

# Health United States 1990



U.S. DEPARTMENT OF HEALTH  
AND HUMAN SERVICES

Public Health Service

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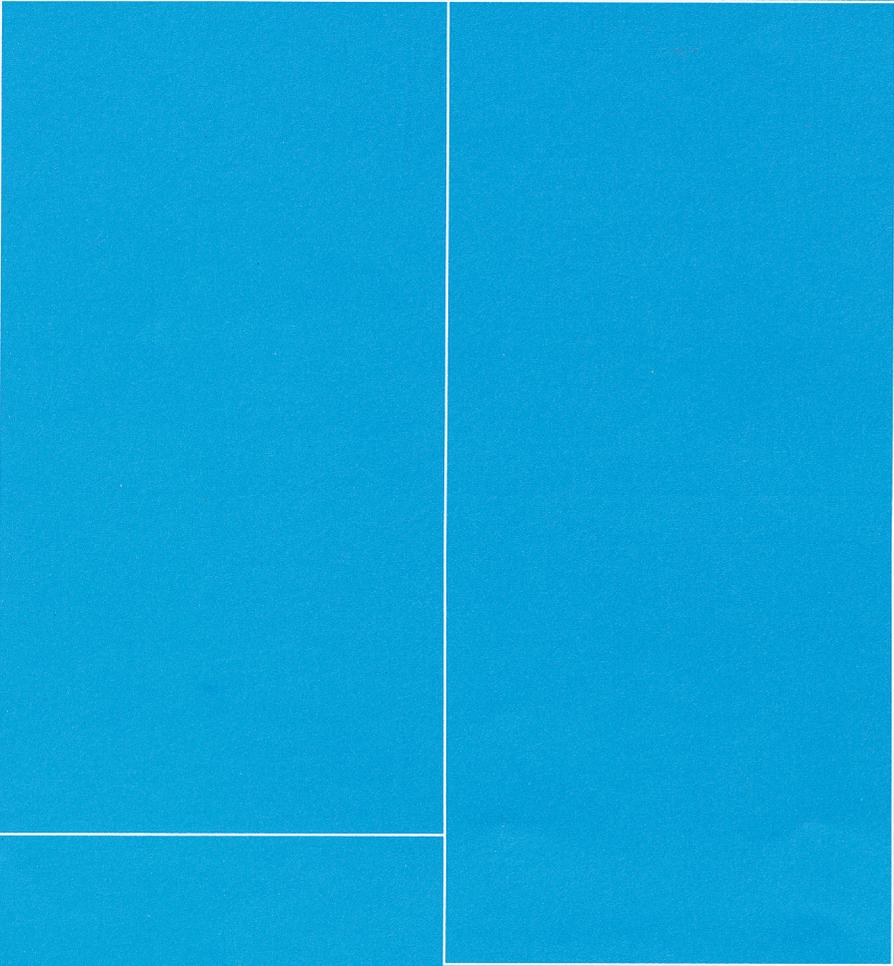
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U.S. DEPARTMENT OF HEALTH  
AND HUMAN SERVICES

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National Center for Health Statistics

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

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

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*Health, United States, 1990* is the 15th annual report on the health status of the Nation submitted by the Secretary of Health and Human Services to the President and Congress of the United States in compliance with Section 308 of the Public Health Service Act. This report was compiled by the National Center for Health Statistics, Centers for Disease Control. The National Committee on Vital and Health Statistics served in a review capacity.

This report is divided into two parts. First, there is a chartbook on minority health consisting of 33 charts and accompanying text. Second, 134 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 most effectively use *Health, United States, 1990* the reader should become familiar with the Guide to Tables and the two appendixes. The Guide to Tables indexes the data presented in the tables and enables the reader to identify tables that cross-classify specific variables. 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

Overall responsibility for planning and coordinating the content of this volume rested with the Division of Analytic, Office of Analysis and Epidemiology, National Center for Health Statistics under the supervision of Dana M. Matus. Joel C. Kleinman and Jacob J. Feldman. The chartbook was prepared by Lois A. Fitzgerald, assisted by Mitchell B. Patten. Detailed tables and highlighting were prepared by Margaret A. Costello, Virginia M. Ernst, Mitchell B. Patten, Jr., and Rebecca A. Packer, Jeff I. Shannon, Susan S. Haddad, and Mary B. Fisher provided computing and statistical assistance. Production planning and coordination were managed by Rebecca A. Packer with graphic assistance from Louise J. Brown. Publication management and editorial review were provided by Thomas W. Sanders and Emily W. Larson. Production and printing were managed by Linda J. Boon, assisted by Jacqueline M. Davis, Annette E. Gaudin, and Patricia J. Wilson. Graphics were supervised by Stephen J. Sloan. The designer was Patricia A. Vaughan. Publication of *Health, United States* would not have been possible without the contribution of numerous staff members throughout the National Center for Health Statistics and several other agencies. Their people gave generously of their time and knowledge, providing data from their surveys and programs, their cooperation and assistance are gratefully acknowledged.

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Detailed tables and highlights were prepared by Margaret A. Cooke, Virginia M. Freid, Mitchell B. Pierre, Jr., and Rebecca A. Placek. Ildy I. Shannon, Suhad S. Haddad, and Mavis B. Prather provided computing and statistical assistance. Production planning and coordination were managed by Rebecca A. Placek with typing assistance from Carole J. Hunt.

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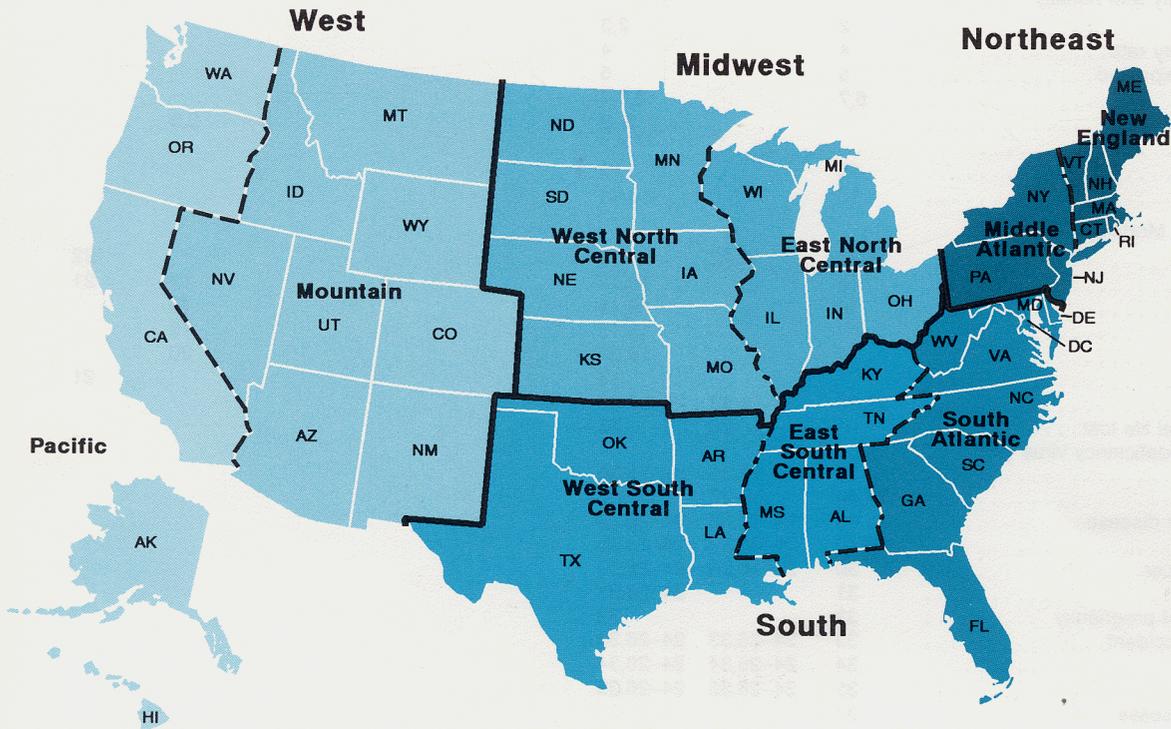
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# Geographic Divisions of the United States



# Guide to Detailed Tables

[ Numbers refer to table numbers ]

Health status and determinants	Age	Sex	Race	Family income	Location of residence	Geographic area			Other variables
						Region	Division, State	Inter-national	
Population, resident . . . . .	1	1	1						
Fertility and natality									
Birth rates . . . . .	2		2,3						3
Completed fertility rate . . . . .	4		4						4
Lifetime births expected . . . . .	5		5						
Live births . . . . .	6,7		2,6,7						6,7
Low birth weight . . . . .			6-9				8,9		
Prenatal care . . . . .			6,7						
Abortion . . . . .	10		10						10-12
Contraception . . . . .	13		13,14						14
Mortality									
Life expectancy . . . . .	15,22	15,22	15						22
Infant . . . . .	16		16,17				17	21	
Neonatal . . . . .	16		16,18				18		
Postneonatal . . . . .			16,19				19		
Fetal . . . . .	16		16,20				20		
Perinatal . . . . .			16					21	
All causes . . . . .	23,38	23-25,38	23-25,38						
Years of potential life lost . . . . .		26	26						
Human immunodeficiency virus (HIV) infection . . . . .	36	24-26,36	24-26,36						39
Heart disease . . . . .	27,40	24-27	24-27						39
Cerebrovascular disease . . . . .	28,40	24-26,28	24-26,28						39
Cancer . . . . .	29,40	24-26,29	24-26,29						39
Respiratory cancer . . . . .	30	24-26,30	24-26,30						39
Breast cancer . . . . .	31		24-26,31						39
Complications of pregnancy . . . . .	32		32						
Motor vehicle accident . . . . .	33	24-26,33	24-26,33						39
Homicide . . . . .	34	24-26,34	24-26,34						39
Suicide . . . . .	35	24-26,35	24-26,35						39
Occupational disease . . . . .	37								
Other causes of death . . . . .		24-26	24-26						39
Determinants and measures of health									
Health promotion goals . . . . .	41								
Childhood vaccination . . . . .			42		42				
Diseases, notifiable . . . . .									43
Acquired immunodeficiency syndrome (AIDS) . . . . .	44-47	44-47	44-47				48,49		46,47
Cancer incidence . . . . .		50	50						50
Cancer survival . . . . .		51	51						51
Limitation of activity . . . . .	52	52	52	52	52	52			
Disability days . . . . .	53								53
Self-assessment of health . . . . .	54	54	54	54	54	54			
Cigarette smoking . . . . .	55,57	55-57	55,56						56
Alcohol consumption . . . . .	57	57,59							
Marijuana use . . . . .	57	57							
Cocaine . . . . .	57,58	57,58	58						
Elevated blood pressure . . . . .	60	60	60						
Hypertension . . . . .	61	61	61						
Elevated serum cholesterol . . . . .	62	62	62						
Overweight . . . . .	63	63	63						
Air pollutants . . . . .									64
Occupational health and safety . . . . .									65,66

Utilization of health resources	Age	Sex	Race	Family income	Location of residence	Type of ownership/organization	Geographic region	Other variables
Ambulatory care								
All physician contacts:								
Place . . . . .	67	67	67	67	67		67	
Interval since last contact . . . . .	68	68	68	68	68		68	
Physician's office visits:								
Physician's specialty . . . . .	69	69	69					
Visit characteristics . . . . .	70	70	70					70
Dentist visits, interval since last visit . . . . .	71	71	71	71	71		71	
Outpatient visits in short-stay hospitals . . . . .						79		

<i>Utilization of health resources</i>	<i>Age</i>	<i>Sex</i>	<i>Race</i>	<i>Family income</i>	<i>Location of residence</i>	<i>Type of ownership/ organization</i>	<i>Geographic region</i>	<i>Other variables</i>
<i>Inpatient care</i>								
<i>Short-stay hospitals:</i>								
Average length of stay . . . . .	72,73	72,73	72	72	72		72,73	
Diagnosis . . . . .	74,76	74,76						
Discharges . . . . .	72,73	72,73	72	72	72		72,73	
Diagnosis . . . . .	74-76	74-76						
Surgery . . . . .	77	77						
Diagnostic and other nonsurgical procedures . . . . .	78	78						
Days of care . . . . .	72,73	72,73	72	72	72		72,73	
Diagnosis . . . . .	74,75	74,75						
Nursing home residents . . . . .	80,81	80	80					81
<i>Mental health facilities:</i>								
Admissions . . . . .	84,85	84	84		82,84,85			82,85
Patient care episodes . . . . .						83		

<i>Health care resources</i>	<i>Place of employment</i>	<i>Occupation</i>	<i>Activity/ specialty</i>	<i>Type of ownership/ organization</i>	<i>Minorities/ women</i>	<i>Geographic area</i>	
						<i>Region</i>	<i>Division, State</i>
<i>Personnel</i>							
Active health personnel . . . . .	86	90				90	
Physicians . . . . .			87-89			90	87
Hospital employees . . . . .		91					
Mental health personnel . . . . .		92	92				
<i>Health professions education:</i>							
Graduates . . . . .		93					
Schools . . . . .		93					
Student enrollment . . . . .		93,94			94,95		

<i>Health care resources—Continued</i>	<i>Specialty</i>	<i>Type of ownership/ organization</i>	<i>Beds</i>	<i>Employees</i>	<i>Occupancy</i>	<i>Geographic division, State</i>
<i>Facilities</i>						
Short-stay hospitals . . . . .		96	96		96	
Long-stay hospitals . . . . .	97	97	97		97	
Mental health facilities . . . . .		98	98			
Community hospitals . . . . .			99	101	100	99-101
Nursing homes . . . . .			102			102

<i>Health care expenditures</i>	<i>Age</i>	<i>Race</i>	<i>Sex</i>	<i>Type of expenditure</i>	<i>Source of funds or payment</i>	<i>Geographic area</i>		
						<i>Region</i>	<i>Division, State</i>	<i>Other variables</i>
National health expenditures . . . . .				105	111,113			103,104
Gross national product . . . . .								103,104
Personal health care . . . . .				105,114	112-114		121-123	106
Consumer Price Index . . . . .				107,108				
Hospital costs and expenses . . . . .							122	109,110
Nursing home charges . . . . .	116		116		115	116	123	115,116
Health research and development . . . . .					117			118
Human immunodeficiency virus (HIV) . . . . .								119
Public health . . . . .				120	120			
Health care coverage . . . . .	124,125	124,125	124,125			124,125		124,125
Health maintenance organizations . . . . .						126		126
Medicare . . . . .	128	128	128	127,129	129,113	128	129	128,129
Medicaid . . . . .				127,131				130
Veterans medical care . . . . .				132				
Mental health expenditures . . . . .							134	133

# Highlights

## Chartbook

■ In 1988 only 58 percent of American Indian and Mexican American mothers, 61 percent of black mothers, and 63 percent of Puerto Rican and Central and South American mothers received **prenatal care** in the first trimester of pregnancy. Use of early prenatal care was much greater among Filipino, white, Chinese, Cuban, and Japanese mothers, ranging from 78 to 86 percent. Overall, the proportion of mothers with early prenatal care has remained unchanged at 76 percent between 1980 and 1988 (figure 2).

■ In 1988 the percent of **low-birth-weight infants** was much higher for black and Puerto Rican mothers (13.3 and 9.4 percent) than for white mothers (5.7 percent). Chinese mothers had the lowest proportion of low-birth-weight-infants (4.6 percent). Overall, the percent of live-born infants weighing less than 2,500 grams has remained at about 7 percent since 1980 (figure 3).

■ **Infant mortality** rates for black and American Indian births during 1983–85 were 2.1 and 1.5 times the rate for white births, respectively. The infant mortality rate was lowest for Japanese births, 6.0 infant deaths per 1,000 live births. Among Hispanics there was wide variation in infant mortality: from 8.0 among Cubans to 12.3 among Puerto Ricans with Mexican Americans (the largest group) having an infant mortality rate (8.8) similar to white mothers (figure 4).

■ Overall, Asian persons in the United States had the lowest **death rates** in 1988. Among persons under 45 years of age, black persons and American Indians had the highest death rates with the greatest black-white and American Indian-white ratios occurring at ages 25–44 years (2.5 and 1.8, respectively). With increasing age these differences narrowed and for persons 65 years and over, black-white differences were minimal

and white death rates exceeded those for American Indians (figures 6–10).

■ In 1988 **death rates** at ages 15–24 and 25–44 years for the Hispanic population exceeded those for white persons by 19 and 24 percent, respectively. 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 1988 (figures 6–10).

■ In 1988 unintentional injuries were the **leading cause of death** for each racial group at ages 1–14 years, 15–24 years, and 25–44 years, except for black persons 15–44 years for whom homicide was the leading cause of death. In each age group under 45 years, the injury death rate was highest for American Indians. Heart disease and cancer were the two leading causes of death for each racial group at ages 45–64 years and 65 years and over. Among those 65 years and over heart disease mortality was about 60 percent lower for Asian than for white persons (figures 6–10).

■ During 1986–88 almost 60 percent of all **homicide** victims were between 15 and 34 years of age. About half of white, black, and Asian victims in this age range were murdered with a handgun, and another 12–17 percent were murdered with other types of firearms. Within the American Indian population, handgun use was substantially lower (29 percent) (figure 11).

■ In 1977–83 **lung cancer** incidence was 40 percent higher among black than white men, and was considerably lower among Asian than white men, and among Mexican American than non-Hispanic white men. In 1975–84 5-year survival rates for lung cancer were between 10 and 20 percent, regardless of race or ethnicity (figures 12 and 13).

■ In 1977–83 **breast cancer** was the most frequently occurring cancer site among women, regardless of race or ethnicity. Breast cancer incidence was much lower among minority women

than white women. During 1975–84 the 5-year survival rates for breast cancer exceeded 70 percent except for American Indian and black women for whom survival rates were 46 percent and 63 percent, respectively (figures 16 and 17).

■ In 1977–83, in comparison with white men, the incidence of **prostate cancer** among black men was 71 percent higher; among Asian men the incidence was much lower than for white men; and the incidence was similar for Mexican American and lower for American Indian than for non-Hispanic white men. In 1975–84, 5-year survival rates for prostate cancer exceeded 70 percent except among American Indian and black men for whom survival rates were 54 percent and 63 percent, respectively (figures 18 and 19).

■ In 1989 among non-Hispanic white and Asian males with **AIDS** nearly 4 out of 5 contracted AIDS through homosexual/bisexual contact compared with about half of Hispanic and American Indian males and 2 out of 5 non-Hispanic black males. On the other hand, 3–12 percent of the Asian, non-Hispanic white, and American Indian male cases resulted from intravenous (IV) drug use compared with 32–36 percent of the Hispanic and non-Hispanic black cases (figure 21).

■ In 1989 among non-Hispanic black and Hispanic females, 77–81 percent of **AIDS** cases resulted from either IV drug use or from heterosexual contact with an IV drug user compared with 57 percent of cases among non-Hispanic white females. In all, heterosexual contact accounted for 31–37 percent of female AIDS cases (figure 22).

■ The prevalence of **diabetes** for those 45–74 years of age was twice as high for Mexican Americans and Puerto Ricans (24 and 26 percent in 1982–84) and 60 percent higher for non-Hispanic black persons (19 percent in 1976–80) as for

non-Hispanic white persons (12 percent in 1976–80) (figure 23).

■ The age-adjusted prevalence of **overweight** among non-Hispanic black women (44 percent in 1976–80) and among Mexican and Puerto Rican women (40–42 percent in 1982–84) was much higher than among non-Hispanic white women (24 percent in 1976–80) (figure 24).

■ The age-adjusted prevalence of **hypertension** was about 40 percent lower among Cuban and Puerto Rican men in 1982–84 than among non-Hispanic white men in 1976–80. Also in 1976–80 the prevalence of hypertension was 23 percent higher among non-Hispanic black than non-Hispanic white men. Similarly, Hispanic women had a lower prevalence of hypertension than non-Hispanic white women, while the prevalence among non-Hispanic black women was 1.7 times that for non-Hispanic white women (figure 25).

■ The age-adjusted prevalence of **high serum cholesterol** was lower among Hispanic men (16–19 percent) and Hispanic women (17–23 percent) in 1982–84 than among non-Hispanic black or white men (24–25 percent) or women (25–28 percent) in 1976–80 (figure 26).

■ Emergency room episodes for **cocaine** abuse increased dramatically between 1985 and 1988 among black, Hispanic, and white persons. However, data for 1989 show no change in the number of episodes for black persons and modest decreases among Hispanic and white persons (figure 28 and table 58).

■ In 1985–88 among persons 45–64 years of age, Asian, Cuban, and non-Hispanic white adults were less likely than non-Hispanic black, American Indian, Mexican American, and Puerto Rican adults to be in **fair or poor health** (12–18 percent compared with 25–33 percent). Even among those with 12 or more years of education, the percent in fair or poor health was twice as great among American Indian and non-Hispanic black persons compared with Asian and non-Hispanic white persons (figure 29).

■ In the mid-1980's the age-adjusted percent of persons under 65 years of age with no **health insurance** was 35 percent for Mexican Americans and 21–23 percent for Puerto Ricans, non-Hispanic black persons, and Cubans compared with 12–16 percent for non-Hispanic white and Asian persons (figure 31).

## Detailed Tables

### Health Status and Determinants

■ In 1988 the **fertility rate** was 67.2 live births per 1,000 women 15–44 years of age, up 2 percent from the 1987 rate. Provisional data for 1989 show another 2 percent rise. After a slow decline from 1975 to 1986, the birth rate for teenagers 15–17 years increased by 10 percent between 1986 and 1988. The birth rate for women 30–39 years has increased steadily since 1980, while the birth rate for women 40–44 has increased since 1985 (tables 2 and 3).

■ In 1988, 26 percent of live births were to **unmarried mothers**, up from 11 percent in 1970. The percent of live births to unmarried mothers has been increasing for all racial and ethnic groups except for Chinese mothers with only 3–4 percent unmarried over this period. In 1988 the highest percents of live births to unmarried mothers were for black (64 percent), American Indian (46 percent), Puerto Rican (53 percent), Central and South American (36 percent), and Mexican American births (31 percent) (tables 6 and 7).

■ In 1988 overall **life expectancy at birth** was 74.9 years, slightly down from the 1987 high of 75.0 years. Life expectancy for black males declined from 65.2 to 64.9 years and life expectancy for black females declined from 73.6 to 73.4 years. Since 1984 the difference in life expectancy between the white and black populations has increased from 6.2 to 7.4 years for males and from 5.0 to 5.5 years for females. Provisional data

show that overall life expectancy increased slightly from 1988 to 1989 (table 15).

■ In 1988 the **infant mortality rate** was 10.0 deaths per 1,000 live births. Between 1987 and 1988, the infant mortality rate declined by 1.2 percent for white infants to 8.5 deaths per 1,000 live births, while declining by 1.7 percent for black infants to 17.6 deaths per 1,000 live births (table 16).

■ In 1987 the United States ranked 24th among **industrial countries** on infant mortality with a rate twice as great as in Japan. The perinatal mortality ratio and feto-infant mortality rate are alternative measures of pregnancy outcome that help reduce international variation due to differences among countries in clinical distinctions between fetal and infant deaths. The United States ranked 20th on the perinatal mortality ratio, with a ratio about 45 percent greater than for Japan, and 18th on the feto-infant mortality rate, with a rate about 50 percent higher than for Japan (table 21).

■ Between 1987 and 1988, the age-adjusted death rate for **human immunodeficiency virus (HIV)** infection, the 15th leading cause of death, increased by 20 percent. The age-adjusted death rate for **pneumonia and influenza**, the 6th leading cause, increased by 8 percent, reflecting a major outbreak of influenza in 1988 (table 24).

■ Years of potential life lost per 1,000 population under 65 years of age, a measure of premature mortality increased substantially for **HIV** infection between 1987 and 1988. Increases in premature mortality due to HIV infection were somewhat greater for black males (24 percent), black females (27 percent), and white females (25 percent) than for white males (19 percent). In 1988 premature mortality due to HIV infection was nearly three times as great among black males as white males and was nine times as great among black females as white females (table 26).

■ The age-adjusted death rate for **heart disease**, the leading cause of death, declined by 34 percent from 1970 to 1988. During this period heart disease mortality declined by 37 percent for white males, 32 percent for white females, 28 percent for black females, and 24 percent for black males. In 1988, the heart disease death rate remained essentially unchanged for black persons while continuing to decline for white persons (table 27).

■ The age-adjusted death rate for **stroke**, the third leading cause of death, declined by 55 percent from 1970 to 1988. The average annual rate of decline has been less rapid during 1985–88 (2.8 percent per year) than during 1970–85 (5.2 percent). In 1988 the age-adjusted death rate for stroke increased by 1.2 percent for black men, remained stable for black women, and declined by 1 and 3 percent, respectively, for white men and women (table 28).

■ The age-adjusted death rate for **lung cancer**, the leading cause of cancer deaths among women, increased by 36 percent for white women and 26 percent for black women between 1980 and 1988. Among men the age-adjusted death rate for lung cancer has remained fairly stable over this period (table 30).

■ In 1988 the age-adjusted **homicide** rate increased 8 percent for black males and 3 percent for black females while remaining stable for white persons. Among black persons increases were especially large for males 15–24 years of age (19 percent) and for males and females 25–34 years (10 and 14 percent, respectively). In 1988 the homicide rate for black males 15–34 years was more than eight times the rate for white males of the same age (table 34).

### Utilization of Health Resources

■ Between 1984 and 1989 the age-adjusted percent of **ambulatory physician contacts** that occur in doctors' offices increased slightly from 56 to 60 percent. In both years

persons with higher incomes were more likely than those with lower incomes to use doctors' offices for their care (63 compared with 49 percent in 1989). Persons with lower incomes were more likely than those with higher incomes to use hospital outpatient services (18 compared with 11 percent in 1989) (table 67).

■ In 1989 the age-adjusted **discharge rate** for non-Federal short-stay hospitals varied among the geographic regions, with the highest level found in the Northeast (125 per 1,000 population) and the lowest in the West (98 per 1,000 population). The age-adjusted **average length of stay** in the Northeast (7.3 days) was more than a full day longer than in the other regions (6.2 days in the Midwest, 6.1 days in the South, and 5.5 days in the West) (table 73).

■ Between 1988 and 1989 the number of discharges from non-Federal short-stay hospitals with a diagnosis of **AIDS** increased 35 percent to 96,000 discharges. Men 20–49 years of age accounted for 74,000 (77 percent) of all AIDS discharges in 1989. A total of 1.3 million days of care were provided to AIDS patients in 1989. The average length of stay for AIDS patients was twice that for all discharges (13.6 days compared with 6.5 days in 1989) (table 74).

■ In 1989 there were 30.9 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 (770 thousand), and pneumonia (544 thousand). For women, the most common first-listed diagnoses were delivery (3.9 million), diseases of the heart (1.6 million), and malignant neoplasms (838 thousand) (table 76).

■ In 1989 the leading diagnostic and nonsurgical **inpatient procedures** performed for men in non-Federal short-stay hospitals were angiocardiology (767 thousand), followed by CAT scans (721 thousand), and diagnostic ultrasound (628 thousand). Among women, the same three procedures were in the

top three but the ranking differed. Diagnostic ultrasound was most common (930 thousand), followed by CAT scans (798 thousand), and angiocardiology (432 thousand) (table 78).

■ Between 1980 and 1988 the percent of surgery performed on an outpatient basis in short-stay hospitals almost tripled from 16 to 47 percent. The proportion of **outpatient surgery** was inversely related to hospital size, ranging from 40 percent for hospitals with 500 beds or more to 53 percent for hospitals with fewer than 100 beds in 1988 (table 79).

■ Between 1983 and 1988 the admission rate to **mental health** organizations for inpatient and residential treatment increased 17 percent to 820 per 100,000 population. The trend differed according to type of organization with admission rates for private psychiatric hospitals more than doubling, while admission rates for State and county mental hospitals declined by 15 percent, and those for non-Federal general hospital psychiatric services increased by 7 percent (table 82).

### Health Care Resources

■ Between 1985 and 1989 the number of civilians employed in the health services industry increased at an average annual rate of 3.6 percent to 9.1 million workers. In 1989 half of all **health services industry workers** were employed in hospitals, 17 percent in nursing and personal care facilities, and 11 percent in physicians' offices (table 86).

■ During the 1980's the mix of **nurses** employed in community hospitals changed. Between 1981 and 1988 the number of full-time equivalent (FTE) registered nurses in community hospitals grew at an average annual rate of 3 percent, while licensed practical nurses had an average annual decline of 5 percent through 1987 and then stabilized in 1988 (table 91).

■ Between 1980 and 1989 **first-year enrollment** in medical schools remained stable while dental school

enrollment declined by 32 percent. The number of first-year registered nursing students increased by 17 percent between 1980 and 1984, declined by 27 percent between 1984 and 1987, and finally increased by 4 percent between 1987 and 1988 (table 93).

■ Between 1980 and 1988 the number of **hospitals with fewer than 100 beds** fell 9 percent, compared with a 5 percent decline for all short-stay hospitals. Throughout the 1980's occupancy rates have been lower in smaller hospitals than larger hospitals and the gap has widened. In 1988 occupancy rates ranged from 48 percent for hospitals with fewer than 100 beds to 76 percent for hospitals with 500 beds or more (table 96).

■ Between 1980 and 1988 the number of **long-term psychiatric beds** fell 34 percent to 143,853. During the 1980's, proprietary psychiatric beds grew by 70 percent while State-local and Federal psychiatric beds declined by 38-41 percent. In 1988 State-local psychiatric beds comprised 80 percent of all long-term psychiatric beds, compared with 85 percent of all long-term psychiatric beds in 1980 (table 97).

■ In both 1980 and 1988 the largest number of **community hospital beds** per 1,000 population were in the States of North Dakota, Nebraska, and Montana. In 1988 these States had 7.0, 5.8, and 5.6 beds per 1,000 population, respectively, compared with a national average of 3.9 beds per 1,000. In 1988 South Dakota also had 5.6 beds per 1,000 population (table 99).

## Health Care Expenditures

■ In 1988 **national health care** expenditures in the United States totaled \$540 billion, an average of \$2,124 per person. Between 1980 and 1988 expenditures increased at a higher annual rate for physician services than for hospital care. In 1988 hospital care accounted for 39 percent of national health expenditures, physician services for 19 percent, nursing home care for

8 percent, drugs and other medical nondurables for 8 percent, and dentist services for 5 percent of health expenditures (tables 103 and 105).

■ In 1988 rising prices continued to explain the largest portion (68 percent) of the growth in **personal health care** expenditures. Ten percent of the growth was attributed to population increase and 23 percent to changes in the use and kinds of services and supplies (table 106).

■ In 1989 the rate of increase in the medical care component of the **Consumer Price Index (CPI)** was 7.7 percent, compared with an overall inflation rate of 4.8 percent. Since 1980 the medical care component of the CPI has grown at an average annual rate of 7.9 percent compared with 4.6 percent for the overall CPI. The hospital component of the CPI increased by 11.5 percent in 1989, physicians' services by 7.4 percent, and prescription drugs by 8.7 percent (tables 107 and 108).

■ In 1988 non-Federal short-stay **hospital expenses** per inpatient day increased 8 percent to \$581, and expenses per inpatient stay increased 9 percent to \$4,194. Expenses in proprietary hospitals have been growing faster than for other types of hospitals. In 1988 expenses per inpatient day and per inpatient stay in proprietary hospitals increased 11 percent to \$649 and \$4,023, respectively (table 110).

■ Since 1965 the share of **health care expenditures** paid by households, private business, and the government has changed markedly. Expenditures paid by private business increased from 17 to 29 percent of the total between 1965 and 1988. Expenditures paid by households declined from 61 to 37 percent over the same period. Public payments (excluding Medicare premiums) rose from 21 to 31 percent of the total, with the federal share nearly doubling to 17 percent by 1988. Between 1987 and 1988 the private employer share of health insurance premiums increased by 9 percent, while the

employee share increased by 16 percent (table 113).

■ In 1988 the major **sources of funds** for hospital care were the government (54 percent) and private health insurance (35 percent). Medicare provided half of government funds for hospital care. Physician services were primarily funded by private health insurance (48 percent) and the government (33 percent), with Medicare providing the largest share of government funds. Almost half of nursing home care was financed by out-of-pocket payments and almost half by the government, primarily the Medicaid program (table 114).

■ Expenditures for **HIV-related activities** by the Federal Government increased from \$6 million in 1982 to \$2.3 billion in 1989. The National Institutes of Health accounted for 26 percent of these expenditures in 1989, the Health Care Financing Administration for 24 percent, and the Centers for Disease Control for 17 percent. Of the total in 1989, 43 percent was for research, 34 percent for medical care, 17 percent for education and prevention, and 7 percent for cash assistance (disability insurance and Supplemental Security Income) (table 119).

■ In 1988 total **public health expenditures** by State and territorial health agencies increased by 5 percent, while expenditures for the supplemental food program for women, infants, and children (WIC) increased by only 2 percent. Growth in the WIC program has slowed from average annual increases of 18 percent from 1980 to 1984 and 9 percent from 1984 to 1987 (table 120).

■ Between 1980 and 1989 the age-adjusted percent of persons under age 65 with no **health care coverage** increased from 13 to 16 percent. In 1989 the percent with no health care coverage increased steadily with decreasing income. Residents of the South and West were nearly twice as likely as those in the Northeast and Midwest to have no coverage. Nonmetropolitan

residents were somewhat more likely to lack health care coverage than metro residents (18 compared with 15 percent) (table 124).

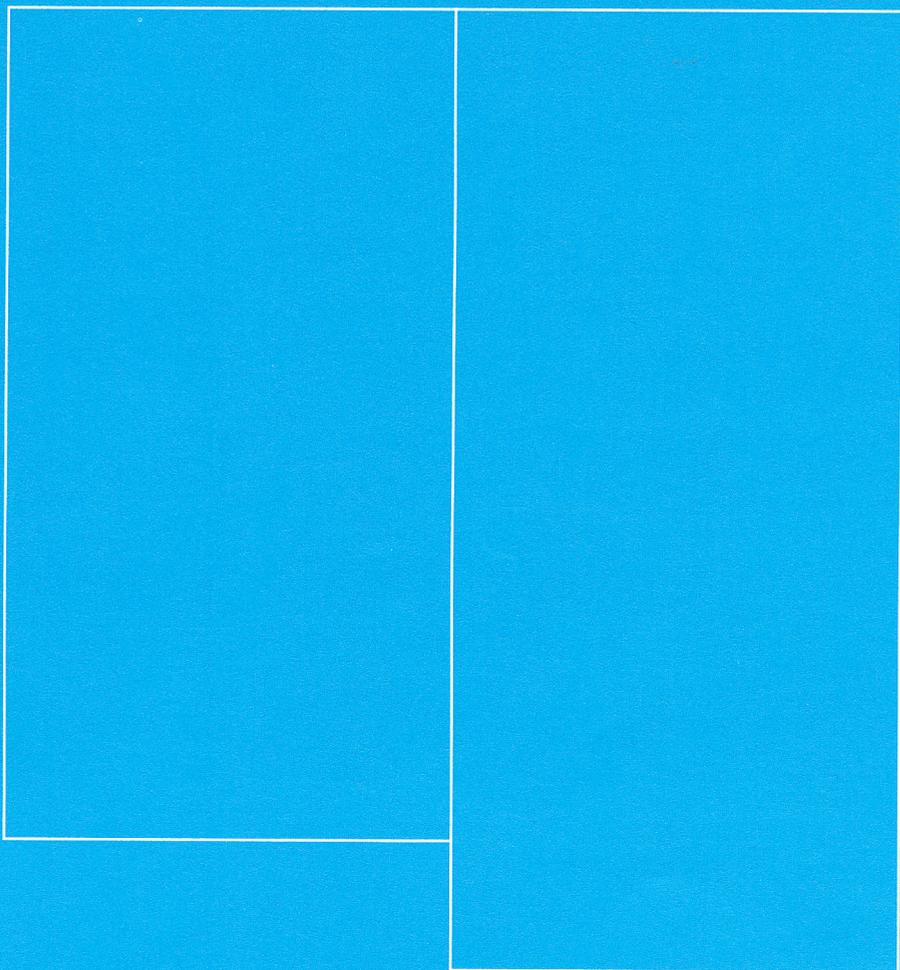
■ Between 1980 and 1989 the age-adjusted percent of persons age 65 years and over with both Medicare and private **health insurance** rose from 64 to 74 percent; those with Medicare only declined from 23 to 17 percent (table 125).

■ In 1989 **Medicare** expenditures totaled \$61 billion under Hospital Insurance (HI) and \$40 billion under Supplementary Medical Insurance (SMI). Average annual increases in HI expenditures had slowed from 16 percent between 1967 and 1985 to 3 percent between 1985 and 1988. However, HI expenditures increased by 14 percent in 1989, probably due in part to the Medicare Catastrophic Coverage Act of 1988 (table 127).

■ The proportion of **Medicare** enrollees age 85 years and over increased from 7 to 10 percent between 1967 and 1988. In 1988 payments per enrollee averaged \$3,378 for those 85 years and over, compared with \$1,618 for those 65–66 years of age (table 128).

■ In 1989 children in families receiving Aid to Families with Dependent Children (AFDC) comprised 44 percent of **Medicaid** recipients but accounted for only 13 percent of expenditures. The aged, blind, and disabled accounted for less than 30 percent of recipients and 72 percent of expenditures. Payments per recipient ranged from \$668 for children in AFDC families to more than \$5,800 per recipient among the aged, blind, and disabled (table 130).

# Chartbook



# Introduction

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Improving the health of all Americans is a major goal for this Nation. However, regardless of whether the focus is on mortality, morbidity, or the utilization of health services, disparities in the health status of Americans remain widespread. The rapid improvements in medical science and in the systems designed to provide essential health care services have not benefited all racial and ethnic groups equally. In *Healthy People 2000, National Health Promotion and Disease Prevention Objectives* (hereafter referred to as *Healthy People 2000*), substantial numbers of objectives are targeted to minority racial and ethnic groups who continue to bear the disparate burden of poor health in this country (1).

Studies of minority health in the United States have primarily focused on the black population. This chartbook expands that focus by comparing selected health indicators among several minority groups with particular emphasis on the following groups: Asian and Pacific Islanders, American Indians and Alaskan Natives, black Americans, and persons whose ethnic origin is Hispanic, including Mexican Americans, Cubans, and Puerto Ricans.

Throughout the chartbook, the term ethnicity refers to whether a person is of Hispanic origin. References to white and black persons include persons of Hispanic origin while references to non-Hispanic white or non-Hispanic black persons exclude those of Hispanic origin. In most cases, the presentation of data by race (e.g., white), by race and ethnicity (e.g., non-Hispanic white), or by detailed Hispanic origin (e.g., Mexican American, Puerto Rican, or Cuban) was dependent upon how the data were originally collected and tabulated. Further, Asian and Pacific Islander is used synonymously with Asian and includes, unless specified otherwise, Japanese, Chinese, Filipino, Hawaiian, and others of

Asian or Pacific Island descent. American Indian and Alaskan Native is used interchangeably with American Indian unless specified otherwise.

Topics for inclusion in the chartbook were generally chosen with these criteria in mind: (a) coverage in *Healthy People 2000* (1); (b) relevance to minority populations; and (c) availability of data for minority populations in addition to black. While reference is made to *Healthy People 2000* throughout the chartbook, the report will not be cited each time it is referenced.

Figure 1 charts the growth of minority populations during the 1980's. Figures 2–4 present data on prenatal care, low birth weight, and infant mortality. Trends in life expectancy at birth, although available only for white and black persons, are presented in figure 5 because of the recent slowdown in improvement for the black population. Death rates for selected causes of death are shown in figures 6–10. The types of weapons used in homicides are examined in figure 11. Incidence and survival rates for cancers of the lung and bronchus, colon and rectum, breast, and prostate gland are presented in figures 12–19. Trends in and modes of transmission of AIDS cases are presented in figures 20–22. The prevalence of diabetes, overweight, hypertension, high serum cholesterol, and cigarette smoking are shown in figures 23–27. Figure 28 displays trends in emergency room visits for cocaine use. Respondent-assessed health status, physician utilization rates, and health insurance coverage are presented in figures 29–32. Finally, trends in minority student enrollment in medical schools are shown in figure 33.

The Technical Notes section that follows the charts contains detailed information on data sources and methods. A table providing the data for each chart is also included. As

described in the Technical Notes, the chartbook data are not necessarily national-level data. Thus, data for Hispanic populations are based on selected States; the cancer incidence and survival rates are from selected cancer registries; and the data showing emergency room visits for cocaine abuse are from participating emergency rooms in selected metropolitan areas.

## Reference

1. U.S. Department of Health and Human Services. 1990. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. Public Health Service. Washington: U.S. Government Printing Office.

# Demographic and Socioeconomic Background

Most minority populations in the United States have been increasing at a far greater pace than the white population. Since 1980, the Asian population has increased by 70 percent to 6.5 million in 1988 (figure 1). The Hispanic population has increased 34 percent to 19.8 million, while the American Indian population has grown by 19 percent to 1.7 million. The black population in the United States, the largest minority group, has increased 13 percent to 30.2 million persons in 1988. During this same period, the white population has increased by 6 percent, reaching 207.4 million persons in 1988 (1).

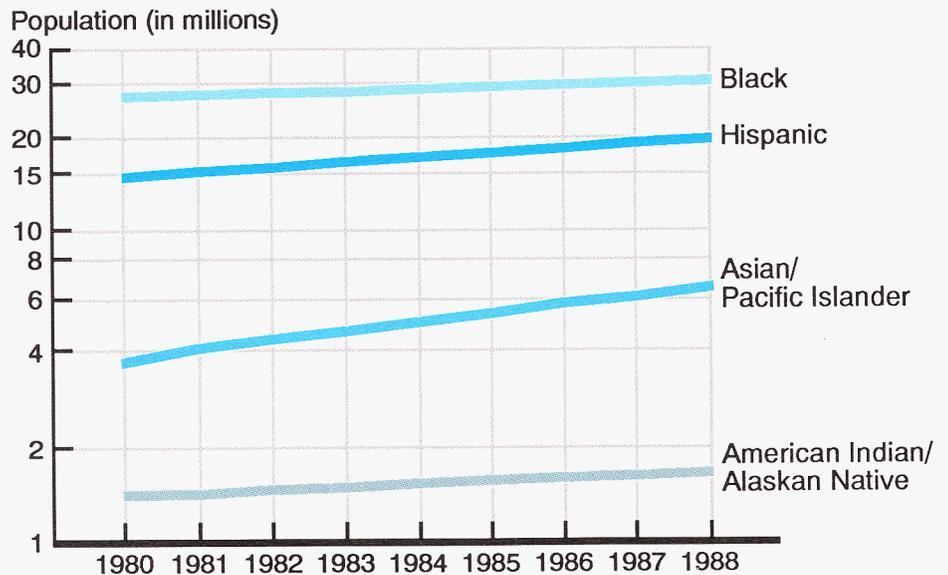
In 1988, the racial composition of the population of the United States was 12 percent black persons, 3 percent Asian and Pacific Islander, 1 percent American Indian and Alaskan Native, 84 percent white, and 8 percent who were of Hispanic origin (of any race) (1).

Growth of the Hispanic population has resulted equally from immigration and natural increase. Close to 40 percent of all immigration during the 1980's has been from Latin America. From 1980 to 1988 the Hispanic population increased from 6.5 to 8.1 percent of the total population (1).

The rapid growth of the Asian population is attributed largely to immigration. Since 1980, 45–50 percent of the nearly 600,000 annual legal alien immigrants have been from Asia (1).

