . . . .	...	...	515.1	500
Asbestosis . . . . .	...	...	515.2	501
Silicosis . . . . .	...	...	515.0	502

(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, cause-of-death data are not strictly comparable with data for earlier years.

**Death rate**—This measure is derived by dividing the number of deaths in a population in a given period by the resident population at the middle of that period. It is expressed as the number of deaths per 1,000 or 100,000 population. It may be restricted to deaths in specific age, race, sex, or geographic groups or it may be related to the entire population.

**Cause-of-death ranking**—Cause-of-death ranking is based on the List of 72 Selected Causes of Death and the category human immunodeficiency virus infection (\*042-\*044). 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—major Health, United States, 1991

cardiovascular diseases and symptoms, signs, and ill-defined conditions—are not ranked. In addition, category titles that begin with the words “other” and “all other” are not ranked. The remaining category titles are ranked according to the number of deaths to determine the leading causes of death. When one of the titles that represents a subtotal is ranked (for example, accidents and adverse effects), its component parts (in this case, motor vehicle accidents and all other accidents and adverse effects) are not ranked.

**Infant mortality**—Infant mortality is the death of live-born children who have not reached their first birthday and is usually expressed as a rate (that is, the number of infant deaths during a year per 1,000 live births reported in the year).

**International Classification of Diseases, Ninth Revision**—The *International Classification of Diseases (ICD)* classifies mortality information for statistical purposes. ICD was first used in 1900 and has been revised about every 10 years since then. The *Ninth Revision*, published in 1977, is used to code U.S. mortality data beginning with data for 1979. The

clinical modification of the *Ninth Revision* is used to code U.S. morbidity data.

Both 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 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.

**Neonatal mortality rate**—The neonatal mortality rate is the number of deaths under 28 days of age per 1,000 live births.

**Postneonatal mortality rate**—The postneonatal mortality rate is the number of deaths that occur from 28 days to 365 days after birth per 1,000 live births.

**Fetal death rate**—The fetal death rate is the number of fetal deaths with stated or presumed gestation of



20 weeks or more per 1,000 live births plus fetal deaths.

*Late fetal death rate*—The late fetal death rate is the number of fetal deaths with stated or presumed gestation of 28 weeks or more per 1,000 live births plus late fetal deaths.

*Perinatal mortality rate*—The perinatal mortality rate is the number of late fetal deaths plus infant deaths within 7 days of birth per 1,000 live births plus late fetal deaths.

*Perinatal mortality ratio*—The perinatal mortality ratio is the number of late fetal deaths plus infant deaths within 7 days of birth per 1,000 live births.

*Feto-infant mortality rate*—The feto-infant mortality rate is the number of fetal deaths with stated or presumed gestation of 28 weeks or more plus the number of infant deaths per 1,000 live births plus late fetal deaths.

*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.

*Years of potential life lost*—Years of potential life lost are calculated over the age range from birth to 65 years. The number of deaths for each age group is multiplied by the years of life lost (the difference between 65 and the midpoint of the age group). For example, the death of a person age 15–24 years counts as 45 years of life lost. Then years of potential life lost are summed over all age groups. (Centers for Disease Control. *MMWR*. Dec. 19, 1986. Vol. 35, Supp. No. 2S.)

## Determinants and Measures of Health

*AIDS*—Acquired immunodeficiency syndrome (AIDS) is an illness characterized by:

- One or more specified indicator diseases (listed in the complete case definition) and
- Either a positive test for human immunodeficiency virus (HIV) infection or absence of specified

causes of underlying immunodeficiency.

The AIDS case definition was changed in September 1987 to allow for the presumptive diagnosis of AIDS-associated diseases and conditions and to expand the spectrum of HIV-associated diseases reportable as AIDS. The list of expanded diseases includes HIV encephalopathy, HIV wasting syndrome, and others.

For more information, see: Centers for Disease Control. Revision of the CDC Surveillance Case definition for acquired immunodeficiency syndrome. *MMWR* 1987; 36 (suppl. no. 1S): 1S–15S.

*Condition*—A health condition is a departure from a state of physical or mental well-being. Conditions, except impairments, are coded according to the *International Classification of Diseases, 9th 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, and a *chronic condition* is any condition lasting 3 months or more or is one of certain conditions classified as chronic regardless of their time of onset. The National Nursing Home Survey uses a specific list of conditions classified as chronic, also disregarding time of onset.

*Disability*—Disability is any temporary or long-term reduction of a person's activity as a result of an acute or chronic condition. It is often measured in terms of the number of days that a person's activity has been reduced.

*Disability day*—The National Health Interview Survey identifies several types of days on which a person's usual activity is reduced because of illness or injury (reported for the 2-week period preceding the week of the interview). These short-term disability days are not mutually exclusive categories but are defined as follows:

A *restricted-activity day* is any day on which a person cuts down on his or her usual activities for more than one half day because

of an illness or an injury. Restricted-activity days are unduplicated counts of bed-disability, work-loss, and school-loss days as well as other days during which a person cuts down on his or her usual activities.