Racial and ethnic variation in socioeconomic status is large. Poverty rates are one measure of economic differences among population groups. In 1988, 32 percent of black persons and 27 percent of those of Hispanic origin had incomes below the poverty level compared with 10 percent of white persons (2). These percentages

**Figure 1. Resident minority populations, according to race/ethnicity: United States, 1980–88**



SOURCE: U.S. Bureau of the Census, Current Population Surveys (1).

have remained largely unchanged over the past decade. In 1979, 28 percent of American Indians had incomes that were below the poverty level, as did 13 percent of Asian persons (3). (The most recent year for Asian and American Indian data is 1979.)

Differences in poverty rates among children and families are even greater. In 1988, 44 percent of black children and 38 percent of Hispanic children under 18 years of age compared with 14 percent of white children were below poverty. Further, 52 percent of all black families and 26 percent of Hispanic families had female householders with no husband present and with children under 18 years present compared with 16 percent of white families. The poverty rate for these groups was 56 percent among black families, 59 percent among Hispanic families, and 38 percent among white families (2).

## References

1. U.S. Bureau of the Census. 1990. *United States Population Estimates, by Age, Sex, Race, and Hispanic Origin: 1980 to 1988*. Series P-25, No. 1045. Washington: U.S. Government Printing Office.
2. U.S. Bureau of the Census. 1989. *Money Income and Poverty Status in the United States: 1988*. Series P-60, No. 166. Washington: U.S. Government Printing Office.
3. U.S. Bureau of the Census. 1980. *General Social and Economic Characteristics, U.S. Summary*. PC80-1-C1. Washington: U.S. Government Printing Office.

# Prenatal Care

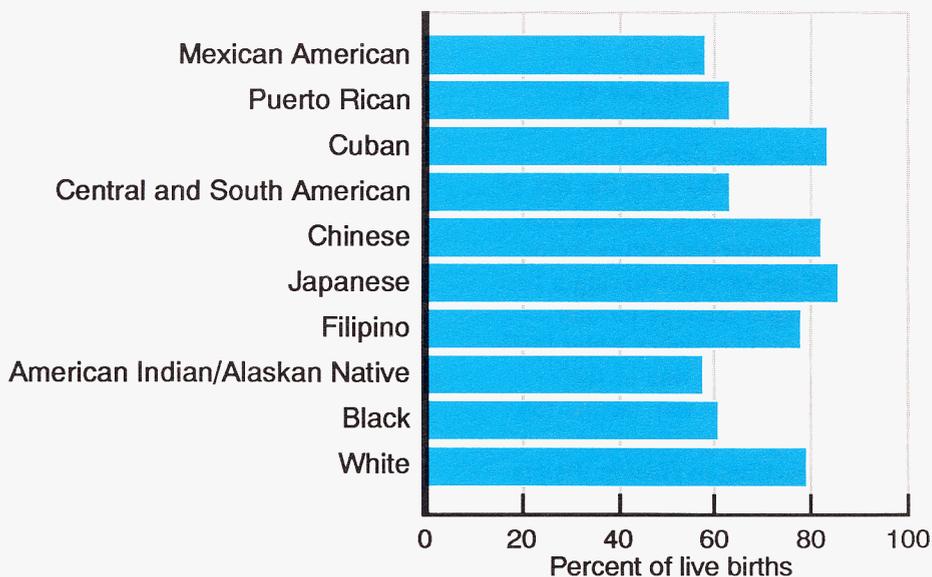
The importance of beginning prenatal care early in pregnancy, especially for women known to be at increased medical or social risk of adverse outcomes, has been well documented (1).

■ The objectives in *Healthy People 2000* include increasing to at least 90 percent the proportion of all pregnant women who receive prenatal care in the first trimester of pregnancy. There are wide variations in the percent receiving early prenatal care among mothers of different racial and ethnic groups, and these variations have remained stable over the past decade.

■ In 1988, only 58 percent of American Indian and of Mexican American mothers received early prenatal care (figure 2). Similarly, only 61 percent of black mothers, and 63 percent of Puerto Rican and Central and South American mothers received early care. (Proportions are based on race of mother rather than race of child. See Technical Notes.)

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

**Figure 2. Early prenatal care, according to race/ethnicity of mother: United States, 1988**



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

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

## Reference

1. Institute of Medicine. 1985. *Preventing Low Birthweight*. National Academy Press. Washington. U.S. Government Printing Office.

## Low Birth Weight

Infants born weighing less than 2,500 grams at birth are known to be at increased risk of infant mortality and morbidity. Those weighing less than 1,500 grams, the very low-birth-weight infants, are at greatest risk of death. Several socioeconomic and demographic factors are associated with the risk of low birth weight: lower educational attainment, unmarried status, being 30 years of age or older having a first birth, or being a teenage mother having a second or higher order birth. Cigarette smoking is one of the strongest behavioral risk factors for low birth weight (1).

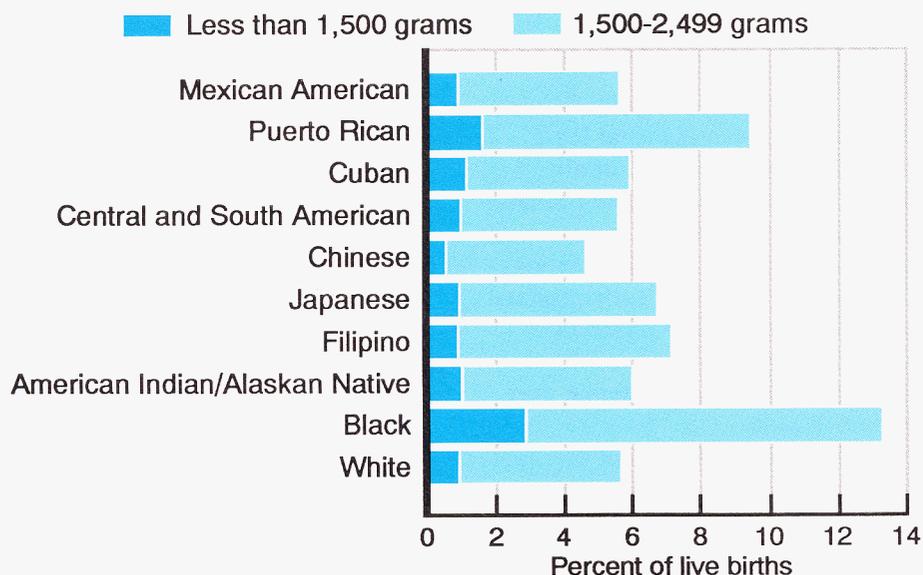
■ The objectives in *Healthy People 2000* target a low-birth-weight rate of no more than 5 percent and a very low-birth-weight rate of no more than 1 percent of all live births. Special targets of no more than 9 percent low birth weight and 2 percent very low birth weight were set for births to black mothers.

■ During the 1970's the incidence of low birth weight declined about 1 percent annually among each of the racial and ethnic groups. In contrast, the 1980's has been a decade of little or no change in the percent of infants born at low birth weight.

■ In 1988, black mothers had the highest percent of low-birth-weight births, 13.3 percent, more than twice the rate for white mothers (figure 3). Puerto Rican mothers ranked second highest, with 9.4 percent of infants weighing less than 2,500 grams. (Proportions are based on race of mother rather than race of child. See Technical Notes.)

■ Chinese mothers had the lowest proportion of births that were low birth weight, 4.6 percent. Among white mothers, 5.7 percent of births were low birth weight. Similar rates were observed for Mexican American, Central and South American, Cuban, and American Indian mothers (5.6 percent to 6.0 percent).

**Figure 3. Low birth weight, according to race/ethnicity of mother: United States, 1988**



NOTE: Data on Hispanic origin of mother are from 30 States and the District of Columbia.

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

■ Chinese mothers also had the lowest incidence of very low birth weight, 0.6 percent, one-third lower than the rate for white mothers (0.9 percent). Black mothers had three times and Puerto Ricans 1.8 times the incidence of very low birth weight compared with white mothers.

### Reference

1. Kleinman, J.C., and S.S. Kessel. 1987. Racial differences in low birth weight. *N. Engl. J. Med.* 317:749-53.

# Infant Mortality

One of the major concerns related to infant mortality has been the high rate among black infants. Less attention has been paid to the variation in infant mortality among other minority groups (1). Newly available data from linked birth and death records for the birth cohorts of 1983–85 (most recent years available) make it possible to obtain reliable national figures on infant mortality for these minority groups, not previously available on an annual basis (see Technical Notes).

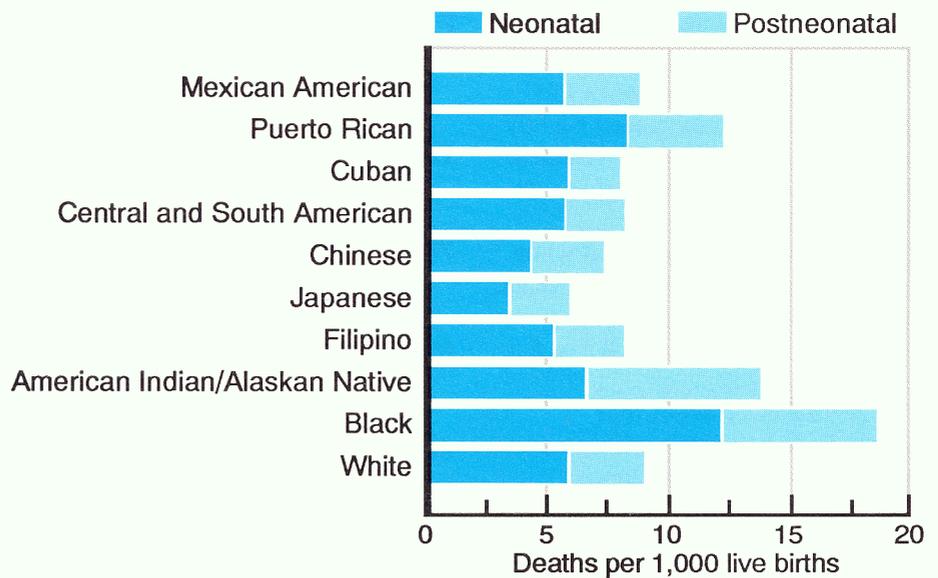
The objectives in *Healthy People 2000* include reducing infant mortality to no more than 7 infant deaths, 4.5 neonatal deaths and 2.5 postneonatal deaths per 1,000 live births. In 1983–85, the infant mortality rate among the Japanese was below the target level.

The infant mortality rate was lowest among the Japanese, 6.0 infant deaths per 1,000 live births during 1983–85 (figure 4). The rate for white mothers was 9.0. Among Hispanics, there was wide variation in infant mortality: from 8.0 among Cubans to 12.3 among Puerto Ricans with Mexican Americans (the largest group) having about the same rate (8.8) as white mothers. The American Indian rate (13.9) and the black rate (18.7) were 1.5 and 2.1 times the rate for white mothers, respectively.

The high infant mortality for American Indians was mainly a result of excess postneonatal mortality. The postneonatal mortality rate for American Indians was 2.3 times the white rate, 7.2 compared with 3.1. Neonatal mortality for American Indians (6.7) was only 14 percent higher than among white mothers.

The high infant mortality rate for Puerto Rican mothers, on the other hand, was a result of excess neonatal and postneonatal mortality, 41 percent and 29 percent higher, respectively, than the rates for white mothers. Similarly, neonatal and

**Figure 4. Infant mortality rates, according to race/ethnicity of mother: United States, 1983–85 birth cohorts**



NOTE: Data on Hispanic origin of mother are from 23 States and the District of Columbia.

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

postneonatal mortality among black mothers were twice the rates for white mothers.

The low Japanese infant mortality rate was a function of both low neonatal (3.4) and postneonatal (2.6) mortality. Only Cuban mothers had a postneonatal rate that was lower (2.2), 29 percent below the rate for white mothers.

The low infant mortality rate among Mexican American mothers and the low neonatal mortality among American Indians are noteworthy in that both groups have relatively high maternal risk profiles compared with white mothers (higher parity, higher proportion of births to unmarried mothers, lower educational attainment, and later entry into prenatal care).

## Reference

1. Kleinman, J.C. 1990. Infant mortality among minority groups. *CDC Surveillance Summaries. MMWR* 39(No. SS-3):31–40.

# Life Expectancy

■ In 1988, life expectancy at birth was 64.9 years for black males; 72.3 years for white males; 73.4 years for black females; and 78.9 years for white females (figure 5).

■ Black-white differences in life expectancy at birth increased slightly for males and narrowed for females between 1960 and 1988. In those 28 years, the difference in life expectancy between black and white males increased from 6.7 to 7.4 years, while between black and white females, it decreased from 8.2 to 5.5 years.

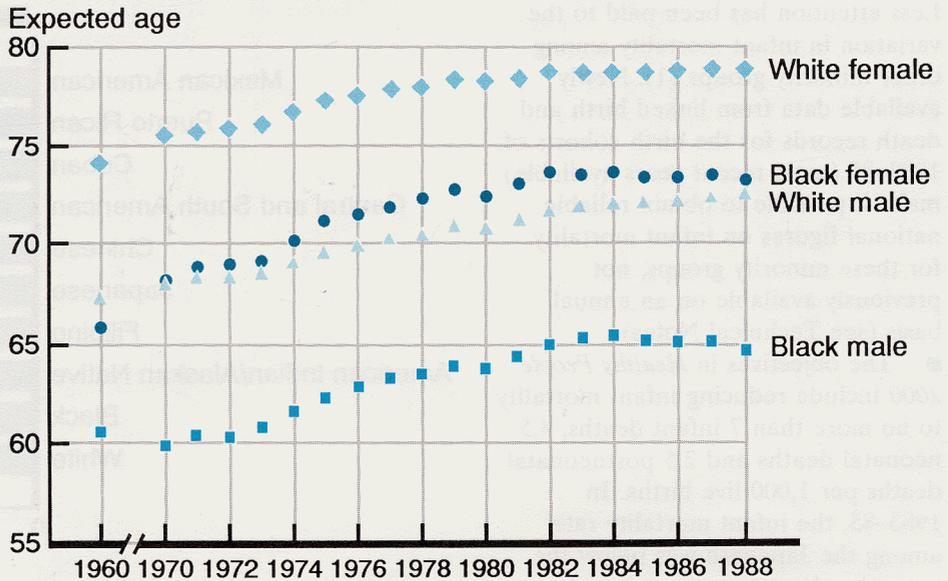
■ The causes of death that historically have contributed most to the disparity in life expectancy between white and black males and females are the cardiovascular diseases, homicide, malignant neoplasms, and infant mortality. Those causes accounted for about 60 percent of the black-white differential for males and for females in life expectancy at birth (1).

■ Throughout most of the 1970's life expectancy improved for each of the four race-sex groups. From 1979 to 1980, however, life expectancy declined (albeit by only 0.1–0.4 years of age) in each group; this decline being attributed to the influenza epidemic in 1980.

■ Since 1981, life expectancy at birth for white males has risen steadily. For black males life expectancy increased during the early 1980's, then declined for two consecutive years from 65.6 years of age in 1984 to 65.2 years of age in 1986 and declined again from 1987 to 1988 to 64.9 years. Recent increases in age-specific death rates for black males under 45 years of age, particularly due to rising death rates for human immunodeficiency virus (HIV) infection and homicide, have contributed to the lack of improvement in life expectancy.

■ Life expectancy for black females was relatively unchanged during

**Figure 5. Life expectancy at birth, according to race and sex: United States, 1960 and 1970–88**



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

1982–87 and declined slightly in 1988. Among white females, life expectancy rose only slightly during the 1980's having held unchanged at 78.7 years for the years 1982 through 1985.

## Reference

1. Keith, V.M., and D.P. Smith. 1988. The cultural differential in black and white life expectancy. *Demography* 25:625–632 (modified with author's permission).

# Death Rates

In the following five charts, death rates for minority populations are based on population estimates for 1988 prepared by the Office of Analysis and Epidemiology, National Center for Health Statistics (NCHS). Thus, the death rates for Asians, American Indians, and for Hispanic persons should be considered interim and subject to change. Death rates for Hispanic persons are based on data from 26 States and therefore are not national estimates, (see Technical Notes).

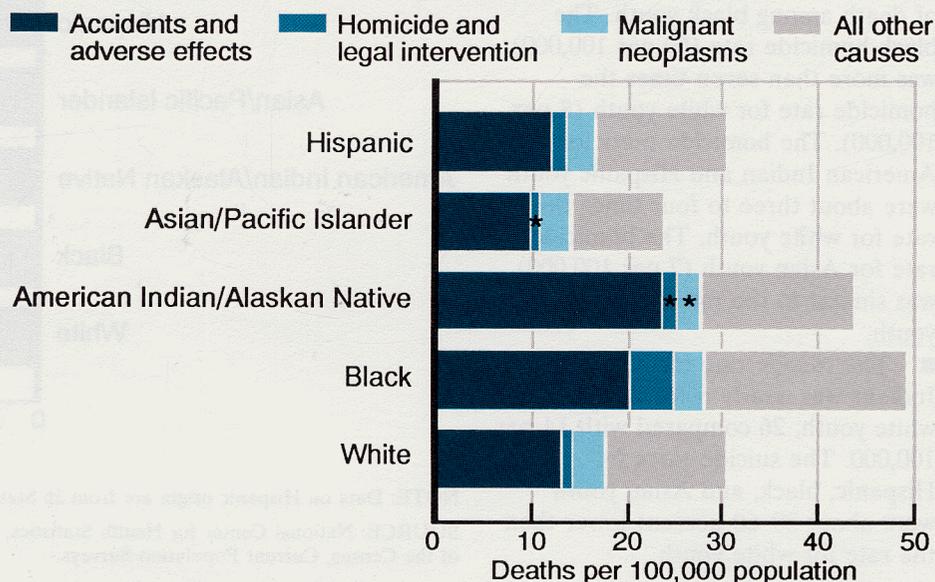
Specific causes of death were selected for their impact on minority populations, their magnitude, and their racial and ethnic variation. As a cause of death, “unintentional injuries,” “injuries,” and “accidents and adverse effects” are used synonymously. See Appendix II, table V for cause of death codes.

Overall, Asian persons in the United States have the lowest death rates across each age group and for nearly all of the causes of death compared. Among those under 45 years of age, black persons and American Indians have the highest death rates, with the greatest black-white and American Indian-white differences occurring at ages 25–44 years. With increasing age, these relative differences narrow and by age 65 years and older, the black-white ratio is minimal and white death rates exceed those for American Indians. In the Hispanic population at ages 15–44 years, death rates exceed white death rates, although not by as much as the black and American Indian rates. Both the younger and older Hispanic populations have similar or lower death rates than white persons.

## Children 1–14 Years of Age

■ In 1988, death rates for black and American Indian children were much higher (49 and 44 per 100,000) than for Asian, Hispanic, and white children (24, 30, and 30 per 100,000, respectively) (figure 6).

**Figure 6. Death rates for selected causes for persons 1–14 years of age, according to race/ethnicity: United States, 1988**



NOTE: Data on Hispanic origin are from 26 States and the District of Columbia.

SOURCE: National Center for Health Statistics, National Vital Statistics System, and U.S. Bureau of the Census, Current Population Surveys.

■ Unintentional injuries were the leading cause of death for each group of children, accounting for about 40 percent of the deaths among black, Asian, Hispanic, and white children and for about 55 percent of deaths among American Indian children. The injury death rates were highest among American Indian and black children (24 and 20 per 100,000, respectively), about 85 and 55 percent higher, respectively, than for white children (13 per 100,000). The injury death rates for Asian children were about 25 percent lower than the rate for white children, while the rates for Hispanic and white children were similar. Half of the injury deaths among white, Asian, American Indian, and Hispanic children resulted from motor vehicle injuries compared with about 40 percent of the injury deaths among black children. Fires and drowning were the leading causes of nonmotor vehicle injury deaths among black children.

■ In 1988, homicide was the second leading cause of death among black children, with a death rate 3–4 times the rate for any other group. Malignant neoplasms ranked second for all others, with minimal racial variation.

## Young Persons 15–24 Years of Age

■ Death rates were much higher for American Indians and black persons 15–24 years of age (162 and 145 per 100,000) than for others in 1988 (figure 7). The lowest rate (57 per 100,000) was among Asian youth, while mortality among white and Hispanic youth fell midway (95 and 113 per 100,000).

■ Unintentional injuries were the leading cause of death for all except black youth (for whom it was the second leading cause). The injury death rate for American Indians (89 per 100,000) was two to three times the injury rates for any other group. The lowest injury rate was for Asian

youth (29 per 100,000). Between 74 and 79 percent of injury deaths in this age group were motor vehicle fatalities, except among black youth where they accounted for 66 percent.

■ Homicide was the leading cause of death among black youth. The black homicide rate (59 per 100,000) was more than seven times the homicide rate for white youth (8 per 100,000). The homicide rates for American Indian and Hispanic youth were about three to four times the rate for white youth. The homicide rate for Asian youth (7 per 100,000) was similar to the rate for white youth.

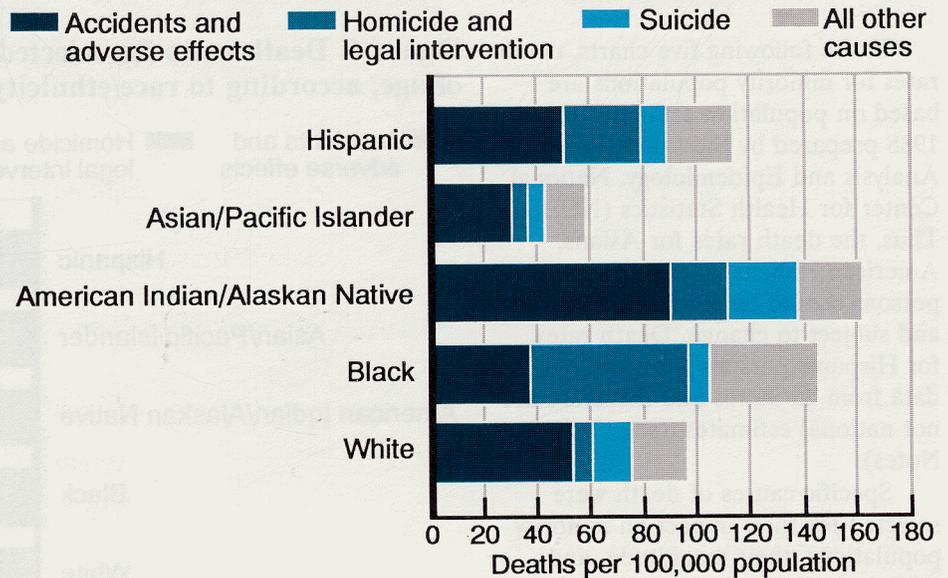
■ The suicide rate for American Indians was nearly twice that for white youth, 26 compared with 14 per 100,000. The suicide rates for Hispanic, black, and Asian youth were about 30–60 percent lower than the rate for white youth.

### Adults 25–44 Years of Age

■ In 1988, black adults 25–44 years had the highest death rate (367 per 100,000), 2.5 times the rate for white adults (149 per 100,000) (figure 8). The death rate for American Indian adults was second highest, 1.8 times the rate for white adults, while the death rate for Hispanic adults was about 25 percent higher than for white adults. Asians had the lowest rate, about half the rate for white adults.

■ Unintentional injuries were the leading cause of death for American Indian, Hispanic, Asian, and white persons. The rate for American Indians was nearly three times the rate for white adults (97 compared with 34 per 100,000). The injury rate for black adults was about 44 percent higher than for white adults, while the rate for Hispanics was about 20 percent higher than the rate for white adults. Asian adults had the lowest injury death rate (15 per 100,000), less than half the rate for white adults. About 6 of every 10 injury deaths among American Indians were motor vehicle fatalities; the motor vehicle death rate was 2.5 to five times the rate for any other

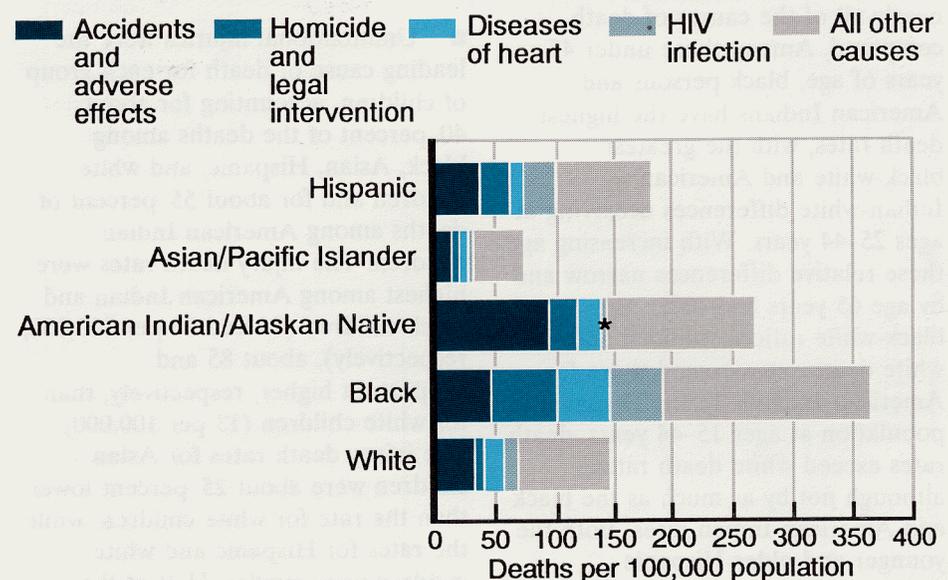
**Figure 7. Death rates for selected causes for persons 15–24 years of age, according to race/ethnicity: United States, 1988**



NOTE: Data on Hispanic origin are from 26 States and the District of Columbia.

SOURCE: National Center for Health Statistics, National Vital Statistics System, and U.S. Bureau of the Census, Current Population Surveys.

**Figure 8. Death rates for selected causes for persons 25–44 years of age, according to race/ethnicity: United States, 1988**



NOTE: Data on Hispanic origin are from 26 States and the District of Columbia.

SOURCE: National Center for Health Statistics, National Vital Statistics System, and U.S. Bureau of the Census, Current Population Surveys.

group. Similarly, the injury death rate for nonmotor vehicle causes was also considerably higher among American Indians than others.

■ Homicide was the leading cause of death for black adults 25–44 years of age. The homicide rate for black adults (56 per 100,000) was seven times the rate for white adults (8 per 100,000). The homicide rates for American Indian and Hispanic adults were similar and were three times that for white adults. The homicide rates for Asian and white adults were similar.

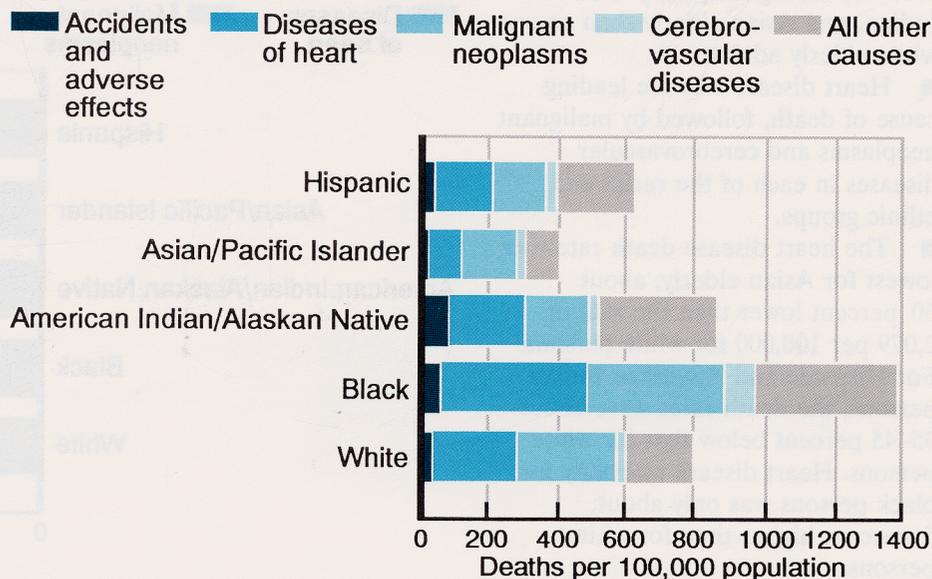
■ The heart disease death rate was also highest among black adults (44 per 100,000), about 2.6 times the rate among white adults (17 per 100,000). Compared with white adults, the rate for American Indians was similar, while the rates for Hispanic and Asian adults were about 30 percent and 60 percent lower, respectively.

■ Human immunodeficiency virus (HIV) infection was the second leading cause of death for Hispanic adults, and the fourth and fifth leading causes of death for black and white adults, respectively, ages 25–44. The death rate for HIV infection among black persons was 43 per 100,000, 3.6 times the rate among white adults (12 per 100,000). The rate for Hispanic adults was 2.3 times the rate for white adults. As a proportion of all deaths, HIV infection was responsible for 15 percent of Hispanic deaths, 12 percent of black deaths, and 8 percent of white deaths in this age group. HIV infection death rates among Asian and American Indian adults were about 70 percent below the rate for white adults, accounting for 1–4 percent of the deaths in these groups.

### Adults 45–64 Years of Age

■ In 1988, the death rate for black adults 45–64 years of age was 75 percent higher than for white persons (1,380 compared with 790 per 100,000) (figure 9). The death rate for American Indians was 8 percent higher than the rate for white persons while the rate for Hispanic adults was

**Figure 9. Death rates for selected causes for persons 45–64 years of age, according to race/ethnicity: United States, 1988**



NOTE: Data on Hispanic origin are from 26 States and the District of Columbia.

SOURCE: National Center for Health Statistics, National Vital Statistics System, and U.S. Bureau of the Census, Current Population Surveys.

23 percent lower and the rate for Asians was lowest, 49 percent below the rate for white persons. Malignant neoplasms and diseases of the heart were the two leading causes of death for all persons 45–64 years of age.

■ The death rate for heart disease was highest for black adults (426 per 100,000), 1.7 times the rate for white adults (244 per 100,000). The rate for American Indians was about 10 percent lower than that for white adults, while the rates for Hispanic and Asian adults were about 30 percent and 60 percent lower, respectively, than for white adults.

■ The death rate for malignant neoplasms was highest for black adults (401 per 100,000), 1.4 times the rate for white adults (289 per 100,000). The death rates for Hispanic and Asian adults were similar to each other, about half the rate among white adults, while the rate for American Indians was about 40 percent lower than among white adults.

■ The death rate for cerebrovascular diseases was also highest for black adults (86 per 100,000), about three times the rate among white adults (29 per 100,000).

The rates for American Indians, Asian, and Hispanic adults were similar to that for white adults.

■ Unintentional injuries were also among the leading causes of death in this age group. The rate was highest for American Indians (77 per 100,000). Compared with the rate of 31 per 100,000 for white adults, the injury death rate for black adults was nearly 70 percent higher; the rate for Hispanic adults was similar; and the rate for Asian adults was about 40 percent lower than the white injury death rate.

■ Among American Indians, the death rate from chronic liver disease and cirrhosis (77 per 100,000) was similar to that for injuries and was nearly two times the death rates for black and Hispanic adults, more than three times the rate for white adults, and nearly eight times that for Asian adults.

### Adults 65 Years of Age and Over

■ In 1988, the death rate among persons 65 years of age and over was highest for black persons, although only 11 percent higher than for white

older persons (figure 10). Death rates were considerably lower (30–50 percent) among Hispanic, American Indian, and Asian elderly than among white elderly adults.

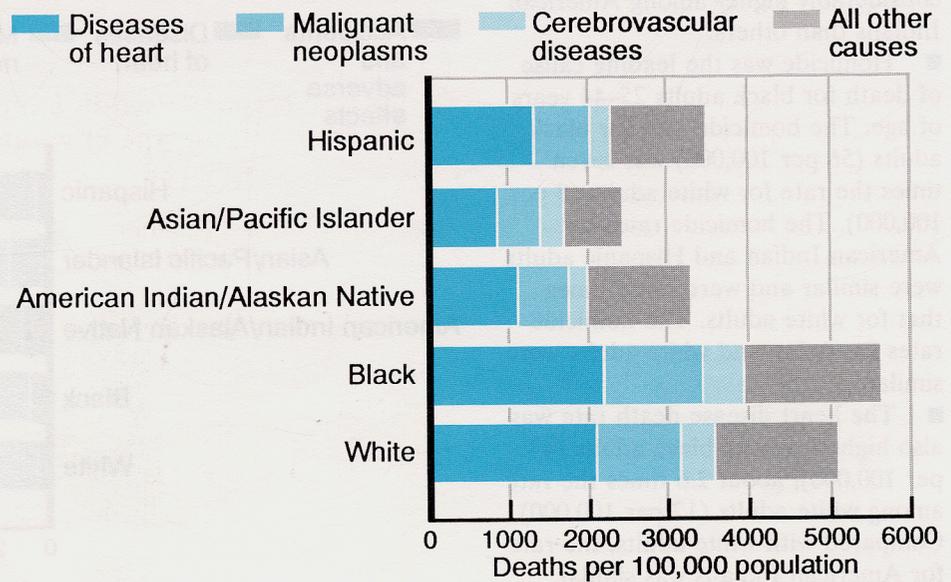
- Heart disease was the leading cause of death, followed by malignant neoplasms and cerebrovascular diseases in each of the racial and ethnic groups.

- The heart disease death rate was lowest for Asian elderly, about 60 percent lower than the rate of 2,079 per 100,000 for white persons. For Hispanic and American Indian persons, the death rates were about 35–45 percent below that for white persons. Heart disease mortality for black persons was only about 5 percent higher than for white persons.

- Death rates for malignant neoplasms were lowest for Asian (549 per 100,000) followed by American Indian and Hispanic older persons. The rate for Asians was nearly 50 percent lower, for American Indians about 45 percent lower, and the rate for Hispanics was nearly 40 percent lower than the rate for white persons (1,062 per 100,000). Cancer mortality for black persons was 17 percent higher than for white persons.

- Cerebrovascular diseases mortality was 36–42 percent lower for Hispanic, Asian, and American Indian older persons than for white persons, while it was 24 percent higher for black than white persons.

**Figure 10. Death rates for selected causes for persons 65 years of age and over, according to race/ethnicity: United States, 1988**



NOTE: Data on Hispanic origin are from 26 States and the District of Columbia.

SOURCE: National Center for Health Statistics, National Vital Statistics System, and U.S. Bureau of the Census, Current Population Surveys.

# Weapons in Homicides

Homicide claimed 22,000 lives in the United States in 1988. The total U.S. homicide rate was 9.0 per 100,000, and homicide was the leading cause of death among black males 15–24 and 25–34 years of age. Firearms were involved in 62 percent of all homicides in the United States in 1988 (1). The homicide rate in the United States continues to be 3–8 times higher than rates in most other industrialized countries (2).

■ *Healthy People 2000* targets the prevention of violence by reducing the homicide rate to no more than 7.2 per 100,000 persons, with special targets set for black males and females ages 15–34 years and Hispanic males ages 15–34 years as well as American Indians and Alaskan Natives.

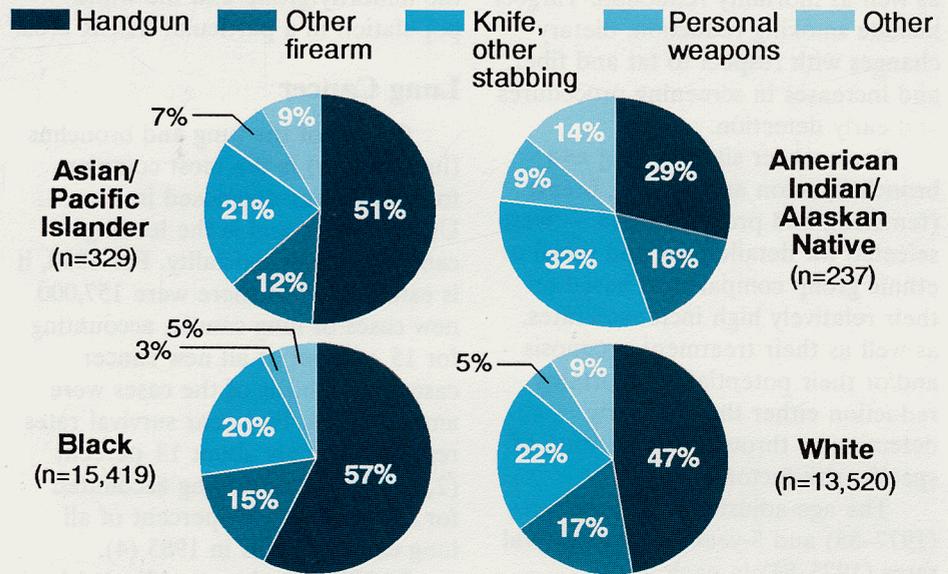
■ During the period 1986–88 more than half (57 percent) of all homicide victims were between 15 and 34 years of age. Based on data from the Federal Bureau of Investigation, about half of white, black, and Asian victims in this age range were murdered with a handgun and another 12–17 percent with other types of firearms (figure 11). Within the American Indian population, handgun use was substantially lower (29 percent).

■ Knives or other instruments for cutting or stabbing were used in about one-fifth of the homicides in which the victim was white, black, or Asian and in about one-third of the homicides of American Indians.

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**Figure 11. Weapons used in homicides among victims 15–34 years of age, according to type of weapon and race of victim: United States, 1986–88**



NOTE: Numbers of victims are in parentheses.

SOURCE: Federal Bureau of Investigation, Supplemental Homicide Reporting System.

# Cancer Incidence and Survival

In *Healthy People 2000*, the objectives for cancer focus on issues related to prevention and detection, as well as mortality reduction. Targets include smoking reduction, dietary changes with respect to fat and fiber, and increases in screening procedures and early detection.

Four cancer sites — lung and bronchus, colon and rectum, breast (females), and prostate gland — were selected for detailed sex and racial or ethnic group comparisons based on their relatively high incidence rates, as well as their treatment prognosis and/or their potential for mortality reduction either through early detection or through modification of specific risk factors.

The age-adjusted incidence rates (1977–83) and 5-year relative survival rates (1975–84) in each of the following eight charts are specific for the Surveillance, Epidemiology, and End Results (SEER) registry area from which the cancer data come (see Technical Notes) (1). These geographic-specific rates are necessary because there is geographic variation in cancer incidence and death rates. Thus, each chart shows three different rates for the white population. Rates for black and for Asian persons are compared with rates for white persons (regardless of ethnicity) and rates for Mexican Americans and for American Indians are compared with rates for non-Hispanic white persons. To illustrate the geographic differences, the age-adjusted lung cancer incidence rate among white males was 80.0 per 100,000 in the cancer registries of San Francisco, Detroit, Atlanta, and Connecticut, 77.5 per 100,000 in the San Francisco and Hawaii cancer registries, and 53.5 per 100,000 among non-Hispanic white males in the New Mexico registry (figure 12).

As a result of the geographic basis for these rates, comparisons are not made across minority groups (e.g.,

between Asians and black persons or between black persons and Mexicans), but rather are between the minority group and the white population in a particular SEER area.

## Lung Cancer

Cancer of the lung and bronchus (lung cancer) is the most common form of cancer diagnosed in the United States and is the leading cause of cancer mortality. For 1990, it is estimated that there were 157,000 new cases of lung cancer, accounting for 15 percent of all new cancer cases. Two-thirds of the cases were among males. Five-year survival rates remain low, only about 13 percent (2,3). Cigarette smoking accounted for an estimated 87 percent of all lung cancer deaths in 1985 (4).

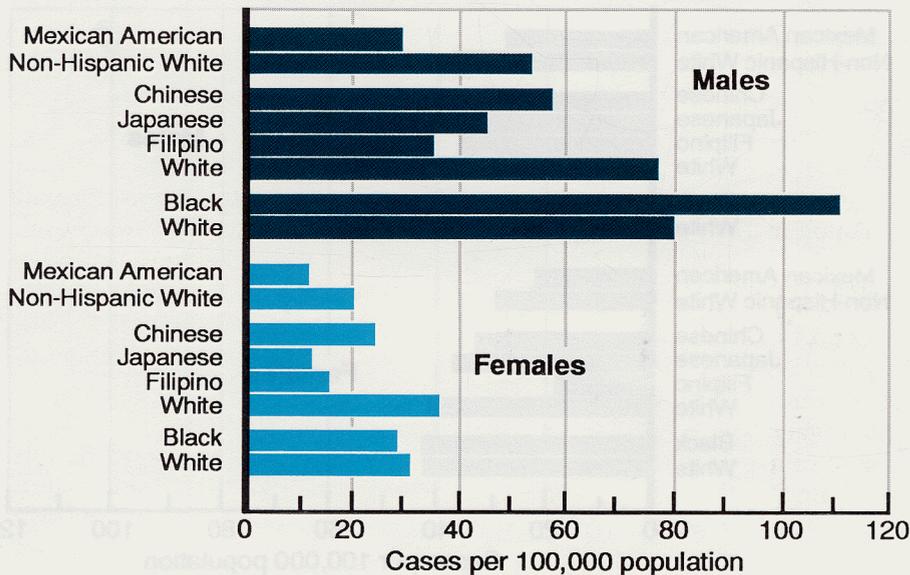
■ In 1977–83, the age-adjusted lung cancer incidence rate was about 40 percent higher for black than for white males, 111 compared with 80 per 100,000 but 10 percent lower for black than white females, 28 compared with 31 per 100,000 (figure 12). Relative survival rates for 1975–84 were slightly lower among black than white persons, 10 percent compared with 13 percent among males and 16 percent among females (figure 13).

■ Within the Asian populations, Filipino males had the lowest incidence rate for lung cancer (36 per 100,000), about 55 percent below the rate for white males (77 per 100,000). Rates for Japanese and Chinese males (57 and 45 per 100,000, respectively) were also much lower than for white males. Among females, the incidence rates among Japanese and Filipinos were about 60 percent lower, and among Chinese, about 30 percent lower than the rate among white females (36 per 100,000). Lung cancer survival rates were 13–15 percent for Asian and white males and 15–19 percent for Asian and white females.

■ Lung cancer incidence among Mexican Americans was about 45 percent lower than among non-Hispanic white persons, for both sexes. Survival rates, however, were similar for the two groups, 9 percent for Mexican American and 11 percent for non-Hispanic white males and 15 percent for both groups of females.

■ The major risk factor for lung cancer is smoking. Because lung cancer incidence reflects cumulative exposure to smoking, current smoking patterns will not be directly related to current lung cancer incidence unless smoking patterns have not changed. It is interesting to note that the age-adjusted smoking rates around 1980 showed that black males were about 20 percent more likely to smoke than white males. Smoking rates were similar for black and white females (table 55). Data for Asian populations are available for more recent years and show a much lower smoking rate among both males and females compared with either non-Hispanic white or non-Hispanic black persons (figure 26).

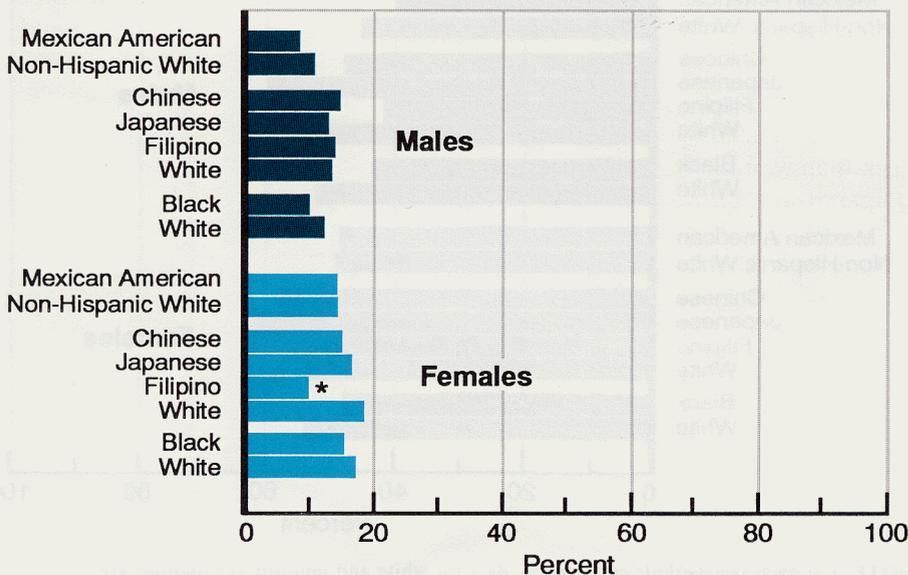
**Figure 12. Lung and bronchus cancer incidence rates, according to sex and race/ethnicity: Selected cancer registries, 1977–83**



NOTE: Rates are average annual age adjusted. For each racial/ethnic comparison, data for white and minority populations are geographic-specific. See Technical Notes.