A *bed-disability day* is a day on which a person stays in bed for more than half of the daylight hours (or normal waking hours) because of a specific illness or injury. All *hospital days* are bed-disability days. Bed-disability days may also be work-loss or school-loss days.

A *work-loss day* is a day on which a person did not work at his or her job or business for at least half of his or her normal workday because of a specific illness or injury. The number of work-loss days is determined only for currently employed persons.

A *school-loss day* is a day on which a child did not attend school for at least half of his or her normal school day because of a specific illness or injury. School-loss days are determined only for children 5–17 years of age, beginning in 1982.

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

*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 of industry in this volume: the 1972 edition, the 1977 supplement to the 1972 edition and the 1987 edition. The changes between versions included a few detailed titles created to correct or clarify these 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"



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

includes "Private sector" and the public administration division. "Not classified" industry from death certificates includes establishments not elsewhere classified, inadequate information on the certificate to code the industry, or the following descriptions on the certificate; "housewife", "student", or "self-employed".

*Limitation of activity*—Each person identified by the National Health Interview Survey as having a chronic condition is classified according to the extent to which his or her activities are limited because of the condition 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
- Persons not limited in activity

*Major activity (or usual activity)*—This is the principal activity of a person or of his or her age-sex group. For 1-5 years of age, it refers to ordinary play with other children; for 5-17 years of age, it refers to school attendance; for 18 years of age and over, it usually refers to a job, housework, or school attendance.

*Notifiable disease*—A notifiable disease is one that health providers

are required, usually by law, to report to State or local public health officials when diagnosed. Notifiable diseases are those of public interest by reason of their contagiousness, severity, or frequency.

*Particulate matter*—Particulate matter is defined as particles of solid or liquid matter in the air, including both nontoxic materials (soot, dust, and dirt) and toxic materials (lead, asbestos, suspended sulfates and nitrates, etc.).

*Pollutant*—A pollutant is any substance that renders the atmosphere or water foul or noxious to health.

*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).

*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.

## Utilization and Resources

### Ambulatory Care

*Dental visit*—The National Health Interview Survey counts visits to a dentist's office for treatment or advice, including services by a technician or hygienist acting under the dentist's supervision, as dental visits. Services provided to hospital inpatients are not included.

*Office*—In the National Health Interview Survey, an office refers to the office of any physician in private practice, including physicians connected with prepaid group practices. 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.

*Physician contact*—The National Health Interview Survey counts as a physician contact, a visit in person or by telephone to a doctor of medicine or doctor of osteopathy for the purpose of examination, diagnosis, treatment, or advice. The service may be provided directly by the physician or by a nurse or other person acting under the physician's supervision. Contacts involving services provided on a mass basis are not included nor are contacts for hospital inpatients.

Physician contacts are generally classified by the type of place of contact. In the National Health Interview Survey, this includes the *office, hospital outpatient clinic or 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), as well as other places.



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.

## Inpatient Care

*Average daily census or average daily patients*—This refers to the average number of inpatients receiving care each day during a reporting period, excluding newborns.

*Average length of stay*—In the National Hospital Discharge Survey, the average length of stay is the total number of patient days accumulated at the time of discharge, counting the date of admission but not the date of discharge by patients discharged during a reporting period, divided by the number of patients discharged.

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.

*Bed*—Any bed that is set up and staffed for use for 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 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.

*Day*—According to the American Hospital Association and National Master Facility Inventory, days or *inpatient days* are the number of adult and pediatric days of care rendered during a 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 prior to the interview week. A *hospital day* is a night spent in the hospital for persons admitted as inpatients to a hospital.

In the National Hospital Discharge Survey, *days of care* refer

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. A *patient* is a person who is formally admitted to the inpatient service of the hospital for observation, care, diagnosis, or treatment.

*Discharge*—The National Health Interview Survey defines a *hospital discharge* as the completion of any continuous period of stay of one night or more in a hospital as an inpatient, excepting the period of stay of a well newborn infant.

According to the National Hospital Discharge Survey, American Hospital Association, and National Master Facility Inventory, this is the formal release of an inpatient by a hospital, 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 this report, newborn infants are excluded.

In the National Nursing Home Survey, this is the formal release of a resident by a nursing home.

*First-listed diagnosis*—In the National Hospital Discharge Survey, this is the diagnosis listed first on the face sheet of the medical record.

*Hospital*—According to the American Hospital Association (AHA) and National Master Facility Inventory (NMF), hospitals are institutions licensed as hospitals whose primary function is to provide diagnostic and therapeutic patient services for medical conditions and that have at least six beds, an organized physician staff, and continuous nursing services under the supervision of registered nurses. AHA data differ slightly from those of NMF, because data from NMF reflect osteopathic hospitals as well as hospitals not registered with AHA. Non-AHA hospitals comprise 5–10 percent of all hospitals in the country. The World Health Organization (WHO) considers an establishment 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, and length of stay.