SOURCE: National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER) Program registries (1).

**Figure 13. Lung and bronchus cancer 5-year relative survival rates, according to sex and race/ethnicity: Selected cancer registries, 1975–84**



NOTE: For each racial/ethnic comparison, data for white and minority populations are geographic-specific. See Technical Notes.

SOURCE: National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER) Program registries (1).

## Colorectal Cancer

An estimated 155,000 new cases of cancer of the colon and rectum were diagnosed in 1990 (3). Overall, colorectal cancer accounted for about 15 percent of all cancer diagnoses, second but almost equal to lung cancer. Relative survival rates, however, are much higher for colorectal cancer than for lung cancer.

■ Incidence of cancer of the colon and rectum was generally lower for minority populations than for white persons, but in most instances survival was somewhat better for white persons. In each population group, incidence was higher for males than for females, and females had slightly higher survival rates.

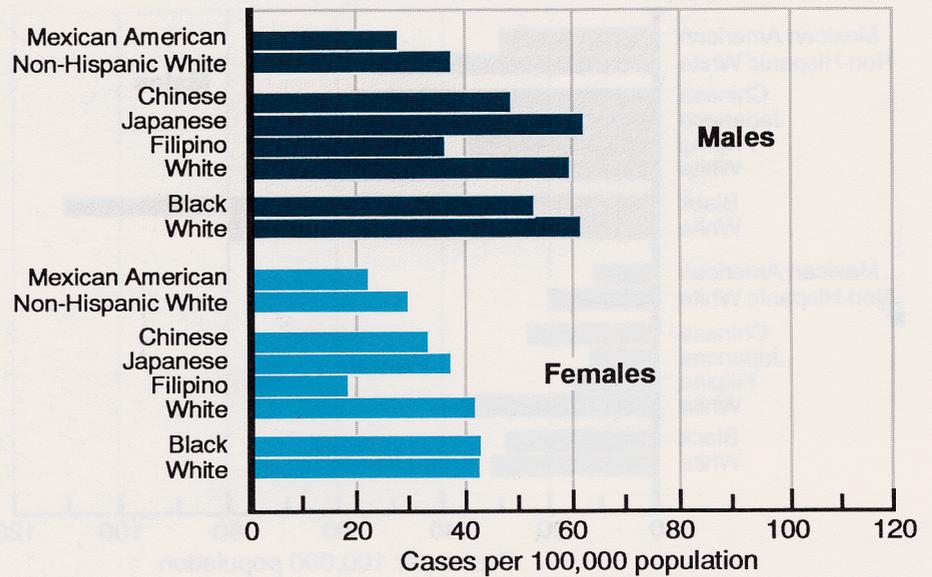
■ In 1977–83, the age-adjusted incidence rate was 15 percent lower among black than white males (53 compared with 62 per 100,000) (figure 14); rates were similar for black and white females (43 per 100,000). The 5-year relative survival rates for 1975–84, on the other hand, were 17 percent lower for black than white males, and 11 percent lower for black than white females (figure 15).

■ In the Asian populations, the incidence rate among Japanese males (62 per 100,000) was considerably higher than for Chinese or Filipino males, and was similar to the rate for white males (60 per 100,000). Filipino males and females had the lowest rates, with the rate for Filipino females 57 percent lower than the rate for white females (18 compared with 42 per 100,000). Survival rates were highest for the Japanese and lowest for Filipinos.

■ Colon and rectum cancer incidence rates were about 25 percent lower for Mexican Americans than for non-Hispanic white persons of both sexes. However, survival rates were slightly lower for the Mexican American males than for non-Hispanic white males (41 compared with 46 percent) and similar for Mexican American and non-Hispanic white females (50 percent).

■ Risk factors for colon and rectal cancer include personal or family

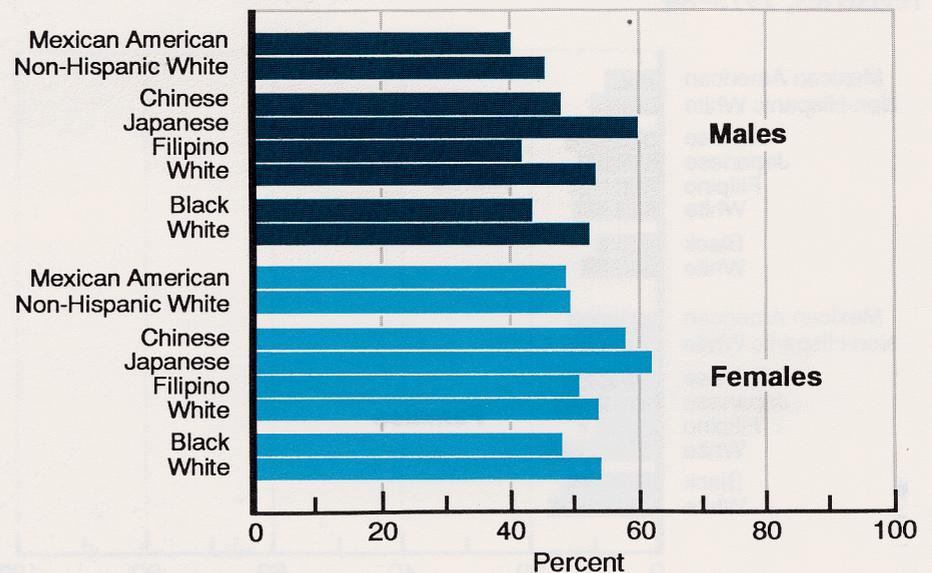
**Figure 14. Colon and rectum cancer incidence rates, according to sex and race/ethnicity: Selected cancer registries, 1977–83**



NOTE: Rates are average annual age adjusted. For each racial/ethnic comparison, data for white and minority populations are geographic-specific. See Technical Notes.

SOURCE: National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER) Program registries (1).

**Figure 15. Colon and rectum cancer 5-year relative survival rates, according to sex and race/ethnicity: Selected cancer registries, 1975–84**



NOTE: For each racial/ethnic comparison, data for white and minority populations are geographic-specific. See Technical Notes.

SOURCE: National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER) Program registries (1).

history of cancer or polyps of the colon or rectum and history of inflammatory bowel disease. A high fat and/or low fiber diet may be a causative factor (2). Early detection

of colorectal cancer has improved through use of blood testing, sigmoidoscopy, and regular examinations.

## Breast Cancer

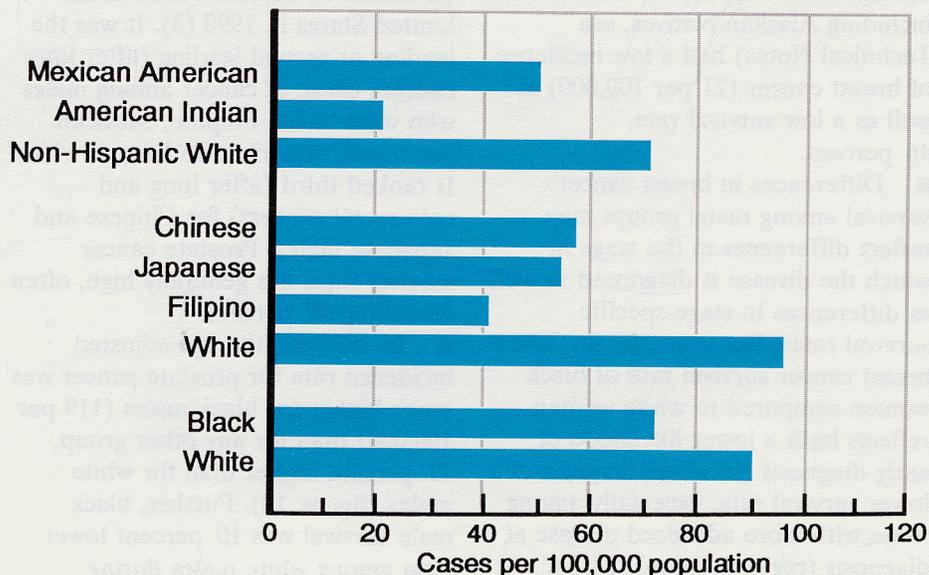
In 1990, an estimated 150,000 new cases of breast cancer were diagnosed among women. Breast cancer is the leading cause of cancer for females and the third leading site overall. It is estimated that approximately 1 in 10 women will develop breast cancer in their lifetime. The incidence of breast cancer has increased more than 1 percent per year since the early 1970's (table 50). 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 (2,3). In 1987, breast cancer was the leading cause of death due to cancer among white and black females ages 25–54 years and for those 85 years of age and over. For all other ages, it ranked second to lung cancer (tables 30 and 31).

■ In 1977–83, the age-adjusted incidence rate for breast cancer was higher than for any other individual cancer site among females in each of the minority and white population groups (figure 16). The 5-year survival rates for breast cancer during 1975–84 were among the highest of any site, exceeding 70 percent, for each racial group, except among American Indian and black females (figure 17).

■ Breast cancer incidence was much lower in each of the minority female populations than among white females. The incidence rate for black females was 20 percent lower than for white females (73 compared with 91 per 100,000). Five-year relative survival rates were lower for black than white females (63 percent compared with 76 percent).

■ Breast cancer incidence rates for Filipino females (41 per 100,000) were 57 percent lower, and rates for Chinese and Japanese females (about 56 per 100,000) were 42 percent lower than for white females (97 per 100,000). Survival rates among Asian females were relatively similar to the rate for white females (78 percent). Within the Asian populations, Japanese women had the highest

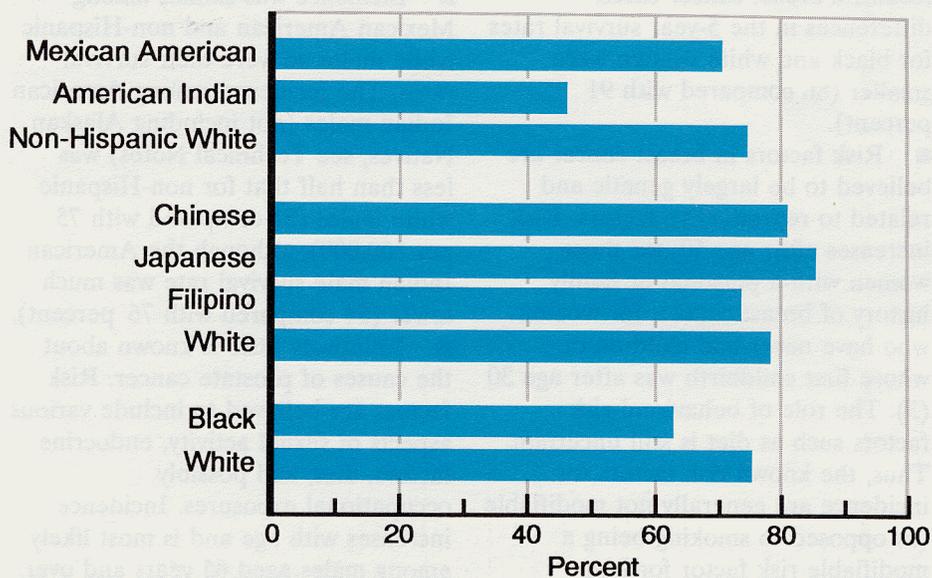
**Figure 16. Breast cancer incidence rates among females, according to race/ethnicity: Selected cancer registries, 1977–83**



NOTE: Rates are average annual age adjusted. For each racial/ethnic comparison, data for white and minority populations are geographic-specific. See Technical Notes.

SOURCE: National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER) Program registries (1).

**Figure 17. Breast cancer 5-year relative survival rates among females, according to race/ethnicity: Selected cancer registries, 1975–84**



NOTE: For each racial/ethnic comparison, data for white and minority populations are geographic-specific. See Technical Notes.

SOURCE: National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER) Program registries (1).

survival rates (85 percent) and Filipino women the lowest (74 percent).

■ Among Mexican American females, breast cancer incidence was 29 percent lower than the rate for

non-Hispanic white females (72 per 100,000) while survival rates were similar. American Indian females (not including Alaskan Natives, see Technical Notes) had a low incidence of breast cancer (21 per 100,000) as well as a low survival rate, 46 percent.

■ Differences in breast cancer survival among racial groups may reflect differences in the stage at which the disease is diagnosed as well as differences in stage-specific survival rates. For example, the lower breast cancer survival rate of black women compared to white women reflects both a lower likelihood of early diagnosis (localized stage) and a lower survival rate, especially among those with more advanced disease at diagnosis (regional stage) (2). In 1974–86, 41 percent of black women with breast cancer were diagnosed with localized disease compared with 49 percent of white women. Further, among women with breast cancer that was regional at diagnosis, 5-year survival rates were 56 percent for black women compared with 70 percent for white women. For localized breast cancer cases, differences in the 5-year survival rates for black and white women were smaller (86 compared with 91 percent).

■ Risk factors in breast cancer are believed to be largely genetic and related to reproductive factors. Risk increases after age 50; for those women with a personal or family history of breast cancer; for women who have never had children or whose first childbirth was after age 30 (3). The role of behavioral risk factors such as diet is still uncertain. Thus, the known risk factors for incidence are generally not modifiable (as opposed to smoking being a modifiable risk factor for lung cancer). However, it is clear that early detection of breast cancer through mammography and self-examination can improve survival rates. If breast cancer is diagnosed in situ (noninvasive) and treated, the survival rate approaches 100 percent (3).

## Prostate Cancer

Prostate cancer was diagnosed in an estimated 106,000 males in the United States in 1990 (3). It was the leading or second leading (after lung cancer) cause of cancer among males who were black, Filipino, Mexican American, American Indian, or white. It ranked third (after lung and colo-rectal cancers) for Chinese and Japanese males. Prostate cancer survival rates are generally high, often exceeding 70 percent.

■ In 1977–83, the age-adjusted incidence rate for prostate cancer was much higher for black males (119 per 100,000) than for any other group, 71 percent higher than for white males (figure 18). Further, black male survival was 10 percent lower than among white males during 1975–84 (figure 19).

■ Prostate cancer incidence was much lower among Asian than white males. Rates for Chinese males were the lowest (30 per 100,000), less than half the rate for white males. Survival was similar for Asian and white males with the Japanese doing somewhat better than the others.

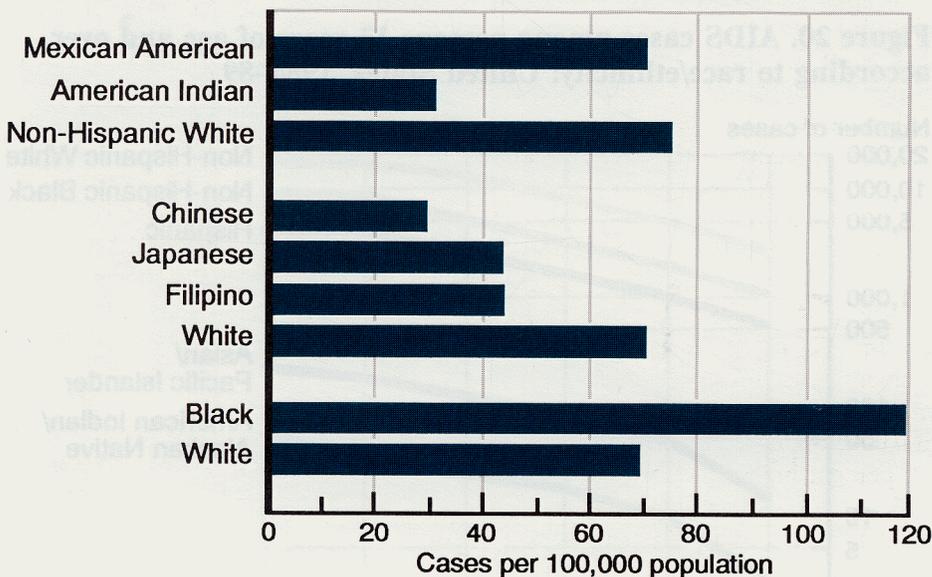
■ Incidence was similar among Mexican American and non-Hispanic white males as were their survival rates. The incidence among American Indian males (not including Alaskan Natives, see Technical Notes) was less than half that for non-Hispanic white males (31 compared with 75 per 100,000), although the American Indian male survival rate was much lower (54 compared with 76 percent).

■ Relatively little is known about the causes of prostate cancer. Risk factors are believed to include various aspects of sexual activity, endocrine factors, diet, and possibly occupational exposures. Incidence increases with age and is most likely among males aged 65 years and over. Further, incidence is higher in unmarried than in married males (2,5).

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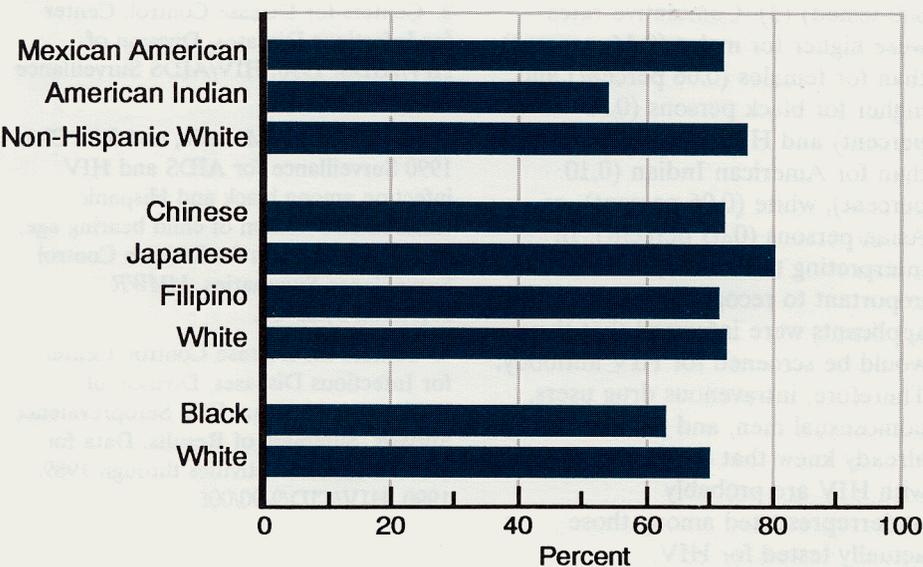
**Figure 18. Prostate gland cancer incidence rates among males, according to race/ethnicity: Selected cancer registries, 1977–83**



NOTE: Rates are average annual age adjusted. For each racial/ethnic comparison, data for white and minority populations are geographic-specific. See Technical Notes.

SOURCE: National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER) Program registries (1).

**Figure 19. Prostate gland cancer 5-year relative survival rates among males, according to race/ethnicity: Selected cancer registries, 1975–84**



NOTE: For each racial/ethnic comparison, data for white and minority populations are geographic-specific. See Technical Notes.

SOURCE: National Cancer Institute, Surveillance, Epidemiology, and End Results (SEER) Program registries (1).

# Trends in AIDS

Before 1983 there were only a total of 800 reported cases of acquired immunodeficiency syndrome (AIDS); during 1989 over 33,000 adolescent and adult AIDS cases were reported. In 1988, human immunodeficiency virus (HIV) infection was the 4th leading cause of death among persons 25–44 years of age and the 6th leading cause among persons 15–24 years of age (1).

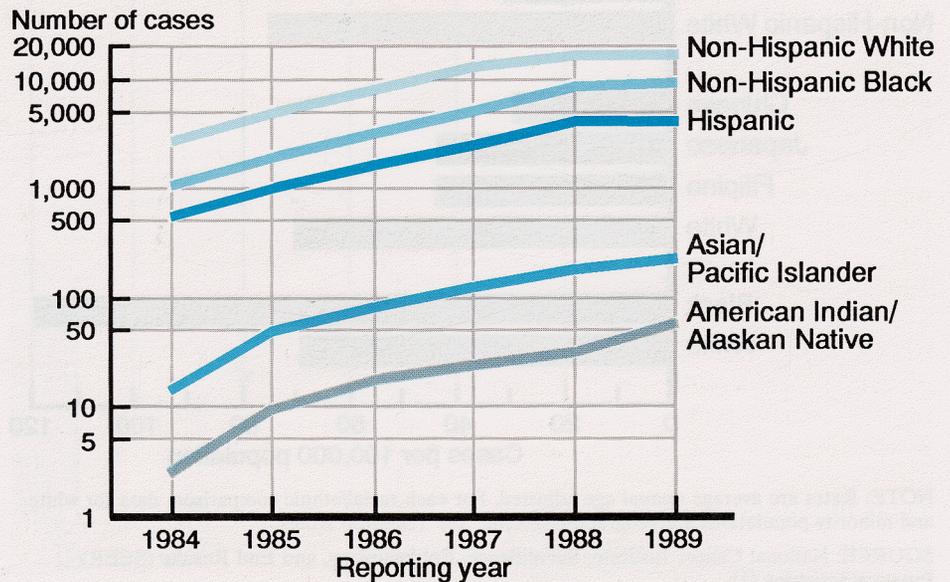
■ The *Healthy People 2000* objectives for HIV/AIDS include confining the annual incidence of diagnosed AIDS cases to no more than 98,000 cases and confining the prevalence of HIV to no more than 800 per 100,000 population. Risk reduction objectives and objectives related to services and protection are also included. Current estimates of the total number of persons infected with HIV range from 800,000 to 1.3 million.

■ From 1986 to 1989, the annual numbers of incident cases of AIDS among non-Hispanic black and American Indian persons aged 13 years and over tripled, while they increased by factors of 2.4–2.6 for Hispanic, non-Hispanic white, and Asian persons (figure 20).

■ Estimates for 1989 from the Center for Infectious Diseases indicate that the risk of AIDS among non-Hispanic black and Hispanic adolescents and adults was 3–4 times the risk for non-Hispanic white persons, while for Asian and American Indian adolescents and adults the risk was one-third to one-half that of non-Hispanic white persons (2). Further, the annual incidence rates of AIDS among children and among women of childbearing age have been increasing more among black and Hispanic population groups than among other racial groups (3).

■ The cumulative HIV seroprevalence of civilian applicants for the military service from October 1985 to December 1989 was 0.12 percent (about 1 positive for every

**Figure 20. AIDS cases among persons 13 years of age and over, according to race/ethnicity: United States, 1984–89**



NOTE: 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. Data are as of September 30, 1990.

SOURCE: Centers for Disease Control, Center for Infectious Diseases, HIV/AIDS Surveillance data.

800 tested) (3). Cumulative rates were higher for males (0.14 percent) than for females (0.06 percent) and higher for black persons (0.35 percent) and Hispanics (0.19 percent) than for American Indian (0.10 percent), white (0.06 percent), or Asian persons (0.05 percent). In interpreting these data, it is important to recognize that potential applicants were informed that they would be screened for HIV antibody. Therefore, intravenous drug users, homosexual men, and persons who already knew that they were infected with HIV are probably underrepresented among those actually tested for HIV.

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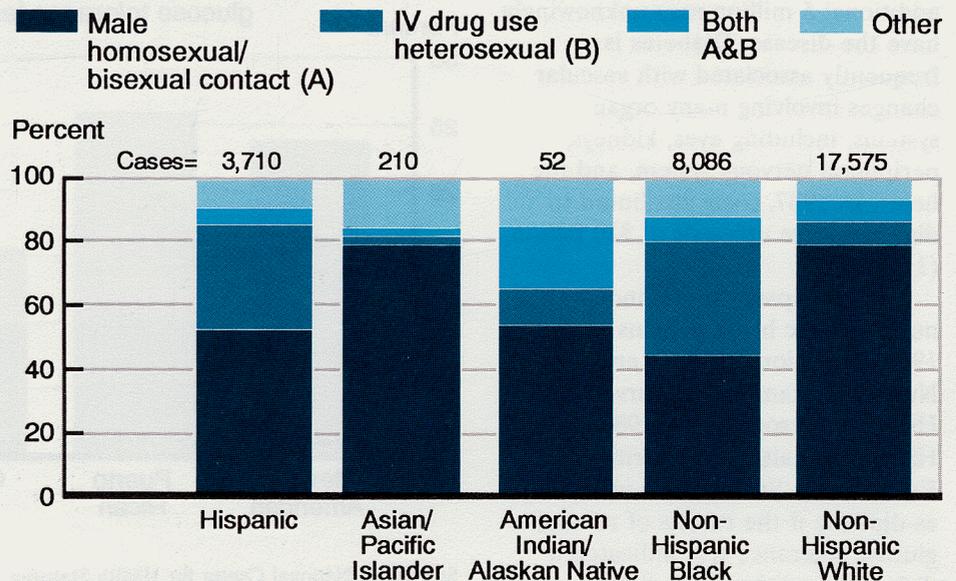
# AIDS Mode of Transmission

Patterns in the transmission of acquired immunodeficiency syndrome (AIDS) differ for males and females and also among racial and ethnic groups. For cases reported in 1989, the major categories of transmission among adolescent and adult males were homosexual/bisexual contact (66 percent), IV drug use (18 percent), or both (7 percent). For females, the major modes of transmission were IV drug use (52 percent) or heterosexual contact (33 percent), most of which resulted from sex with IV drug users (table 46).

■ In 1989, among non-Hispanic white and Asian males with AIDS about 79 percent contracted AIDS through homosexual/bisexual contact compared with 44 percent of non-Hispanic black, 52 percent of Hispanic males, and 54 percent of American Indian males (figure 21). Further, 3–12 percent of the Asian, non-Hispanic white, and American Indian male cases resulted from IV drug use compared with 32–36 percent of Hispanic and non-Hispanic black cases.

■ In 1989, among non-Hispanic black and Hispanic females with AIDS, 77–81 percent of AIDS cases resulted from either direct IV drug use or from heterosexual contact with IV drug users compared with 57 percent of cases among non-Hispanic white females (figure 22). Heterosexual contact accounts for a large proportion of female AIDS cases, 37 percent among Hispanic females and 31–33 percent among non-Hispanic white and black females. Twenty percent of all non-Hispanic white female cases resulted from the receipt of blood transfusions, blood components, or tissue, whereas this type of transmission accounted for 3–4 percent of cases for non-Hispanic black and Hispanic females. Data for Asian and American Indian females are not shown because there were only 19 and 9 cases, respectively, reported in 1989.

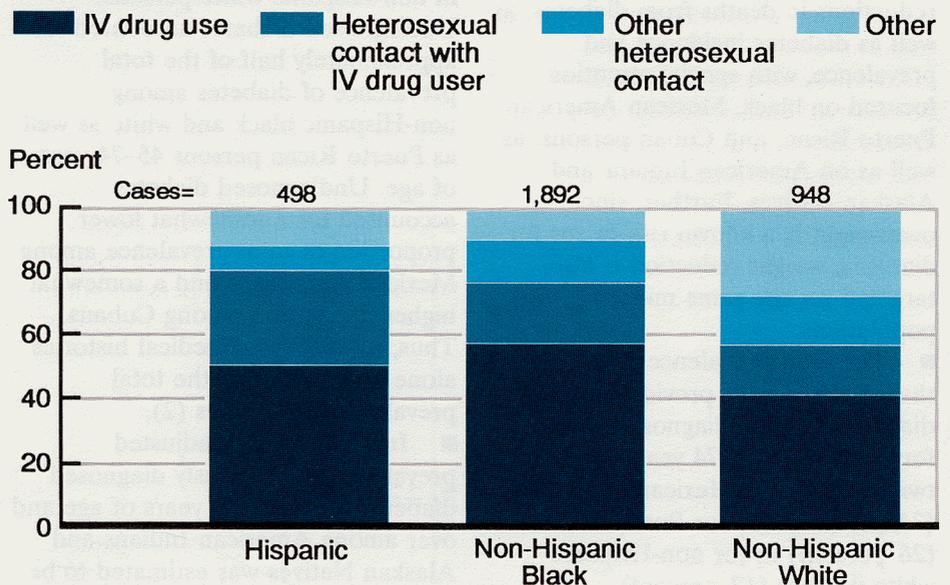
**Figure 21. Transmission mode of AIDS cases among males 13 years of age and over, according to race/ethnicity: United States, 1989**



NOTE: Excludes residents of U.S. territories. Data are as of September 30, 1990.

SOURCE: Centers for Disease Control, Center for Infectious Diseases, HIV/AIDS Surveillance data.

**Figure 22. Transmission mode of AIDS cases among females 13 years of age and over, according to race/ethnicity: United States, 1989**



NOTE: Excludes residents of U.S. territories. Data are as of September 30, 1990.

SOURCE: Centers for Disease Control, Center for Infectious Diseases, HIV/AIDS Surveillance data.

# Diabetes

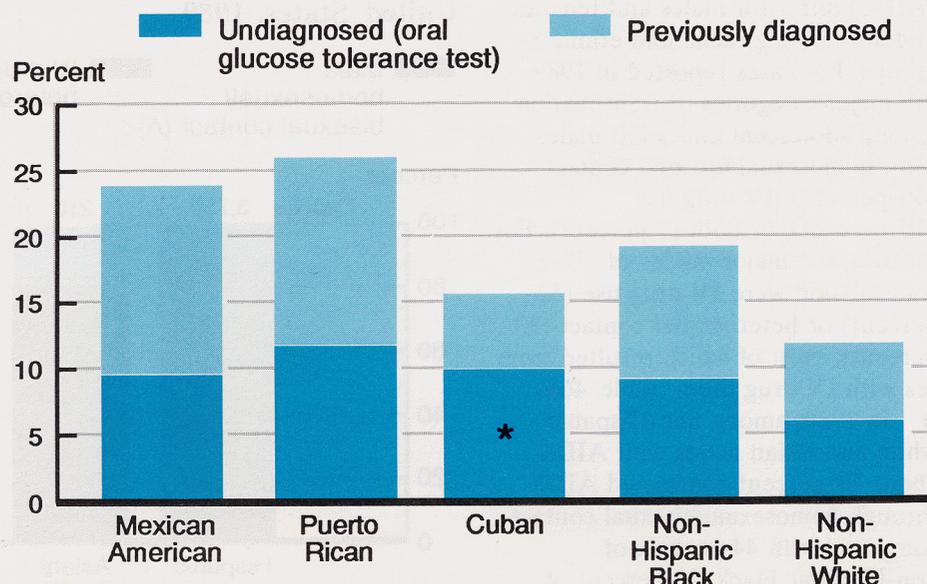
Diabetes mellitus is a disease characterized by abnormal glucose metabolism. An estimated 7 million people in the United States have been diagnosed with diabetes, and an additional 5 million may unknowingly have the disease. Diabetes is frequently associated with vascular changes involving many organ systems, including eyes, kidneys, peripheral nervous system, and the heart. In 1987, costs attributed to diabetes were upwards of \$20 billion (1).

Non-Hispanic white and non-Hispanic black persons in the 1976–80 National Health and Nutrition Examination Survey II and Hispanic persons in the 1982–84 Hispanic Health and Nutrition Examination Survey were identified as diabetic if the results of an oral glucose tolerance test indicated a diabetic condition or if diabetes was self-reported during the medical history. In the 1987 Survey of American Indians and Alaskan Natives (SAIAN), the prevalence of diabetes was also measured by reports from respondents or their families.

■ *Healthy People 2000* targets reductions in deaths from diabetes, as well as diabetes incidence and prevalence, with special attention focused on black, Mexican American, Puerto Rican, and Cuban persons, as well as on American Indians and Alaskan Natives. Further, since overweight is a known risk factor for diabetes, weight reduction is also targeted for the same minority populations.

■ The total prevalence of diabetes, that is, the sum of previously diagnosed and undiagnosed diabetes, for those aged 45–74 years of age was twice as high for Mexican Americans (24 percent) and for Puerto Ricans (26 percent) as for non-Hispanic white persons (12 percent) (figure 23). The prevalence of diabetes among Cubans was similar to that for non-Hispanic white persons. The prevalence of diabetes among

**Figure 23. Diabetes prevalence among persons 45–74 years of age, according to race/ethnicity: United States, 1976–80 and 1982–84**



SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey II, 1976–80 and Hispanic Health and Nutrition Examination Survey, 1982–84 (2).

non-Hispanic black persons was 1.6 times that for non-Hispanic white persons.

■ The prevalence of undiagnosed diabetes was higher among Puerto Ricans and Mexican Americans than in non-Hispanic white persons. Undiagnosed diabetes accounted for approximately half of the total prevalence of diabetes among non-Hispanic black and white as well as Puerto Rican persons 45–74 years of age. Undiagnosed diabetes accounted for a somewhat lower proportion of total prevalence among Mexican Americans and a somewhat higher proportion among Cubans. Thus, reports from medical histories alone underestimate the total prevalence of diabetes (2).

■ In 1987, the age-adjusted prevalence of previously diagnosed diabetes for those 19 years of age and over among American Indians and Alaskan Natives was estimated to be more than twice that of the U.S. civilian noninstitutionalized population (13 compared with 5 percent) with equally large

differences for males (11 compared with 5 percent) and for females (13 compared with 6 percent). While other studies confirm the high diabetes rate among American Indians, considerable differences in diabetes rates among various tribes are evident (3).

## References

1. U.S. Department of Health and Human Services. 1990. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. Public Health Service. Washington: U.S. Government Printing Office.
2. Flegal, K.M. et al. In press. Prevalence of diabetes in Mexican Americans, Cubans and Puerto Ricans from the Hispanic Health and Nutrition Examination Survey, 1982–84. *Diabetes Care*.
3. Johnson, A.E. and A.K. Taylor. 1990. Prevalence of chronic diseases in the American Indian and Alaska Native population, 1987. Forthcoming from the Agency for Health Care Policy and Research Findings.

# Overweight

Being overweight has adverse effects on health and longevity; severe overweight is associated with increased risks of hypertension, hypercholesterolemia, noninsulin dependent diabetes, and certain cancers and has significant psychosocial consequences (1). Overweight is defined as excess body weight for height; the criterion was body mass index at or above the sex-specific 85th percentile of the National Health and Nutrition Examination Survey (NHANES) II reference population aged 20–29 years. Data for non-Hispanic persons are from the 1976–80 NHANES II, and data for Hispanic persons are from the 1982–84 Hispanic Health and Nutrition Examination Survey.

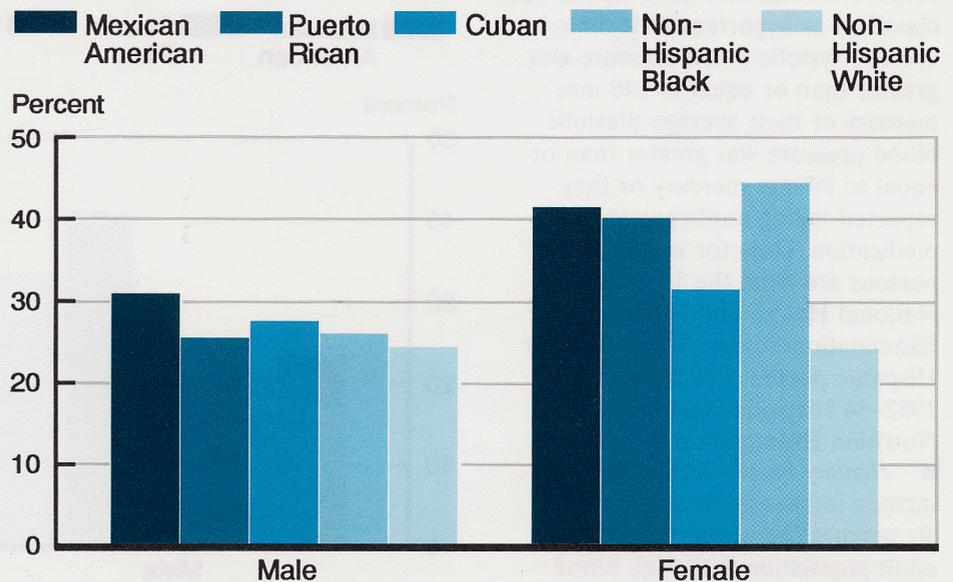
■ *Healthy People 2000* includes reducing the prevalence of overweight among persons 20–74 years of age to no more than 20 percent, with special targets for black women (30 percent), Hispanic women (25 percent), and American Indian and Alaskan Native men and women (30 percent).

■ The age-adjusted prevalence of overweight was similarly high among non-Hispanic black (44 percent), Mexican American (42 percent), and Puerto Rican (40 percent) females compared with non-Hispanic white females (24 percent) (figure 24). The prevalence of overweight among Cuban females fell midway between that for non-Hispanic white and other females. In general, family income below the poverty level was associated with higher prevalence of overweight in females.

■ Among males, there was much less variation by ethnicity and race. Non-Hispanic white males had the lowest prevalence of overweight (24 percent) and Mexican Americans the highest (31 percent). The prevalence of overweight among males varied little with poverty status.

■ Overweight is more prevalent among females than males in all groups except non-Hispanic white persons.

**Figure 24. Overweight persons 20–74 years of age, according to race/ethnicity: United States, 1976–80 and 1982–84**



NOTE: Percents are age adjusted. Data for females exclude pregnant women.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey II, 1976–80 and Hispanic Health and Nutrition Examination Survey, 1982–84 (1).

## Reference

1. Life Sciences Research Office. 1989. *Nutrition Monitoring in the United States—An Update Report on Nutrition Monitoring*. Federation of American Societies for Experimental Biology. 1989. DHHS Pub. No. 89-1255. Washington: U.S. Government Printing Office.

# Hypertension

Hypertension is an important risk factor for coronary heart disease and cerebrovascular disease. Persons were classified as hypertensive if their average systolic blood pressure was greater than or equal to 140 mm mercury or their average diastolic blood pressure was greater than or equal to 90 mm mercury or they reported taking antihypertensive medication. Data for non-Hispanic persons are from the 1976–80 National Health and Nutrition Examination Survey II and data for Hispanic persons are from the 1982–84 Hispanic Health and Nutrition Examination Survey.

■ *Healthy People 2000* objectives include increasing to at least 50 percent the proportion of the adult population with high blood pressure who maintain control of their high blood pressure. A related objective calls for the reduction of overweight among hypertensive persons.

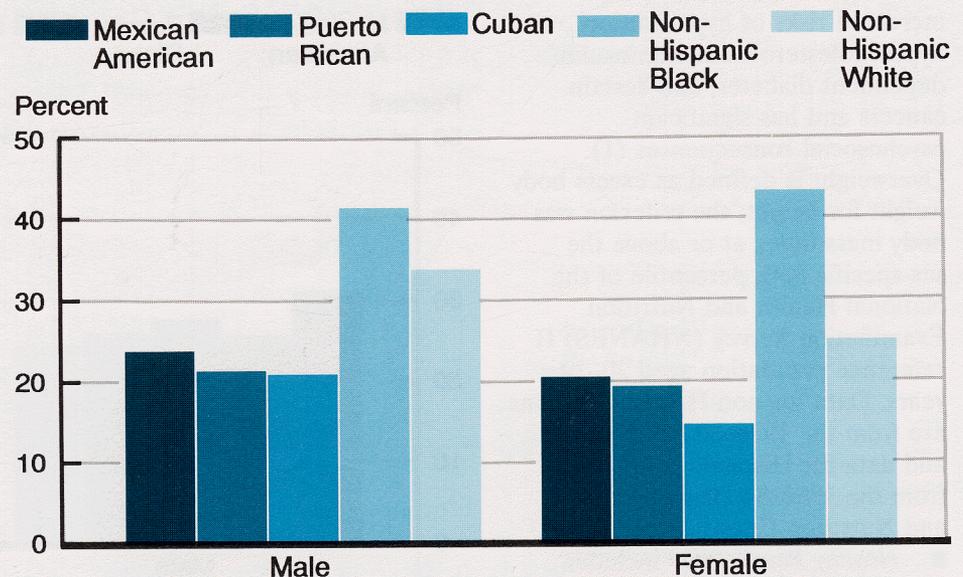
■ The age-adjusted prevalence of hypertension was much lower among Hispanic persons and much higher among non-Hispanic black persons than among non-Hispanic white persons (figure 25). Non-Hispanic black males had 23 percent higher prevalence of hypertension than non-Hispanic white males.

Hypertension estimates for Cuban and Puerto Rican males were about 40 percent lower and for Mexican American males, about 30 percent lower than for non-Hispanic white males.

■ Hispanic females also had lower prevalence estimates of hypertension compared with non-Hispanic white females, although the differences by ethnicity were not as large as among males. Cuban females had the lowest prevalence, 14 percent. Hypertension among non-Hispanic black females was 1.7 times the prevalence among non-Hispanic white females.

■ Recent data suggest that long-term control of hypertension has increased from 11 percent in 1976–80 to 24 percent in 1982–84 (1).

**Figure 25. Hypertension among persons 20–74 years of age, according to race/ethnicity: United States, 1976–80 and 1982–84**



NOTE: Percents are age adjusted. Data for females exclude pregnant women.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey II, 1976–80 and Hispanic Health and Nutrition Examination Survey, 1982–84 (4).

Successful control has generally been higher for females than for males. Cuban females were as likely as Cuban males, but Mexican and Puerto Rican males were less likely than females in those groups, to control their blood pressures (2).

■ Data from the 1987 Survey of American Indians and Alaskan Natives (SAIAN) indicate that for persons 19 years of age and over, the age-adjusted prevalence of hypertension (based on self-reporting) was similar to that for the total U.S. civilian noninstitutionalized population. For males, age-adjusted rates of hypertension (based on self-reporting) were 23 and 22 percent for the SAIAN and U.S. populations and for females, the rates were 22 and 23 percent, respectively (3).

## References

1. U.S. Department of Health and Human Services. 1990. *Healthy People 2000: National Health Promotion and*

*Disease Prevention Objectives*. Public Health Service. Washington: U.S. Government Printing Office.

2. Pappas, G., P.J. Gergen, and M. Carroll. 1990. Hypertension prevalence and the status of awareness, treatment, and control in the Hispanic Health and Nutrition Examination Survey, 1982–84. *Am. J. Public Health* 80:1431–6.

3. Johnson, A.E. and A.K. Taylor. 1990. Prevalence of chronic diseases in the American Indian and Alaska Native population, 1987. Forthcoming from the Agency for Health Care Policy and Research Findings.

4. Life Sciences Research Office. 1989. *Nutrition Monitoring in the United States—An Update Report on Nutrition Monitoring*. Federation of American Societies for Experimental Biology. 1989. DHHS Pub. No. 89–1255. Washington: U.S. Government Printing Office.

# High Serum Cholesterol

High serum cholesterol is a known modifiable risk factor for cardiovascular disease. Both coronary heart disease morbidity and mortality increase with increases in blood cholesterol levels. An estimated 60 million American adults require medical advice and intervention to lower their blood cholesterol levels (1). High serum cholesterol is defined as 240 milligrams per deciliter (mg/dl) or more (2). Data for non-Hispanic persons are from the 1976–80 NHANES II (3) and data for Hispanic persons are from the 1982–84 Hispanic Health and Nutrition Examination Survey (4).

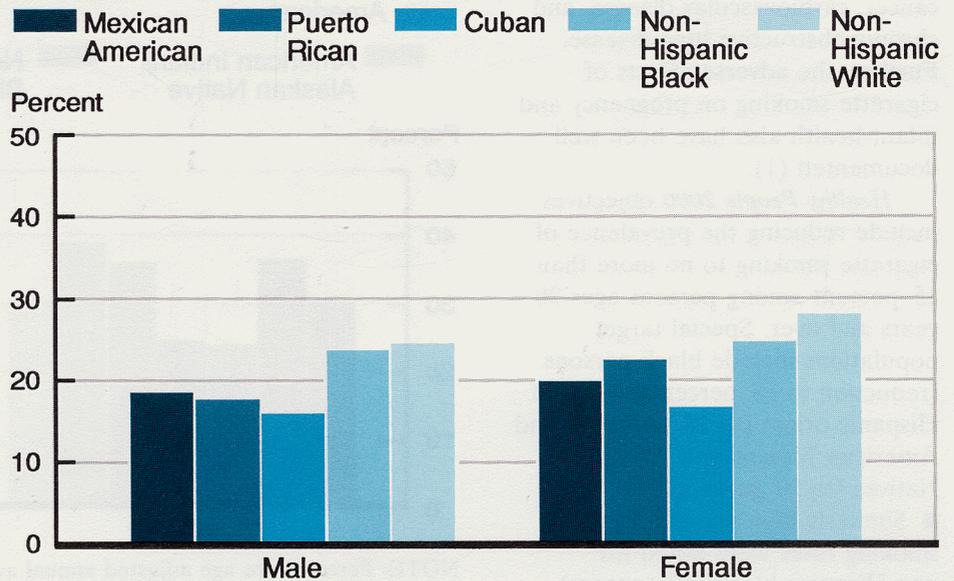
■ *Healthy People 2000* includes an objective to reduce the prevalence of blood cholesterol levels of 240 mg/dl or greater to no more than 20 percent among adults.

■ The age-adjusted prevalence of high serum cholesterol was lower among Hispanic than non-Hispanic populations. There was relatively little difference among the three Hispanic populations for either males or females. Among Hispanic males, the proportions ranged from 16 percent for Cuban men to 19 percent for Mexican American men (figure 26). Among non-Hispanics, 24 percent of black males and 25 percent of white males had high serum cholesterol. Among Hispanic females, the proportions with high serum cholesterol ranged from 17 percent among Cuban women to 23 percent among Puerto Rican women. Compared with Hispanic females, the proportions were generally higher among non-Hispanic black and white females, 25 and 28 percent, respectively.

## References

1. Sempos, C., Fulwood, R., Haines, C., et al. 1989. The prevalence of high blood cholesterol levels among adults in the United States. *JAMA* 262:45–52.
2. National Cholesterol Education Program. Expert Panel on Detection,

**Figure 26. High serum cholesterol among persons 20–74 years of age, according to race/ethnicity: United States, 1976–80 and 1982–84**



NOTE: Percents are age adjusted. High serum cholesterol is defined as 240 mg/dl or more.

SOURCE: National Center for Health Statistics, National Health and Nutrition Examination Survey II, 1976–80 and Hispanic Health and Nutrition Examination Survey, 1982–84 (3,4).

Evaluation and Treatment of High Blood Cholesterol in Adults, November 1987. *Archives of Internal Medicine*: Jan. 1988, 148:36–69.

3. Unpublished data from NHANES II.

4. Carroll, M., Sempos, C., Fulwood, R., et al. 1990. Serum lipids and lipoproteins of Hispanics, 1982–84. *National Center for Health Statistics. Vital Health Stat* 11(240).

# Cigarette Smoking

Cigarette smoking has been identified as the single most avoidable cause of death in the United States. Some 400,000 lives are lost each year from smoking, primarily from lung cancer, cardiovascular disease, and chronic obstructive lung disease. Further, the adverse effects of cigarette smoking on pregnancy and infant health also have been well documented (1).

*Healthy People 2000* objectives include reducing the prevalence of cigarette smoking to no more than 15 percent among persons ages 20 years and over. Special target populations include black persons (reduction to 18 percent), those of Hispanic origin (to 18 percent), and American Indians and Alaskan Natives (to 20 percent).

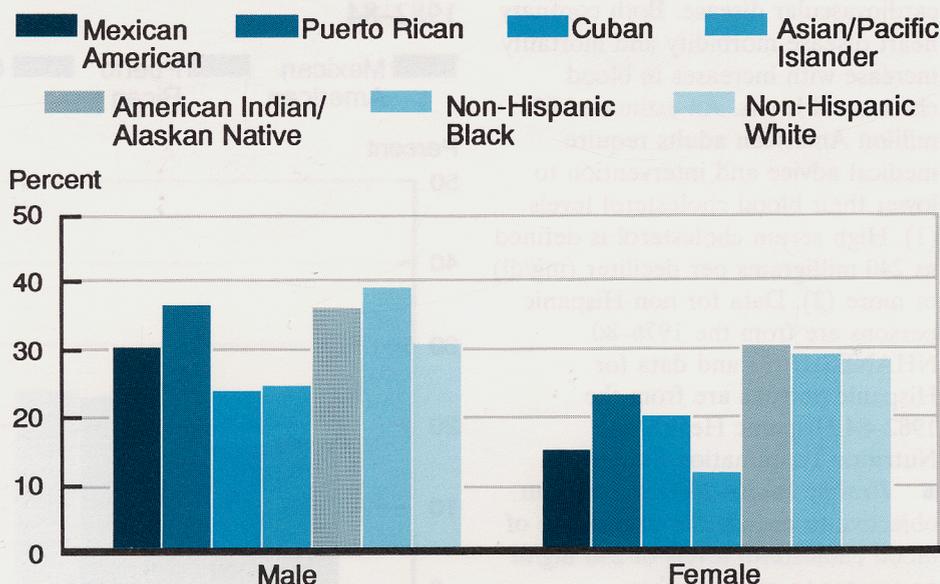
■ Similarly high age-adjusted smoking rates were noted for non-Hispanic black (39 percent), American Indian (37 percent), and Puerto Rican (37 percent) males compared with much lower rates among Asian (25 percent) and Cuban (24 percent) males during 1985 and 1987 (figure 27). Non-Hispanic white and Mexican American males had smoking rates that fell between these percents.

■ Age-adjusted smoking rates among females were equally high for non-Hispanic white and black females (29 percent) and American Indian (31 percent) females, with lower rates noted for Puerto Rican (23 percent) and Cuban (20 percent) females. Smoking rates were lowest for Asian (12 percent) and Mexican American females (16 percent).

■ In each racial and ethnic group except non-Hispanic white persons, the age-adjusted prevalence of cigarette smoking was higher for males than for females. Among non-Hispanic white males and females, smoking rates were similar (31 percent compared with 29 percent).

■ Data on cigarette smoking from the Hispanic Health and Nutrition Examination Survey (HHANES) for

**Figure 27. Current cigarette smokers among persons 18 years of age and over, according to sex and race/ethnicity: United States, 1985 and 1987**



NOTE: Percents are age adjusted annual averages.

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

1982–84 show that the prevalence of current smoking was higher among Mexican Americans, Cubans, and Puerto Ricans than indicated by the National Health Interview Survey for 1985 and 1987 (2). The age-adjusted smoking rates from the HHANES for Mexican American, Puerto Rican, and Cuban males were 42.5, 39.8, and 41.6 percent, respectively. Among females the rates were 23.8, 30.3, and 24.4 percent, respectively. Differences in the two survey designs include: time frame, use of Spanish language interviews in HHANES, lower response rates in HHANES, and geographic rather than national sampling in HHANES. Thus, data on cigarette smoking prevalence for the three Hispanic population groups need to be interpreted with caution.

## References

1. U.S. Department of Health and Human Services. 1989. *Reducing the Health Consequences of Smoking: 25 Years of Progress. A Report of the Surgeon General*. DHHS Pub. No. (CDC) 89-8411. Public Health Service. Rockville, Md.

2. Haynes, S.G. et al. 1990. Patterns of cigarette smoking among Hispanics in the United States: Results from HHANES 1982-1984. *AJPH* 80(Supp.):47-53.

# Cocaine Episodes

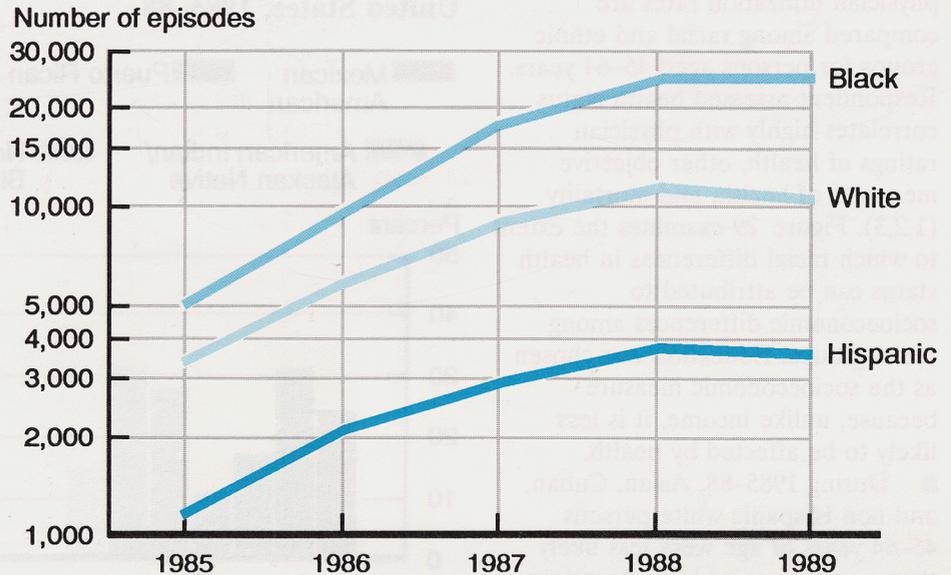
Estimates of cocaine use in the United States range from nearly 900,000 to over 1 million persons using cocaine at least once a week. Although the precise dimensions of the problem of cocaine use and addiction are unknown, cocaine abuse presents a major problem for the country in terms of costs and treatment. The *Healthy People 2000* objectives include targeting reductions in cocaine use among those 12–25 years of age and in reducing the number of drug-abuse-related emergency room visits for all persons.

■ Cocaine-related emergency room episodes are one measure of severe cocaine abuse. The data are from hospital emergency rooms located in 21 metropolitan areas of the United States. Between 1985 and 1988, the number of such episodes increased dramatically among black, white, and Hispanic persons (figure 28), a likely result of increased adverse health effects. Throughout this period, both the number of episodes as well as the annual percent increases among black persons remained highest.

■ Annual percent increases were greatest from 1985 to 1986; the number of episodes among black persons increased 90 percent, among white persons by 70 percent, and among Hispanic persons by 78 percent. Over the following 2 years the annual increases slowed; between 1987 and 1988, the number of cocaine-related emergency room episodes among black persons increased by 37 percent and by 28 percent among white and Hispanic persons.

■ Data for 1988 to 1989 show no change among black persons and modest decreases among white and Hispanic persons in the number of emergency room visits for cocaine use. It is not clear whether this small decline represents a decrease in cocaine abuse or rather changes in patterns of use (thereby not necessitating emergency room visits). Nevertheless, the number of visits remains very high.

**Figure 28. Cocaine-related emergency room episodes, according to race/ethnicity: Selected emergency rooms in metropolitan areas, 1985–89**



SOURCE: National Institute on Drug Abuse, Drug Abuse Warning Network.

# Health Status and Utilization

In figures 29 and 30, respondent-assessed health status and physician utilization rates are compared among racial and ethnic groups for persons aged 45–64 years. Respondent-assessed health status correlates highly with physician ratings of health, other objective measures of health, and mortality (1,2,3). Figure 29 examines the extent to which racial differences in health status can be attributed to socioeconomic differences among racial groups. Education was chosen as the socioeconomic measure because, unlike income, it is less likely to be affected by health.

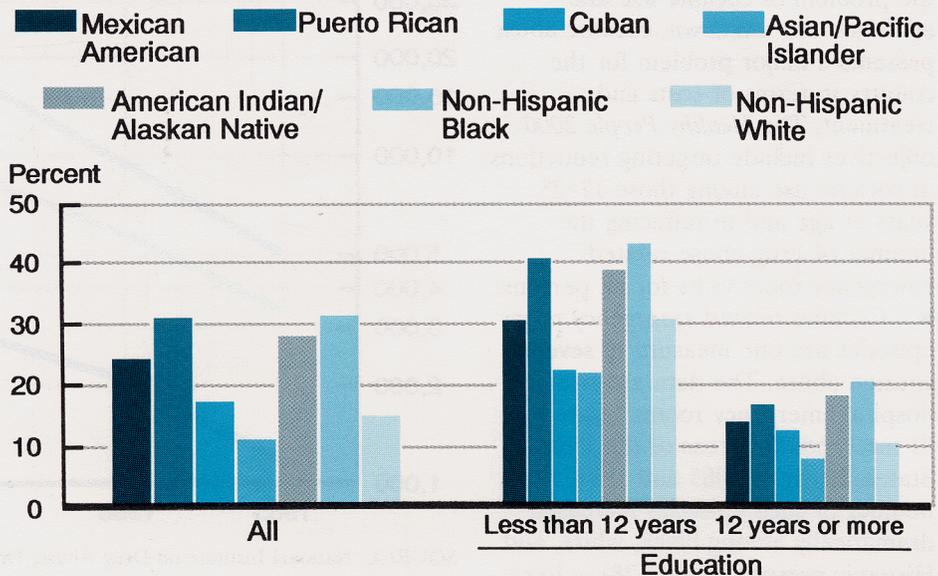
■ During 1985–88, Asian, Cuban, and non-Hispanic white persons 45–64 years of age were less likely than non-Hispanic black, American Indian, Mexican American, or Puerto Rican adults ages 45–64 years to be assessed in fair or poor health (12–18 percent compared with 25–33 percent) (figure 29).

■ As educational attainment increases, the percent in each racial and ethnic group who are in fair or poor health decreases. In each group, those with less than a high school education were 2–3 times as likely as those with 12 or more years of education to assess their health as fair or poor.

■ Regardless of level of education, racial differences in health status remain substantial. Even among those with 12 or more years of education, the percent in fair or poor health still varied by more than a factor of two (22 percent compared with 9 percent). The large racial and ethnic differences in respondent-perceived health status may reflect differences in income, in access to health care, in health-related behaviors such as cigarette smoking, as well as in cultural differences of sick-role perceptions.

Utilization of physician services reflects both access to care and

**Figure 29. Fair or poor health status among persons 45–64 years of age, according to educational attainment and race/ethnicity: United States, 1985–88**



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

health status. In general, persons who are less healthy have more physician contacts than those who are more healthy. Because of the wide variation among racial and ethnic groups in respondent-assessed health status noted in figure 28, it is important to take health status into account when comparing utilization of physician services.

■ During 1985–88, physician utilization rates for persons 45–64 years of age were lower for Asians than for non-Hispanic white persons (4.9 compared with 6.3 visits per year); further, these two groups together with Cubans (4.9 per year) and Mexican Americans (5.4 per year) had fewer visits per year than non-Hispanic black persons (7.0 visits per year) (figure 30). Non-Hispanic black persons also had among the highest percent assessed in fair or poor health.

■ Taking health status into account allows for a better understanding of differences in utilization rates. Health status-adjusted utilization rates are

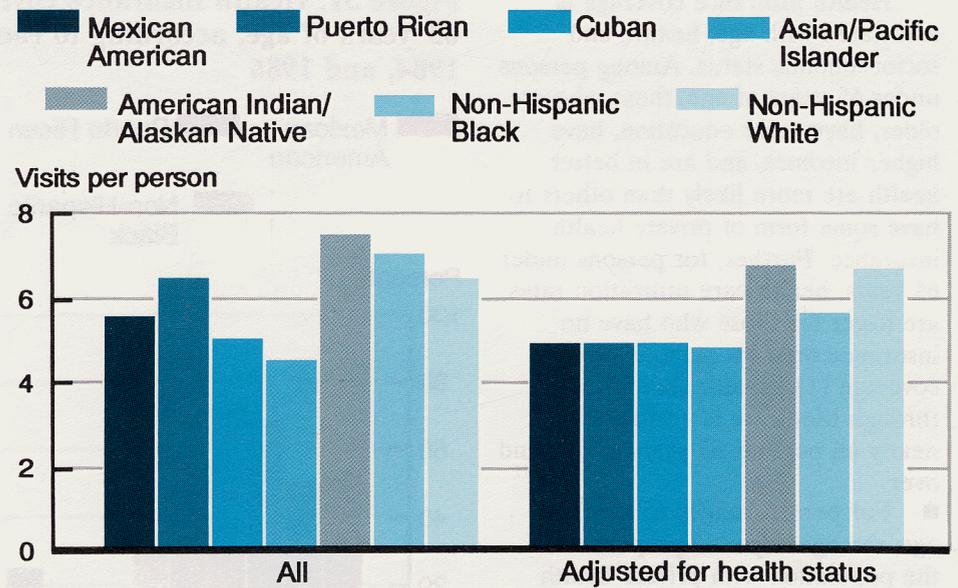
estimates of the annual number of physician visits per person for each racial and ethnic group that would occur if the group had the same respondent-assessed health status as all persons (18 percent with fair or poor health and 82 percent with good to excellent health).

■ After adjusting for health status, physician utilization rates show a different ranking from the unadjusted rates. The adjusted physician utilization rate for non-Hispanic black persons was lower than for non-Hispanic white persons, 5.6 compared with 6.5 visits per person (while the unadjusted rates showed the opposite, 7.0 compared with 6.3 visits). In addition, the adjusted rates for Asians, Mexican Americans, Cubans, and Puerto Ricans (4.8 visits per person) were all lower than for non-Hispanic white persons.

## References

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3. Mossey, J.M., and E. Shapiro. 1982. Self-rated health: a predictor of mortality among the elderly. *Am. J. Public Health* 72:8:800-807.

**Figure 30. Physician utilization rates for persons 45–64 years of age, according to health status and race/ethnicity: United States, 1985–88**



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

# Health Insurance

Health insurance coverage is associated with age, health, and socioeconomic status. Among persons under 65 years of age, those who are older, have more education, have higher incomes, and are in better health are more likely than others to have some form of private health insurance. Further, for persons under 65 years, health care utilization rates are lower for those who have no insurance than for persons with coverage (1). Health care coverage through Medicare is available to nearly all persons 65 years of age and over.

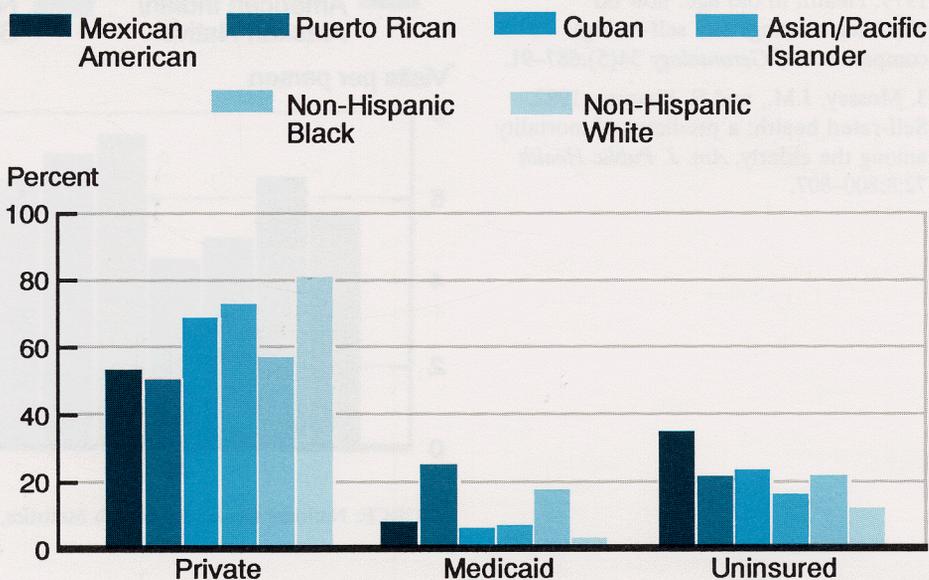
■ For persons under 65 years of age, the age-adjusted proportion of the population with private health insurance declined slightly between 1980 and 1986 (from 79 percent to 76 percent), with a concomitant increase in the proportion who were uninsured (from 12 percent to 15 percent) (2).

■ Variation in health care coverage among racial and ethnic groups was quite large during 1983–86. Whereas 81 percent of non-Hispanic white, 73 percent of Asian, and 69 percent of Cuban persons under 65 years of age had private health insurance, less than 60 percent of non-Hispanic black (58 percent), Puerto Rican (51 percent), and Mexican American (54 percent) persons had private coverage (figure 31).

■ About 35 percent of the Mexican American population under 65 years of age had no health care coverage during 1983–86. Further, 22 percent of non-Hispanic black, 21 percent of Puerto Rican, and 23 percent of Cuban persons lacked coverage compared with 12 percent and 16 percent of non-Hispanic white and Asian persons.

■ Medicaid was more likely to be the only form of coverage for non-Hispanic black (18 percent) and Puerto Rican (25 percent) persons under 65 years of age than for any other group.

**Figure 31. Health insurance coverage among persons under 65 years of age, according to race/ethnicity: United States, 1983, 1984, and 1986**



NOTE: Percents are age adjusted annual averages.

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

■ For persons 65 years of age and over, having private insurance in addition to Medicare was characteristic of about one-third of non-Hispanic black, Cuban, and Mexican persons compared with about half of Asians during 1983–86 (figure 32). Three-fourths of non-Hispanic white persons had this form of coverage.

■ A combination of Medicaid and Medicare coverage occurred more frequently among elderly Puerto Ricans (43 percent), non-Hispanic black, Cuban, and Mexican persons (20–29 percent) than for non-Hispanic white or Asian elderly persons.

■ Non-Hispanic black, Mexican, and Puerto Rican elderly persons were twice as likely as non-Hispanic white or Cuban persons to have relied solely on Medicare (36 percent compared with about 18 percent).

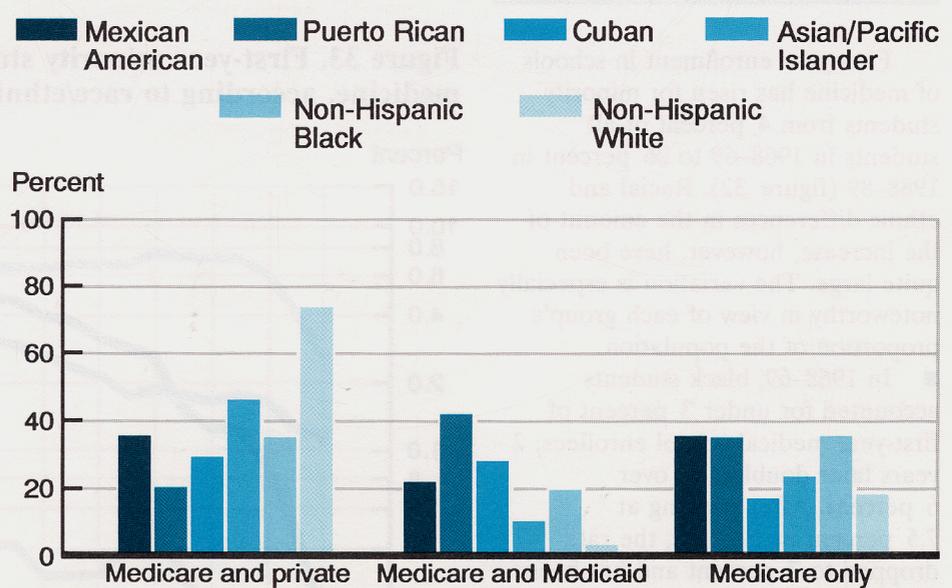
■ Data from the National Health Interview Survey (NHIS) are not shown for American Indians because

they represent a special population with respect to coverage for health care. In 1987, the Indian Health Service (IHS) estimated that about 60 percent of American Indians in the United States resided in the IHS catchment area and as such they were “covered” by the IHS for their health care. Because the IHS catchment areas cannot be identified on the National Health Interview Survey, it is not possible to estimate the health care coverage status for those American Indians who do not reside in the IHS catchment areas. For those in the IHS, estimates from the Survey of American Indians and Alaskan Natives show that 55 percent of the population was covered for health care solely by the IHS, 28 percent had some form of private coverage in addition to the IHS, and 11 percent were also covered by Medicaid (3).

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**Figure 32. Health insurance coverage among persons 65 years of age and over, according to race/ethnicity: United States, 1983, 1984, and 1986**



NOTE: Percents are age adjusted annual averages.

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

# Medical School Enrollment

First-year enrollment in schools of medicine has risen for minority students from 4 percent of all students in 1968–69 to 26 percent in 1988–89 (figure 32). Racial and ethnic differences in the amount of the increase, however, have been quite large. The variation is especially noteworthy in view of each group's proportion of the population.

■ In 1968–69, black students accounted for under 3 percent of first-year medical school enrollees; 2 years later doubling to over 6 percent. After peaking at 7.5 percent in 1974–75, the rate dropped to 7 percent and has been fairly stable since then.

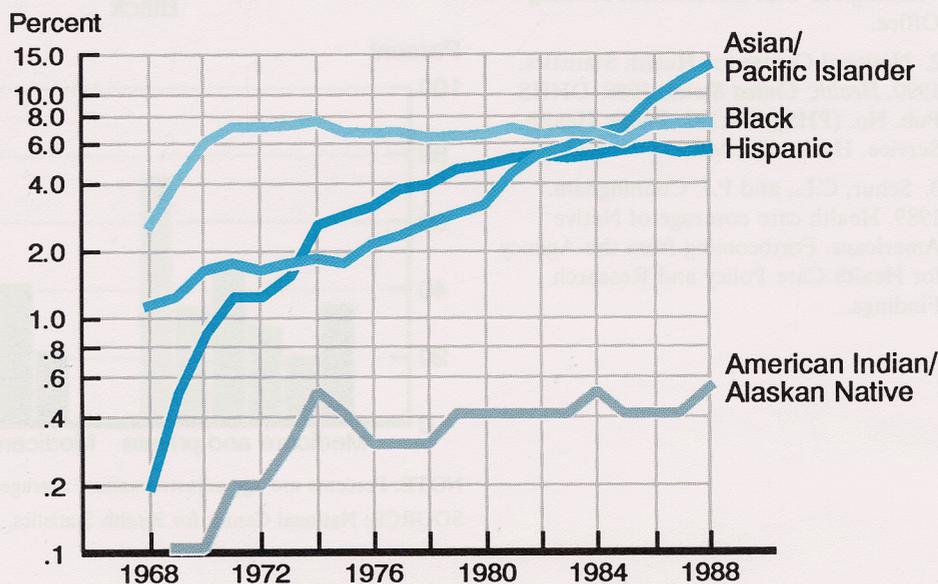
■ In 1968–69, there were only 23 Hispanic students, 0.2 percent of all first-year students, enrolled in medical schools. The proportion increased rapidly to 2.7 percent by 1974–75. Growth continued, albeit at a slower pace, and leveled off during the 1980's at about 5.5 percent, just below the percent for black students.

■ The most dramatic change has been among Asian students. Growth in medical school enrollment began in the mid-1970's, with proportions doubling every few years from 2 percent in 1975–76 to 4 percent in 1981–82 to 9 percent in 1986–87. By 1988–89, 12 percent of first-year medical school enrollees were Asian.

■ American Indian students continue to comprise the lowest proportion in medical schools, increasing from 0.1 percent in the late 1960's to 0.5 percent in 1988–89.

■ The 1988–89 medical school enrollment rate, that is, the number of first-year students per 100,000 persons 15–24 years of age, was nearly five times higher for Asian students than for white students (187 compared with 40). The rates for Hispanic, black, and American Indian students were considerably lower (26, 22, and 20, respectively) than the rate for white students.

**Figure 33. First-year minority student enrollment in schools of medicine, according to race/ethnicity: United States, 1968–88**



NOTE: Excludes schools of osteopathic medicine.

SOURCE: Association of American Medical Colleges, Section for Student Services, Annual Fall Enrollment Surveys.

■ Enrollment of women has risen dramatically during the past two decades. In 1988–89, 37 percent of all first-year medical students were women, and more than half of black and American Indian students were women (see table 95).

# Technical Notes and Data Sources for Figures

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## Natality and Infant Mortality Data (Figures 2–4)

Natality and infant mortality data are from the National Vital Statistics System. Data for the entire United States are available for the following race groups: Asian and Pacific Islanders including Chinese, Japanese, Filipino, and other Asian, American Indian and Alaskan Natives (including Aleuts and Eskimos), white, and black. Data are not shown for the category “other Asian.” In addition, natality data from 30 States and the District of Columbia are available by Hispanic origin of mother. In 1988, about 95 percent of the total U.S. Hispanic population resided in these States (1). The Hispanic categories include: Mexican American, Cuban, Puerto Rican, and Central and South American. The category “other and unknown Hispanic” is excluded from these charts.

Further, because 79 percent of the white and 97 percent of the black births (with origin of mother stated) were to mothers of non-Hispanic origin, natality characteristics of all white and non-Hispanic white births were similar, as were those for all black and non-Hispanic black births. Therefore, data for all white and black births, regardless of origin (based on all 50 States and the District of Columbia) are presented.

Although natality data for Hispanic mothers are from 30 States and the District of Columbia, the births are concentrated in a few States. Two-thirds of the births to Cuban mothers were among residents of Florida; three-fifths of the births to Puerto Rican mothers were among residents of New York or New Jersey; four-fifths of the births to Mexican American mothers were among residents of California or Texas; and two-thirds of the births to Central and South American mothers were to

residents of California or New York. See Appendix I for list of States in reporting area.

Infant mortality rates are from the National Linked Files of Births and Infant Deaths and are based on data for births during 1983–85 (the only years available to date). The use of linked files avoids discrepancies in the reporting of race between the birth and infant death certificates. While discrepancies are relatively rare for white and black infants, they are substantial—on the order of 25–40 percent—for other races, especially for American Indians, Chinese, Japanese, Filipinos, and other Asian races. For this reason, the use of annual calendar year vital statistics for monitoring trends and cross-sectional variations in infant mortality can be misleading for many minority groups (2). Thus, the infant mortality rates presented here were calculated using the race and Hispanic origin of the mother from the birth certificate for both the numerator and denominator of the rate. Hispanic infant mortality rates are from the 23 States and the District of Columbia that identified Hispanic origin on the birth certificate in 1983, 1984, and 1985.

Natality statistics by race of mother can differ somewhat from those by race of child as a result of interracial parentage. For example, the proportion of American Indian mothers beginning prenatal care early was 58.1 percent based upon race of mother compared with 60.6 percent based upon race of child. The percent low birth weight among Japanese births was 6.7 percent based upon race of mother compared with 6.2 percent based on race of child. Thus, for consistency with the infant mortality rates, data on prenatal care and low birth weight are also presented by race and ethnicity of mother rather than by race of child.

Beginning with 1989 data, natality statistics from the NCHS will be presented based upon race of mother.

## Death Rates for Persons 1 Year of Age and Over (Figures 6–10)

The annual number of deaths according to age for black, white, Asian and Pacific Islander (including Chinese, Japanese, Filipino, and other Asians), American Indian and Alaskan Natives (including Aleuts and Eskimos), and persons of Hispanic origin are available from the NCHS vital statistics system. For denominators of the rates, age-specific population estimates for black and white persons are routinely provided by the U.S. Bureau of the Census to the NCHS, and thus, age-specific death rates for the white and black populations are published annually.

To estimate death rates for the Asian, American Indian, and Hispanic populations, the Office of Analysis and Epidemiology (OAE), NCHS, produced age-specific resident population estimates for those three population groups. The Hispanic population was estimated for those who resided in the 26 States and the District of Columbia that reported Hispanic deaths in 1988.

To estimate the 1988 age-specific Asian and American Indian populations, the OAE used the following data, published by the U.S. Bureau of the Census: (a) the 1988 resident population estimates for the Asian and American Indian populations (3); (b) the age-specific population estimates for the all other races group (Asians and American Indians) (3); and (c) the 1980 Census population estimates of Asians and American Indians by detailed age (4). The age- and race-specific estimates for 1988 were calculated by the method of iterative proportional

fittings (5) to reflect the 1980 distributions of age by race and are consistent with the 1988 all other races (Asians and American Indians) estimates by age and with the 1988 Asian and American Indian total populations.

The data used to calculate the 1988 age-specific population estimates for the Hispanic resident population for the mortality reporting area including 26 States and the District of Columbia (estimated to include 82 percent of the Hispanic population of the United States) are: (a) age-specific estimates of the Hispanic population in each State for 1980 (latest data available) (4); (b) age-specific Hispanic population estimates for the United States for 1980 (3); and (c) age-specific Hispanic population estimates for the United States for 1988 (3). Assuming that the 1980 age-specific proportions of persons in the 26 States reporting Hispanic deaths were the same in 1988, the 1988 Hispanic origin age-specific population estimates for the United States were reduced by those age-specific proportions. For example, the 1988 population estimate for Hispanic persons 15–24 years of age in the 26 reporting States was calculated as the total 1988 U.S. Hispanic population ages 15–24 years multiplied by the proportion of Hispanics ages 15–24 years who, in 1980, resided in the 26 reporting States.

Death rates are presented for all Hispanic persons, rather than separately for Mexican Americans, Cubans, and Puerto Ricans because of the lack of population data. In addition, the Hispanic death rates shown in the figures reflect an adjustment for origin “not stated.” Depending upon age and cause of death, 3–6 percent of the deaths had origin not stated on the death certificates.

Death rates are asterisked for those causes of death that are based on fewer than 50 deaths.

## **Weapons in Homicides (Figure 11)**

Data are from the Federal Bureau of Investigation’s (FBI) Supplemental Homicide Reporting System, a voluntary reporting system, that in 1988 provided data on about 94 percent of the homicides committed in the United States. Homicides include cases of murder and nonnegligent manslaughter (6).

As defined by the FBI, handguns include pistols, revolvers, etc. Other firearms include rifles, shotguns, others, and type of firearm not stated. (The proportion of firearms with type not stated ranged from 3 percent among Asian and Pacific Islanders to 7 percent among black persons.) Knives or cutting instruments include icepicks, screwdrivers, axes, etc. Personal weapons include beating by hands, feet, and/or other body parts or use of teeth, as well as pushing out of a window. Other includes poison, explosives, fires, narcotics and drugs, drowning, strangulation, and asphyxiation.

Distributions are based on homicides involving single rather than multiple victims. Three percent of homicide records had type of weapon not stated; they were excluded from the percent distributions.

## **Cancer Incidence and Survival (Figures 12–19)**

The Special Populations Studies Branch of the Division of Cancer Prevention and Control, National Cancer Institute, produced estimates from the Surveillance, Epidemiology and End Results (SEER) program of cancer incidence and survival for minority populations residing in specific SEER registry areas for years centering around 1980 (7). The incidence data are for 1977–83 and have been age adjusted by the direct method to the 1970 U.S. total population. The 5-year relative survival rates are based on cases diagnosed between 1975 and 1984.

Racial and ethnic comparisons of cancer incidence and survival data are made within specific registry areas in

order to reduce geographic confounding of the data. Thus, the data are not national estimates. Specifically,

(a) Data for black males and females are from four registry areas: metropolitan areas of San Francisco-Oakland, Atlanta, Detroit, and the State of Connecticut.

Comparable data for white males and females are shown for these same areas.

(b) Data for Asian males and females, namely Chinese, Japanese, and Filipino are from the registries in San Francisco-Oakland and Hawaii. Comparable data for white persons are also from these two areas.

(c) Data for Hispanic persons are from the New Mexico registry only and as such are referred to as Mexican American. Data for American Indians are from New Mexico and Arizona. Comparable data for the non-Hispanic white population are from the New Mexico registry.

The following terminology is used interchangeably: malignant neoplasms of the respiratory system, lung cancer and cancer of the lung and bronchus. See Appendix II for ICD codes.

Lung and colorectal cancer data are not shown for American Indians because the number of sex-specific cases for the 10-year period 1975–84 (upon which the survival rates are based) was fewer than 100. Data are asterisked when the number of cases was between 101 and 125.

## **Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS) (Figures 20–22)**

Reported cases of AIDS are from the Division of HIV/AIDS, Center for Infectious Diseases, Centers for Disease Control. The data are for reported cases and may reflect reporting delays. Data refer to cases reported as of September 30, 1990. While the median delay in reporting was about 3 months in 1988, recent analyses suggest that the reporting delay may be increasing.

AIDS cases are counted once in a hierarchy of exposure categories (8). Data are not shown when based on fewer than 50 cases. See Appendixes I and II for additional information on AIDS reporting.

### **Examination Statistics (Figures 23–26)**

Diabetes, overweight, hypertension, and serum cholesterol data for the three Hispanic populations—Mexican Americans, Puerto Ricans, and Cubans—are from the Hispanic Health and Nutrition Examination Survey (HHANES) for 1982–84, and the comparable data for non-Hispanic white and non-Hispanic black populations are from the National Health and Nutrition Examination Survey (NHANES II) for 1976–80.

The HHANES population includes a sample of the civilian noninstitutionalized Mexican Americans in five Southwestern States—California, Arizona, New Mexico, Colorado, and Texas; Cuban Americans in Dade County, Florida; and Puerto Ricans in the New York city area, including parts of New Jersey and Connecticut. The Hispanic population covered in HHANES is estimated to have included 76 percent of the total 1980 U.S. Hispanic civilian noninstitutionalized population ages 6 months to 74 years; it is not a representative sample of all Hispanic persons in the United States.

Hypertension, overweight, and serum cholesterol data were age adjusted by the direct method to the 1980 census population 20–74 years of age (9,10). Diabetes data are from Flegal, et al. (11). Data are asterisked if the relative standard error is above 30 percent.

### **American Indian Data for Diabetes, Hypertension, and Health Insurance**

The Survey of American Indians and Alaskan Natives (SAIAN) was conducted by the Agency for Health Care Policy and Research in 1987 as

a separate component of the 1987 National Medical Expenditure Survey. The SAIAN consisted of a stratified area probability sample of approximately 2,000 households located on or near an Indian reservation with at least one person eligible for medical care from the Indian Health Service (IHS). The overall response rate for the SAIAN was 83 percent. The primary purpose of the SAIAN is to provide a data base on the utilization of medical services in the American Indian and Alaskan Native populations who are eligible for health care through the Indian Health Service (IHS). In addition, the survey was designed to provide measures of health status, estimates of insurance coverage, expenditures, and sources of payment for the period January 1 to December 31, 1987. Chronic disease estimates were obtained by respondent or proxy reports to questions phrased, “Did a doctor ever tell you, you had \_\_\_\_\_?”.

### **Cigarette Smoking (Figure 27)**

Data from the National Health Interview Survey (NHIS) were combined for 1985 and 1987, the 2 most recent years with available data on cigarette smoking, to increase the reliability of the data among each of the minority populations. See Appendix I for a detailed description of the NHIS.

### **Cocaine-related Emergency Room Episodes (Figure 28)**

Data are from the National Institute on Drug Abuse’s Drug Abuse Warning Network (DAWN). The estimates from this program are from 431 consistently reporting emergency rooms based in 21 metropolitan areas. Thus, these are not national estimates. See Appendix I for a description of DAWN.

### **Health Status and Physician Utilization (Figures 29–30)**

Data from the National Health Interview Survey (NHIS) were

combined for 4 years to increase the reliability of the data among each of the minority populations. Physician utilization rates were adjusted for differences in health status by the direct method using the percentages of the total population in fair or poor health and in good to excellent health as the standards. See Appendix I for a detailed description of the NHIS.

### **Health Insurance (Figures 31–32)**

The data from the National Health Interview Survey were combined for 1983, 1984, and 1986 to produce a cross-sectional estimate of health care coverage. Data for 3 years were combined to increase the reliability of the estimates. The insurance categories were defined as follows: Medicaid includes persons receiving Aid to Families with Dependent Children (AFDC) or Supplemental Security Income (SSI) or those with current Medicaid cards. Uninsured includes persons not covered by private insurance, Medicaid, Medicare, or military plans. Medicare includes persons not covered by private insurance or Medicaid. See Appendix I for a description of the National Health Interview Survey.

Percentages were age adjusted by the direct method to the U.S. civilian noninstitutionalized population in 1970, using three age groups for those under 65 years of age—under 15, 15–44, and 45–64 years; and two age groups for those 65 years of age and over—65–74 and 75 years and over.

### **Medical School Enrollment (Figure 33)**

Data are from the Association of American Medical Colleges, Division of Educational Measurement and Research, American Medical Association. Data for schools of osteopathic medicine are included in table 94. See Appendix I for a description of this data system.

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# Data Table for Figures 1–33

	<i>Hispanic</i>	<i>Asian</i>	<i>American Indian</i>	<i>Black</i>
<b>Figure 1</b>				
1980 . . . . .	14,782	3,834	1,429	26,784
1981 . . . . .	15,452	4,198	1,458	27,207
1982 . . . . .	16,051	4,549	1,490	27,636
1983 . . . . .	16,649	4,855	1,524	28,056
1984 . . . . .	17,251	5,172	1,559	28,457
1985 . . . . .	17,865	5,504	1,594	28,870
1986 . . . . .	18,521	5,849	1,629	29,303
1987 . . . . .	19,173	6,181	1,664	29,748
1988 . . . . .	19,831	6,529	1,699	30,202

	<i>Mexican American</i>	<i>Puerto Rican</i>	<i>Cuban</i>	<i>Central and South American</i>	<i>Chinese</i>	<i>Japanese</i>	<i>Filipino</i>	<i>American Indian</i>	<i>Black</i>	<i>White</i>
<b>Figure 2</b>										
First trimester care . . . . .	58.3	63.3	83.4	63.1	82.4	86.3	78.4	58.1	60.7	79.3
<b>Figure 3</b>										
Very Low . . . . .	0.9	1.6	1.2	1.0	0.6	0.9	0.9	1.0	2.9	0.9
Moderately Low . . . . .	4.7	7.8	4.8	4.6	4.1	5.8	6.2	5.0	10.4	4.7
Low . . . . .	5.6	9.4	5.9	5.6	4.6	6.7	7.1	6.0	13.3	5.7
<b>Figure 4</b>										
Neonatal . . . . .	5.7	8.3	5.9	5.7	4.3	3.4	5.3	6.7	12.2	5.9
Postneonatal . . . . .	3.2	4.0	2.2	2.5	3.1	2.6	2.9	7.2	6.4	3.1
Infant mortality . . . . .	8.8	12.3	8.0	8.2	7.4	6.0	8.2	13.9	18.7	9.0

	<i>Black Male</i>	<i>Black Female</i>	<i>White Male</i>	<i>White Female</i>
<b>Figure 5</b>				
1960 . . . . .	60.7	65.9	67.4	74.1
1970 . . . . .	60.0	68.3	68.0	75.6
1971 . . . . .	60.5	68.9	68.3	75.8
1972 . . . . .	60.4	69.1	68.3	75.9
1973 . . . . .	60.9	69.3	68.5	76.1
1974 . . . . .	61.7	70.3	69.0	76.7
1975 . . . . .	62.4	71.3	69.5	77.3
1976 . . . . .	62.9	71.6	69.9	77.5
1977 . . . . .	63.4	72.0	70.2	77.9
1978 . . . . .	63.7	72.4	70.4	78.0
1979 . . . . .	64.0	72.9	70.8	78.4
1980 . . . . .	63.8	72.5	70.7	78.1
1981 . . . . .	64.5	73.2	71.1	78.4
1982 . . . . .	65.1	73.7	71.5	78.7
1983 . . . . .	65.4	73.6	71.7	78.7
1984 . . . . .	65.6	73.7	71.8	78.7
1985 . . . . .	65.3	73.5	71.9	78.7
1986 . . . . .	65.2	73.5	72.0	78.8
1987 . . . . .	65.2	73.6	72.2	78.9
1988 . . . . .	64.9	73.4	72.3	78.9

	<i>Hispanic</i>	<i>Asian</i>	<i>American Indian</i>	<i>Black</i>	<i>White</i>
<b>Figure 6</b>					
Total . . . . .	30	24	44	49	30
Injuries . . . . .	12	10	24	20	13
Homicide . . . . .	2	*1	*2	5	1
Malignant neoplasms . . . . .	3	3	*2	3	3
Other . . . . .	14	10	16	21	13
<b>Figure 7</b>					
Total . . . . .	113	57	162	145	95
Injuries . . . . .	49	29	89	37	52
Homicide . . . . .	28	7	22	59	8
Suicide . . . . .	10	6	26	8	14
Other . . . . .	25	15	24	41	21

See note at end of table.