*General hospitals* provide both diagnostic and treatment services for patients with a variety of medical conditions, both surgical and nonsurgical. According to the WHO, 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 ones in rural areas, that provide a more limited range of care.

*Psychiatric hospitals* are ones whose major type of service is psychiatric care. (See Psychiatric Care section.)

*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.

*Federal hospitals* are operated by the Federal Government.

*Non-Federal government hospitals* are operated by State or local governments.

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

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

*Community hospitals* include all non-Federal short-stay hospitals classified by the American Hospital Association according to one of the following services: general medical and surgical; obstetrics and gynecology; eye, ear, nose, and throat; rehabilitation; orthopedic; other specialty; children's general; children's eye, ear, nose, and throat; children's rehabilitation; children's orthopedic; and children's other specialty.

*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



**Table VII. Codes for diagnostic categories from the *International Classification of Diseases, 9th 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
Benign neoplasms . . . . .	210-229, 235-239
Diabetes . . . . .	250
Psychoses . . . . .	290-299
Alcohol dependence syndrome . . . . .	303
Eye diseases and conditions . . . . .	360-379
Otitis media and eustachian tube disorders . . . . .	381-382
Diseases of heart . . . . .	391-392.0, 393-398, 402, 404, 410-416, 420-429
Cerebrovascular diseases . . . . .	430-438
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
Intervertebral disc disorders . . . . .	722
Congenital anomalies . . . . .	740-759
Fracture, all sites . . . . .	800-829
Lacerations and open wounds . . . . .	870-904

are admitted to units with an average length of stay of less than 30 days and *long-term hospitals* as ones in which more than half the patients are admitted to units with an average length of stay of 30 days or more. 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.

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

*International Classification of Diseases, 9th 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 *Ninth Revision* is used to code mortality data (Mortality section), and ICD-9-CM is used to code morbidity data.

Diagnostic groupings and code number inclusions 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.

*Nursing care*—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.

*Nursing home*—A nursing home is an establishment with three or more beds that provides nursing or personal care to the aged, infirm, or chronically ill. Definitions of nursing home types apply to data collected 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

**Table VIII. Codes for surgical categories from the *International Classification of Diseases, 9th 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
	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
Biopsies on the digestive system (Beginning in 1989) . . . . .	47.0
Appendectomy, excluding incidental . . . . .	51.2
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
Diagnostic dilation and curettage of uterus . . . . .	69.09
Procedures to assist delivery (Prior to 1989) . . . . .	72-73
(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 (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



**Table IX. Codes for diagnostic and other nonsurgical procedure categories from the *International Classification of Diseases, 9th 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
Angiocardiology using contrast material . . . . .	88.5
Diagnostic ultrasound . . . . .	88.7
Electroencephalogram . . . . .	89.14
Radioisotope scan . . . . .	92.0–92.1
Application of cast or splint . . . . .	93.51, 93.53–93.54

receiving nursing care. These homes provide 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.

**Certification of nursing homes**—Facilities are certified by the Medicare and/or Medicaid program. Definitions of certification levels apply to data collected through 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.

**Occupancy rate**—The National Master Facility Inventory and American Hospital Association define *hospital occupancy rate* as the average daily census divided by the number of hospital beds during a reporting period. The *occupancy rate for other facilities* is calculated as the number of residents reported at the time of the interview divided by the number of beds reported.

**Outpatient visit**—According to the American Hospital Association, these are visits by patients not lodged in the hospital for medical, dental, or other services. (See Ambulatory Care section.)

**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 to the medical record of patients discharged from the inpatient service of short-stay hospitals. In NHDS 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 codes are assigned per sample discharge according to ICD-9-CM and NHDS directives.

**Diagnostic and other non-surgical procedures**—These are procedures generally not considered to be surgery including 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 procedures. For further discussion, see National Center for Health Statistics: National Hospital Discharge Survey: Annual Summary, 1989.

**Surgical operations**—These are all procedures except those listed under “nonsurgical procedures”. In 1989, the list of surgical operations was revised, and certain procedures previously classified as surgical are now classified as nonsurgical.

**Resident**—In the National Nursing Home Survey, a resident is a person who has been formally admitted to but not discharged from an establishment.

## Psychiatric Care

The definitions for psychiatric care are those used by the National Institute of Mental Health.

**Admission**—An individual is classified as an admission to a psychiatric organization by being a new admission, a readmission, a return from leave, or a transfer from another service of the same organization or another organization.

**Inpatient care episodes**—Episodes are defined as the number of residents in inpatient organizations at the beginning of the year, plus the

**Table X. Mental illness 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-III/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; 299



total additions to these organizations during the year. Total additions during the year include new admissions and readmissions. In counting admissions rather than persons, the same individual may be counted more than once. First, if the same person is admitted more than once to a particular organization during the year, that person is counted as many times as admitted. Second, if the same person is admitted to two or more different organizations during the year, that person is counted as an admission for each organization.