	Hispanic	Asian	American Indian	Black	White
Figure 8					
Total . . . . .	185	77	271	367	149
Injuries . . . . .	40	15	97	49	34
Homicide . . . . .	25	7	25	56	8
Diseases of heart . . . . .	12	7	20	44	17
HIV infection . . . . .	28	3	*4	43	12
Other . . . . .	81	43	125	175	77

Figure 9					
Total . . . . .	609	402	856	1,380	790
Injuries . . . . .	36	18	77	52	31
Diseases of heart . . . . .	166	99	224	426	244
Malignant neoplasms . . . . .	152	159	183	401	289
Cerebrovascular diseases . . . . .	31	29	31	86	29
Other . . . . .	224	97	341	415	198

Figure 10					
Total . . . . .	3,482	2,430	3,292	5,650	5,106
Diseases of heart . . . . .	1,336	870	1,128	2,181	2,079
Malignant neoplasms . . . . .	665	549	606	1,241	1,062
Cerebrovascular diseases . . . . .	272	260	248	526	425
Other . . . . .	1,209	752	1,309	1,702	1,540

	Asian	American Indian	Black	White
Figure 11				
Handgun . . . . .	51	29	57	47
Other firearm . . . . .	12	16	15	17
Knife, other stabbing . . . . .	21	32	20	22
Personal weapons . . . . .	7	9	3	5
Other . . . . .	9	14	5	9

	Mexican American	American Indian	Non-Hispanic White	Chinese	Japanese	Filipino	White	Black	White
Figure 12									
Male . . . . .	29.1	*	53.5	57.4	45.0	35.5	77.5	110.9	80.0
Female . . . . .	11.9	*	20.5	24.8	12.6	16.1	36.2	28.3	30.9
Figure 13									
Male . . . . .	8.7	*	11.0	15.0	13.4	14.3	13.8	10.3	12.5
Female . . . . .	14.6	*	14.7	15.4	16.8	*10.1	18.9	15.7	17.5
Figure 14									
Male . . . . .	27.8	*	37.9	48.8	62.3	36.7	59.7	53.2	61.8
Female . . . . .	22.3	*	29.6	33.0	37.5	18.3	41.9	43.0	42.8
Figure 15									
Male . . . . .	40.8	*	46.2	48.7	60.8	42.5	54.2	44.1	53.2
Female . . . . .	49.4	*	50.0	58.8	62.8	51.4	54.6	48.8	55.1
Figure 16									
Female . . . . .	50.8	21.3	71.6	57.8	55.0	41.3	96.8	72.7	91.1
Figure 17									
Female . . . . .	70.6	46.2	74.6	80.8	85.4	73.7	78.3	63.2	75.5
Figure 18									
Male . . . . .	70.7	31.0	75.2	29.6	43.8	44.0	70.7	118.9	69.5
Figure 19									
Male . . . . .	72.4	54.2	76.0	72.5	80.5	71.7	73.0	63.4	70.3

See note at end of table.

	Hispanic	Asian	American Indian	Non-Hispanic	
				Black	White
Figure 20					
1984	594	16	3	1,091	2,682
1985	1,065	50	9	1,999	4,939
1986	1,753	87	20	3,287	7,797
1987	2,486	135	26	5,222	12,887
1988	4,150	189	33	8,805	17,057
1989	4,208	229	61	9,978	18,523

Figure 21					
Homosexual/bisexual	52.5	78.6	53.8	44.3	78.7
IV drug use	32.4	2.9	11.5	35.7	7.5
Homosexual/bisexual-IV drug use	5.4	2.4	19.2	7.8	7.2
Other	9.7	16.2	15.4	12.2	6.6

Figure 22					
IV drug use	50.8	*	*	57.6	41.4
Heterosexual-IV drug use	29.9	*	*	19.3	16.0
Heterosexual-other	7.2	*	*	13.3	14.9
Other	12.0	*	*	9.8	27.7

	Mexican American	Puerto Rican	Cuban	Non-Hispanic	
				Black	White
Figure 23					
Undiagnosed	9.6	11.8	*9.9	9.3	6.1
Previously diagnosed	14.3	14.3	5.9	10.1	5.9
Total prevalence	23.9	26.1	15.8	19.3	12.0

Figure 24					
Male	30.9	25.6	27.6	26.0	24.2
Female	41.6	40.2	31.6	44.4	23.9

Figure 25					
Male	23.9	21.4	20.7	41.6	33.8
Female	20.3	19.2	14.4	43.8	25.1

Figure 26					
Male	18.8	17.7	16.1	24.1	24.7
Female	20.0	22.7	16.9	25.0	28.3

	Mexican American	Puerto Rican	Cuban	Asian	American Indian	Non-Hispanic	
						Black	White
Figure 27							
Male	30.3	36.7	24.0	24.9	36.5	39.4	30.9
Female	15.5	23.4	20.2	11.9	30.6	29.1	28.6

	Hispanic	Black	White
1985	1,163	5,003	3,362
1986	2,065	9,459	5,721
1987	2,902	17,517	8,817
1988	3,699	23,971	11,290
1989	3,580	24,017	10,410

	Mexican American	Puerto Rican	Cuban	Asian	American Indian	Non-Hispanic	
						Black	White
Figure 29							
All	24.9	31.6	17.8	12.3	28.6	32.5	15.6
Less than 12 years	31.0	41.4	23.1	23.2	39.6	44.4	31.1
12 years or more	14.4	17.3	13.1	8.9	18.7	21.6	10.8

Figure 30							
All	5.4	6.3	4.9	4.5	7.3	7.0	6.3
Adjusted	4.8	4.8	4.8	4.8	6.6	5.6	6.5

See note at end of table.

	Mexican American	Puerto Rican	Cuban	Asian	American Indian	Non-Hispanic	
						Black	White
Figure 31							
Private . . . . .	53.8	50.5	68.7	73.3	---	57.6	81.4
Medicaid . . . . .	8.5	25.2	6.3	7.0	---	17.9	3.4
Uninsured . . . . .	34.9	21.4	23.3	16.3	---	21.7	12.3
Figure 32							
Medicare and Private . . . . .	35.7	20.4	29.8	46.9	---	35.5	74.9
Medicare and Medicaid . . . . .	22.4	42.7	28.9	10.1	---	19.9	3.6
Medicare only . . . . .	36.0	35.6	17.2	23.6	---	36.3	17.9

	Hispanic	Asian	American Indian	Black
1968 . . . . .	0.2	1.2	0.0	2.7
1969 . . . . .	0.5	1.3	0.1	4.2
1970 . . . . .	0.9	1.7	0.1	6.1
1971 . . . . .	1.3	1.8	0.2	7.1
1972 . . . . .	1.3	1.7	0.2	7.1
1973 . . . . .	1.6	1.8	0.3	7.2
1974 . . . . .	2.7	1.9	0.5	7.5
1975 . . . . .	3.0	1.8	0.4	6.8
1976 . . . . .	3.3	2.2	0.3	6.7
1977 . . . . .	3.8	2.4	0.3	6.8
1978 . . . . .	4.0	2.7	0.3	6.4
1979 . . . . .	4.7	3.0	0.4	6.5
1980 . . . . .	4.8	3.3	0.4	6.6
1981 . . . . .	5.2	4.4	0.4	6.9
1982 . . . . .	5.4	5.4	0.4	6.6
1983 . . . . .	5.2	5.7	0.4	6.8
1984 . . . . .	5.4	6.6	0.5	6.7
1985 . . . . .	5.6	6.9	0.4	6.1
1986 . . . . .	5.7	9.0	0.4	7.0
1987 . . . . .	5.5	10.9	0.4	7.3
1988 . . . . .	5.6	12.4	0.5	7.2

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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

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**Table 1. Resident population, according to age, sex, and race: United States, selected years 1950–88**

[Data are based on decennial census updated by data from multiple sources]

<i>Sex, race, and year</i>	<i>Total resident population</i>	<i>Under 1 year</i>	<i>1–4 years</i>	<i>5–14 years</i>	<i>15–24 years</i>	<i>25–34 years</i>	<i>35–44 years</i>	<i>45–54 years</i>	<i>55–64 years</i>	<i>65–74 years</i>	<i>75–84 years</i>	<i>85 years and over</i>
Number in thousands												
<b>All races</b>												
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
1986.....	241,096	3,768	14,384	33,860	39,021	42,779	33,070	22,815	22,232	17,332	9,060	2,776
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
<b>White male</b>												
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
1986.....	99,810	1,565	5,973	14,020	16,289	18,193	14,172	9,663	9,290	6,876	3,062	706
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
<b>Black male</b>												
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
1986.....	13,892	289	1,091	2,667	2,759	2,488	1,593	1,092	951	633	262	67
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
<b>White female</b>												
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
1986.....	104,501	1,486	5,674	13,295	15,861	17,852	14,297	10,039	10,351	8,657	5,166	1,825
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
<b>Black female</b>												
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
1986.....	15,413	283	1,058	2,596	2,837	2,797	1,906	1,347	1,155	858	430	145
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

NOTE: Population figures are census counts as of April 1 for 1950, 1960, 1970, and 1980 and estimates as of July 1 for 1986, 1987, and 1988.

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, and 1057. Washington. U.S. Government Printing Office, May 1973, Mar. 1988, 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. Live births, crude birth rates, and birth rates by age of mother, according to race of child: United States, selected years 1950–88**

[Data are based on the National Vital Statistics System]

Race of child 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
1955.....	4,097,000	25.0	0.9	44.5	157.9	241.6	190.2	116.0	58.6	16.1	1.0
1960.....	4,257,850	23.7	0.8	43.9	166.7	258.1	197.4	112.7	56.2	15.5	0.9
1965.....	3,760,358	19.4	0.8	36.6	124.5	195.3	161.6	94.4	46.2	12.8	0.8
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
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
1955.....	3,485,000	23.8	0.3	35.4	145.7	235.8	186.6	114.0	56.7	15.4	0.9
1960.....	3,600,744	22.7	0.4	35.5	154.6	252.8	194.9	109.6	54.0	14.7	0.8
1965.....	3,123,860	18.3	0.3	27.8	111.9	189.0	158.4	91.6	44.0	12.0	0.7
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
Black											
1960.....	602,264	31.9	4.3	---	---	295.4	218.6	137.1	73.9	21.9	1.1
1965.....	581,126	27.7	4.3	99.3	227.6	243.1	180.4	111.3	61.9	18.7	1.4
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

<sup>1</sup>Live births per 1,000 population.

NOTE: Data are based on births adjusted for underregistration for 1950 and 1955 and on registered births for all other years. Beginning in 1970, births to nonresidents of the United States are excluded.

SOURCE: National Center for Health Statistics: Vital Statistics of the United States, 1988, Vol. I, Natality. Public Health Service. Washington. U.S. Government Printing Office, 1990.

**Table 3. Fertility rates, according to live-birth order and race of child: United States, selected years 1950–88**

[Data are based on the National Vital Statistics System]

Race of child 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
1955	118.3	32.8	31.8	23.1	13.3	17.3
1960	118.0	31.1	29.2	22.8	14.6	20.3
1965	96.6	29.8	23.4	16.6	10.7	16.1
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
White						
1950	102.3	33.3	32.3	17.9	8.4	10.4
1955	113.7	32.6	32.0	22.9	12.6	13.6
1960	113.2	30.8	29.2	22.7	14.1	16.4
1965	91.4	28.9	23.0	16.2	10.2	13.1
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
Black						
1960	153.5	33.6	29.3	24.0	18.6	48.0
1965	133.9	35.7	26.2	19.4	14.6	38.0
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

NOTE: Data are based on births adjusted for underregistration for 1950 and 1955 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.

SOURCE: National Center for Health Statistics: Vital Statistics of the United States, 1988, Vol. I, Natality. Public Health Service. Washington. U.S. Government Printing Office, 1990.

**Table 4. Completed fertility rates and parity distribution for women 50–54 years of age at the beginning of selected years 1930–89, according to race of child and birth cohort: United States, selected birth cohorts 1876–1939**

[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
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
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

<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 cumulative birth rates, because of a change in the population bases. The impact of this change on the cumulative 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, 1988, Vol. 1, Natality. Public Health Service. Washington: U.S. Government Printing Office, 1990.

**Table 5. Lifetime births expected by currently married women and percent of expected births already born, according to age and race: United States, selected years 1967–88**

[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>
All races						
Expected births per currently married woman						
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
White						
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
Black						
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
All races						
Percent of expected births already born						
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
White						
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
Black						
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

SOURCE: U.S. Bureau of the Census: Population characteristics. Current Population Reports. Series P-20, Nos. 301, 375, 406, 421, 427, and 436. Washington, U.S. Government Printing Office, Nov. 1976, Oct. 1982, June 1986, Dec. 1987, May 1988, and May 1989.

**Table 6 (page 1 of 2). Live births, according to Hispanic origin of mother and race of child: Selected States, 1980-88**

[Data are based on the National Vital Statistics System]

<i>Ethnicity of mother, race of child, and characteristic</i>	1980	1981	1982	1983	1984	1985	1986	1987	1988
Number of live births									
All origins <sup>1</sup> . . . . .	2,075,527	2,100,624	2,207,221	2,205,509	2,230,815	2,298,287	2,308,423	2,351,697	2,856,492
Hispanic . . . . .	307,163	321,954	337,390	336,833	346,986	372,814	389,048	406,153	449,604
Mexican . . . . .	215,439	222,143	227,558	221,788	225,767	242,976	246,174	251,189	271,170
Puerto Rican . . . . .	33,671	33,376	34,108	33,856	34,219	35,147	36,588	38,139	46,232
Cuban . . . . .	7,163	8,369	9,603	9,709	9,477	10,024	9,924	9,987	10,189
Central and South American . .	21,268	24,380	28,958	31,043	36,401	40,985	45,026	50,350	57,610
Non-Hispanic white . . . . .	1,239,488	1,252,905	1,356,690	1,350,949	1,352,523	1,384,671	1,377,178	1,387,366	1,652,782
Non-Hispanic black . . . . .	310,508	310,270	334,543	334,602	338,943	350,108	357,222	371,844	455,883
Percent of live births									
Birth weight less than 2,500 grams									
All origins <sup>1</sup> . . . . .	6.88	6.85	6.83	6.91	6.79	6.83	6.88	6.99	6.98
Hispanic . . . . .	6.12	6.12	6.23	6.29	6.15	6.16	6.13	6.24	6.17
Mexican . . . . .	5.62	5.61	5.72	5.77	5.68	5.77	5.62	5.74	5.60
Puerto Rican . . . . .	8.95	9.01	9.11	8.90	8.88	8.69	9.22	9.30	9.42
Cuban . . . . .	5.62	5.83	5.76	5.65	5.86	6.02	5.46	5.89	5.94
Central and South American . .	5.76	5.73	5.61	6.20	5.81	5.68	5.69	5.74	5.58
Non-Hispanic white . . . . .	5.68	5.62	5.61	5.63	5.52	5.59	5.58	5.63	5.62
Non-Hispanic black . . . . .	12.54	12.64	12.43	12.64	12.36	12.42	12.65	12.88	13.06
Birth weight less than 1,500 grams									
All origins <sup>1</sup> . . . . .	1.15	1.16	1.17	1.19	1.18	1.21	1.21	1.24	1.24
Hispanic . . . . .	0.98	0.98	0.99	1.03	1.01	1.01	1.02	1.06	1.01
Mexican . . . . .	0.92	0.92	0.93	0.96	0.93	0.97	0.94	0.96	0.89
Puerto Rican . . . . .	1.29	1.43	1.54	1.46	1.49	1.30	1.47	1.63	1.61
Cuban . . . . .	1.02	1.17	0.90	0.97	1.04	1.18	1.09	0.97	1.17
Central and South American . .	0.99	0.93	0.83	0.99	1.04	1.01	1.04	1.02	0.97
Non-Hispanic white . . . . .	0.86	0.87	0.89	0.90	0.88	0.91	0.89	0.91	0.90
Non-Hispanic black . . . . .	2.43	2.46	2.50	2.54	2.52	2.62	2.64	2.69	2.77
Age of mother less than 20 years									
All origins <sup>1</sup> . . . . .	15.6	14.8	14.4	13.8	13.2	12.8	12.7	12.5	12.7
Hispanic . . . . .	19.0	18.5	18.3	17.7	17.0	16.5	16.4	16.3	16.4
Mexican . . . . .	19.8	19.4	19.1	18.4	18.0	17.5	17.4	17.3	17.3
Puerto Rican . . . . .	23.3	23.1	23.0	22.4	21.3	20.9	20.9	20.5	21.4
Cuban . . . . .	13.0	12.8	11.4	9.4	8.2	7.1	6.8	6.2	6.1
Central and South American . .	8.4	8.2	9.0	8.6	8.1	8.2	8.2	8.0	8.1
Non-Hispanic white . . . . .	12.5	11.8	11.3	10.7	10.0	9.7	9.5	9.3	9.7
Non-Hispanic black . . . . .	26.9	25.5	24.9	24.3	23.8	23.1	22.8	22.5	22.9
Unmarried mothers									
All origins <sup>1</sup> . . . . .	19.3	19.7	20.3	21.3	21.9	22.9	24.3	25.3	26.2
Hispanic . . . . .	23.8	24.5	25.6	27.5	28.3	29.5	31.6	32.6	34.0
Mexican . . . . .	20.5	20.7	21.9	23.7	24.2	25.7	27.9	28.9	30.6
Puerto Rican . . . . .	46.3	48.0	49.0	49.5	50.8	51.1	52.6	53.0	53.3
Cuban . . . . .	10.0	14.3	15.9	16.2	16.2	16.1	15.8	16.1	16.3
Central and South American . .	27.2	29.0	30.2	33.0	34.0	34.9	38.0	37.1	36.4
Non-Hispanic white . . . . .	9.3	9.8	10.2	10.7	11.3	12.1	13.2	13.9	14.9
Non-Hispanic black . . . . .	56.5	57.1	58.0	59.5	60.5	61.0	62.2	63.1	63.7

See footnotes at end of table.

**Table 6 (page 2 of 2). Live births, according to Hispanic origin of mother and race of child: Selected States, 1980-88**

[Data are based on the National Vital Statistics System]

<i>Ethnicity of mother, race of child, and characteristic</i>	1980	1981	1982	1983	1984	1985	1986	1987	1988
Prenatal care began during 1st trimester									
All origins <sup>1</sup> . . . . .	74.7	74.8	74.5	74.6	74.9	74.5	74.3	74.4	75.0
Hispanic . . . . .	60.2	60.6	61.0	61.0	61.5	61.2	60.3	61.0	61.3
Mexican . . . . .	59.6	60.1	60.7	60.2	60.4	60.0	58.9	60.0	58.3
Puerto Rican . . . . .	55.1	54.2	54.5	55.1	57.4	58.3	57.2	57.4	63.2
Cuban . . . . .	82.7	80.1	79.3	81.2	82.2	82.5	81.8	83.1	83.4
Central and South American . .	58.7	58.3	58.5	59.3	61.1	60.6	58.8	59.1	62.8
Non-Hispanic white . . . . .	81.3	81.4	81.2	81.5	81.7	81.5	81.6	81.9	82.0
Non-Hispanic black . . . . .	61.1	61.1	60.1	60.3	61.0	60.5	60.6	60.4	60.8

<sup>1</sup>Includes origin not stated.

NOTES: Data shown only for States with an Hispanic-origin item on their birth certificates. In 1980, there were 22 States; in 1982, 23 States; in 1983-87, 23 States and the District of Columbia; and in 1988, 30 States and the District of Columbia. About 95 percent of the total U.S. Hispanic population resided in these States in 1988.

SOURCES: National Center for Health Statistics, S. J. Ventura: Births of Hispanic parentage, 1980. Monthly Vital Statistics Report. Vol. 32, No. 6 Supp. DHHS Pub. No. (PHS) 83-1120. Sept. 1983; Births of Hispanic parentage, 1981. Monthly Vital Statistics Report. Vol. 33, No. 8 Supp. DHHS Pub. No. (PHS) 85-1120. Dec. 1984; Births of Hispanic parentage, 1982. Monthly Vital Statistics Report. Vol. 34, No. 4 Supp. DHHS Pub. No. (PHS) 85-1120. July 23, 1985; Births of Hispanic parentage, 1983 and 1984. Monthly Vital Statistics Report. Vol. 36, No. 4 Supp. (2). DHHS Pub. No. (PHS) 87-1120. July 24, 1987; Births of Hispanic parentage, 1985. Monthly Vital Statistics Report. Vol. 36, No. 11 Supp. DHHS Pub. No. (PHS) 88-1120. Feb. 26, 1988; National Center for Health Statistics: Advance report of final natality statistics, 1986. Monthly Vital Statistics Report. Vol. 37, No. 3 Supp. DHHS Pub. No. (PHS) 88-1120. July 12, 1988; Advance report of final natality statistics, 1987. Monthly Vital Statistics Report. Vol. 38, No. 3 Supp. DHHS Pub. No. (PHS) 89-1120. June 29, 1989; and Vital Statistics of the United States, 1988, Vol. 1, Natality. Public Health Service. Washington. U.S. Government Printing Office, 1990.

**Table 7 (page 1 of 2). Live births, according to race of child and selected characteristics: United States, selected years 1970–88**

[Data are based on the National Vital Statistics System]

<i>Race of child and characteristic</i>	1970	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988
Number of live births											
All races . . . . .	3,731,386	3,144,198	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
White . . . . .	3,091,264	2,551,996	2,898,732	2,908,669	2,942,054	2,904,250	2,923,502	2,991,373	2,970,439	2,992,488	3,046,162
Black . . . . .	572,362	511,581	589,616	587,797	592,641	586,027	592,745	608,193	621,221	641,567	671,976
American Indian <sup>1</sup> . . . . .	25,864	27,546	36,797	37,162	41,289	41,571	41,451	42,646	42,645	43,707	45,871
Asian or Pacific Islander <sup>2</sup> . . . . .	31,476	32,812	82,454	92,743	102,563	105,434	109,228	115,616	119,272	128,631	142,258
Chinese . . . . .	7,824	8,413	12,792	13,900	13,716	14,354	16,186	17,880	18,284	19,293	22,904
Japanese . . . . .	8,226	7,442	8,755	8,863	8,686	8,672	9,350	9,802	9,654	9,822	10,483
Filipino . . . . .	8,874	11,233	15,086	15,965	16,640	17,676	19,864	21,482	22,490	23,636	24,612
Percent of live births											
All races											
Birth weight:											
Less than 2,500 grams . . . . .	7.93	7.38	6.84	6.81	6.75	6.82	6.72	6.75	6.81	6.90	6.93
Less than 1,500 grams . . . . .	1.17	1.16	1.15	1.16	1.18	1.19	1.19	1.21	1.21	1.24	1.24
Age of mother:											
Less than 18 years . . . . .	6.3	7.6	5.8	5.4	5.2	5.0	4.8	4.7	4.8	4.8	4.8
18–19 years . . . . .	11.3	11.3	9.8	9.4	9.0	8.7	8.3	8.0	7.8	7.6	7.7
Unmarried mothers . . . . .	10.7	14.3	18.4	18.9	19.4	20.3	21.0	22.0	23.4	24.5	25.7
Education of mother:											
Less than 12 years . . . . .	30.8	28.6	23.7	22.9	22.3	21.7	20.9	20.6	20.4	20.2	20.5
16 years or more . . . . .	8.6	11.4	14.0	14.8	15.3	15.9	16.4	16.7	17.1	17.6	17.6
Prenatal care began:											
1st trimester . . . . .	68.0	72.4	76.3	76.3	76.1	76.2	76.5	76.2	75.9	76.0	75.9
3d trimester or no prenatal care . . . . .	7.9	6.0	5.1	5.2	5.5	5.6	5.6	5.7	6.0	6.1	6.1
White											
Birth weight:											
Less than 2,500 grams . . . . .	6.84	6.26	5.70	5.67	5.63	5.67	5.59	5.64	5.64	5.68	5.64
Less than 1,500 grams . . . . .	0.95	0.92	0.90	0.90	0.92	0.93	0.92	0.94	0.93	0.94	0.93
Age of mother:											
Less than 18 years . . . . .	4.8	6.0	4.5	4.3	4.1	3.9	3.7	3.7	3.7	3.7	3.6
18–19 years . . . . .	10.4	10.3	9.0	8.6	8.2	7.9	7.4	7.1	6.9	6.8	6.8
Unmarried mothers . . . . .	5.5	7.0	11.0	11.6	12.1	12.8	13.4	14.5	15.7	16.7	17.7
Education of mother:											
Less than 12 years . . . . .	27.0	25.0	20.7	19.9	19.3	18.7	18.0	17.8	17.6	17.3	17.5
16 years or more . . . . .	9.6	12.7	15.6	16.4	17.0	17.7	18.4	18.7	19.2	19.9	20.1
Prenatal care began:											
1st trimester . . . . .	72.4	75.9	79.3	79.4	79.3	79.4	79.6	79.4	79.2	79.4	79.4
3d trimester or no prenatal care . . . . .	6.2	5.0	4.3	4.3	4.5	4.6	4.7	4.7	5.0	5.0	5.0
Black											
Birth weight:											
Less than 2,500 grams . . . . .	13.83	13.06	12.49	12.53	12.40	12.59	12.36	12.42	12.53	12.71	12.97
Less than 1,500 grams . . . . .	2.39	2.37	2.44	2.47	2.51	2.55	2.56	2.65	2.66	2.73	2.78
Age of mother:											
Less than 18 years . . . . .	14.7	16.1	12.2	11.4	11.1	10.9	10.6	10.3	10.4	10.5	10.4
18–19 years . . . . .	16.6	16.8	14.3	13.9	13.5	13.4	13.1	12.7	12.4	12.1	12.3
Unmarried mothers . . . . .	37.4	49.0	55.2	56.0	56.7	58.2	59.2	60.1	61.2	62.2	63.5
Education of mother:											
Less than 12 years . . . . .	51.0	45.1	36.2	35.4	34.8	34.2	33.1	32.3	31.7	31.3	31.3
16 years or more . . . . .	2.8	4.4	6.3	6.6	6.8	6.8	7.0	7.1	7.3	7.3	7.2
Prenatal care began:											
1st trimester . . . . .	44.4	55.8	62.7	62.4	61.5	61.5	62.2	61.8	61.6	61.1	61.1
3d trimester or no prenatal care . . . . .	16.6	10.5	8.8	9.1	9.6	9.7	9.6	10.0	10.6	11.1	10.9
American Indian <sup>1</sup>											
Birth weight:											
Less than 2,500 grams . . . . .	7.99	6.59	6.47	6.27	6.17	6.43	6.16	5.88	6.16	6.24	6.07
Less than 1,500 grams . . . . .	0.98	1.04	0.96	0.90	1.04	1.06	1.03	0.98	1.01	1.08	1.03
Age of mother:											
Less than 18 years . . . . .	7.5	11.0	8.8	8.5	8.0	7.9	7.4	7.1	7.4	7.4	7.3
18–19 years . . . . .	13.3	15.8	14.3	14.0	13.5	12.9	12.6	12.0	11.8	11.5	11.2
Unmarried mothers . . . . .	19.8	27.9	33.5	35.2	36.3	38.7	39.8	40.7	42.3	44.9	45.6
Education of mother:											
Less than 12 years . . . . .	57.6	50.6	41.8	40.7	39.5	38.8	38.0	36.9	36.8	36.6	35.9
16 years or more . . . . .	3.0	2.8	4.2	4.4	4.5	4.3	4.5	4.6	4.6	4.5	4.6
Prenatal care began:											
1st trimester . . . . .	41.7	49.3	58.7	59.3	60.5	59.7	60.0	60.3	60.7	60.2	60.6
3d trimester or no prenatal care . . . . .	25.6	19.5	13.3	12.9	12.4	12.7	12.4	11.5	11.6	11.7	12.0

See footnotes at end of table.

**Table 7 (page 2 of 2). Live births, according to race of child and selected characteristics: United States, selected years 1970–88**

[Data are based on the National Vital Statistics System]

<i>Race of child and characteristic</i>	1970	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988
Asian or Pacific Islander <sup>2</sup>	Percent of live births										
Birth weight:											
Less than 2,500 grams . .	8.43	7.03	6.55	6.61	6.63	6.51	6.53	6.11	6.38	6.37	6.25
Less than 1,500 grams . .	1.12	0.80	0.91	0.91	0.87	0.87	0.91	0.84	0.87	0.85	0.85
Age of mother:											
Less than 18 years . . . . .	3.3	2.7	1.7	1.8	1.8	1.7	1.8	1.8	1.9	1.9	1.9
18–19 years . . . . .	7.1	5.8	4.3	4.4	4.4	3.9	3.8	3.7	3.7	3.6	3.7
Unmarried mothers. . . . .	7.8	8.5	7.8	7.5	8.4	9.0	9.6	10.1	10.6	11.5	12.0
Education of mother:											
Less than 12 years . . . . .	21.7	18.5	20.0	21.9	22.2	20.7	19.3	18.5	17.3	17.3	17.5
16 years or more . . . . .	20.0	27.5	30.2	29.0	28.9	29.7	30.2	30.1	31.1	31.6	31.3
Prenatal care began:											
1st trimester . . . . .	67.8	73.9	74.7	74.4	74.4	74.9	75.6	75.0	75.6	75.7	76.3
3d trimester or no prenatal care. . . . .	6.8	4.5	6.1	6.2	6.2	6.1	6.0	6.1	5.9	6.0	5.7
Chinese											
Birth weight:											
Less than 2,500 grams . .	6.77	5.32	4.88	5.56	5.32	4.97	5.11	5.04	4.91	5.01	4.72
Less than 1,500 grams . .	0.85	0.58	0.58	0.74	0.73	0.73	0.68	0.58	0.64	0.61	0.62
Age of mother:											
Less than 18 years . . . . .	1.2	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
18–19 years . . . . .	4.0	2.1	1.2	1.4	1.0	0.8	0.7	0.8	0.8	0.8	0.7
Unmarried mothers. . . . .	3.0	1.3	3.3	2.9	2.8	3.5	4.2	3.7	4.3	4.9	4.3
Education of mother:											
Less than 12 years . . . . .	22.4	16.4	15.0	16.0	16.7	17.8	17.3	15.1	11.8	13.0	14.0
16 years or more . . . . .	33.3	37.1	41.2	40.0	38.1	37.7	37.2	35.8	37.1	37.2	36.5
Prenatal care began:											
1st trimester . . . . .	72.2	77.1	82.5	83.0	82.0	81.0	82.1	82.4	82.4	81.9	82.7
3d trimester or no prenatal care. . . . .	6.5	4.1	3.7	3.6	3.6	4.4	4.0	4.2	4.0	4.2	3.3
Japanese											
Birth weight:											
Less than 2,500 grams . .	8.61	7.20	6.17	6.14	6.16	5.79	6.05	5.93	5.62	6.34	6.17
Less than 1,500 grams . .	1.56	0.86	0.97	0.71	0.90	0.69	0.81	0.84	0.82	0.93	0.84
Age of mother:											
Less than 18 years . . . . .	2.0	1.7	1.2	1.1	1.3	0.7	0.8	0.9	1.0	0.9	0.9
18–19 years . . . . .	4.8	3.8	2.6	2.8	2.7	2.4	2.3	2.0	2.0	1.8	1.9
Unmarried mothers. . . . .	4.6	4.3	5.6	6.1	6.8	6.7	6.8	7.9	8.0	8.0	8.6
Education of mother:											
Less than 12 years . . . . .	11.7	9.8	5.5	5.2	5.1	5.0	4.0	5.3	4.7	3.7	4.2
16 years or more . . . . .	20.9	30.3	36.9	35.7	37.8	38.3	38.4	37.9	40.6	41.3	41.4
Prenatal care began:											
1st trimester . . . . .	78.4	82.8	86.0	86.1	86.8	87.1	86.9	85.8	86.2	86.6	87.0
3d trimester or no prenatal care. . . . .	4.2	2.7	2.2	2.2	2.1	2.1	2.6	2.6	2.7	2.7	3.1
Filipino											
Birth weight:											
Less than 2,500 grams . .	9.35	7.98	7.37	7.30	6.91	7.32	7.74	6.95	7.30	7.29	7.06
Less than 1,500 grams . .	0.98	0.87	0.94	1.03	0.79	0.98	1.01	0.84	0.87	0.96	0.91
Age of mother:											
Less than 18 years . . . . .	3.9	3.1	2.0	1.9	2.0	2.0	2.2	1.9	1.9	2.0	1.9
18–19 years . . . . .	7.6	6.1	4.5	4.4	4.8	4.3	4.2	4.0	3.9	4.0	4.3
Unmarried mothers. . . . .	7.7	7.2	9.0	9.6	10.6	10.7	11.3	12.1	12.6	13.4	14.5
Education of mother:											
Less than 12 years . . . . .	26.5	22.8	16.5	16.0	15.7	14.8	13.3	13.3	12.7	12.6	12.0
16 years or more . . . . .	27.0	35.5	36.0	35.9	35.0	34.9	35.0	34.4	34.9	36.1	34.8
Prenatal care began:											
1st trimester . . . . .	62.0	71.0	77.9	78.3	77.5	78.1	78.2	77.2	78.7	78.4	78.6
3d trimester or no prenatal care. . . . .	7.0	4.3	3.9	3.4	3.8	3.8	4.3	4.6	4.3	4.7	4.6

<sup>1</sup>Includes Aleut and Eskimo.

<sup>2</sup>Includes Chinese, Japanese, Filipino, Hawaiian (includes part Hawaiian), Guamanian, and other Asian or Pacific Islander (starting in 1980).

NOTE: Data on education of mother are not available from California, Texas, and Washington for 1980 to 1988. In 1988, education was also missing for New York State outside of New York City. Other States do not have data on marital status, education, and/or month prenatal care began for certain years before 1980.

SOURCE: National Center for Health Statistics: Vital Statistics of the United States, Vol. I, Natality, for data years 1970–88. 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 8. Infants weighing less than 2,500 grams at birth, according to race of child, geographic division, and State: United States, average annual 1976-78, 1981-83, and 1986-88**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1976-78	1981-83	1986-88	1976-78	1981-83	1986-88	1976-78	1981-83	1986-88
Infants weighing less than 2,500 grams at birth per 100 total live births									
United States . . . . .	7.13	6.79	6.88	5.99	5.65	5.66	12.83	12.51	12.74
New England . . . . .	6.43	6.00	5.90	6.01	5.53	5.35	12.43	12.07	11.82
Maine . . . . .	5.54	5.32	5.12	5.52	5.31	5.09	*	*	*
New Hampshire . . . . .	5.89	5.09	4.98	5.88	5.09	4.96	*	*	*
Vermont . . . . .	6.47	5.99	5.14	6.44	5.99	5.10	*	*	*
Massachusetts . . . . .	6.44	5.92	5.85	6.09	5.49	5.28	11.37	11.12	11.15
Rhode Island . . . . .	6.66	6.14	6.16	6.19	5.63	5.67	*13.40	*11.52	*10.98
Connecticut . . . . .	6.90	6.69	6.66	5.98	5.73	5.69	13.57	13.46	13.01
Middle Atlantic . . . . .	7.50	7.01	7.24	6.21	5.72	5.70	13.26	12.61	13.37
New York . . . . .	7.82	7.27	7.56	6.47	5.94	5.90	13.03	12.11	13.22
New Jersey . . . . .	7.49	7.07	6.94	6.00	5.55	5.42	13.52	13.03	12.99
Pennsylvania . . . . .	6.99	6.56	6.90	5.97	5.52	5.60	13.59	13.47	14.08
East North Central . . . . .	6.94	6.70	6.83	5.79	5.47	5.50	13.34	13.39	13.44
Ohio . . . . .	6.89	6.70	6.71	5.93	5.69	5.67	13.11	12.88	12.42
Indiana . . . . .	6.50	6.35	6.48	5.84	5.66	5.80	12.05	12.04	12.04
Illinois . . . . .	7.46	7.26	7.44	5.75	5.43	5.50	13.72	13.91	14.05
Michigan . . . . .	7.26	6.94	7.12	5.98	5.61	5.55	13.58	13.74	14.14
Wisconsin . . . . .	5.63	5.23	5.42	5.19	4.68	4.70	12.45	12.51	12.50
West North Central . . . . .	6.02	5.68	5.81	5.50	5.13	5.19	12.99	12.35	12.47
Minnesota . . . . .	5.34	5.11	5.04	5.15	4.86	4.65	*11.81	*11.47	12.60
Iowa . . . . .	5.50	4.92	5.26	5.36	4.76	5.04	*11.29	*10.90	*11.44
Missouri . . . . .	7.03	6.69	6.87	5.86	5.58	5.72	13.43	12.76	12.75
North Dakota . . . . .	5.24	4.68	4.87	4.98	4.59	4.71	*	*	*
South Dakota . . . . .	5.38	5.18	5.05	5.18	4.81	4.85	*	*	*
Nebraska . . . . .	5.76	5.45	5.50	5.43	5.03	5.11	*12.36	*12.32	*12.05
Kansas . . . . .	6.43	6.19	6.23	5.90	5.60	5.59	12.66	12.11	12.24
South Atlantic . . . . .	8.09	7.86	7.87	6.15	5.93	5.93	12.74	12.48	12.60
Delaware . . . . .	7.79	7.41	7.15	5.99	5.48	5.48	13.77	13.39	12.42
Maryland . . . . .	7.81	7.60	7.88	5.80	5.55	5.62	12.86	12.30	12.80
District of Columbia . . . . .	12.85	13.26	13.38	*6.97	*6.09	*5.11	14.03	14.90	15.76
Virginia . . . . .	7.38	7.24	7.00	5.92	5.68	5.50	12.10	12.10	11.57
West Virginia . . . . .	6.94	6.83	6.83	6.75	6.66	6.65	*11.48	*10.91	*11.26
North Carolina . . . . .	8.07	7.90	7.94	6.18	5.98	6.07	12.47	12.34	12.34
South Carolina . . . . .	8.91	8.80	8.70	6.11	6.17	6.18	13.13	12.81	12.70
Georgia . . . . .	8.62	8.46	8.24	6.24	6.05	6.06	12.91	12.75	12.28
Florida . . . . .	7.86	7.45	7.65	6.20	5.89	5.97	12.48	11.94	12.87
East South Central . . . . .	7.98	7.86	7.89	6.38	6.22	6.26	12.27	12.22	12.18
Kentucky . . . . .	7.10	6.96	6.88	6.53	6.48	6.35	12.79	11.72	11.88
Tennessee . . . . .	7.98	7.97	7.97	6.58	6.42	6.46	13.01	13.40	12.88
Alabama . . . . .	8.17	7.92	8.03	6.12	5.85	5.96	11.99	11.79	12.01
Mississippi . . . . .	8.84	8.74	8.78	6.08	5.85	6.12	11.91	11.95	11.85
West South Central . . . . .	7.68	7.20	7.21	6.36	5.97	6.00	13.05	12.67	12.43
Arkansas . . . . .	7.88	7.56	7.84	6.27	5.93	6.42	12.66	12.56	12.38
Louisiana . . . . .	8.86	8.49	8.70	6.27	5.80	5.92	12.88	12.98	12.85
Oklahoma . . . . .	7.23	6.70	6.59	6.64	6.17	6.04	13.20	11.98	11.40
Texas . . . . .	7.36	6.89	6.87	6.33	5.98	5.96	13.28	12.55	12.26
Mountain . . . . .	6.92	6.55	6.65	6.71	6.37	6.42	13.33	11.73	12.71
Montana . . . . .	6.28	5.59	5.79	6.12	5.52	5.76	*	*	*
Idaho . . . . .	5.62	5.33	5.31	5.58	5.28	5.27	*	*	*
Wyoming . . . . .	8.23	6.93	7.17	8.07	6.87	7.18	*	*	*
Colorado . . . . .	8.44	7.89	7.83	8.13	7.59	7.43	14.66	12.68	13.82
New Mexico . . . . .	8.43	7.58	7.15	8.45	7.64	7.24	*13.63	*11.83	*10.74
Arizona . . . . .	6.23	6.03	6.29	5.99	5.81	6.09	11.82	11.06	11.87
Utah . . . . .	5.44	5.49	5.62	5.41	5.42	5.51	*	*	*
Nevada . . . . .	7.46	6.79	7.30	6.69	6.25	6.43	*13.66	*11.45	13.75
Pacific . . . . .	6.02	5.78	5.88	5.37	5.12	5.12	11.40	11.03	12.12
Washington . . . . .	5.49	5.18	5.26	5.25	4.85	4.85	9.77	9.93	10.58
Oregon . . . . .	5.23	4.91	5.25	5.05	4.69	5.04	*11.41	*10.16	*11.47
California . . . . .	6.14	5.93	6.00	5.44	5.22	5.18	11.55	11.19	12.35
Alaska . . . . .	5.38	4.84	4.80	5.01	4.44	4.33	*	*7.19	*8.84
Hawaii . . . . .	7.35	7.08	6.92	5.81	5.97	5.47	*8.23	*9.85	*8.42