**Mental disorder**—A mental disorder is any of several disorders listed in the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)* or *Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III)*. Table IX shows diagnostic categories and code numbers for ICD-9-CM/DSM-III and corresponding codes for the *International Classification of Diseases, Adapted for Use in the United States, 8th Revision (ICDA-8)* and *Diagnostic and Statistical Manual of Mental Disorders, Second Edition (DSM-II)*.

**Mental health organization**—A mental health organization is 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. Organizations include State and county and private psychiatric hospitals, psychiatric services of general hospitals, residential treatment centers for emotionally disturbed children, federally funded community mental health centers (before 1983), freestanding outpatient psychiatric clinics and partial care organizations, and multiservice mental health organizations.

**Psychiatric hospitals** are hospitals primarily concerned with providing inpatient care and treatment for the mentally ill. *Psychiatric inpatient units of Veterans Administration general hospitals* and *Veterans Administration neuropsychiatric hospitals* are combined into the category *Veterans Administration psychiatric hospitals* because of their similarity in size, operation, and length of stay. Other

psychiatric hospitals include State and county mental hospitals and private mental hospitals.

**General hospitals providing separate psychiatric services** are general hospitals that provide psychiatric services in either a separate psychiatric inpatient, outpatient, or partial hospitalization service with assigned staff and space.

**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) has a clinical program that is directed by a psychiatrist, psychologist, social worker, or psychiatric nurse with a graduate degree; (c) serves children and youth primarily under the age of 18; and (d) the primary reason for the majority of admissions is mental illness classified by DMS-II/ICDA-8 or DSM-III/ICD-9-CM codes, other than mental retardation, developmental disability, and substance-related disorders.

**Freestanding psychiatric outpatient 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.

**Multiservice mental health organizations** directly provide two or more of the program elements defined under service type and are not classifiable as a psychiatric or general hospital or as 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.)

**Service type**—Service type refers to the kinds of mental health services available: inpatient care, residential treatment care, outpatient care, and partial care.

**Inpatient care** is the provision of 24-hour mental health care in a mental health hospital setting.

**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. For example, residential treatment centers for emotionally disturbed children, as well as residential treatment centers for mentally ill adults are included.

**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, while all "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 which emphasize intensive short-term therapy and rehabilitation; programs that focus on recreation, and/or occupational program activities, including sheltered workshops; education and training programs including special education classes, therapeutic nursery schools, and vocational training.

## Personnel

**Full-time equivalent employee (FTE)**—The American Hospital Association and National Master Facility Inventory use an estimate of full-time equivalent employees that counts two part-time employees as one full-time employee, a *full-time employee* being someone working 35 hours or more a week. The National Nursing Home Survey uses an estimate of full-time employees that counts 35 hours of part-time employees' work per week as equivalent to one full-time employee.

The National Institute of Mental Health calculates full-time equivalent employees by counting the total hours worked by all full-time employees, part-time employees, and trainees in each staff discipline in 1 week, divided by 40, to indicate the number of person weeks.

*Physician*—Physicians are licensed doctors of medicine or osteopathy classified by the American Medical Association and others through self reporting as follows:

*Active physicians or professionally active physicians* are ones currently practicing, 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* are physicians who 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, foreign medical graduates), activity status (professionally active, inactive), employment setting (Federal, non-Federal), and area of specialty and geographic area.

*Physician specialty*—A physician specialty is any specific branch of medicine in which a physician may concentrate. The specialty classification used by the Bureau of Health Professions and National Ambulatory Medical Care Survey (NAMCS) follows these American Medical Association categories:

*Primary care specialties* include general practice (or family practice), internal medicine, and pediatrics.

*Medical specialties* include, along with internal medicine and pediatrics, the areas of allergy, cardiovascular disease, dermatology, gastroenterology, pediatric allergy and cardiology, and pulmonary diseases.

*Surgical specialties* include general surgery, neurological surgery, obstetrics and gynecology, ophthalmology, orthopedic surgery, otolaryngology, plastic surgery, colon and rectal surgery, thoracic surgery, and urology.

*Other specialties* covered by NAMCS are geriatrics, neurology, preventive medicine, psychiatry, and public health. Other

specialties covered by the Bureau of Health Professions are aerospace medicine, anesthesiology, child psychiatry, neurology, occupational medicine, pathology, physical medicine and rehabilitation, psychiatry, public health, and radiology.

*Registered nursing education*—Registered nursing data are shown by level of educational preparation, (baccalaureate education requires at least four years in a college or university setting, associate degree programs are based in community colleges and are usually two years in length, and diploma programs are based in hospitals and are usually three years in length).

## Health Expenditures

*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 CPI has been in use since January 1988, and changes are noted where applicable in this report.

*Gross national product (GNP) and gross domestic product (GDP)*—These are two broadly comparable measures of a nation's total output of goods and services. GNP represents the value of all goods and services produced for sale by the nation plus the estimated value of certain imputed outputs (i.e., goods and services that are neither bought nor sold). The GNP is the sum of: (1) consumption expenditures by both individuals and nonprofit organizations plus certain imputed values; (2) business investment in equipment, inventories, and new construction; (3) Federal, State, and local government purchases of goods and services; and (4) the sale of goods and services abroad minus purchases from abroad. GDP equals GNP plus an adjustment (typically small) for the value of productive services performed domestically by

foreign subjects minus the value of productive services performed abroad by nationals.

*Health maintenance organization (HMO)*—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 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 (but the plan is predominantly organized around solo-single specialty practices).

*Mixed*—An HMO that combines features of both group and IPA.

These definitions differ somewhat from those used by the Office of Health Maintenance Organizations for Federal designation.

*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. It provides health care services for certain low-income persons. Medicaid does not provide health services to all poor people in any State. It categorically covers participants in the Aid to Families with Dependent Children program and in the Supplemental Security Income program, as well as certain other people deemed to be medically needy in most States. The program was authorized in 1965 by title XIX of the Social Security Act.

*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).

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

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

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

*Public expenditures* 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).

*Nursing home expenditures*—These expenditures 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.

*State health agency (SHA)*—The agency or department headed by the State or territorial health official. Generally, the SHA is responsible for setting State-wide public health priorities, carrying out national and State mandates, responding to public health hazards, and assuring access to health care for underserved State residents.



# Index to Detailed Tables

(Numbers refer to table numbers)

<b>A</b>	<i>Table</i>
Abortion .....	12-14
Abortions per 100 live births .....	12
Age .....	12
Deaths, abortion-related .....	14
Gestation .....	13,14
Location of facility .....	13
Marital status .....	12
Number of abortions .....	13,14
Previous induced abortions .....	13
Previous live births .....	12
Race .....	12
Type of procedure .....	13
Acute conditions, incidence .....	60
AIDS, see HIV/AIDS.	
Air pollution .....	72
Alcohol consumption .....	64,65,67
Adults .....	67
Education .....	65
High school seniors .....	65
Hispanic origin .....	64,65
Race .....	64,65
Youths and young adults .....	64
Ambulatory care, see Dental visits; Hospital utilization, outpatient visits; Hospital utilization, surgery, outpatient; Physician utilization.	
American Indian population	
AIDS cases .....	51
AIDS deaths .....	52
Birth weight, low .....	7,20
Births, number .....	7
Death rates, all causes .....	28
Death rates, selected causes .....	29
Deaths, number, selected causes .....	31
Dental students .....	103
Education of mothers .....	8
Infant mortality .....	19,20
Medical students .....	103,104
Nursing students .....	103
Optometry students .....	103
Pharmacy students .....	103
Podiatry students .....	103
Prenatal care .....	8
Teenage mothers .....	9
Unmarried mothers .....	9
Veterinary students .....	103

<b>A—Con.</b>	<i>Table</i>
American Indian population—Con.	
Unmarried mothers .....	9
Veterinary students .....	103
Asian population	
AIDS cases .....	51
AIDS deaths .....	52
Birth weight, low .....	7,20
Births, number .....	7
Death rates, all causes .....	28
Death rates, selected causes .....	29
Deaths, number, selected causes .....	31
Dental students .....	103
Education of mothers .....	8
Infant mortality .....	19,20
Medical students .....	103,104
Nursing students .....	103
Optometry students .....	103
Pharmacy students .....	103
Podiatry students .....	103
Prenatal care .....	8
Teenage mothers .....	9
Unmarried mothers .....	9
Veterinary students .....	103

<b>B</b>	<i>Table</i>
Bed-disability days .....	48,60
Age .....	60
Birth control, see Contraception.	
Births .....	3-11
Age of mother .....	3,6
Birth rates .....	3
Birth weight, low .....	7,10,11,20
Completed fertility rates .....	5
Education of mother .....	8
Expected births .....	6
Fertility rates .....	4
Geographic division and State .....	10,11
Hispanic origin of mother .....	7-9
Live-birth order .....	4,5
Number of live births .....	3,7
Prenatal care .....	8
Provisional data, most recent year .....	3,4
Teenage mothers .....	9
Unmarried mothers .....	9
Black population	
AIDS cases .....	51,53
AIDS deaths .....	52,54
Alcohol consumption .....	64,65
Birth rates .....	3
Birth weight, low .....	7,10,11,20
Births, number .....	3,7
Blood pressure, elevated .....	68