\*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 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 9. Infants weighing less than 1,500 grams at birth, according to race of child, geographic division, and State: United States, average annual 1976–78, 1981–83, and 1986–88**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1976–78	1981–83	1986–88	1976–78	1981–83	1986–88	1976–78	1981–83	1986–88
	Infants weighing less than 1,500 grams at birth per 100 total live births								
United States . . . . .	1.15	1.17	1.23	0.90	0.92	0.93	2.40	2.51	2.73
New England . . . . .	1.04	1.07	1.04	0.94	0.94	0.90	2.53	2.77	2.66
Maine . . . . .	0.83	0.87	0.79	0.83	0.87	0.79	*	*	*
New Hampshire . . . . .	0.94	0.89	0.85	0.94	0.89	0.84	*	*	*
Vermont . . . . .	1.06	0.89	0.82	1.05	0.89	0.82	*	*	*
Massachusetts . . . . .	1.00	1.04	1.01	0.93	0.93	0.85	2.03	2.46	2.50
Rhode Island . . . . .	1.25	1.09	1.16	1.12	0.98	1.05	*3.36	*2.50	*2.46
Connecticut . . . . .	1.18	1.29	1.28	0.93	1.03	1.03	2.96	3.20	2.97
Middle Atlantic . . . . .	1.23	1.21	1.35	0.95	0.93	0.97	2.48	2.49	2.93
New York . . . . .	1.28	1.26	1.41	0.98	0.96	0.99	2.45	2.38	2.85
New Jersey . . . . .	1.19	1.23	1.33	0.89	0.92	0.96	2.44	2.51	2.88
Pennsylvania . . . . .	1.17	1.13	1.28	0.94	0.88	0.94	2.58	2.77	3.18
East North Central . . . . .	1.18	1.22	1.26	0.92	0.94	0.93	2.61	2.78	2.92
Ohio . . . . .	1.13	1.18	1.19	0.93	0.94	0.94	2.45	2.70	2.57
Indiana . . . . .	1.07	1.09	1.13	0.92	0.90	0.95	2.37	2.62	2.59
Illinois . . . . .	1.32	1.37	1.40	0.92	0.96	0.95	2.78	2.88	2.97
Michigan . . . . .	1.25	1.26	1.38	0.97	0.97	0.94	2.61	2.80	3.37
Wisconsin . . . . .	0.92	0.97	0.97	0.82	0.85	0.80	2.40	2.60	2.61
West North Central . . . . .	0.97	0.96	0.99	0.86	0.85	0.85	2.36	2.43	2.59
Minnesota . . . . .	0.85	0.90	0.88	0.82	0.85	0.81	*2.02	*2.73	2.58
Iowa . . . . .	0.96	0.80	0.84	0.93	0.77	0.79	*2.22	*1.96	*2.28
Missouri . . . . .	1.11	1.13	1.20	0.87	0.89	0.92	2.39	2.49	2.67
North Dakota . . . . .	0.86	0.85	0.82	0.76	0.81	0.82	*	*	*
South Dakota . . . . .	0.76	0.88	0.96	0.76	0.82	0.88	*	*	*
Nebraska . . . . .	0.92	0.90	0.88	0.84	0.82	0.79	*2.26	*2.34	*2.31
Kansas . . . . .	1.02	1.03	1.04	0.92	0.92	0.87	2.34	2.27	2.65
South Atlantic . . . . .	1.39	1.47	1.53	0.96	1.00	1.02	2.44	2.62	2.79
Delaware . . . . .	1.17	1.47	1.54	0.88	0.98	0.99	2.18	2.89	3.30
Maryland . . . . .	1.46	1.56	1.78	0.97	1.01	1.10	2.69	2.82	3.30
District of Columbia . . . . .	2.77	3.19	3.39	*1.34	*1.49	*1.04	3.06	3.58	4.07
Virginia . . . . .	1.25	1.33	1.29	0.91	0.94	0.91	2.39	2.56	2.44
West Virginia . . . . .	1.05	1.07	1.14	1.00	1.03	1.08	*2.19	*1.93	*2.81
North Carolina . . . . .	1.39	1.47	1.56	0.95	0.99	1.05	2.40	2.59	2.75
South Carolina . . . . .	1.48	1.65	1.63	0.92	1.10	1.07	2.32	2.48	2.51
Georgia . . . . .	1.45	1.61	1.59	0.91	1.01	1.05	2.40	2.68	2.59
Florida . . . . .	1.37	1.34	1.42	1.03	0.98	1.00	2.32	2.41	2.77
East South Central . . . . .	1.23	1.31	1.39	0.91	0.95	1.00	2.09	2.25	2.40
Kentucky . . . . .	1.05	1.10	1.14	0.95	0.96	1.03	2.09	2.47	2.25
Tennessee . . . . .	1.24	1.33	1.42	0.94	0.99	1.05	2.32	2.49	2.63
Alabama . . . . .	1.28	1.35	1.47	0.86	0.92	0.96	2.06	2.15	2.45
Mississippi . . . . .	1.40	1.47	1.52	0.87	0.86	0.91	1.98	2.12	2.21
West South Central . . . . .	1.18	1.17	1.23	0.88	0.91	0.94	2.39	2.37	2.50
Arkansas . . . . .	1.19	1.23	1.25	0.86	0.89	0.92	2.15	2.26	2.34
Louisiana . . . . .	1.45	1.45	1.64	0.88	0.86	0.97	2.35	2.43	2.64
Oklahoma . . . . .	1.06	1.07	1.02	0.93	0.94	0.89	2.23	2.34	2.07
Texas . . . . .	1.12	1.11	1.16	0.88	0.91	0.95	2.51	2.36	2.49
Mountain . . . . .	0.89	0.93	0.95	0.85	0.88	0.89	2.40	2.44	2.38
Montana . . . . .	0.85	0.83	0.84	0.85	0.81	0.83	*	*	*
Idaho . . . . .	0.76	0.70	0.84	0.75	0.69	0.84	*	*	*
Wyoming . . . . .	1.03	0.96	0.86	0.97	0.94	0.86	*	*	*
Colorado . . . . .	1.04	1.01	0.99	0.97	0.94	0.91	2.53	2.18	2.33
New Mexico . . . . .	0.96	1.02	0.98	0.92	1.03	0.96	*2.56	*2.46	*2.32
Arizona . . . . .	0.92	1.00	1.06	0.86	0.92	1.00	2.27	2.65	2.50
Utah . . . . .	0.66	0.78	0.72	0.65	0.77	0.69	*	*	*
Nevada . . . . .	1.12	1.05	1.15	0.94	0.91	0.96	*2.44	*2.65	2.72
Pacific . . . . .	0.93	0.98	1.01	0.81	0.86	0.86	2.06	2.20	2.56
Washington . . . . .	0.87	0.85	0.86	0.84	0.79	0.77	1.57	1.88	2.32
Oregon . . . . .	0.80	0.83	0.81	0.77	0.82	0.77	*1.87	*1.49	*1.93
California . . . . .	0.95	1.02	1.04	0.81	0.88	0.88	2.11	2.24	2.60
Alaska . . . . .	0.76	0.85	0.98	0.72	0.74	0.88	*	*2.17	*2.30
Hawaii . . . . .	0.97	1.03	1.05	0.93	0.97	0.90	*1.37	*1.73	*2.35

\*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 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 10. Legal abortion ratios, according to selected patient characteristics: United States, selected years 1973–88**

[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 <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	35.1
Age											
Under 15 years . . . . .	74.3	101.5	122.7	126.4	120.0	133.6	145.8	141.2	130.5	131.3	101.7
15–19 years . . . . .	31.7	46.4	66.4	66.8	66.5	67.3	71.4	71.7	70.2	72.6	69.9
20–24 years . . . . .	17.9	25.0	37.5	37.9	38.0	38.1	41.2	40.4	41.0	42.0	42.1
25–29 years . . . . .	12.3	16.6	23.0	23.2	23.5	23.0	23.9	23.2	24.0	23.9	24.3
30–34 years . . . . .	16.5	22.1	23.3	23.7	23.0	22.0	22.3	21.4	21.5	21.4	21.2
35–39 years . . . . .	26.7	37.5	40.3	40.3	37.1	35.4	35.2	33.4	33.4	31.7	30.7
40 years and over . . . . .	40.2	59.9	78.3	77.6	75.0	69.1	66.7	63.8	59.8	56.2	56.0
Race											
White . . . . .	17.5	22.7	31.3	31.2	30.4	29.5	30.8	29.6	30.0	30.0	29.4
All other . . . . .	28.9	46.5	54.7	54.4	55.6	56.0	58.2	57.6	55.8	55.7	55.3
Marital status											
Married . . . . .	6.2	8.3	10.2	9.8	9.7	9.3	9.6	8.7	9.3	9.8	9.6
Unmarried . . . . .	109.8	141.1	149.9	147.5	142.2	135.2	137.1	129.5	120.6	114.9	108.7
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	44.9
1 . . . . .	12.1	17.3	21.9	21.9	22.0	22.1	23.0	22.8	23.8	24.7	25.1
2 . . . . .	19.6	29.7	32.8	32.6	32.4	32.5	34.0	33.0	33.5	34.5	34.6
3 . . . . .	25.8	39.8	33.5	33.5	32.2	31.9	32.8	32.1	32.4	33.2	32.4
4 or more . . . . .	26.4	40.8	27.3	26.6	25.4	24.8	24.9	23.7	24.2	24.2	22.5

<sup>1</sup>Preliminary data.

<sup>2</sup>For 1973–75, data indicate number of living children

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; and Abortion Surveillance: Preliminary Analysis, United States, 1988. Public Health Service, DHHS, Atlanta, Ga., Sept 1990.

**Table 11. Legal abortions, according to selected characteristics: United States, selected years 1973–88**

[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 <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
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
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	49.7
9–10 weeks . . . . .	29.4	28.4	26.2	26.8	26.7	26.8	26.4	26.6	25.8	26.0	26.0
11–12 weeks . . . . .	17.9	14.9	12.2	12.1	12.4	12.8	12.6	12.5	12.2	12.4	12.5
13–15 weeks . . . . .	6.9	5.0	5.2	5.2	5.3	5.8	5.8	5.9	6.1	6.2	6.4
16–20 weeks . . . . .	8.0	6.1	3.9	3.7	3.9	3.9	3.9	3.9	4.1	4.2	4.4
21 weeks and over . . . . .	1.7	1.0	0.9	1.0	1.1	1.0	0.8	0.8	0.8	0.8	1.0
Type of procedure											
Curettage . . . . .	88.4	90.9	95.5	96.1	96.4	96.8	96.8	97.5	97.0	97.2	97.1
Intrauterine instillation . . . . .	10.4	6.2	3.1	2.8	2.5	2.1	1.9	1.7	1.4	1.3	1.2
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
Other . . . . .	0.6	2.4	1.3	1.0	1.0	1.1	1.3	0.8	1.6	1.5	1.7
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	91.5	91.9
Out of State of residence . . . . .	25.2	10.8	7.4	7.5	7.1	6.7	8.0	7.6	7.7	8.5	8.1
Previous induced abortions											
0 . . . . .	---	81.9	67.6	65.3	63.7	62.4	60.5	60.1	59.3	58.5	57.6
1 . . . . .	---	14.9	23.5	24.3	24.9	25.0	25.7	25.7	26.3	26.5	26.9
2 . . . . .	---	2.5	6.6	7.5	8.2	9.0	9.4	9.8	9.6	10.3	9.5
3 or more . . . . .	---	0.7	2.3	2.9	3.2	3.7	4.3	4.4	4.8	4.7	6.0

<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, 1984–1985. 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; and Abortion Surveillance: Preliminary Analysis, United States, 1988. Public Health Service, DHHS, Atlanta, Ga., Sept. 1990; 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 12. 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]

<i>Period of gestation and year</i>	<i>Number of legal abortions reported</i>	<i>Abortion-related deaths<sup>1</sup></i>	
		<i>Number</i>	<i>Rate per 100,000 abortions</i>
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 13. 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
All methods									
Percent of ever-married women using contraception									
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
Female sterilization									
Percent of ever-married contracepting women									
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 14. 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>
<b>Marital status</b>			<b>Number of women in thousands</b>			
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
<b>All methods</b>			<b>Percent of women using contraception</b>			
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
<b>Female sterilization</b>			<b>Percent of contracepting women</b>			
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
<b>Male sterilization</b>						
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
<b>Birth control pill</b>						
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
<b>Intrauterine device</b>						
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
<b>Diaphragm</b>						
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
<b>Condom</b>						
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 15. Life expectancy at birth and at 65 years of age, according to race and sex: United States, selected years 1900–1989**

[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
Provisional data:									
1985 <sup>2</sup>	74.7	71.2	78.2	75.3	71.8	78.7	69.5	65.3	73.7
1986 <sup>2</sup>	74.9	71.3	78.3	75.4	72.0	78.9	69.6	65.5	73.6
1987 <sup>2</sup>	74.9	71.5	78.3	75.5	72.1	78.8	69.7	65.4	73.8
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
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
Provisional data:									
1985 <sup>2</sup>	16.8	14.6	18.6	16.8	14.6	18.7	15.5	13.3	17.2
1986 <sup>2</sup>	16.9	14.8	18.6	17.0	14.8	18.8	15.5	13.6	16.9
1987 <sup>2</sup>	16.9	14.8	18.6	17.0	14.9	18.7	15.6	13.6	17.2
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

<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; Vital Statistics of the United States, 1970, Vol. II, Mortality, Part A, DHEW Pub. No. (HRA) 75–1101. Health Resources Administration. Washington. U.S. Government Printing Office, 1974; Vital Statistics of the United States, 1975, Vol. II, Mortality, Part A, DHEW Pub. No. (PHS) 79–1114. Public Health Service. Washington. U.S. Government Printing Office, 1979; Annual summary of births, marriages, divorces, and deaths, United States, 1985. Monthly Vital Statistics Report. Vol. 34, No. 13. DHHS Pub. No. (PHS) 86–1120. Sept. 19, 1986; Annual summary of births, marriages, divorces, and deaths, United States, 1986. Monthly Vital Statistics Report. Vol. 35, No. 13. DHHS Pub. No. (PHS) 87–1120. Aug. 24, 1987; Annual summary of births, marriages, divorces, and deaths, United States, 1987. Monthly Vital Statistics Report. Vol. 36, No. 13. DHHS Pub. No. (PHS) 88–1120. July 29, 1988; 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, 1989. Monthly Vital Statistics Report. Vol. 38, No. 13. DHHS Pub. No. (PHS) 90–1120. Aug. 1990. 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 16. Infant mortality rates, fetal death rates, and perinatal mortality rates, according to race: United States, selected years 1950–89**

[Data are based on the National Vital Statistics System]

Race and year	Infant mortality rate <sup>1</sup>							
	Total	Neonatal			Postneonatal	Fetal death rate <sup>2</sup>	Late fetal death rate <sup>3</sup>	Perinatal mortality rate <sup>4</sup>
		Under 28 days	Under 7 days					
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	
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	---	---	---	
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	5.5	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	
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	

<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.

SOURCES: National Center for Health Statistics: Vital Statistics of the United States, Vol. II, Mortality, Part A, for data years 1950–88. Public Health Service. Washington. U.S. Government Printing Office. Annual summary of births, marriages, divorces, and deaths, United States, 1985. Monthly Vital Statistics Report. Vol. 34, No. 13. DHHS Pub. No. (PHS) 86–1120. Sept. 19, 1986; 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, 1989. Monthly Vital Statistics Report. Vol. 38, No. 13. DHHS Pub. No. (PHS) 90–1120. Aug. 1990; Public Health Service. Hyattsville, Md.; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.

**Table 17. Infant mortality rates, according to race, geographic division, and State: United States, average annual 1976–78, 1981–83, and 1986–88**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1976–78	1981–83	1986–88	1976–78	1981–83	1986–88	1976–78	1981–83	1986–88
	Infant deaths per 1,000 live births								
United States . . . . .	14.4	11.5	10.1	12.5	10.1	8.7	24.1	19.6	17.8
New England . . . . .	11.9	10.1	8.3	11.3	9.5	7.7	22.6	19.0	16.4
Maine . . . . .	10.3	9.5	8.3	10.4	9.6	8.4	*	*	*
New Hampshire . . . . .	10.7	9.8	8.4	10.8	9.8	8.4	*	*	*
Vermont . . . . .	12.1	8.6	8.4	12.1	8.5	8.3	*	*	*
Massachusetts . . . . .	11.7	9.6	7.9	11.2	9.2	7.2	19.6	17.1	16.0
Rhode Island . . . . .	13.4	11.2	8.6	12.4	10.6	8.1	*30.5	*19.3	*13.9
Connecticut . . . . .	13.1	11.1	8.9	11.5	9.8	7.7	25.1	21.1	17.7
Middle Atlantic . . . . .	14.5	11.8	10.3	12.5	10.1	8.5	23.9	19.3	18.3
New York . . . . .	14.8	12.0	10.7	12.6	10.4	9.0	23.8	18.7	17.4
New Jersey . . . . .	14.1	11.3	9.7	11.5	9.4	7.7	24.5	19.4	18.3
Pennsylvania . . . . .	14.4	11.6	10.2	13.0	10.3	8.4	23.8	21.0	20.6
East North Central . . . . .	14.4	12.1	10.6	12.6	10.2	8.8	25.2	22.5	19.9
Ohio . . . . .	14.0	11.7	9.9	12.8	10.3	8.8	22.5	20.3	16.2
Indiana . . . . .	14.0	11.5	10.8	12.9	10.6	9.7	23.2	19.3	20.2
Illinois . . . . .	16.1	13.3	11.7	13.0	10.6	9.1	28.2	24.0	21.2
Michigan . . . . .	14.3	12.4	11.0	12.3	10.1	8.7	24.9	24.2	22.0
Wisconsin . . . . .	11.7	9.8	8.8	11.2	9.2	7.9	19.2	18.0	16.7
West North Central . . . . .	13.6	10.5	9.3	12.6	9.8	8.5	25.8	19.3	17.4
Minnesota . . . . .	12.3	9.9	8.6	12.0	9.5	8.1	*24.8	*22.1	17.9
Iowa . . . . .	13.1	9.7	8.7	12.8	9.5	8.5	*25.9	*20.5	*17.5
Missouri . . . . .	14.8	11.7	10.3	12.7	10.4	9.1	26.6	19.5	17.4
North Dakota . . . . .	13.6	10.2	9.2	13.1	9.7	8.8	*	*	*
South Dakota . . . . .	15.6	10.8	11.1	14.0	9.0	9.4	*	*	*
Nebraska . . . . .	13.3	9.9	9.2	12.8	9.5	8.5	*24.1	*17.3	*19.7
Kansas . . . . .	13.3	10.7	8.8	12.5	10.2	8.0	24.0	18.0	16.9
South Atlantic . . . . .	16.0	13.2	11.6	12.8	10.4	9.0	24.1	20.2	18.3
Delaware . . . . .	13.2	12.5	11.7	10.7	9.5	9.4	21.9	21.7	19.6
Maryland . . . . .	15.4	12.1	11.5	12.3	9.4	8.9	23.4	18.7	17.8
District of Columbia . . . . .	26.6	21.8	21.2	*12.9	*12.0	14.6	29.5	24.0	24.3
Virginia . . . . .	15.3	12.4	10.5	12.7	10.3	8.4	24.3	19.6	17.6
West Virginia . . . . .	15.5	11.8	9.7	15.3	11.6	9.2	*23.0	*18.6	*21.6
North Carolina . . . . .	16.7	13.3	12.0	13.4	10.7	9.4	24.6	19.8	18.4
South Carolina . . . . .	18.6	15.7	12.7	13.5	11.9	9.8	26.5	21.8	17.5
Georgia . . . . .	15.6	13.3	12.6	12.2	9.9	9.6	22.0	19.3	18.3
Florida . . . . .	14.9	12.8	10.7	12.1	10.1	8.4	23.0	20.8	18.1
East South Central . . . . .	16.4	13.1	11.6	13.3	10.7	9.2	24.9	19.7	17.8
Kentucky . . . . .	13.9	11.9	10.1	13.3	11.4	9.7	21.3	17.8	14.4
Tennessee . . . . .	15.4	12.5	11.1	13.4	10.3	8.7	22.9	20.2	18.9
Alabama . . . . .	17.5	13.3	12.5	13.5	10.3	9.3	25.2	19.0	18.7
Mississippi . . . . .	19.4	15.3	12.8	12.7	10.5	9.2	26.8	20.5	16.8
West South Central . . . . .	15.5	11.6	9.7	13.4	10.3	8.6	24.4	17.9	15.6
Arkansas . . . . .	15.7	10.9	10.4	13.3	9.0	8.8	23.1	16.9	16.1
Louisiana . . . . .	17.7	13.4	11.6	12.6	9.8	8.6	25.6	19.6	16.3
Oklahoma . . . . .	14.8	11.7	9.7	14.0	11.5	9.6	22.9	16.7	14.7
Texas . . . . .	15.0	11.2	9.2	13.5	10.4	8.4	24.0	16.9	15.0
Mountain . . . . .	12.8	10.0	9.3	12.4	9.9	9.0	19.4	16.0	15.8
Montana . . . . .	13.9	9.9	9.4	13.4	9.6	8.9	*	*	*
Idaho . . . . .	12.0	10.0	10.2	12.1	10.1	10.1	*	*	*
Wyoming . . . . .	14.4	10.1	9.7	14.4	10.2	9.6	*	*	*
Colorado . . . . .	12.0	9.7	9.3	11.9	9.7	9.2	19.0	13.1	15.2
New Mexico . . . . .	14.5	10.4	9.2	13.8	10.2	8.8	*23.1	*13.5	*17.2
Arizona . . . . .	13.9	10.2	9.5	12.9	9.7	9.1	18.4	17.0	16.2
Utah . . . . .	11.1	9.9	8.5	10.9	9.9	8.5	*	*	*
Nevada . . . . .	13.5	10.7	9.0	13.1	10.2	8.4	*19.4	*19.7	17.6
Pacific . . . . .	12.3	10.0	9.0	11.8	9.8	8.6	19.9	16.1	15.9
Washington . . . . .	13.0	10.2	9.5	12.9	10.0	9.3	18.8	17.0	15.0
Oregon . . . . .	12.6	10.4	9.5	12.5	10.3	9.5	*20.6	*16.3	*17.0
California . . . . .	12.1	9.9	8.8	11.5	9.6	8.5	20.0	16.0	16.0
Alaska . . . . .	15.2	12.0	10.9	13.4	10.4	9.4	*	*20.9	*13.4
Hawaii . . . . .	11.1	9.3	8.5	11.1	9.6	8.0	*12.8	*12.2	*11.8

\*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 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 18. Neonatal mortality rates, according to race, geographic division, and State: United States, average annual 1976–78, 1981–83, and 1986–88**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1976–78	1981–83	1986–88	1976–78	1981–83	1986–88	1976–78	1981–83	1986–88
	Neonatal deaths per 1,000 live births								
United States . . . . .	10.1	7.7	6.5	8.9	6.8	5.6	16.5	13.0	11.6
New England . . . . .	8.9	7.4	5.7	8.4	6.9	5.3	16.8	14.1	11.9
Maine . . . . .	6.6	6.3	5.3	6.7	6.4	5.3	*	*	*
New Hampshire . . . . .	8.3	6.9	5.5	8.4	6.9	5.5	*	*	*
Vermont . . . . .	8.4	5.5	5.6	8.3	5.5	5.6	*	*	*
Massachusetts . . . . .	8.7	7.0	5.5	8.4	6.7	5.0	13.8	12.2	11.3
Rhode Island . . . . .	10.0	8.8	6.2	9.3	8.4	5.8	*22.0	*14.1	*10.8
Connecticut . . . . .	10.3	8.6	6.4	9.1	7.6	5.5	19.5	16.2	13.0
Middle Atlantic . . . . .	10.8	8.2	7.1	9.4	7.2	5.9	17.0	12.7	12.1
New York . . . . .	10.8	8.3	7.4	9.3	7.3	6.3	16.8	12.2	11.4
New Jersey . . . . .	10.5	7.8	6.6	8.9	6.7	5.3	16.9	12.2	11.9
Pennsylvania . . . . .	11.0	8.2	6.9	10.0	7.4	5.7	17.7	14.3	13.8
East North Central . . . . .	10.2	8.3	6.9	9.0	7.1	5.7	17.1	15.0	13.1
Ohio . . . . .	10.2	8.1	6.2	9.3	7.1	5.6	16.0	14.0	9.9
Indiana . . . . .	9.6	7.8	6.8	8.9	7.3	6.0	15.8	12.2	13.3
Illinois . . . . .	11.5	9.1	7.7	9.5	7.5	6.2	18.9	15.3	13.4
Michigan . . . . .	10.0	8.6	7.6	8.7	7.0	5.7	16.9	17.4	16.3
Wisconsin . . . . .	8.0	6.5	5.3	7.8	6.2	4.8	11.6	10.8	10.1
West North Central . . . . .	9.8	6.8	5.6	9.2	6.5	5.2	17.9	12.2	10.6
Minnesota . . . . .	8.7	6.3	5.1	8.5	6.1	4.9	*16.1	*13.9	10.6
Iowa . . . . .	9.8	6.1	5.5	9.6	6.0	5.4	*18.9	*11.7	*9.8
Missouri . . . . .	10.6	7.8	6.5	9.3	7.0	5.7	18.3	12.7	10.8
North Dakota . . . . .	10.0	6.7	4.8	9.9	6.5	4.8	*	*	*
South Dakota . . . . .	11.0	6.8	5.9	10.7	6.3	5.6	*	*	*
Nebraska . . . . .	9.4	6.5	5.6	9.1	6.3	5.2	*15.8	*10.0	*10.7
Kansas . . . . .	9.8	7.1	5.2	9.3	6.8	4.7	17.8	11.0	10.7
South Atlantic . . . . .	11.2	9.0	7.8	9.2	7.0	6.0	16.3	13.8	12.4
Delaware . . . . .	9.3	9.1	8.7	7.8	7.0	6.9	14.7	15.5	14.6
Maryland . . . . .	11.6	8.5	8.0	9.3	6.6	6.1	17.6	13.4	12.8
District of Columbia . . . . .	20.4	16.4	16.0	*9.8	*10.0	10.0	22.7	17.8	18.6
Virginia . . . . .	11.0	8.9	7.0	9.1	7.2	5.4	17.6	14.6	12.2
West Virginia . . . . .	10.7	7.7	6.4	10.5	7.6	6.1	*16.9	*12.6	*13.3
North Carolina . . . . .	11.8	9.0	7.9	9.9	7.1	6.2	16.5	13.6	12.2
South Carolina . . . . .	12.6	10.5	8.5	9.7	7.7	6.6	17.2	14.7	11.7
Georgia . . . . .	10.3	8.7	8.4	8.4	6.6	6.5	13.8	12.5	12.2
Florida . . . . .	10.2	8.5	7.0	8.6	6.9	5.6	15.0	13.5	11.5
East South Central . . . . .	11.3	8.7	7.4	9.4	7.1	5.9	16.5	12.8	11.4
Kentucky . . . . .	9.6	7.9	6.2	9.1	7.5	5.9	14.8	11.9	9.2
Tennessee . . . . .	11.0	8.4	7.0	9.5	6.9	5.4	16.3	14.0	12.0
Alabama . . . . .	11.9	8.6	8.4	9.6	7.0	6.4	16.2	11.8	12.3
Mississippi . . . . .	13.3	10.0	8.0	9.4	7.0	5.8	17.4	13.3	10.6
West South Central . . . . .	10.8	7.4	6.1	9.4	6.6	5.3	16.8	11.4	9.7
Arkansas . . . . .	10.4	6.3	6.0	9.1	5.5	5.2	14.2	8.9	8.9
Louisiana . . . . .	12.7	8.9	7.5	9.4	6.6	5.6	18.1	12.7	10.6
Oklahoma . . . . .	9.7	7.1	5.7	9.3	7.1	5.7	14.6	10.1	8.5
Texas . . . . .	10.5	7.2	5.8	9.5	6.6	5.2	16.8	11.0	9.4
Mountain . . . . .	8.4	6.1	5.3	8.3	6.1	5.2	13.7	10.4	9.9
Montana . . . . .	9.2	5.7	4.9	9.3	5.8	4.9	*	*	*
Idaho . . . . .	7.4	5.8	5.6	7.5	5.9	5.5	*	*	*
Wyoming . . . . .	9.0	6.4	5.4	9.1	6.4	5.6	*	*	*
Colorado . . . . .	7.7	6.0	5.6	7.5	5.9	5.5	12.8	9.4	9.9
New Mexico . . . . .	9.4	6.0	5.5	9.4	6.2	5.4	*16.2	*8.9	*10.5
Arizona . . . . .	9.4	6.3	5.8	9.3	6.3	5.6	13.7	11.5	11.5
Utah . . . . .	7.5	6.0	4.3	7.5	6.0	4.4	*	*	*
Nevada . . . . .	9.3	6.2	4.5	9.0	6.0	4.3	*14.1	*11.0	8.9
Pacific . . . . .	8.0	6.3	5.4	7.7	6.1	5.1	13.1	10.3	9.6
Washington . . . . .	8.2	5.9	5.1	8.2	5.9	4.9	10.3	9.4	8.3
Oregon . . . . .	7.8	6.2	4.9	7.8	6.2	4.9	*12.1	*9.7	*8.8
California . . . . .	8.0	6.3	5.4	7.6	6.1	5.2	13.3	10.4	9.7
Alaska . . . . .	8.9	7.0	5.6	8.5	6.3	5.0	*	*14.8	*6.4
Hawaii . . . . .	7.7	6.4	5.6	7.3	6.8	4.8	*8.5	*7.0	*7.2

\*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 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 19. Postneonatal mortality rates, according to race, geographic division, and State: United States, average annual 1976–78, 1981–83, and 1986–88**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1976–78	1981–83	1986–88	1976–78	1981–83	1986–88	1976–78	1981–83	1986–88
	Postneonatal deaths per 1,000 live births								
United States . . . . .	4.3	3.9	3.6	3.6	3.3	3.1	7.6	6.6	6.2
New England . . . . .	3.0	2.7	2.5	2.8	2.5	2.4	5.8	4.9	4.6
Maine . . . . .	3.7	3.2	3.1	3.7	3.2	3.1	*	*	*
New Hampshire . . . . .	2.4	2.9	2.8	2.4	2.9	2.9	*	*	*
Vermont . . . . .	3.7	3.1	2.8	3.7	3.0	2.7	*	*	*
Massachusetts . . . . .	3.0	2.7	2.4	2.8	2.5	2.2	5.8	4.9	4.7
Rhode Island . . . . .	3.4	2.4	2.4	3.1	2.2	2.4	*8.5	*5.2	*3.1
Connecticut . . . . .	2.8	2.5	2.5	2.4	2.2	2.2	5.6	4.9	4.7
Middle Atlantic . . . . .	3.8	3.6	3.3	3.1	2.9	2.6	6.9	6.7	6.2
New York . . . . .	4.0	3.7	3.4	3.3	3.0	2.7	7.0	6.5	5.9
New Jersey . . . . .	3.6	3.6	3.1	2.6	2.7	2.3	7.6	7.2	6.5
Pennsylvania . . . . .	3.4	3.4	3.2	3.0	2.9	2.6	6.1	6.7	6.8
East North Central . . . . .	4.3	3.8	3.7	3.6	3.1	3.1	8.1	7.5	6.8
Ohio . . . . .	3.9	3.6	3.6	3.5	3.2	3.2	6.5	6.3	6.3
Indiana . . . . .	4.4	3.8	4.0	4.0	3.4	3.7	7.4	7.1	7.0
Illinois . . . . .	4.7	4.2	4.0	3.5	3.0	2.9	9.3	8.8	7.8
Michigan . . . . .	4.3	3.8	3.5	3.6	3.2	3.0	8.0	6.8	5.7
Wisconsin . . . . .	3.7	3.3	3.5	3.4	3.0	3.1	7.6	7.3	6.6
West North Central . . . . .	3.8	3.7	3.7	3.4	3.4	3.3	7.9	7.1	6.8
Minnesota . . . . .	3.6	3.6	3.4	3.4	3.4	3.2	*8.7	*8.2	*7.3
Iowa . . . . .	3.3	3.6	3.2	3.2	3.5	3.1	*7.0	*8.8	*7.7
Missouri . . . . .	4.1	3.9	3.8	3.4	3.4	3.3	8.4	6.8	6.6
North Dakota . . . . .	3.7	3.5	4.4	3.2	3.2	4.0	*	*	*
South Dakota . . . . .	4.6	4.0	5.3	3.2	2.7	3.8	*	*	*
Nebraska . . . . .	3.9	3.5	3.7	3.7	3.2	3.3	*8.4	*7.3	*9.0
Kansas . . . . .	3.5	3.7	3.6	3.2	3.4	3.3	*6.2	7.0	6.2
South Atlantic . . . . .	4.8	4.2	3.8	3.6	3.3	3.0	7.8	6.4	6.0
Delaware . . . . .	3.9	3.4	3.0	2.9	2.5	2.5	*7.2	*6.2	*4.9
Maryland . . . . .	3.8	3.5	3.4	3.0	2.8	2.8	5.8	5.3	5.0
District of Columbia . . . . .	6.2	5.5	5.2	*3.1	*2.0	*4.6	6.9	6.2	5.7
Virginia . . . . .	4.3	3.5	3.6	3.6	3.1	3.0	6.8	5.0	5.4
West Virginia . . . . .	4.8	4.1	3.3	4.8	4.0	3.1	*6.1	*6.0	*8.3
North Carolina . . . . .	4.9	4.3	4.1	3.5	3.6	3.2	8.1	6.1	6.2
South Carolina . . . . .	5.9	5.3	4.2	3.8	4.1	3.2	9.3	7.1	5.8
Georgia . . . . .	5.3	4.6	4.2	3.8	3.3	3.2	8.1	6.8	6.1
Florida . . . . .	4.7	4.2	3.7	3.5	3.2	2.9	8.0	7.3	6.6
East South Central . . . . .	5.1	4.5	4.2	3.9	3.5	3.3	8.4	6.9	6.4
Kentucky . . . . .	4.4	4.0	3.9	4.1	3.9	3.8	6.6	5.9	5.1
Tennessee . . . . .	4.5	4.1	4.2	3.9	3.4	3.3	6.6	6.3	6.9
Alabama . . . . .	5.7	4.6	4.1	3.9	3.2	2.9	9.0	7.3	6.4
Mississippi . . . . .	6.2	5.3	4.7	3.3	3.5	3.4	9.4	7.2	6.3
West South Central . . . . .	4.7	4.2	3.7	4.0	3.7	3.2	7.6	6.5	5.9
Arkansas . . . . .	5.4	4.6	4.4	4.2	3.5	3.6	8.9	8.1	7.2
Louisiana . . . . .	4.9	4.5	4.1	3.3	3.2	3.0	7.6	6.9	5.8
Oklahoma . . . . .	5.1	4.5	4.0	4.7	4.4	3.9	8.3	6.5	6.1
Texas . . . . .	4.5	4.0	3.5	4.0	3.7	3.1	7.2	5.9	5.7
Mountain . . . . .	4.4	4.0	4.0	4.1	3.8	3.8	5.7	5.6	5.9
Montana . . . . .	4.6	4.2	4.5	4.1	3.8	4.0	*	*	*
Idaho . . . . .	4.6	4.2	4.6	4.6	4.2	4.6	*	*	*
Wyoming . . . . .	5.4	3.7	4.3	5.3	3.8	4.1	*	*	*
Colorado . . . . .	4.4	3.7	3.7	4.4	3.8	3.7	*6.2	*3.8	*5.3
New Mexico . . . . .	5.0	4.4	3.7	4.4	4.1	3.5	*6.9	*4.7	*6.7
Arizona . . . . .	4.6	3.9	3.8	3.7	3.3	3.5	*4.7	*5.5	*4.6
Utah . . . . .	3.6	3.9	4.1	3.4	3.8	4.0	*	*	*
Nevada . . . . .	4.2	4.5	4.5	4.1	4.2	4.1	*5.3	*8.7	*8.7
Pacific . . . . .	4.2	3.7	3.6	4.1	3.6	3.5	6.9	5.8	6.3
Washington . . . . .	4.8	4.3	4.4	4.7	4.1	4.4	*8.6	*7.6	6.7
Oregon . . . . .	4.8	4.2	4.5	4.7	4.1	4.5	*8.6	*6.6	*8.2
California . . . . .	4.0	3.6	3.4	3.9	3.5	3.2	6.8	5.6	6.3
Alaska . . . . .	6.3	5.1	5.3	4.9	4.1	4.4	*	*	*
Hawaii . . . . .	3.4	2.9	2.8	3.7	2.8	3.2	*	*5.2	*4.6

\*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 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 20. Fetal death rates, according to race, geographic division, and State: United States, average annual 1976-78, 1981-83, and 1986-88**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1976-78	1981-83	1986-88	1976-78	1981-83	1986-88	1976-78	1981-83	1986-88
	Fetal deaths <sup>1</sup> per 1,000 live births plus fetal deaths								
United States . . . . .	9.9	8.7	7.6	8.8	7.7	6.6	15.7	13.7	12.7
New England . . . . .	8.0	7.2	6.3	7.7	6.8	5.9	12.0	12.8	11.6
Maine . . . . .	6.9	6.5	6.1	6.7	6.5	5.9	*	*	*
New Hampshire . . . . .	6.9	6.5	5.8	6.9	6.5	5.8	*	*	*
Vermont . . . . .	7.2	6.5	5.8	7.2	6.4	5.9	*	*	*
Massachusetts . . . . .	8.0	7.2	6.2	7.8	6.8	5.8	10.4	13.4	11.2
Rhode Island . . . . .	10.9	8.8	7.0	10.6	8.4	6.6	*16.7	*15.5	*11.0
Connecticut . . . . .	8.1	7.3	6.5	7.5	6.7	5.8	13.2	11.9	11.7
Middle Atlantic . . . . .	10.8	10.0	8.9	9.6	9.1	7.7	16.4	14.4	14.3
New York . . . . .	10.7	10.8	9.4	9.8	9.9	8.1	14.7	14.5	14.6
New Jersey . . . . .	9.9	8.0	8.0	8.6	7.0	6.7	15.1	12.6	13.3
Pennsylvania . . . . .	11.6	10.0	8.7	10.1	9.1	7.7	21.9	15.8	14.5
East North Central . . . . .	9.2	7.9	6.8	8.3	7.2	6.0	14.1	11.8	10.9
Ohio . . . . .	9.1	8.1	7.1	8.5	7.5	6.5	13.3	11.8	10.4
Indiana . . . . .	9.2	8.0	7.6	8.6	7.4	6.8	14.5	12.4	13.5
Illinois . . . . .	10.1	8.7	7.5	8.8	7.5	6.2	15.0	13.1	11.8
Michigan . . . . .	9.0	6.8	5.4	8.1	6.4	4.7	13.7	9.0	8.7
Wisconsin . . . . .	7.3	7.1	6.2	7.1	6.8	5.6	10.0	13.2	12.6
West North Central . . . . .	8.7	7.4	6.4	8.2	6.9	6.0	14.0	13.0	10.8
Minnesota . . . . .	8.1	6.6	6.2	7.9	6.4	6.0	*14.1	12.1	10.6
Iowa . . . . .	7.8	6.6	6.3	7.6	6.6	6.2	*16.2	*10.3	*10.0
Missouri . . . . .	9.4	8.3	6.6	8.6	7.4	5.9	13.6	13.1	10.4
North Dakota . . . . .	9.1	7.1	6.5	9.0	6.6	6.1	*	*	*
South Dakota . . . . .	9.1	7.3	6.4	8.5	6.5	6.0	*	*	*
Nebraska . . . . .	8.4	8.0	7.1	8.0	7.7	6.7	*18.2	*13.6	*14.4
Kansas . . . . .	9.0	7.7	6.1	8.6	7.1	5.7	13.7	13.8	11.2
South Atlantic . . . . .	11.9	11.0	9.3	9.7	8.9	7.3	17.3	15.9	14.2
Delaware . . . . .	9.6	9.2	7.2	9.1	7.8	5.8	11.3	13.6	12.0
Maryland . . . . .	9.8	8.9	8.0	7.8	7.1	6.2	15.0	13.1	11.9
District of Columbia . . . . .	15.6	13.4	12.3	*7.9	8.4	8.5	17.1	14.5	14.0
Virginia . . . . .	13.8	11.9	10.0	11.3	10.0	8.3	22.1	18.2	15.9
West Virginia . . . . .	10.6	9.8	7.7	10.2	9.7	7.6	*21.3	*10.9	*10.7
North Carolina . . . . .	11.7	9.9	8.6	9.5	8.2	7.0	16.8	14.0	12.3
South Carolina . . . . .	13.4	12.2	10.3	10.2	8.8	7.8	18.3	17.3	14.2
Georgia . . . . .	13.6	13.9	11.4	11.3	11.0	8.8	17.9	19.1	16.3
Florida . . . . .	10.2	9.9	8.4	8.5	8.3	6.5	14.9	14.4	14.1
East South Central . . . . .	11.9	10.2	8.8	9.6	8.4	7.1	18.0	15.1	13.4
Kentucky . . . . .	10.1	8.9	8.1	9.5	8.4	7.6	16.0	14.3	13.2
Tennessee . . . . .	11.0	8.2	6.7	9.7	7.4	5.6	15.4	11.2	10.1
Alabama . . . . .	11.9	11.1	10.5	9.2	8.8	8.3	17.0	15.6	14.9
Mississippi . . . . .	15.6	13.4	10.8	10.2	9.6	7.3	21.4	17.5	14.7
West South Central . . . . .	9.9	8.2	7.2	8.8	7.4	6.4	14.3	11.8	10.7
Arkansas . . . . .	10.6	7.4	8.0	8.7	6.3	6.8	16.1	10.9	11.9
Louisiana . . . . .	11.0	9.5	8.1	8.0	7.2	6.3	15.8	13.4	10.8
Oklahoma . . . . .	9.5	8.3	7.6	8.8	7.4	7.2	15.0	11.1	12.0
Texas . . . . .	9.4	7.9	6.8	9.0	7.5	6.3	12.4	10.8	10.1
Mountain . . . . .	8.9	7.9	6.7	8.7	7.6	6.4	14.6	13.4	11.5
Montana . . . . .	8.6	6.4	7.6	8.1	6.1	7.2	*	*	*
Idaho . . . . .	7.6	7.2	6.4	7.6	7.3	6.2	*	*	*
Wyoming . . . . .	8.8	7.8	7.0	8.9	7.9	7.0	*	*	*
Colorado . . . . .	11.8	9.8	7.9	11.6	9.6	7.6	19.6	15.2	12.5
New Mexico . . . . .	9.0	7.4	4.9	8.8	7.0	4.7	*11.7	*12.4	*9.0
Arizona . . . . .	8.0	7.4	6.4	7.4	6.8	6.0	13.5	12.7	10.6
Utah . . . . .	7.8	7.0	6.1	7.7	6.9	6.0	*	*	*
Nevada . . . . .	7.8	8.0	7.6	7.5	7.4	6.9	*8.7	*13.9	12.6
Pacific . . . . .	8.6	7.4	6.7	8.1	7.1	6.2	13.5	10.7	11.8
Washington . . . . .	7.8	7.1	5.8	7.7	7.0	5.6	10.6	10.8	8.9
Oregon . . . . .	8.1	6.7	6.2	8.0	6.7	6.2	*10.0	*9.3	*8.1
California . . . . .	8.6	7.4	6.8	8.0	7.1	6.3	13.7	10.7	12.1
Alaska . . . . .	8.1	6.3	6.6	7.1	5.7	5.2	*	*12.0	*11.6
Hawaii . . . . .	11.9	10.9	8.6	14.8	13.2	9.8	*17.6	*13.0	*10.9

<sup>1</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 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 21. Infant mortality rates, perinatal mortality ratios, and feto-infant mortality rates, and average annual percent change: Selected countries, 1982 and 1987**

[Data are based on reporting by countries]

Country	Infant mortality rate <sup>1</sup>			Perinatal mortality ratio <sup>2</sup>			Feto-infant mortality rate <sup>3</sup>		
	1982 <sup>4</sup>	1987 <sup>5</sup>	Average annual percent change	1982	1987 <sup>6</sup>	Average annual percent change	1982	1987 <sup>6</sup>	Average annual percent change
	Infant deaths per 1,000 live births			Perinatal deaths per 1,000 live births					
Japan . . . . .	6.6	5.0	-5.4	10.1	6.9	-7.3	13.3	9.6	-6.3
Sweden . . . . .	6.9	5.7	-3.7	7.8	7.1	-1.9	10.8	9.6	-2.3
Finland . . . . .	6.8	6.2	-1.8	7.4	6.8	-1.7	10.7	9.7	-1.9
Switzerland . . . . .	7.7	6.9	-2.2	9.0	7.9	-2.6	12.5	11.2	-2.2
Canada . . . . .	9.1	7.3	-4.3	10.2	8.1	-4.5	14.2	11.6	-4.0
Singapore . . . . .	10.7	7.3	-7.4	12.8	9.0	-6.8	17.0	12.0	-6.7
Hong Kong . . . . .	9.9	7.5	-5.4	10.8	7.8	-6.3	14.9	11.6	-4.9
Netherlands . . . . .	8.3	7.6	-1.7	10.1	9.5	-1.2	14.1	13.1	-1.5
France . . . . .	9.5	7.8	-3.9	12.0	9.9	-3.8	17.3	14.6	-3.3
Ireland . . . . .	10.5	7.9	-5.5	13.7	10.4	-5.4	18.4	14.8	-4.3
Federal Republic of Germany . . . . .	10.9	8.2	-5.5	9.7	7.2	-5.8	15.7	12.0	-5.2
Denmark . . . . .	8.2	8.3	0.2	8.8	8.8	0.0	13.3	13.3	0.0
Norway . . . . .	8.1	8.4	0.7	10.1	8.1	-4.3	14.3	12.8	-2.2
Scotland . . . . .	11.4	8.5	-5.7	11.6	9.0	-4.9	17.1	13.6	-4.5
Australia . . . . .	10.3	8.7	-3.3	11.0	8.4	-5.3	15.7	12.9	-3.9
Northern Ireland . . . . .	13.7	8.7	-8.7	13.4	9.9	-5.9	20.4	14.7	-6.3
German Democratic Republic . . . . .	11.4	8.8	-5.0	11.6	9.4	-4.1	17.2	13.7	-4.4
Spain . . . . .	11.3	9.0	-7.3	11.1	---	---	16.2	---	---
England and Wales . . . . .	10.8	9.2	-3.2	11.3	9.0	-4.4	17.0	14.2	-3.5
Belgium . . . . .	11.1	9.7	-2.7	12.6	10.5	-4.5	18.1	15.8	-3.3
Austria . . . . .	12.8	9.8	-5.2	11.4	7.6	-7.8	17.7	13.1	-5.8
Italy . . . . .	13.1	9.8	-5.6	16.1	12.7	-4.6	20.5	16.0	-4.8
New Zealand . . . . .	12.0	10.0	-3.6	10.6	7.9	-5.7	17.8	14.8	-3.6
United States . . . . .	11.5	10.1	-2.6	12.3	10.0	-4.1	17.3	14.7	-3.2
Israel . . . . .	13.9	10.7	-5.1	12.9	11.3	-2.6	20.0	16.3	-4.0
Greece . . . . .	15.1	12.6	-3.6	15.8	14.9	-1.9	22.4	21.2	-1.8
Czechoslovakia . . . . .	16.2	12.8	-4.6	15.2	11.6	-5.3	21.8	17.2	-4.6
Cuba . . . . .	17.3	13.3	-5.1	21.5	18.9	-2.5	28.7	24.9	-2.8
Puerto Rico . . . . .	17.1	14.2	-3.6	23.0	17.9	-4.9	27.7	23.7	-3.1
Portugal . . . . .	19.8	14.2	-6.4	22.3	16.9	-5.4	30.2	22.5	-5.7
Bulgaria . . . . .	18.2	14.8	-4.1	14.6	11.6	-4.5	25.4	20.9	-3.8
Kuwait . . . . .	22.8	15.7	-8.9	23.4	18.7	-5.5	34.7	25.1	-7.8
Hungary . . . . .	20.0	17.3	-2.9	20.3	17.4	-3.0	27.5	24.2	-2.5
Costa Rica . . . . .	19.4	17.4	-2.2	20.7	---	---	30.4	---	---
Poland . . . . .	20.2	17.5	-2.8	17.5	15.8	-2.0	26.4	23.1	-2.6
Chile . . . . .	23.6	18.5	-4.8	16.5	14.1	-3.1	30.7	24.9	-4.1
Romania . . . . .	28.0	22.5	-4.3	14.1	12.5	-3.9	36.2	33.2	-2.8
U.S.S.R. . . . .	25.1	25.4	0.3	---	---	---	---	---	---

<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 within 7 days of birth per 1,000 live births.

<sup>3</sup>Number of late fetal deaths plus infant deaths under 1 year per 1,000 live births plus late fetal deaths.

<sup>4</sup>Data for the U.S.S.R. are for 1983.

<sup>5</sup>Data for Kuwait are for 1986; and data for Spain are for 1985.

<sup>6</sup>Data for Belgium and Kuwait are for 1986; and data for Greece and Romania are for 1985.

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. Alternative measures of pregnancy outcome such as the perinatal mortality ratio (PMR) and the feto-infant mortality rate (FIMR) attempt to reduce international variation due to clinical distinctions between fetal and infant deaths. The United States ranks 24th using the IMR, 20th using the PMR, and 18th using the FIMR.

SOURCES: World Health Organization: World Health Statistics Annuals. Vols. 1983-1989. Geneva. United Nations: Demographic Yearbook 1983, 1987, and 1988. New York. National Center for Health Statistics: Vital Statistics of the United States, 1987, Vol. II, Mortality, Part A. DHHS Pub. No. (PHS) 90-1101. Public Health Service. Washington. U.S. Government Printing Office, 1990.

**Table 22 (page 1 of 2). Life expectancy at birth and at 65 years of age, according to sex: Selected countries, 1982 and 1987**

[Data are based on reporting by countries]

Country	At birth		At 65 years	
	1982 <sup>1</sup>	1987 <sup>2</sup>	1982 <sup>1</sup>	1987 <sup>2</sup>
Male				
Life expectancy in years				
Japan . . . . .	74.5	75.9	15.5	16.4
Sweden . . . . .	73.5	74.2	14.6	15.1
Hong Kong . . . . .	73.5	74.2	15.8	15.0
Greece . . . . .	73.6	74.1	15.4	15.4
Switzerland . . . . .	72.9	74.0	14.7	15.4
Netherlands . . . . .	72.8	73.6	14.1	14.4
Israel . . . . .	72.6	73.4	14.3	14.9
Canada . . . . .	72.0	73.3	14.5	15.1
Australia . . . . .	71.3	73.2	13.8	14.9
Spain . . . . .	72.6	73.1	14.8	15.0
Cuba . . . . .	72.2	73.0	15.8	16.2
Norway . . . . .	72.7	72.8	14.5	14.4
Italy . . . . .	71.5	72.7	14.1	14.3
England and Wales . . . . .	71.3	72.6	13.1	13.9
France . . . . .	70.9	72.6	14.3	15.4
Kuwait . . . . .	69.0	72.5	12.5	14.5
Federal Republic of Germany . . . . .	70.5	72.2	13.2	14.0
Costa Rica . . . . .	71.0	72.1	14.8	14.0
Denmark . . . . .	71.8	71.9	14.0	14.2
Ireland . . . . .	70.1	71.6	12.6	13.1
Austria . . . . .	69.4	71.6	13.2	14.3
United States . . . . .	70.9	71.5	14.5	14.8
Belgium . . . . .	70.0	71.4	13.0	13.6
Singapore . . . . .	69.1	71.3	12.6	13.5
Northern Ireland . . . . .	69.3	71.1	12.4	13.0
New Zealand . . . . .	70.7	71.0	13.5	13.7
Puerto Rico <sup>3</sup> . . . . .	70.5	70.7	15.3	16.3
Finland . . . . .	70.2	70.7	13.3	13.5
Portugal . . . . .	69.1	70.6	13.7	14.3
Scotland . . . . .	69.2	70.5	12.2	12.8
Chile . . . . .	67.8	70.0	13.3	13.7
German Democratic Republic . . . . .	69.1	69.9	12.3	12.7
Yugoslavia . . . . .	67.8	68.5	12.9	13.3
Bulgaria . . . . .	68.5	68.3	12.7	12.6
Czechoslovakia . . . . .	67.2	67.7	11.6	11.9
Romania . . . . .	67.1	67.1	13.0	12.8
Poland . . . . .	67.3	66.8	12.7	12.3
Hungary . . . . .	65.6	65.7	11.7	12.1
U.S.S.R . . . . .	---	65.1	---	12.5
Female				
Japan . . . . .	80.2	82.1	18.9	20.4
France . . . . .	79.1	81.1	18.7	20.2
Switzerland . . . . .	79.7	81.0	18.7	19.7
Sweden . . . . .	79.6	80.4	18.6	19.1
Netherlands . . . . .	79.7	80.3	18.8	19.3
Canada . . . . .	79.0	80.2	18.7	19.6
Australia . . . . .	78.3	79.8	18.1	19.0
Norway . . . . .	79.8	79.8	18.7	18.8
Hong Kong . . . . .	79.9	79.7	19.9	18.5
Spain . . . . .	78.8	79.7	18.1	18.4
Italy . . . . .	78.2	79.2	17.7	18.2
Greece . . . . .	78.3	78.9	17.6	17.7
Finland . . . . .	78.8	78.9	17.7	17.7
Federal Republic of Germany . . . . .	77.2	78.9	17.0	18.1
Puerto Rico <sup>3</sup> . . . . .	77.4	78.9	18.0	19.2
United States . . . . .	78.1	78.4	18.7	18.7
England and Wales . . . . .	77.3	78.3	17.2	17.9
Austria . . . . .	76.6	78.2	16.6	17.6
Belgium . . . . .	76.8	78.2	16.9	17.8
Denmark . . . . .	77.9	78.0	18.1	18.2
Portugal . . . . .	76.1	77.5	16.8	17.6
New Zealand . . . . .	76.9	77.3	17.7	17.6
Ireland . . . . .	75.6	77.3	15.7	16.6
Northern Ireland . . . . .	75.7	77.2	16.1	16.9
Israel . . . . .	75.8	77.0	15.5	16.0
Costa Rica . . . . .	76.0	76.9	16.6	16.8
Scotland . . . . .	75.3	76.6	15.9	16.7
Singapore . . . . .	74.5	76.5	15.5	16.6
Cuba . . . . .	75.9	76.5	17.9	17.9
German Democratic Republic . . . . .	75.1	76.0	15.2	15.6

See footnotes at end of table.

**Table 22 (page 2 of 2). Life expectancy at birth and at 65 years of age, according to sex: Selected countries, 1982 and 1987**

[Data are based on reporting by countries]

Country	At birth		At 65 years	
	1982 <sup>1</sup>	1987 <sup>2</sup>	1982 <sup>1</sup>	1987 <sup>2</sup>
Female—Con				
	Life expectancy in years			
Kuwait . . . . .	73.8	75.8	15.2	16.2
Chile . . . . .	74.7	75.7	16.8	16.7
Czechoslovakia . . . . .	74.6	75.3	14.9	15.5
Poland . . . . .	75.4	75.2	16.3	15.9
Bulgaria . . . . .	74.0	74.6	14.8	15.0
Yugoslavia . . . . .	73.7	74.3	15.4	15.6
Hungary . . . . .	73.2	73.9	14.9	15.4
U.S.S.R . . . . .	---	73.9	---	16.2
Romania . . . . .	72.5	72.7	14.7	14.7

<sup>1</sup>Data for Costa Rica are for 1980; data for Belgium are for 1979–1982; data for Ireland are for 1980–1982; data for Puerto Rico are for 1981–1983; data for Cuba, France, Italy, Singapore, and Spain are for 1981; and data for Northern Ireland are for 1983.

<sup>2</sup>Data for Romania are for 1984; data for Spain are for 1985; data for Puerto Rico are for 1985–1987; data for Belgium, Greece, Israel, and Italy are for 1986; data for New Zealand are for 1986–1988; and data for Costa Rica and Czechoslovakia are for 1988.

<sup>3</sup>Data are from the Informe Annual de Estadísticas Vitales, 1983 and 1987, University of Puerto Rico.

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. 1983–1989. Geneva. United Nations: Demographic Yearbook 1983 and 1986–1988. New York. National Center for Health Statistics: Vital Statistics of the United States, 1982, Vol. II, Mortality, Part A. DHHS Pub. No. (PHS) 87–1101. Public Health Service. Washington. U.S. Government Printing Office, 1987; Vital Statistics of the United States, 1987, Vol. II, Mortality, Part A. DHHS Pub. No. (PHS) 90–1101. Public Health Service. Washington. U.S. Government Printing Office, 1990.

**Table 23 (page 1 of 2). Death rates for all causes, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
All races									
Deaths per 100,000 resident population									
All ages, age adjusted . . . . .	840.5	760.9	714.3	585.8	545.9	546.1	541.7	535.5	535.5
All ages, crude . . . . .	963.8	954.7	945.3	878.3	862.3	873.9	873.2	872.4	882.0
Under 1 year . . . . .	3,299.2	2,696.4	2,142.4	1,288.3	1,085.6	1,067.8	1,032.1	1,018.5	1,008.3
1–4 years . . . . .	139.4	109.1	84.5	63.9	51.9	51.4	52.0	51.6	50.9
5–14 years . . . . .	60.1	46.6	41.3	30.6	26.7	26.3	26.0	25.6	25.8
15–24 years . . . . .	128.1	106.3	127.7	115.4	96.8	95.9	102.3	99.4	102.1
25–34 years . . . . .	178.7	146.4	157.4	135.5	121.1	123.4	132.1	133.2	135.4
35–44 years . . . . .	358.7	299.4	314.5	227.9	204.8	207.2	212.9	214.1	219.6
45–54 years . . . . .	853.9	756.0	730.0	584.0	521.1	516.3	504.8	498.0	486.2
55–64 years . . . . .	1,911.7	1,735.1	1,658.8	1,346.3	1,287.8	1,282.7	1,255.1	1,241.3	1,235.6
65–74 years . . . . .	4,067.7	3,822.1	3,582.7	2,994.9	2,848.1	2,838.6	2,801.4	2,751.3	2,729.8
75–84 years . . . . .	9,331.1	8,745.2	8,004.4	6,692.6	6,399.3	6,445.1	6,348.2	6,282.5	6,321.3
85 years and over . . . . .	20,196.9	19,857.5	16,344.9	15,980.3	15,223.6	15,480.3	15,398.9	15,320.8	15,594.0
White male									
All ages, age adjusted . . . . .	963.1	917.7	893.4	745.3	689.9	688.7	679.8	668.2	664.3
All ages, crude . . . . .	1,089.5	1,098.5	1,086.7	983.3	951.1	960.0	954.4	947.8	952.2
Under 1 year . . . . .	3,400.5	2,694.1	2,113.2	1,230.3	1,038.4	1,033.9	976.6	942.1	930.5
1–4 years . . . . .	135.5	104.9	83.6	66.1	51.8	52.4	52.2	52.0	51.0
5–14 years . . . . .	67.2	52.7	48.0	35.0	30.5	29.9	29.9	30.0	28.9
15–24 years . . . . .	152.4	143.7	170.8	167.0	138.8	136.3	145.9	137.3	139.7
25–34 years . . . . .	185.3	163.2	176.6	171.3	154.3	157.1	168.8	167.8	169.6
35–44 years . . . . .	380.9	332.6	343.5	257.4	235.1	241.4	248.4	249.6	257.2
45–54 years . . . . .	984.5	932.2	882.9	698.9	617.9	608.8	592.2	582.8	564.6
55–64 years . . . . .	2,304.4	2,225.2	2,202.6	1,728.5	1,625.5	1,614.3	1,573.1	1,552.8	1,530.2
65–74 years . . . . .	4,864.9	4,848.4	4,810.1	4,035.7	3,745.3	3,716.8	3,634.8	3,548.4	3,504.5
75–84 years . . . . .	10,526.3	10,299.6	10,098.8	8,829.8	8,459.1	8,500.4	8,341.7	8,212.2	8,201.8
85 years and over . . . . .	22,116.3	21,750.0	18,551.7	19,097.3	18,552.7	18,788.9	18,576.1	18,434.9	18,814.9
Black male									
All ages, age adjusted . . . . .	1,373.1	1,246.1	1,318.6	1,112.8	1,011.7	1,024.0	1,026.9	1,023.2	1,037.8
All ages, crude . . . . .	1,260.3	1,181.7	1,186.6	1,034.1	958.1	976.8	987.7	989.5	1,006.8
Under 1 year . . . . .	---	5,306.8	4,298.9	2,586.7	2,136.6	2,134.8	2,181.7	2,211.4	2,167.7
1–4 years . . . . .	---	208.5	150.5	110.5	85.2	89.0	90.9	90.5	90.5
5–14 years . . . . .	95.1	75.1	67.1	47.4	42.4	41.3	42.0	42.5	42.1
15–24 years . . . . .	289.7	212.0	320.6	209.1	163.9	174.1	190.5	203.9	223.3
25–34 years . . . . .	503.5	402.5	559.5	407.3	335.6	374.4	385.6	389.8	409.7
35–44 years . . . . .	878.1	762.0	956.6	689.8	616.0	641.8	675.9	701.5	728.3
45–54 years . . . . .	1,905.0	1,624.8	1,777.5	1,479.9	1,273.5	1,283.3	1,266.5	1,263.6	1,282.2
55–64 years . . . . .	3,773.2	3,316.4	3,256.9	2,873.0	2,658.3	2,623.1	2,545.5	2,464.7	2,477.5
65–74 years . . . . .	5,310.3	5,798.7	5,803.2	5,131.1	4,874.5	4,888.7	4,789.9	4,737.6	4,695.3
75–84 years . . . . .	---	8,605.1	9,454.9	9,231.6	9,023.1	9,298.4	9,290.8	9,240.7	9,419.9
85 years and over . . . . .	---	14,844.8	12,222.3	16,098.8	14,642.9	15,046.2	15,488.1	15,226.1	15,454.3
White female									
All ages, age adjusted . . . . .	645.0	555.0	501.7	411.1	391.3	390.6	387.7	384.1	384.4
All ages, crude . . . . .	803.3	800.9	812.6	806.1	822.3	837.1	840.7	845.5	860.0
Under 1 year . . . . .	2,566.8	2,007.7	1,614.6	962.5	818.5	786.9	759.1	742.9	728.2
1–4 years . . . . .	112.2	85.2	66.1	49.3	41.6	39.7	40.7	40.5	40.2
5–14 years . . . . .	45.1	34.7	29.9	22.9	20.0	19.4	18.6	17.9	18.6
15–24 years . . . . .	71.5	54.9	61.6	55.5	49.6	48.4	50.4	49.1	49.2
25–34 years . . . . .	112.8	85.0	84.1	65.4	59.5	58.9	60.4	62.6	61.7
35–44 years . . . . .	235.8	191.1	193.3	138.2	123.9	121.2	121.3	119.3	119.1
45–54 years . . . . .	546.4	458.8	462.9	372.7	341.9	339.5	330.3	325.7	317.2
55–64 years . . . . .	1,293.8	1,078.9	1,014.9	876.2	864.9	864.1	853.3	848.5	850.5
65–74 years . . . . .	3,242.8	2,779.3	2,470.7	2,066.6	2,032.5	2,028.3	2,031.8	2,001.8	1,995.9
75–84 years . . . . .	8,481.5	7,696.6	6,698.7	5,401.7	5,140.0	5,171.4	5,108.7	5,075.2	5,129.3
85 years and over . . . . .	19,679.5	19,477.7	15,980.2	14,979.6	14,319.6	14,579.4	14,502.9	14,486.9	14,755.9

See footnote at end of table.

**Table 23 (page 2 of 2). Death rates for all causes, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Black female									
Deaths per 100,000 resident population									
All ages, age adjusted . . . . .	1,106.7	916.9	814.4	631.1	585.3	589.1	588.2	586.2	593.1
All ages, crude . . . . .	1,002.0	905.0	829.2	733.3	712.0	727.7	733.9	737.3	754.5
Under 1 year . . . . .	---	4,162.2	3,368.8	2,123.7	1,789.1	1,756.6	1,731.1	1,791.5	1,821.5
1–4 years . . . . .	---	173.3	129.4	84.4	72.2	70.3	76.5	73.5	70.7
5–14 years . . . . .	72.8	53.8	43.8	30.5	27.8	28.1	26.9	25.0	29.8
15–24 years . . . . .	213.1	107.5	111.9	70.5	61.6	59.5	64.3	67.9	69.0
25–34 years . . . . .	393.3	273.2	231.0	150.0	130.6	136.3	146.5	150.0	155.5
35–44 years . . . . .	758.1	568.5	533.0	323.9	285.7	278.4	290.2	295.9	307.7
45–54 years . . . . .	1,576.4	1,177.0	1,043.9	768.2	655.0	654.0	654.6	646.3	633.9
55–64 years . . . . .	3,089.4	2,510.9	1,986.2	1,561.0	1,489.7	1,501.7	1,469.8	1,445.0	1,465.5
65–74 years . . . . .	4,000.2	4,064.2	3,860.9	3,057.4	2,907.4	2,925.7	2,892.3	2,874.5	2,874.9
75–84 years . . . . .	---	6,730.0	6,691.5	6,212.1	6,184.1	6,252.0	6,148.8	6,145.7	6,255.3
85 years and over . . . . .	---	13,052.6	10,706.6	12,367.2	11,439.1	12,154.7	12,510.3	12,313.2	12,694.3

<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 1950–88. 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 24 (page 1 of 2). Age-adjusted death rates for selected causes of death, according to sex and race: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
All races									
Deaths per 100,000 resident population									
All causes . . . . .	840.5	760.9	714.3	585.8	545.9	546.1	541.7	535.5	535.5
Diseases of heart . . . . .	307.2	286.2	253.6	202.0	183.6	180.5	175.0	169.6	166.3
Ischemic heart disease . . . . .	---	---	---	149.8	129.7	125.5	118.8	113.9	110.2
Cerebrovascular diseases . . . . .	88.6	79.7	66.3	40.8	33.4	32.3	31.0	30.3	29.7
Malignant neoplasms . . . . .	125.3	125.8	129.8	132.8	133.5	133.6	133.2	132.9	132.7
Respiratory system . . . . .	12.8	19.2	28.4	36.4	38.4	38.8	39.0	39.7	39.9
Colorectal . . . . .	19.0	17.7	16.8	15.5	15.0	14.8	14.4	14.3	13.9
Prostate <sup>2</sup> . . . . .	13.4	13.1	13.3	14.4	14.5	14.6	15.0	14.9	15.2
Breast <sup>3</sup> . . . . .	22.2	22.3	23.1	22.7	23.2	23.2	23.1	22.9	23.1
Chronic obstructive pulmonary diseases . . . . .	4.4	8.2	13.2	15.9	17.7	18.7	18.8	18.7	19.4
Pneumonia and influenza . . . . .	26.2	28.0	22.1	12.9	12.2	13.4	13.5	13.1	14.2
Chronic liver disease and cirrhosis . . . . .	8.5	10.5	14.7	12.2	10.0	9.6	9.2	9.1	9.0
Diabetes mellitus . . . . .	14.3	13.6	14.1	10.1	9.5	9.6	9.6	9.8	10.1
Accidents and adverse effects . . . . .	57.5	49.9	53.7	42.3	35.0	34.7	35.2	34.6	35.0
Motor vehicle accidents . . . . .	23.3	22.5	27.4	22.9	19.1	18.8	19.4	19.5	19.7
Suicide . . . . .	11.0	10.6	11.8	11.4	11.6	11.5	11.9	11.7	11.4
Homicide and legal intervention . . . . .	5.4	5.2	9.1	10.8	8.4	8.3	9.0	8.6	9.0
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	---	5.5	6.6
White male									
All causes . . . . .	963.1	917.7	893.4	745.3	689.9	688.7	679.8	668.2	664.3
Diseases of heart . . . . .	381.1	375.4	347.6	277.5	249.5	244.5	234.8	225.9	220.5
Ischemic heart disease . . . . .	---	---	---	218.0	187.0	180.8	169.9	161.7	155.8
Cerebrovascular diseases . . . . .	87.0	80.3	68.8	41.9	33.9	32.8	31.1	30.3	30.0
Malignant neoplasms . . . . .	130.9	141.6	154.3	160.5	159.0	159.2	158.8	158.4	157.6
Respiratory system . . . . .	21.6	34.6	49.9	58.0	58.4	58.2	58.0	58.6	58.0
Colorectal . . . . .	19.8	18.9	18.9	18.3	17.8	17.6	17.2	17.1	16.6
Prostate . . . . .	13.1	12.4	12.3	13.2	13.3	13.3	13.8	13.7	14.1
Chronic obstructive pulmonary diseases . . . . .	6.0	13.8	24.0	26.7	27.6	28.5	28.1	27.4	27.8
Pneumonia and influenza . . . . .	27.1	31.0	26.0	16.2	15.8	17.4	17.5	16.8	18.0
Chronic liver disease and cirrhosis . . . . .	11.6	14.4	18.8	15.7	13.2	12.6	12.2	12.1	12.1
Diabetes mellitus . . . . .	11.3	11.6	12.7	9.5	9.0	9.2	9.1	9.5	9.6
Accidents and adverse effects . . . . .	80.9	70.5	76.2	62.3	51.3	50.4	51.1	49.7	49.9
Motor vehicle accidents . . . . .	35.9	34.0	40.1	34.8	28.4	27.6	28.7	28.4	28.5
Suicide . . . . .	18.1	17.5	18.2	18.9	19.7	19.9	20.5	20.1	19.8
Homicide and legal intervention . . . . .	3.9	3.9	7.3	10.9	8.2	8.1	8.4	7.7	7.7
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	---	8.3	9.9
Black male									
All causes . . . . .	1,373.1	1,246.1	1,318.6	1,112.8	1,011.7	1,024.0	1,026.9	1,023.2	1,037.8
Diseases of heart . . . . .	415.5	381.2	375.9	327.3	300.1	301.0	294.3	287.1	286.2
Ischemic heart disease . . . . .	---	---	---	196.0	168.5	164.9	153.9	150.8	146.9
Cerebrovascular diseases . . . . .	146.2	141.2	122.5	77.5	62.8	60.8	58.9	57.1	57.8
Malignant neoplasms . . . . .	126.1	158.5	198.0	229.9	234.9	231.6	229.0	227.9	227.0
Respiratory system . . . . .	16.9	36.6	60.8	82.0	85.9	84.4	83.9	84.2	83.4
Colorectal . . . . .	13.8	15.0	17.3	19.2	19.9	19.5	19.3	19.7	19.0
Prostate . . . . .	16.9	22.2	25.4	29.1	29.7	30.2	30.1	30.1	30.3
Chronic obstructive pulmonary diseases . . . . .	---	---	---	20.9	22.8	23.9	24.6	24.0	26.0
Pneumonia and influenza . . . . .	63.8	70.2	53.8	28.0	25.2	26.8	27.2	26.4	28.0
Chronic liver disease and cirrhosis . . . . .	8.8	14.8	33.1	30.6	22.5	23.4	20.8	22.0	20.7
Diabetes mellitus . . . . .	11.5	16.2	21.2	17.7	17.6	17.7	17.9	18.3	19.8
Accidents and adverse effects . . . . .	105.7	100.0	119.5	82.0	64.7	66.7	66.9	66.8	69.0
Motor vehicle accidents . . . . .	39.8	38.2	50.1	32.9	27.2	27.7	29.2	28.5	29.6
Suicide . . . . .	7.0	7.8	9.9	11.1	11.2	11.3	11.5	12.0	11.8
Homicide and legal intervention . . . . .	51.1	44.9	82.1	71.9	50.8	49.9	55.9	53.8	58.2
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	---	25.4	31.6

See footnotes at end of table.

**Table 24 (page 2 of 2). Age-adjusted death rates for selected causes of death, according to sex and race: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Deaths per 100,000 resident population									
White female									
All causes . . . . .	645.0	555.0	501.7	411.1	391.3	390.6	387.7	384.1	384.4
Diseases of heart . . . . .	223.6	197.1	167.8	134.6	124.0	121.7	119.0	116.3	114.2
Ischemic heart disease . . . . .	---	---	---	97.4	86.0	82.9	79.5	76.9	74.7
Cerebrovascular diseases . . . . .	79.7	68.7	56.2	35.2	28.9	27.9	27.1	26.3	25.5
Malignant neoplasms . . . . .	119.4	109.5	107.6	107.7	109.9	110.3	110.1	109.7	110.1
Respiratory system . . . . .	4.6	5.1	10.1	18.2	21.6	22.6	23.1	23.8	24.8
Colorectal . . . . .	19.0	17.0	15.3	13.3	12.8	12.3	12.0	11.8	11.5
Breast . . . . .	22.5	22.4	23.4	22.8	23.1	23.3	23.0	22.8	23.0
Chronic obstructive pulmonary diseases . . . . .	2.8	3.3	5.3	9.2	11.8	12.9	13.3	13.7	14.5
Pneumonia and influenza . . . . .	18.9	19.0	15.0	9.4	8.8	9.8	9.9	9.7	10.7
Chronic liver disease and cirrhosis . . . . .	5.8	6.6	8.7	7.0	5.9	5.6	5.4	5.1	5.0
Diabetes mellitus . . . . .	16.4	13.7	12.8	8.7	8.0	8.1	8.1	8.1	8.4
Accidents and adverse effects . . . . .	30.6	25.5	27.2	21.4	18.5	18.4	18.4	18.6	18.8
Motor vehicle accidents . . . . .	10.6	11.1	14.4	12.3	10.9	10.8	11.0	11.4	11.6
Suicide . . . . .	5.3	5.3	7.2	5.7	5.6	5.3	5.4	5.3	5.1
Homicide and legal intervention . . . . .	1.4	1.5	2.2	3.2	2.9	2.9	2.9	2.9	2.8
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	---	0.6	0.7
Black female									
All causes . . . . .	1,106.7	916.9	814.4	631.1	585.3	589.1	588.2	586.2	593.1
Diseases of heart . . . . .	349.5	292.6	251.7	201.1	186.6	186.8	185.1	180.8	181.1
Ischemic heart disease . . . . .	---	---	---	116.1	102.6	100.8	97.0	93.6	93.0
Cerebrovascular diseases . . . . .	155.6	139.5	107.9	61.7	51.8	50.3	47.6	46.7	46.6
Malignant neoplasms . . . . .	131.9	127.8	123.5	129.7	131.0	130.4	132.1	132.0	131.2
Respiratory system . . . . .	4.1	5.5	10.9	19.5	21.4	22.5	23.3	24.3	24.6
Colorectal . . . . .	15.0	15.4	16.1	15.3	15.3	16.1	15.2	15.5	14.9
Breast . . . . .	19.3	21.3	21.5	23.3	26.1	25.3	25.8	26.5	27.0
Chronic obstructive pulmonary diseases . . . . .	---	---	---	6.3	8.1	8.7	8.9	9.5	10.0
Pneumonia and influenza . . . . .	50.4	43.9	29.2	12.7	11.3	12.4	13.1	12.2	13.4
Chronic liver disease and cirrhosis . . . . .	5.7	8.9	17.8	14.4	10.3	10.1	9.3	9.1	9.3
Diabetes mellitus . . . . .	22.7	27.3	30.9	22.1	20.5	21.1	21.4	21.3	22.1
Accidents and adverse effects . . . . .	38.5	35.9	35.3	25.1	20.1	20.7	21.0	21.0	22.2
Motor vehicle accidents . . . . .	10.3	10.0	13.8	8.4	7.6	8.2	8.5	8.7	9.2
Suicide . . . . .	1.7	1.9	2.9	2.4	2.3	2.1	2.4	2.1	2.4
Homicide and legal intervention . . . . .	11.7	11.8	15.0	13.7	11.0	10.8	11.8	12.3	12.7
Human immunodeficiency virus infection . . . . .	---	---	---	---	---	---	---	4.7	6.2

<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 1950–88. 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 25 (page 1 of 3). Numbers of deaths and rank for selected causes of death, according to sex and race: United States, 1985–88**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and cause of death</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>
All races	Number				Rank			
All causes . . . . .	2,086,440	2,105,361	2,123,323	2,167,999	...	...	...	...
Diseases of heart . . . . .	771,169	765,490	760,353	765,156	1	1	1	1
Ischemic heart disease . . . . .	536,805	520,729	512,138	509,592	...	...	...	...
Cerebrovascular diseases . . . . .	153,050	149,643	149,835	150,517	3	3	3	3
Malignant neoplasms . . . . .	461,563	469,376	476,927	485,048	2	2	2	2
Respiratory system . . . . .	127,311	130,450	134,983	138,253	...	...	...	...
Colorectal . . . . .	56,451	55,816	56,334	55,920	...	...	...	...
Prostate <sup>1</sup> . . . . .	25,943	27,262	27,864	28,982	...	...	...	...
Breast <sup>2</sup> . . . . .	40,093	40,539	40,899	42,172	...	...	...	...
Chronic obstructive pulmonary diseases . . . . .	74,662	76,559	78,380	82,853	5	5	5	5
Pneumonia and influenza . . . . .	67,615	69,812	69,225	77,662	6	6	6	6
Chronic liver disease and cirrhosis . . . . .	26,767	26,159	26,201	26,409	9	9	9	9
Diabetes mellitus . . . . .	36,969	37,184	38,532	40,368	7	7	7	7
Accidents and adverse effects . . . . .	93,457	95,277	95,020	97,100	4	4	4	4
Motor vehicle accidents . . . . .	45,901	47,865	48,290	49,078	...	...	...	...
Suicide . . . . .	29,453	30,904	30,796	30,407	8	8	8	8
Homicide and legal intervention . . . . .	19,893	21,731	21,103	22,032	12	12	12	12
Human immunodeficiency virus infection . . . . .	<sup>3</sup> 6,040	<sup>3</sup> 10,900	13,468	16,602	19	16	15	15
<b>White male</b>								
All causes . . . . .	950,455	952,554	953,382	965,419	...	...	...	...
Diseases of heart . . . . .	355,374	347,967	342,063	341,519	1	1	1	1
Ischemic heart disease . . . . .	262,139	251,111	244,461	241,284	...	...	...	...
Cerebrovascular diseases . . . . .	51,965	50,365	50,237	50,692	4	4	4	4
Malignant neoplasms . . . . .	215,079	218,381	221,757	224,514	2	2	2	2
Respiratory system . . . . .	76,567	77,647	79,604	80,166	...	...	...	...
Colorectal . . . . .	24,782	24,593	24,901	24,634	...	...	...	...
Prostate . . . . .	21,472	22,708	23,169	24,176	...	...	...	...
Chronic obstructive pulmonary diseases . . . . .	43,074	43,341	43,290	44,827	5	5	5	5
Pneumonia and influenza . . . . .	29,028	29,891	29,284	32,262	6	6	6	6
Chronic liver disease and cirrhosis . . . . .	14,321	14,099	14,175	14,381	8	8	8	8
Diabetes mellitus . . . . .	12,758	12,788	13,553	14,008	9	9	9	9
Accidents and adverse effects . . . . .	53,856	54,864	53,936	54,435	3	3	3	3
Motor vehicle accidents . . . . .	27,894	29,163	29,017	29,127	...	...	...	...
Suicide . . . . .	21,256	22,270	22,188	21,980	7	7	7	7
Homicide and legal intervention . . . . .	8,122	8,567	7,979	7,994	12	11	12	12
Human immunodeficiency virus infection . . . . .	---	---	8,700	10,479	---	---	11	10
<b>Black male</b>								
All causes . . . . .	133,610	137,214	139,551	144,228	...	...	...	...
Diseases of heart . . . . .	38,982	39,076	38,934	39,584	1	1	1	1
Ischemic heart disease . . . . .	21,425	20,498	20,521	20,430	...	...	...	...
Cerebrovascular diseases . . . . .	8,000	7,938	7,852	8,098	4	4	4	5
Malignant neoplasms . . . . .	29,028	29,363	29,928	30,321	2	2	2	2
Respiratory system . . . . .	10,193	10,368	10,647	10,784	...	...	...	...
Colorectal . . . . .	2,504	2,564	2,642	2,605	...	...	...	...
Prostate . . . . .	4,273	4,358	4,488	4,582	...	...	...	...
Chronic obstructive pulmonary diseases . . . . .	3,154	3,302	3,319	3,644	8	8	8	9
Pneumonia and influenza . . . . .	3,664	3,836	3,795	4,047	6	6	6	7
Chronic liver disease and cirrhosis . . . . .	2,616	2,404	2,574	2,476	9	9	10	11
Diabetes mellitus . . . . .	2,230	2,295	2,388	2,640	10	10	11	10
Accidents and adverse effects . . . . .	8,752	9,035	9,159	9,608	3	3	3	3
Motor vehicle accidents . . . . .	3,659	3,974	3,913	4,139	...	...	...	...
Suicide . . . . .	1,481	1,537	1,635	1,648	13	14	14	14
Homicide and legal intervention . . . . .	6,616	7,634	7,518	8,314	5	5	5	4
Human immunodeficiency virus infection . . . . .	---	---	3,301	4,202	---	---	9	6

See footnotes at end of table.

**Table 25 (page 2 of 3). Numbers of deaths and rank for selected causes of death, according to sex and race: United States, 1985–88**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and cause of death</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>
American Indian male	Number				Rank			
All causes . . . . .	4,181	4,365	4,432	4,617	...	...	...	...
Diseases of heart . . . . .	1,001	999	1,062	1,048	1	1	1	1
Ischemic heart disease . . . . .	666	637	701	672	...	...	...	...
Cerebrovascular diseases . . . . .	157	140	180	171	7	7	5	7
Malignant neoplasms . . . . .	533	522	496	594	3	3	3	3
Respiratory system . . . . .	166	189	137	205	...	...	...	...
Colorectal . . . . .	49	43	51	46	...	...	...	...
Prostate . . . . .	57	52	53	64	...	...	...	...
Chronic obstructive pulmonary diseases . . . . .	89	107	102	112	10	9	10	10
Pneumonia and influenza . . . . .	151	138	153	147	8	8	8	8
Chronic liver disease and cirrhosis . . . . .	173	176	168	193	4	6	6	4
Diabetes mellitus . . . . .	102	97	111	124	9	10	9	9
Accidents and adverse effects . . . . .	804	871	884	900	2	2	2	2
Motor vehicle accidents . . . . .	439	489	507	492	...	...	...	...
Suicide . . . . .	172	181	186	192	5	5	4	5
Homicide and legal intervention . . . . .	161	194	158	178	6	4	7	6
Human immunodeficiency virus infection . . . . .	---	---	17	26	---	---	15	15
Asian or Pacific Islander male								
All causes . . . . .	9,441	9,795	10,496	11,155	...	...	...	...
Diseases of heart . . . . .	2,837	2,853	3,137	3,225	1	1	1	1
Ischemic heart disease . . . . .	1,943	1,929	2,058	2,097	...	...	...	...
Cerebrovascular diseases . . . . .	658	718	788	791	4	4	4	4
Malignant neoplasms . . . . .	2,262	2,281	2,454	2,639	2	2	2	2
Respiratory system . . . . .	583	606	689	712	...	...	...	...
Colorectal . . . . .	276	268	295	295	...	...	...	...
Prostate . . . . .	141	144	152	160	...	...	...	...
Chronic obstructive pulmonary diseases . . . . .	276	308	327	353	6	6	6	6
Pneumonia and influenza . . . . .	315	334	329	376	5	5	5	5
Chronic liver disease and cirrhosis . . . . .	133	115	133	145	11	12	11	11
Diabetes mellitus . . . . .	172	186	183	200	8	9	9	9
Accidents and adverse effects . . . . .	734	791	827	864	3	3	3	3
Motor vehicle accidents . . . . .	438	457	459	488	...	...	...	...
Suicide . . . . .	230	237	257	255	7	7	7	7
Homicide and legal intervention . . . . .	164	195	190	221	9	8	8	8
Human immunodeficiency virus infection . . . . .	---	---	69	99	---	---	15	14
White female								
All causes . . . . .	868,599	878,529	889,685	911,487	...	...	...	...
Diseases of heart . . . . .	332,778	333,396	333,669	337,007	1	1	1	1
Ischemic heart disease . . . . .	228,376	224,287	222,229	222,390	...	...	...	...
Cerebrovascular diseases . . . . .	81,067	79,641	79,810	79,383	3	3	3	3
Malignant neoplasms . . . . .	190,648	193,971	196,716	200,626	2	2	2	2
Respiratory system . . . . .	35,945	37,532	39,468	41,775	...	...	...	...
Colorectal . . . . .	25,620	25,249	25,212	25,092	...	...	...	...
Breast . . . . .	35,886	36,183	36,297	37,327	...	...	...	...
Chronic obstructive pulmonary diseases . . . . .	26,364	27,781	29,378	31,846	5	5	5	5
Pneumonia and influenza . . . . .	31,480	32,432	32,527	37,308	4	4	4	4
Chronic liver disease and cirrhosis . . . . .	7,871	7,817	7,591	7,543	10	11	11	11
Diabetes mellitus . . . . .	17,547	17,496	17,842	18,684	7	7	7	7
Accidents and adverse effects . . . . .	25,155	25,451	25,874	26,656	6	6	6	6
Motor vehicle accidents . . . . .	11,795	12,026	12,564	12,847	...	...	...	...
Suicide . . . . .	5,831	6,167	6,029	5,810	12	12	12	12
Homicide and legal intervention . . . . .	3,041	3,123	3,149	3,072	17	17	16	18
Human immunodeficiency virus infection . . . . .	---	---	628	788	---	---	24	24

See footnotes at end of table.

**Table 25 (page 3 of 3). Numbers of deaths and rank for selected causes of death, according to sex and race: United States, 1985–88**

[Data are based on the National Vital Statistics System]

<i>Sex, race, and cause of death</i>	1985	1986	1987	1988	1985	1986	1987	1988
<b>Black female</b>	<b>Number</b>				<b>Rank</b>			
All causes . . . . .	110,597	113,112	115,263	119,791	...	...	...	...
Diseases of heart . . . . .	37,702	38,650	38,813	39,882	1	1	1	1
Ischemic heart disease . . . . .	20,736	20,703	20,549	20,989	...	...	...	...
Cerebrovascular diseases . . . . .	10,341	10,014	10,055	10,381	3	3	3	3
Malignant neoplasms . . . . .	21,878	22,616	23,099	23,647	2	2	2	2
Respiratory system . . . . .	3,536	3,744	3,975	4,154	...	...	...	...
Colorectal . . . . .	2,988	2,877	2,968	2,973	...	...	...	...
Breast . . . . .	3,896	4,045	4,252	4,467	...	...	...	...
Chronic obstructive pulmonary diseases . . . . .	1,505	1,554	1,733	1,832	11	11	11	11
Pneumonia and influenza . . . . .	2,674	2,864	2,770	3,144	7	6	6	6
Chronic liver disease and cirrhosis . . . . .	1,439	1,341	1,342	1,427	12	12	12	12
Diabetes mellitus . . . . .	3,874	4,004	4,109	4,332	4	4	4	4
Accidents and adverse effects . . . . .	3,455	3,550	3,618	3,879	5	5	5	5
Motor vehicle accidents . . . . .	1,257	1,313	1,374	1,484	...	...	...	...
Suicide . . . . .	314	355	328	374	19	19	19	20
Homicide and legal intervention . . . . .	1,666	1,861	1,969	2,089	9	9	10	9
Human immunodeficiency virus infection . . . . .	---	---	739	995	---	---	16	14
<b>American Indian female</b>								
All causes . . . . .	2,973	2,936	3,170	3,300	...	...	...	...
Diseases of heart . . . . .	732	683	755	777	1	1	1	1
Ischemic heart disease . . . . .	435	387	455	447	...	...	...	...
Cerebrovascular diseases . . . . .	189	175	185	200	4	4	4	4
Malignant neoplasms . . . . .	456	466	549	557	2	2	2	2
Respiratory system . . . . .	80	83	106	113	...	...	...	...
Colorectal . . . . .	39	48	54	54	...	...	...	...
Breast . . . . .	60	60	65	66	...	...	...	...
Chronic obstructive pulmonary diseases . . . . .	51	46	71	66	10	12	8	8
Pneumonia and influenza . . . . .	99	85	110	131	7	7	7	7
Chronic liver disease and cirrhosis . . . . .	147	124	134	162	6	6	6	6
Diabetes mellitus . . . . .	150	137	158	187	5	5	5	5
Accidents and adverse effects . . . . .	306	339	305	306	3	3	3	3
Motor vehicle accidents . . . . .	179	212	179	196	...	...	...	...
Suicide . . . . .	38	37	39	36	14	13	13	14
Homicide and legal intervention . . . . .	39	55	51	50	13	11	11	11
Human immunodeficiency virus infection . . . . .	---	---	3	—	---	---	26	26
<b>Asian or Pacific Islander female</b>								
All causes . . . . .	6,446	6,719	7,193	7,808	...	...	...	...
Diseases of heart . . . . .	1,729	1,834	1,875	2,065	1	1	2	2
Ischemic heart disease . . . . .	1,063	1,159	1,136	1,247	...	...	...	...
Cerebrovascular diseases . . . . .	669	641	719	789	3	3	3	3
Malignant neoplasms . . . . .	1,649	1,752	1,902	2,115	2	2	1	1
Respiratory system . . . . .	236	278	351	336	...	...	...	...
Colorectal . . . . .	189	173	210	217	...	...	...	...
Breast . . . . .	246	245	282	308	...	...	...	...
Chronic obstructive pulmonary diseases . . . . .	146	120	159	168	6	8	7	7
Pneumonia and influenza . . . . .	201	226	253	242	5	5	5	5
Chronic liver disease and cirrhosis . . . . .	66	78	82	78	13	13	12	13
Diabetes mellitus . . . . .	132	175	184	188	7	6	6	6
Accidents and adverse effects . . . . .	380	366	407	433	4	4	4	4
Motor vehicle accidents . . . . .	227	226	269	290	...	...	...	...
Suicide . . . . .	123	118	126	109	9	9	9	10
Homicide and legal intervention . . . . .	79	97	79	109	11	11	14	11
Human immunodeficiency virus infection . . . . .	---	---	10	8	---	---	23	25

<sup>1</sup>Male only.  
<sup>2</sup>Female only.  
<sup>3</sup>Estimates.