<b>B—Con.</b>	<i>Table</i>
Black population—Con.	
Cancer incidence rates .....	57
Cancer survival, five year relative .....	58
Cholesterol, elevated serum .....	70
Cigarette smoking .....	62-65
Cocaine use .....	64-66
Contraception .....	15,16
Death rates, all causes .....	27,28,45
Death rates, selected causes .....	29,30,33-42
Deaths, number, selected causes .....	31
Dental students .....	103
Dental visits .....	80
Education of mothers .....	8
Expected births .....	6
Fertility rates .....	4
Fetal mortality .....	24
Health, self-assessment of .....	61
Health insurance .....	133,134
Hospital utilization .....	81
Hypertension .....	69
Infant mortality .....	18-23
Life expectancy .....	17
Limitation of activity .....	59
Marijuana use .....	64,65
Medical students .....	103,104
Nursing home utilization .....	89
Nursing students .....	103
Optometry students .....	103
Overweight .....	71
Pharmacy students .....	103
Physician utilization .....	76-79
Podiatry students .....	103
Population, resident .....	1
Poverty level, persons and families below .....	2
Prenatal care .....	8
Teenage mothers .....	9
Unmarried mothers .....	9
Veterinary students .....	103
Years of potential life lost .....	32
Blood pressure, elevated .....	68,69
Hypertension .....	69

<b>C</b>	<i>Table</i>
Cancer (see also Deaths; Hospital utilization) .....	57,58
Incidence rates .....	57
Survival, five year relative .....	58
Cerebrovascular disease, see Deaths; Hospital utilization, diagnoses.	



<b>C—Con.</b>	<i>Table</i>	<b>D—Con.</b>	<i>Table</i>	<b>E—Con.</b>	<i>Table</i>
Chancroid .....	50	Deaths—Con.		Elderly population—Con.	
Chickenpox (varicella).....	50	Chronic obstructive		Cigarette smoking .....	62
Chiropractors .....	95,102	pulmonary disease .....	30–32,46	Death rates, all causes ...	27,28,45
Employees, in offices of ..	95	Diabetes mellitus.....	30–32,46	Deaths or death rates,	
Schools .....	102	Drug-induced.....	30	selected causes .....	29,33–37,
Students .....	102	External causes .....	30		39–43,47
Cholesterol, elevated		Heart disease .....	29–33,46,	Dental visits .....	80
serum .....	70		47	Health, self-assessment	
Cigarette smoking .....	62–65	Hispanic origin .....	28,29	of .....	61
Age .....	62	HIV .....	42	Health insurance.....	134
Education .....	63,65	Homicide and legal		Health promotion,	
High school seniors.....	65	intervention.....	29–32,40,	progress toward 1990	
Hispanic origin .....	64,65		46	goals .....	48
Youths and young		Ischemic heart disease ...	30,32,46	Hospital utilization .....	81,82,
adults .....	64	Maternal mortality .....	38		84–87
Cocaine use.....	64–66	Motor vehicle accidents ..	30,32,39,	Hypertension .....	69
Age .....	64,66		46	Life expectancy at age	
Education.....	65	Natural causes.....	30	65 .....	17,26
Emergency room		Nephritis, nephrotic		Limitation of activity ...	59
episodes.....	66	syndrome, nephrosis .....	30,31,46	Medicaid.....	134,139,
High school seniors.....	65	Number of deaths .....	31,43,44		140
Youths and young		Occupational diseases....	43	Medicare.....	134–138
adults .....	64	Occupational injuries ....	44	Mental health care	
Communicable diseases, see		Pneumonia and		utilization.....	93,94
Diseases, notifiable.		influenza .....	30–32,46	Nursing home	
Consumer Price Index.....	116,117	Provisional data, most		expenditures .....	114,123–
Medical care		recent year .....	45–47		125,132
components.....	117	Race .....	27–42,45	Nursing home	
Contraception .....	15,16	Septicemia .....	30,31,46	utilization.....	89,90,124,
Age .....	15	Sex.....	27,30–36,		125
Marital status.....	16		39–42,45	Nursing homes.....	111
		Suicide .....	29–32,41,	Overweight .....	71
			46	Physician utilization .....	76–79
		Years of potential life		Population, resident .....	1
		lost .....	32	Restricted activity days...	48,60
Deaths (see also Abortion;		Dental visits .....	80	Expenditures, national	
Health Promotion;		Dentists .....	95,99,	health (see also	
HIV/AIDS;			102–104	Consumer price index;	
Infant mortality;		Employees in offices of ..	95	Health research and	
Life expectancy) .....	27–47	Geographic region.....	99	development;	
Accidents and adverse		Schools .....	102	HIV/AIDS, expenditures by	
effects.....	29–32,46	Students .....	102–104	Federal agency;	
Age .....	27–29,33–	Diphtheria.....	49,50	Hospital expenses;	
	43,45,47	Disability days, see		Medicaid;	
Alcohol-induced .....	30	Bed-disability days;		Medicare;	
All causes.....	27,28,30–	Restricted-activity days.		Mental health expenditures;	
	32,45,46	Drug use, see		Nursing home expenditures;	
Atherosclerosis .....	30,31,46	Alcohol consumption;		Physician expenditures;	
Cancer, all sites.....	29–32,35,	Cigarette smoking;		Public health expenditures;	
	46,47	Cocaine use;		Veterans medical care) ..	112–115,
Cancer, breast .....	30,32,37,	Marijuana use.			120–123,
	46				129,130
Cancer, colorectal .....	30,32			Amount in billions .....	112,120–
Cancer, prostate .....	30,32				122
Cancer, respiratory				Amount per capita .....	112,113,
system.....	30,32,36,				120,121,130
	46			Factors affecting	
Cause-of-death ranking ..	31,46			growth .....	115
Cerebrovascular disease				Federal government .....	112,121
(stroke) .....	30–32,34,			Geographic division and	
	46,47			State .....	130
Chronic liver disease				International .....	113
and cirrhosis .....	30–32,46				



<b>E—Con.</b>	<i>Table</i>
Expenditures, national health—Con.	
Percentage of GNP . . . . .	112
Percentage of gross domestic product . . . . .	113
Personal health care . . . . .	115,121, 130
Source of funds . . . . .	120,121, 123,129
Type of expenditure . . . . .	114
Type of payer . . . . .	122

<b>F</b>	
Fertility rates, see Births.	
Fetal mortality . . . . .	18,24

<b>G</b>	
Gonorrhea . . . . .	50
Gross national product . . . . .	112

<b>H</b>	
Health expenditures, national, see Expenditures, national health.	
Health insurance (see also Health maintenance organizations; Medicaid; Medicare) . . . . .	133,134
65 years of age and older . . . . .	134
Under 65 years of age . . . . .	133
Health maintenance organizations . . . . .	135
Health promotion, progress toward 1990 goals . . . . .	48
Health research and development (see also HIV/AIDS) . . . . .	126,127
Federal funding, by agency . . . . .	127
Source of funds . . . . .	126
Health, self-assessment of . . . . .	61
Hepatitis . . . . .	50
Hispanic origin population	
AIDS cases . . . . .	51,53
AIDS deaths . . . . .	52,54
Alcohol consumption . . . . .	64,65
Birth weight, low . . . . .	7,20
Births, number . . . . .	7
Cigarette smoking . . . . .	64,65
Cocaine use . . . . .	64–66
Death rates, all causes . . . . .	28
Death rates, selected causes . . . . .	29
Dental students . . . . .	103
Education of mothers . . . . .	8
Infant mortality . . . . .	19,20
Marijuana use . . . . .	64,65
Medical students . . . . .	103,104

<b>H—Con.</b>	<i>Table</i>
Hispanic origin population—Con.	
Nursing students . . . . .	103
Optometry students . . . . .	103
Pharmacy students . . . . .	103
Podiatry students . . . . .	103
Population, resident . . . . .	1
Poverty level, persons and families below . . . . .	2
Prenatal care . . . . .	8
Teenage mothers . . . . .	9
Unmarried mothers . . . . .	9
Veterinary students . . . . .	103
HIV/AIDS . . . . .	30–32,42, 46,51–56, 83,128
Age . . . . .	42,51,52, 83
AIDS cases . . . . .	51,53,55
Death rates . . . . .	30,42,46
Deaths, number . . . . .	31,52,54, 56
Expenditures by Federal agency and activity . . . . .	128
Geographic division and State . . . . .	55,56
Hispanic origin . . . . .	51–54
Hospital utilization . . . . .	83
Provisional mortality data, most recent year . . . . .	46
Race . . . . .	30–32,42, 51–54
Rank as cause of death . . . . .	31,46
Sex . . . . .	30–32,42, 51–54
Transmission category . . . . .	53,54
Years of potential life lost . . . . .	32
Hospital employees (see also Mental health resources) . . . . .	95,100, 110,118
Full time employees . . . . .	100,110, 118
Geographic division and state . . . . .	110
Number employed in hospitals . . . . .	95
Occupation . . . . .	100
Hospital expenses (see also Consumer Price Index; Medicaid; Medicare) . . . . .	114,117–119,123, 131
Amount in billions . . . . .	123
Amount per capita . . . . .	131
Employee costs . . . . .	118
Geographic division and State . . . . .	131
Inpatient care expenses . . . . .	118,119
Ownership type . . . . .	119

<b>H—Con.</b>	<i>Table</i>
Hospital expenses—Con.	
Size of hospital . . . . .	119
Source of funds . . . . .	123
Hospital utilization (see also Medicaid; Medicare; Veterans medical care) . . . . .	81–88
Admissions . . . . .	88
Average length of stay . . . . .	81–83,85, 88
Days of care . . . . .	81–84
Diagnoses, selected . . . . .	83–85
Diagnostic and other nonsurgical procedures . . . . .	87
Discharges for inpatients . . . . .	81–85
Family income . . . . .	81
Geographic region . . . . .	81,82
Outpatient visits . . . . .	88
Ownership type . . . . .	88
Race . . . . .	81
Residence within/outside MSA . . . . .	81
Sex . . . . .	81,82, 84–87
Size of hospital . . . . .	88
Surgery, inpatient . . . . .	86
Surgery, outpatient . . . . .	88
Hospitals (see also Hospital employees; Mental health resources; Nursing homes) . . . . .	105,106, 108,109
Beds . . . . .	105,106
Beds per 1,000 population . . . . .	108
Geographic division and State . . . . .	108,109
Long-term hospitals . . . . .	106
Number of hospitals . . . . .	105,106
Occupancy rate . . . . .	105,106, 109
Ownership type . . . . .	105,106
Short-stay hospitals . . . . .	105,108, 109
Size of hospital . . . . .	105
Hypertension, see Blood pressure, elevated.	

<b>I</b>	
Immunizations, see Vaccinations.	
Infant mortality (see also Fetal mortality) . . . . .	18–23,25
Birth cohort data . . . . .	19,20
Birth weight . . . . .	20
Feto-infant mortality . . . . .	25
Geographic division and State . . . . .	21–23
Hispanic origin . . . . .	19,20

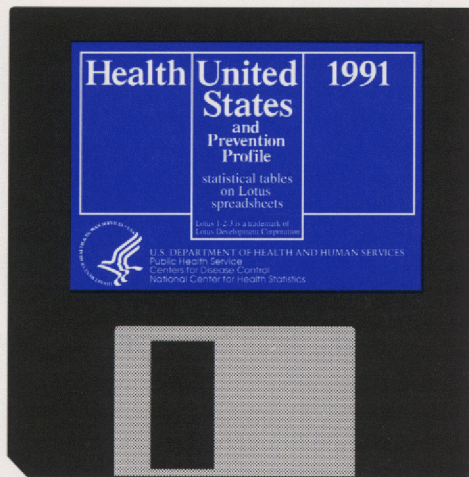








# Health, United States, 1991 and Prevention Profile tables available on diskette



The 143 detailed tables from *Health, United States, 1991* and 32 tables from *Prevention Profile* are available on diskette from the Government Printing Office (GPO) for use with IBM-compatible personal computers. The tables are in Lotus 1-2-3 worksheet files. Lotus 1-2-3 version 2 or higher, or any program that can read WK1 files (e.g., Lotus Symphony and Microsoft Excel) is required to use these spreadsheets. The files have been compressed. To install these tables on your computer requires a minimum of 70 kilobytes of free memory, PC-DOS or MS-DOS version 2.0 or higher, and approximately 2 megabytes of hard disk space. Directions for decompressing and copying the tables to your hard disk will be provided with the diskette(s).

To order the tables on diskette, call GPO's electronic media order desk, (202) 512-2235. The tables are available in the following formats:

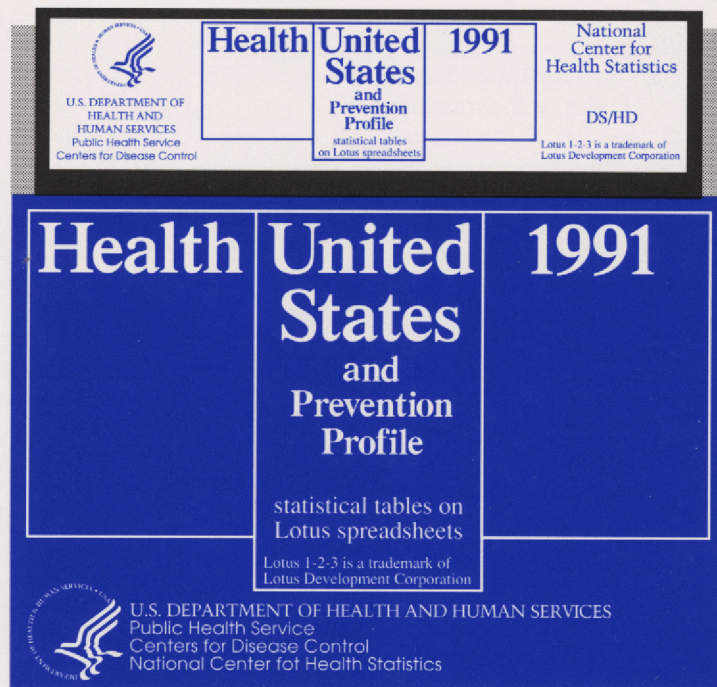
- 3.5" high-density diskette, cost: \$21.00
- 5.25" two double-density diskettes, cost for set of two: \$26.00
- 5.25" high-density diskette, cost: \$15.00

A guide to the tables, in spreadsheet format, is included on the diskette(s).

Questions about the diskette(s) or their contents should be directed to:

National Center for Health Statistics  
Scientific and Technical Information Branch  
6525 Belcrest Road  
Hyattsville, MD 20782  
Telephone (301) 436-8500

Lotus 1-2-3 and Symphony are registered trademarks of the Lotus Development Corporation.  
Microsoft Excel is a registered trademark of the Microsoft Corporation.



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