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 1985–88. 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 26 (page 1 of 2). Years of potential life lost before age 65 for selected causes of death, according to sex and race: United States, 1980 and 1985–88**

[Data are based on the National Vital Statistics System]

Sex, race, and cause of death	Years lost in thousands					Years lost per 100,000 population under 65 years of age				
	1980	1985	1986	1987	1988	1980	1985	1986	1987	1988
<b>All races</b>										
All causes	12,896	11,859	12,093	12,074	12,276	6,416.0	5,641.6	5,706.2	5,653.5	5,698.2
Diseases of heart	1,691	1,577	1,557	1,520	1,485	841.3	750.2	734.7	711.7	689.1
Ischemic heart disease	1,094	940	892	857	817	544.3	447.2	420.9	401.3	379.0
Cerebrovascular diseases	283	251	246	248	249	140.8	119.4	116.1	116.1	115.5
Malignant neoplasms	1,824	1,834	1,832	1,817	1,826	907.5	872.5	864.4	850.8	847.6
Respiratory system	426	435	431	437	439	211.9	206.9	203.4	204.6	203.7
Colorectal	138	136	133	138	134	68.7	64.7	62.8	64.6	62.2
Prostate <sup>1</sup>	17	18	18	17	18	8.5	8.6	8.5	8.0	8.4
Breast <sup>2</sup>	212	224	228	229	234	105.5	106.6	107.6	107.2	108.5
Chronic obstructive pulmonary diseases	115	128	129	132	133	57.2	60.9	60.9	61.8	61.9
Pneumonia and influenza	196	170	175	172	182	97.5	80.9	82.6	80.5	84.3
Chronic liver disease and cirrhosis	292	238	232	235	237	145.3	113.2	109.5	110.0	109.9
Diabetes mellitus	113	115	121	123	134	56.2	54.7	57.1	57.6	62.0
Accidents and adverse effects	2,760	2,279	2,358	2,306	2,322	1,373.1	1,084.2	1,112.6	1,079.8	1,077.6
Motor vehicle accidents	1,690	1,385	1,456	1,442	1,451	840.8	658.9	687.0	675.2	673.4
Suicide	621	657	680	671	671	309.0	312.6	320.9	314.2	311.3
Homicide and legal intervention	751	611	680	656	700	373.6	290.7	320.9	307.2	324.9
Human immunodeficiency virus infection	---	---	---	363	444	---	---	---	170.0	206.3
<b>White male</b>										
All causes	6,520	5,916	6,016	5,924	5,972	7,611.5	6,676.5	6,747.0	6,605.6	6,614.5
Diseases of heart	1,010	914	892	864	835	1,179.1	1,031.5	1,000.4	963.4	924.5
Ischemic heart disease	745	625	591	562	531	869.7	705.3	662.8	626.7	587.9
Cerebrovascular diseases	105	92	89	90	91	122.6	103.8	99.8	100.4	100.4
Malignant neoplasms	801	784	783	769	768	935.1	884.8	878.1	857.5	850.3
Respiratory system	245	236	233	235	233	286.0	266.3	261.3	262.0	257.8
Colorectal	63	63	61	63	62	73.5	71.1	68.4	70.2	68.5
Prostate	13	13	14	14	14	15.2	14.7	15.7	15.6	15.4
Chronic obstructive pulmonary diseases	55	56	57	57	57	64.2	63.2	63.9	63.6	62.7
Pneumonia and influenza	76	69	72	69	73	88.7	77.9	80.7	76.9	81.0
Chronic liver disease and cirrhosis	143	121	119	122	126	166.9	136.6	133.5	136.0	139.9
Diabetes mellitus	45	48	50	53	56	52.5	54.2	56.1	59.1	61.7
Accidents and adverse effects	1,774	1,420	1,464	1,408	1,405	2,071.0	1,602.5	1,641.9	1,570.0	1,556.4
Motor vehicle accidents	1,115	870	918	893	889	1,301.7	981.8	1,029.6	995.7	984.4
Suicide	436	468	487	476	476	509.0	528.2	546.2	530.8	527.3
Homicide and legal intervention	313	243	260	237	241	365.4	274.2	291.6	264.3	266.6
Human immunodeficiency virus infection	---	---	---	227	272	---	---	---	253.1	300.7
<b>Black male</b>										
All causes	1,688	1,597	1,697	1,756	1,844	14,381.9	12,534.3	13,124.5	13,384.1	13,845.2
Diseases of heart	195	197	199	196	199	1,661.4	1,546.2	1,539.1	1,493.9	1,491.2
Ischemic heart disease	94	86	82	80	79	800.9	675.0	634.2	609.8	593.5
Cerebrovascular diseases	41	37	38	37	39	349.3	290.4	293.9	282.0	296.1
Malignant neoplasms	138	144	143	142	146	1,175.8	1,130.2	1,106.0	1,082.3	1,092.3
Respiratory system	47	49	48	47	47	400.4	384.6	371.2	358.2	355.1
Colorectal	9	10	10	11	11	76.7	78.5	77.3	83.8	81.3
Prostate	4	4	4	4	4	34.1	31.4	30.9	30.5	30.6
Chronic obstructive pulmonary diseases	13	14	15	16	16	110.8	109.9	116.0	122.0	120.6
Pneumonia and influenza	37	32	32	34	36	315.2	251.2	247.5	259.1	269.9
Chronic liver disease and cirrhosis	46	39	36	38	36	391.9	306.1	278.4	289.6	271.8
Diabetes mellitus	12	13	14	14	17	102.2	102.0	108.3	106.7	124.5
Accidents and adverse effects	271	238	253	257	263	2,308.9	1,868.0	1,956.7	1,958.8	1,973.3
Motor vehicle accidents	120	113	124	122	127	1,022.4	886.9	959.0	929.9	949.6
Suicide	38	42	43	46	48	323.8	329.6	332.6	350.6	363.6
Homicide and legal intervention	267	213	250	249	282	2,274.9	1,671.8	1,933.5	1,897.9	2,115.4
Human immunodeficiency virus infection	---	---	---	93	117	---	---	---	708.8	879.1

See footnotes at end of table.

**Table 26 (page 2 of 2). Years of potential life lost before age 65 for selected causes of death, according to sex and race: United States, 1980 and 1985–88**

[Data are based on the National Vital Statistics System]

Sex, race, and cause of death	Years lost in thousands					Years lost per 100,000 population under 65 years of age				
	1980	1985	1986	1987	1988	1980	1985	1986	1987	1988
White female										
All causes . . . . .	3,425	3,117	3,109	3,090	3,096	3,983.2	3,525.6	3,499.0	3,461.4	3,447.7
Diseases of heart . . . . .	345	325	321	317	307	401.2	367.6	361.3	355.1	341.4
Ischemic heart disease . . . . .	196	172	164	161	153	227.9	194.5	184.6	180.4	170.6
Cerebrovascular diseases . . . . .	96	82	80	80	78	111.6	92.7	90.0	89.6	86.5
Malignant neoplasms . . . . .	738	745	737	734	738	858.3	842.7	829.4	822.2	822.3
Respiratory system . . . . .	114	128	126	129	133	132.6	144.8	141.8	144.5	148.3
Colorectal . . . . .	55	51	50	50	48	64.0	57.7	56.3	56.0	53.6
Breast . . . . .	182	189	189	189	192	211.7	213.8	212.7	211.7	213.7
Chronic obstructive pulmonary diseases . . . . .	37	46	45	47	46	43.0	52.0	50.6	52.6	51.2
Pneumonia and influenza . . . . .	55	46	46	44	46	64.0	52.0	51.8	49.3	51.2
Chronic liver disease and cirrhosis . . . . .	68	52	50	48	48	79.1	58.8	56.3	53.8	53.7
Diabetes mellitus . . . . .	39	38	41	40	43	45.4	43.0	46.1	44.8	47.4
Accidents and adverse effects . . . . .	557	469	479	482	482	647.8	530.5	539.1	539.9	537.1
Motor vehicle accidents . . . . .	376	320	329	340	342	437.3	362.0	370.3	380.9	380.9
Suicide . . . . .	125	121	124	122	118	145.4	136.9	139.6	136.7	131.4
Homicide and legal intervention . . . . .	94	86	91	89	89	109.3	97.3	102.4	99.7	98.9
Human immunodeficiency virus infection . . . . .	---	---	---	17	21	---	---	---	19.0	23.7
Black female										
All causes . . . . .	1,015	951	983	1,010	1,057	7,927.2	6,894.3	7,032.0	7,128.7	7,352.4
Diseases of heart . . . . .	120	117	120	116	120	937.2	848.2	858.4	818.7	834.1
Ischemic heart disease . . . . .	49	44	43	41	42	382.7	319.0	307.6	289.4	292.8
Cerebrovascular diseases . . . . .	37	34	33	34	34	289.0	246.5	236.1	240.0	238.1
Malignant neoplasms . . . . .	124	128	135	136	136	968.4	927.9	965.7	959.9	947.4
Respiratory system . . . . .	17	19	19	20	20	132.8	137.7	135.9	141.2	136.0
Colorectal . . . . .	9	10	10	10	10	70.3	72.5	71.5	70.6	71.4
Breast . . . . .	27	32	36	37	39	210.9	232.0	257.5	261.2	267.8
Chronic obstructive pulmonary diseases . . . . .	8	10	10	11	12	62.5	72.5	71.5	77.6	84.8
Pneumonia and influenza . . . . .	24	19	21	20	22	187.4	137.7	150.2	141.2	151.9
Chronic liver disease and cirrhosis . . . . .	27	20	19	20	19	210.9	145.0	135.9	141.2	129.3
Diabetes mellitus . . . . .	14	14	15	14	16	109.3	101.5	107.3	98.8	112.0
Accidents and adverse effects . . . . .	92	84	90	89	98	718.5	609.0	643.8	628.2	682.8
Motor vehicle accidents . . . . .	38	39	41	43	47	296.8	282.7	293.3	303.5	323.7
Suicide . . . . .	9	8	9	9	11	70.3	58.0	64.4	63.5	73.2
Homicide and legal intervention . . . . .	63	55	62	65	70	492.0	398.7	443.5	458.8	489.0
Human immunodeficiency virus infection . . . . .	---	---	---	24	31	---	---	---	169.4	215.0

<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 1980–88. 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 27 (page 1 of 2). Death rates for diseases of heart, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
All races									
Deaths per 100,000 resident population									
All ages, age adjusted. . . . .	307.2	286.2	253.6	202.0	183.6	180.5	175.0	169.6	166.3
All ages, crude. . . . .	355.5	369.0	362.0	336.0	323.5	323.0	317.5	312.4	311.3
Under 1 year . . . . .	3.5	6.6	13.1	22.8	26.1	24.5	26.1	25.2	22.6
1–4 years. . . . .	1.3	1.3	1.7	2.6	2.4	2.1	2.5	2.2	2.4
5–14 years. . . . .	2.1	1.3	0.8	0.9	1.0	0.9	0.9	0.9	0.9
15–24 years. . . . .	6.8	4.0	3.0	2.9	2.7	2.8	2.8	2.8	2.9
25–34 years. . . . .	19.4	15.6	11.4	8.3	8.0	8.2	8.6	8.4	8.2
35–44 years. . . . .	86.4	74.6	66.7	44.6	38.7	38.0	37.5	35.6	34.2
45–54 years. . . . .	308.6	271.8	238.4	180.2	156.7	152.9	144.6	140.5	131.4
55–64 years. . . . .	808.1	737.9	652.3	494.1	450.3	439.1	424.2	408.8	400.9
65–74 years. . . . .	1,839.8	1,740.5	1,558.2	1,218.6	1,102.7	1,080.6	1,043.0	1,007.9	984.1
75–84 years. . . . .	4,310.1	4,089.4	3,683.8	2,993.1	2,748.6	2,712.6	2,637.5	2,560.0	2,542.7
85 years and over. . . . .	9,150.6	9,317.8	7,891.3	7,777.1	7,251.0	7,275.0	7,178.7	7,074.2	7,098.1
White male									
All ages, age adjusted. . . . .	381.1	375.4	347.6	277.5	249.5	244.5	234.8	225.9	220.5
All ages, crude. . . . .	433.0	454.6	438.3	384.0	361.8	358.9	348.6	340.1	336.8
Under 1 year . . . . .	4.1	6.9	12.0	22.5	24.6	23.8	26.0	24.8	21.2
1–4 years. . . . .	1.1	1.0	1.5	2.1	2.2	1.7	2.1	1.8	1.9
5–14 years. . . . .	1.7	1.1	0.8	0.9	0.9	0.8	0.9	0.9	1.0
15–24 years. . . . .	5.8	3.6	3.0	2.9	2.8	3.0	3.0	3.0	3.1
25–34 years. . . . .	20.1	17.6	12.3	9.1	9.2	9.2	9.5	9.3	9.2
35–44 years. . . . .	110.6	107.5	94.6	61.8	54.0	52.4	51.7	48.7	46.2
45–54 years. . . . .	423.6	413.2	365.7	269.8	231.2	224.4	208.8	201.6	186.3
55–64 years. . . . .	1,081.7	1,056.0	979.3	730.6	655.5	635.6	610.3	582.7	565.1
65–74 years. . . . .	2,308.3	2,297.9	2,177.2	1,729.7	1,533.0	1,501.0	1,440.9	1,378.0	1,348.9
75–84 years. . . . .	4,907.3	4,839.9	4,617.6	3,883.2	3,579.3	3,532.9	3,405.2	3,291.0	3,257.6
85 years and over. . . . .	9,950.5	10,135.8	8,818.0	8,958.0	8,416.4	8,396.3	8,138.4	8,030.6	8,072.5
Black male									
All ages, age adjusted. . . . .	415.5	381.2	375.9	327.3	300.1	301.0	294.3	287.1	286.2
All ages, crude. . . . .	348.4	330.6	330.3	301.0	282.2	285.0	281.3	276.1	276.3
Under 1 year . . . . .	---	13.9	33.5	42.8	48.4	46.7	49.8	45.7	43.0
1–4 years. . . . .	---	3.8	3.9	6.3	4.4	4.4	5.3	5.1	4.5
5–14 years. . . . .	6.4	3.0	1.4	1.3	1.5	1.5	1.4	1.6	1.8
15–24 years. . . . .	18.0	8.7	8.3	8.3	6.7	7.2	6.7	6.9	7.9
25–34 years. . . . .	51.9	43.1	41.6	30.3	27.5	29.1	29.3	26.9	27.6
35–44 years. . . . .	198.1	168.1	189.2	136.6	121.1	122.0	123.6	118.8	113.0
45–54 years. . . . .	624.1	514.0	512.8	433.4	384.6	382.4	365.1	362.8	352.9
55–64 years. . . . .	1,434.0	1,236.8	1,135.4	987.2	895.9	882.6	864.9	814.7	833.0
65–74 years. . . . .	2,140.1	2,281.4	2,237.8	1,847.2	1,734.7	1,738.4	1,673.1	1,659.7	1,616.7
75–84 years. . . . .	---	3,533.6	3,783.4	3,578.8	3,375.7	3,450.0	3,407.3	3,371.6	3,435.7
85 years and over. . . . .	---	6,037.9	5,367.6	6,819.5	6,015.9	6,098.5	6,268.7	6,050.7	6,165.7
White female									
All ages, age adjusted. . . . .	223.6	197.1	167.8	134.6	124.0	121.7	119.0	116.3	114.2
All ages, crude. . . . .	289.4	306.5	313.8	319.2	319.3	320.7	319.0	317.1	318.0
Under 1 year . . . . .	2.7	4.3	7.0	15.7	20.3	18.3	19.1	19.4	16.8
1–4 years. . . . .	1.1	0.9	1.2	2.1	2.0	1.6	2.1	1.7	2.2
5–14 years. . . . .	1.9	0.9	0.7	0.8	0.9	0.9	0.7	0.7	0.7
15–24 years. . . . .	5.3	2.8	1.7	1.7	1.8	1.7	1.6	1.7	1.7
25–34 years. . . . .	12.2	8.2	5.5	3.9	3.7	3.8	4.1	4.1	3.9
35–44 years. . . . .	40.5	28.6	23.9	16.4	14.1	14.3	13.8	13.1	12.5
45–54 years. . . . .	141.9	103.4	91.4	71.2	63.1	62.1	59.8	58.8	54.5
55–64 years. . . . .	460.2	383.0	317.7	248.1	231.6	225.8	221.4	217.1	213.3
65–74 years. . . . .	1,400.9	1,229.8	1,044.0	796.7	735.3	713.7	693.9	675.1	656.2
75–84 years. . . . .	3,925.2	3,629.7	3,143.5	2,493.6	2,273.1	2,233.3	2,180.2	2,120.7	2,101.5
85 years and over. . . . .	9,084.7	9,280.8	7,839.9	7,501.6	7,044.7	7,089.3	7,021.3	6,924.6	6,957.3

See footnote at end of table.

**Table 27 (page 2 of 2). Death rates for diseases of heart, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Black female	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	349.5	292.6	251.7	201.1	186.6	186.8	185.1	180.8	181.1
All ages, crude . . . . .	289.9	268.5	261.0	249.7	244.6	248.1	250.8	248.3	251.2
Under 1 year . . . . .	---	12.0	31.3	43.6	45.1	39.5	42.8	36.4	39.9
1–4 years. . . . .	---	2.8	4.2	4.4	4.3	5.2	4.8	4.4	4.1
5–14 years. . . . .	8.8	3.0	1.8	1.7	1.4	1.7	1.5	1.4	1.0
15–24 years. . . . .	19.8	10.0	6.0	4.6	4.3	4.6	4.6	4.4	4.4
25–34 years. . . . .	52.0	35.9	24.7	15.7	12.5	13.1	15.3	14.8	13.2
35–44 years. . . . .	185.0	125.3	99.8	61.7	52.8	50.4	50.1	46.5	50.8
45–54 years. . . . .	526.8	360.7	290.9	202.4	174.1	172.6	172.5	165.7	167.8
55–64 years. . . . .	1,210.7	952.3	710.5	530.1	499.6	500.4	479.0	469.9	471.4
65–74 years. . . . .	1,659.4	1,680.5	1,553.2	1,210.3	1,127.1	1,133.6	1,108.3	1,090.2	1,060.0
75–84 years. . . . .	---	2,926.9	2,964.1	2,707.2	2,618.9	2,606.0	2,623.5	2,566.3	2,625.6
85 years and over. . . . .	---	5,650.0	5,003.8	5,796.5	5,315.0	5,441.0	5,698.6	5,627.6	5,648.1

<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 1950–88. 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 (page 1 of 2). Death rates for cerebrovascular diseases, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Deaths per 100,000 resident population									
All races									
All ages, age adjusted. . . . .	88.6	79.7	66.3	40.8	33.4	32.3	31.0	30.3	29.7
All ages, crude . . . . .	104.0	108.0	101.9	75.1	65.3	64.1	62.1	61.6	61.2
Under 1 year . . . . .	5.1	4.1	5.0	4.4	3.0	3.6	2.9	3.4	3.9
1–4 years. . . . .	0.9	0.8	1.0	0.5	0.4	0.3	0.3	0.4	0.4
5–14 years. . . . .	0.5	0.7	0.7	0.3	0.3	0.2	0.2	0.2	0.2
15–24 years. . . . .	1.6	1.8	1.6	1.0	0.8	0.8	0.7	0.6	0.7
25–34 years. . . . .	4.2	4.7	4.5	2.6	2.2	2.1	2.2	2.2	2.2
35–44 years. . . . .	18.7	14.7	15.6	8.5	7.5	7.2	7.1	7.0	6.9
45–54 years. . . . .	70.4	49.2	41.6	25.2	22.6	21.1	20.4	20.1	19.2
55–64 years. . . . .	195.3	147.3	115.8	65.2	55.8	54.3	53.0	52.2	51.3
65–74 years. . . . .	549.7	469.2	384.1	219.5	177.0	171.3	164.1	157.2	154.7
75–84 years. . . . .	1,499.6	1,491.3	1,254.2	788.6	626.2	605.8	573.8	562.6	553.6
85 years and over. . . . .	2,990.1	3,680.5	3,014.3	2,288.9	1,883.8	1,837.5	1,762.6	1,733.1	1,707.4
White male									
All ages, age adjusted. . . . .	87.0	80.3	68.8	41.9	33.9	32.8	31.1	30.3	30.0
All ages, crude . . . . .	100.5	102.7	93.5	63.3	53.8	52.5	50.5	49.9	50.0
Under 1 year . . . . .	5.9	4.3	4.5	3.8	2.6	3.7	2.5	3.6	3.1
1–4 years. . . . .	1.1	0.8	1.2	0.4	0.3	0.3	0.2	0.5	0.3
5–14 years. . . . .	0.5	0.7	0.8	0.2	0.2	0.2	0.2	0.2	0.2
15–24 years. . . . .	1.6	1.7	1.6	1.0	0.8	0.7	0.7	0.6	0.7
25–34 years. . . . .	3.4	3.5	3.2	2.0	1.8	1.8	1.8	1.8	1.8
35–44 years. . . . .	13.1	11.3	11.8	6.5	5.9	5.4	5.7	5.4	5.5
45–54 years. . . . .	53.7	40.9	35.6	21.7	19.3	18.0	16.5	16.7	16.0
55–64 years. . . . .	182.2	139.0	119.9	64.2	54.3	54.2	51.4	50.7	50.4
65–74 years. . . . .	569.7	501.0	420.0	240.4	190.4	183.7	171.4	165.4	163.5
75–84 years. . . . .	1,556.3	1,564.8	1,361.6	854.8	671.1	651.1	617.3	601.2	590.8
85 years and over. . . . .	3,127.1	3,734.8	3,018.1	2,236.9	1,846.4	1,747.8	1,697.0	1,663.1	1,667.1
Black male									
All ages, age adjusted. . . . .	146.2	141.2	122.5	77.5	62.8	60.8	58.9	57.1	57.8
All ages, crude . . . . .	122.0	122.9	108.8	73.1	60.0	58.5	57.1	55.7	56.5
Under 1 year . . . . .	---	8.5	12.3	11.2	8.2	9.8	8.0	5.9	9.3
1–4 years. . . . .	---	1.9	1.4	0.6	0.8	0.8	0.5	0.5	0.5
5–14 years. . . . .	0.7	0.9	0.8	0.5	0.6	0.1	0.2	0.3	0.2
15–24 years. . . . .	3.3	3.7	3.0	2.1	1.2	1.3	1.1	0.9	0.9
25–34 years. . . . .	12.0	12.8	14.6	7.7	5.7	5.7	6.1	5.4	6.7
35–44 years. . . . .	59.3	47.4	52.7	29.2	26.0	25.9	27.2	27.1	25.9
45–54 years. . . . .	211.9	166.1	136.1	82.1	72.9	70.6	68.2	67.5	66.6
55–64 years. . . . .	522.8	439.9	343.4	189.8	159.0	151.6	144.3	143.9	146.4
65–74 years. . . . .	783.6	899.2	780.1	472.8	379.8	358.9	337.8	318.5	325.8
75–84 years. . . . .	---	1,475.2	1,445.7	1,067.6	819.5	817.6	809.9	777.6	796.3
85 years and over. . . . .	---	2,700.0	1,963.1	1,873.2	1,395.2	1,363.1	1,350.7	1,339.1	1,302.9
White female									
All ages, age adjusted. . . . .	79.7	68.7	56.2	35.2	28.9	27.9	27.1	26.3	25.5
All ages, crude . . . . .	103.3	110.1	109.8	88.8	79.2	78.1	76.2	75.8	74.9
Under 1 year . . . . .	2.9	2.6	3.2	3.3	2.6	2.2	1.8	2.0	2.8
1–4 years. . . . .	0.6	0.5	0.6	0.4	0.3	0.3	0.2	0.3	0.3
5–14 years. . . . .	0.4	0.6	0.6	0.3	0.3	0.3	0.2	0.2	0.2
15–24 years. . . . .	1.2	1.4	1.1	0.7	0.6	0.7	0.6	0.6	0.6
25–34 years. . . . .	2.9	3.4	3.4	2.0	1.6	1.6	1.6	1.7	1.6
35–44 years. . . . .	13.6	10.1	11.5	6.7	5.6	5.3	5.0	5.1	4.6
45–54 years. . . . .	55.0	33.8	30.5	18.7	17.0	15.4	15.5	14.5	13.9
55–64 years. . . . .	156.9	103.0	78.1	48.7	42.0	39.7	40.1	38.7	37.0
65–74 years. . . . .	498.1	383.3	303.2	172.8	140.9	138.0	136.3	129.3	125.3
75–84 years. . . . .	1,471.3	1,444.7	1,176.8	730.3	580.9	559.4	530.7	524.0	512.7
85 years and over. . . . .	3,017.9	3,795.7	3,167.6	2,367.8	1,962.5	1,923.0	1,837.3	1,807.8	1,767.0

See footnote at end of table.

**Table 28 (page 2 of 2). Death rates for cerebrovascular diseases, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Black female	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	155.6	139.5	107.9	61.7	51.8	50.3	47.6	46.7	46.6
All ages, crude. . . . .	128.3	127.7	112.2	77.9	68.5	68.0	65.0	64.3	65.4
Under 1 year . . . . .	---	6.7	9.1	6.4	3.3	5.3	5.3	7.8	8.2
1–4 years. . . . .	---	1.3	1.4	0.5	0.5	0.5	0.4	0.6	0.7
5–14 years. . . . .	0.6	1.0	0.8	0.3	0.4	0.3	0.3	0.2	0.4
15–24 years. . . . .	4.2	3.4	3.0	1.7	1.7	1.5	1.0	1.1	1.1
25–34 years. . . . .	15.9	17.4	14.3	7.0	6.1	5.6	6.0	5.8	5.3
35–44 years. . . . .	75.0	57.4	49.1	21.6	19.2	19.3	18.5	17.5	18.5
45–54 years. . . . .	248.9	166.2	119.4	61.9	50.3	49.8	46.4	47.2	43.0
55–64 years. . . . .	567.7	452.0	272.4	138.7	112.6	111.3	109.4	108.7	105.7
65–74 years. . . . .	754.4	830.5	673.5	362.2	304.6	281.5	268.5	261.2	264.7
75–84 years. . . . .	---	1,413.1	1,338.3	918.6	803.4	775.4	710.7	685.7	700.7
85 years and over. . . . .	---	2,578.9	2,210.5	1,896.3	1,470.7	1,585.6	1,504.1	1,480.9	1,517.7

<sup>1</sup>Includes deaths of nonresidents of the United States.

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 1950–88. 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 29 (page 1 of 2). Death rates for malignant neoplasms, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
All races									
Deaths per 100,000 resident population									
All ages, age adjusted.....	125.3	125.8	129.8	132.8	133.5	133.6	133.2	132.9	132.7
All ages, crude.....	139.8	149.2	162.8	183.9	191.8	193.3	194.7	195.9	197.3
Under 1 year.....	8.7	7.2	4.7	3.2	3.1	3.0	2.6	2.7	2.3
1–4 years.....	11.7	10.9	7.5	4.5	4.0	3.8	4.0	3.8	3.7
5–14 years.....	6.7	6.8	6.0	4.3	3.6	3.5	3.4	3.3	3.2
15–24 years.....	8.6	8.3	8.3	6.3	5.5	5.4	5.4	5.1	5.1
25–34 years.....	20.0	19.5	16.5	13.7	13.0	13.1	13.1	12.4	11.9
35–44 years.....	62.7	59.7	59.5	48.6	46.6	45.7	45.3	43.5	44.2
45–54 years.....	175.1	177.0	182.5	180.0	170.5	169.1	165.7	164.3	160.4
55–64 years.....	392.9	396.8	423.0	436.1	448.4	450.5	444.4	447.0	447.3
65–74 years.....	692.5	713.9	751.2	817.9	835.1	838.3	847.0	843.6	842.7
75–84 years.....	1,153.3	1,127.4	1,169.2	1,232.3	1,272.3	1,281.0	1,287.3	1,298.4	1,313.3
85 years and over.....	1,451.0	1,450.0	1,320.7	1,594.6	1,604.0	1,591.5	1,612.0	1,618.0	1,638.9
White male									
All ages, age adjusted.....	130.9	141.6	154.3	160.5	159.0	159.2	158.8	158.4	157.6
All ages, crude.....	147.2	166.1	185.1	208.7	215.1	217.2	218.8	220.5	221.4
Under 1 year.....	9.6	7.9	4.3	3.5	2.7	3.1	3.0	2.7	2.3
1–4 years.....	13.1	13.1	8.5	5.4	4.4	4.4	4.7	4.1	3.9
5–14 years.....	7.6	8.0	7.0	5.2	4.1	4.0	3.9	4.1	3.7
15–24 years.....	9.9	10.3	10.6	7.8	6.8	6.5	6.8	6.0	5.9
25–34 years.....	17.7	18.8	16.2	13.6	12.5	13.0	13.5	11.9	11.5
35–44 years.....	44.5	46.3	50.1	41.1	38.5	39.5	37.7	36.7	36.9
45–54 years.....	150.8	164.1	172.0	175.4	164.0	161.2	158.5	157.1	153.5
55–64 years.....	409.4	450.9	498.1	497.4	504.5	508.4	504.3	509.8	508.6
65–74 years.....	798.7	887.3	997.0	1,070.7	1,064.1	1,061.2	1,063.3	1,061.1	1,050.4
75–84 years.....	1,367.6	1,413.7	1,592.7	1,779.7	1,806.9	1,820.1	1,827.0	1,826.6	1,839.7
85 years and over.....	1,732.7	1,791.4	1,772.2	2,375.6	2,438.6	2,424.5	2,462.3	2,475.5	2,533.0
Black male									
All ages, age adjusted.....	126.1	158.5	198.0	229.9	234.9	231.6	229.0	227.9	227.0
All ages, crude.....	106.6	136.7	171.6	205.5	214.0	212.2	211.4	212.2	211.7
Under 1 year.....	---	6.8	5.3	4.5	3.2	2.4	1.7	2.1	2.7
1–4 years.....	---	7.9	7.6	5.1	3.5	3.3	3.1	4.3	3.4
5–14 years.....	5.8	4.4	4.8	3.7	3.6	3.6	3.8	2.7	3.1
15–24 years.....	7.9	9.7	9.4	8.1	6.4	6.4	6.3	6.5	6.2
25–34 years.....	18.0	18.4	18.8	14.1	15.8	14.7	14.2	14.3	14.0
35–44 years.....	55.7	72.9	81.3	73.8	74.4	71.2	71.4	64.9	68.0
45–54 years.....	211.7	244.7	311.2	333.0	314.1	313.6	303.6	296.7	302.2
55–64 years.....	490.8	579.7	689.2	812.5	841.7	803.3	776.0	767.3	749.8
65–74 years.....	636.4	938.5	1,168.9	1,417.2	1,444.9	1,448.7	1,455.1	1,453.6	1,434.5
75–84 years.....	---	1,053.3	1,624.8	2,029.6	2,226.3	2,238.3	2,249.2	2,329.5	2,344.5
85 years and over.....	---	1,155.2	1,387.0	2,393.9	2,471.4	2,507.7	2,620.9	2,659.4	2,720.0
White female									
All ages, age adjusted.....	119.4	109.5	107.6	107.7	109.9	110.3	110.1	109.7	110.1
All ages, crude.....	139.9	139.8	149.4	170.3	181.7	183.7	185.6	186.9	189.3
Under 1 year.....	7.8	6.8	5.4	2.7	2.9	3.0	2.4	3.0	2.2
1–4 years.....	11.3	9.7	6.9	3.6	3.8	3.5	3.4	3.6	3.7
5–14 years.....	6.3	6.2	5.4	3.7	3.0	3.1	3.1	2.8	2.6
15–24 years.....	7.5	6.5	6.2	4.7	4.3	4.3	4.2	3.9	4.2
25–34 years.....	20.9	18.8	16.3	13.5	12.8	12.6	12.1	12.3	11.5
35–44 years.....	74.5	66.6	62.4	50.9	49.0	47.0	47.4	45.1	46.2
45–54 years.....	185.8	175.7	177.3	166.4	160.0	160.6	155.6	154.9	151.3
55–64 years.....	362.5	329.0	338.6	355.5	370.0	374.1	369.4	370.1	372.5
65–74 years.....	616.5	562.1	554.7	605.2	638.6	645.3	658.7	654.0	660.0
75–84 years.....	1,026.6	939.3	903.5	905.4	944.2	949.2	956.4	968.6	984.4
85 years and over.....	1,348.3	1,304.9	1,126.6	1,266.8	1,284.3	1,270.9	1,283.6	1,291.0	1,300.1

See footnote at end of table.

**Table 29 (page 2 of 2). Death rates for malignant neoplasms, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Black female	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	131.9	127.8	123.5	129.7	131.0	130.4	132.1	132.0	131.2
All ages, crude . . . . .	111.8	113.8	117.3	136.5	142.9	143.9	146.7	147.8	148.9
Under 1 year . . . . .	---	6.7	3.3	3.0	2.5	4.3	2.8	1.8	3.4
1–4 years. . . . .	---	6.9	5.7	3.9	3.1	2.5	4.3	2.6	3.8
5–14 years. . . . .	3.9	4.8	4.0	3.4	3.3	3.0	2.9	3.0	2.8
15–24 years . . . . .	8.8	6.9	6.4	5.7	4.3	4.3	4.7	5.3	4.9
25–34 years . . . . .	34.3	31.0	20.9	18.3	16.5	17.0	17.8	15.8	17.5
35–44 years . . . . .	119.8	102.4	94.6	73.5	74.3	69.5	72.2	72.9	71.2
45–54 years . . . . .	277.0	254.8	228.6	230.2	215.1	208.1	215.3	214.5	196.2
55–64 years . . . . .	484.6	442.7	404.8	450.4	462.2	465.4	451.6	457.3	454.1
65–74 years . . . . .	477.3	541.6	615.8	662.4	685.8	694.2	717.5	703.4	728.3
75–84 years . . . . .	---	696.3	763.3	923.9	1,013.7	1,014.6	1,017.9	1,045.5	1,062.6
85 years and over. . . . .	---	728.9	791.5	1,159.9	1,154.9	1,228.8	1,254.5	1,256.6	1,288.0

<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 1950–88. 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 30 (page 1 of 2). Death rates for malignant neoplasms of respiratory system, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Deaths per 100,000 resident population									
All races									
All ages, age adjusted. . . . .	12.8	19.2	28.4	36.4	38.4	38.8	39.0	39.7	39.9
All ages, crude . . . . .	14.1	22.2	34.2	47.9	52.3	53.3	54.1	55.5	56.2
Under 1 year . . . . .	0.1	0.2	0.1	0.2	0.3	0.1	0.1	0.1	0.1
1–4 years. . . . .	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
5–14 years. . . . .	0.1	0.0	0.0	0.0	0.1	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	0.7	0.8	0.7	0.8	0.7
35–44 years . . . . .	5.1	7.3	11.6	9.6	8.2	8.1	7.9	7.7	7.6
45–54 years . . . . .	22.9	32.0	46.2	56.5	53.9	52.8	51.7	51.6	50.0
55–64 years . . . . .	55.2	81.5	116.2	144.3	156.1	158.4	157.8	160.4	162.2
65–74 years . . . . .	69.3	117.2	174.6	243.1	262.7	268.0	271.7	278.1	280.0
75–84 years . . . . .	69.3	102.9	175.1	251.4	286.4	294.5	303.9	313.3	324.2
85 years and over. . . . .	64.0	79.1	113.5	184.5	199.3	202.0	214.9	221.8	228.5
White male									
All ages, age adjusted. . . . .	21.6	34.6	49.9	58.0	58.4	58.2	58.0	58.6	58.0
All ages, crude . . . . .	24.1	39.6	58.3	73.4	76.8	77.3	77.8	79.1	79.1
Under 1 year . . . . .	0.2	0.1	0.2	0.2	0.3	—	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	0.1	0.0	0.0	—	0.0
15–24 years . . . . .	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
25–34 years . . . . .	1.2	1.6	1.4	0.9	0.8	0.7	0.9	0.9	0.8
35–44 years . . . . .	7.9	10.4	15.4	11.2	9.1	9.4	8.5	8.5	8.4
45–54 years . . . . .	39.1	53.0	67.6	74.3	67.8	65.2	63.7	63.5	60.6
55–64 years . . . . .	95.9	149.8	199.3	215.0	220.0	221.7	221.3	223.7	222.9
65–74 years . . . . .	119.4	225.1	344.8	418.4	421.3	419.1	417.0	422.9	418.8
75–84 years . . . . .	109.1	191.9	360.7	516.1	556.5	562.6	570.7	572.9	579.0
85 years and over. . . . .	102.7	133.9	221.8	391.5	446.8	459.1	477.5	495.4	493.9
Black male									
All ages, age adjusted. . . . .	16.9	36.6	60.8	82.0	85.9	84.4	83.9	84.2	83.4
All ages, crude . . . . .	14.3	31.1	51.2	70.8	75.5	74.5	74.6	75.5	75.3
Under 1 year . . . . .	—	0.4	0.4	0.4	1.1	0.3	—	0.7	—
1–4 years. . . . .	—	0.1	0.1	0.2	—	—	—	—	—
5–14 years. . . . .	0.1	0.0	0.1	0.0	0.0	0.0	—	—	—
15–24 years . . . . .	0.4	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.3
25–34 years . . . . .	2.1	2.6	2.9	1.9	1.6	1.9	1.4	1.8	1.3
35–44 years . . . . .	9.4	20.7	32.6	26.9	23.6	22.8	22.3	19.6	21.0
45–54 years . . . . .	41.1	75.0	123.5	142.8	131.8	132.1	131.3	126.8	122.8
55–64 years . . . . .	78.8	161.8	250.3	340.3	373.0	352.1	337.3	333.3	322.3
65–74 years . . . . .	65.2	184.6	322.2	499.4	529.3	534.8	542.3	562.8	556.5
75–84 years . . . . .	—	126.3	290.6	499.6	576.5	581.3	606.5	629.9	664.3
85 years and over. . . . .	—	110.3	154.4	337.7	423.8	390.8	456.7	459.4	528.6
White female									
All ages, age adjusted. . . . .	4.6	5.1	10.1	18.2	21.6	22.6	23.1	23.8	24.8
All ages, crude . . . . .	5.4	6.4	13.1	26.5	32.8	34.6	35.9	37.5	39.4
Under 1 year . . . . .	—	0.2	0.1	0.1	0.1	0.2	0.2	0.1	—
1–4 years. . . . .	0.1	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	0.6	0.5	0.6	0.5
35–44 years . . . . .	2.2	3.4	6.0	6.8	5.9	5.6	5.8	5.7	5.6
45–54 years . . . . .	6.5	9.8	22.1	33.9	35.6	36.0	34.9	35.0	35.0
55–64 years . . . . .	15.5	16.7	39.3	74.2	89.9	94.2	94.9	98.1	103.2
65–74 years . . . . .	27.2	26.5	45.4	108.1	139.2	149.1	156.0	161.1	168.1
75–84 years . . . . .	40.0	36.5	56.8	99.3	129.9	140.3	149.0	161.7	173.4
85 years and over. . . . .	44.0	45.2	57.4	96.8	102.5	102.1	113.8	117.6	127.1

See footnote at end of table.

**Table 30 (page 2 of 2). Death rates for malignant neoplasms of respiratory system, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Black female	Deaths per 100,000 resident population								
All ages, age adjusted . . . . .	4.1	5.5	10.9	19.5	21.4	22.5	23.3	24.3	24.6
All ages, crude . . . . .	3.4	4.9	10.1	19.3	21.9	23.3	24.3	25.4	26.2
Under 1 year . . . . .	—	—	—	0.4	—	0.4	—	—	0.3
1–4 years . . . . .	—	0.1	0.1	—	0.1	—	—	0.1	—
5–14 years . . . . .	—	0.1	—	0.0	0.0	0.0	—	0.0	0.1
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	0.6	1.0	0.6	0.4	0.6
35–44 years . . . . .	2.7	3.4	10.5	7.9	7.7	7.7	8.6	8.9	6.6
45–54 years . . . . .	8.8	12.8	25.3	46.4	42.4	40.7	42.8	43.9	41.0
55–64 years . . . . .	15.3	20.7	36.4	83.8	98.4	105.6	102.4	107.0	110.3
65–74 years . . . . .	16.4	20.7	49.3	91.7	106.1	118.9	130.9	136.5	145.8
75–84 years . . . . .	---	33.1	52.6	81.1	112.3	108.6	123.5	129.9	146.0
85 years and over . . . . .	---	44.7	47.6	90.5	86.5	112.2	102.1	110.5	105.7

<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 1950–88. 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. Death rates for malignant neoplasms of breast for females, according to race and age: United States, selected years 1950–88**

[Data are based on the National Vital Statistics System]

<i>Race and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1984	1985	1986	1987	1988
Deaths per 100,000 resident population									
All races									
All ages, age adjusted. . . . .	22.2	22.3	23.1	22.7	23.2	23.2	23.1	22.9	23.1
All ages, crude . . . . .	24.7	26.1	28.4	30.6	32.5	32.7	32.8	32.8	33.5
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	3.3	3.0	3.1	3.1	3.0
35–44 years . . . . .	20.8	20.2	20.4	17.9	18.5	17.5	18.3	17.5	17.6
45–54 years . . . . .	46.9	51.4	52.6	48.1	45.8	46.7	45.4	45.4	45.3
55–64 years . . . . .	70.4	70.8	77.6	80.5	82.0	83.6	80.9	80.7	81.8
65–74 years . . . . .	94.0	90.0	93.8	101.1	108.0	107.7	109.9	108.3	109.4
75–84 years . . . . .	139.8	129.9	127.4	126.4	136.2	137.7	136.2	137.8	143.1
85 years and over. . . . .	195.5	191.9	157.1	169.3	180.0	175.9	180.0	176.5	183.9
White									
All ages, age adjusted. . . . .	22.5	22.4	23.4	22.8	23.1	23.3	23.0	22.8	23.0
All ages, crude . . . . .	25.7	27.2	29.9	32.3	34.2	34.6	34.6	34.5	35.2
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	3.1	2.8	2.7	2.9	2.7
35–44 years . . . . .	20.8	19.7	20.2	17.3	17.4	16.7	17.3	16.4	16.5
45–54 years . . . . .	47.1	51.2	53.0	48.1	45.3	46.5	44.4	44.3	44.4
55–64 years . . . . .	70.9	71.8	79.3	81.3	82.2	84.2	81.8	81.3	82.2
65–74 years . . . . .	96.3	91.6	95.9	103.7	110.1	110.0	112.4	110.6	111.8
75–84 years . . . . .	143.6	132.8	129.6	128.4	138.3	140.4	139.7	140.5	145.2
85 years and over. . . . .	204.2	199.7	161.9	171.7	183.7	178.9	182.7	179.2	186.6
Black									
All ages, age adjusted. . . . .	19.3	21.3	21.5	23.3	26.1	25.3	25.8	26.5	27.0
All ages, crude . . . . .	16.4	18.7	19.7	22.9	26.3	25.6	26.2	27.2	28.1
Under 25 years. . . . .	0.1	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.1
25–34 years . . . . .	4.9	6.1	5.9	5.3	5.0	4.4	5.6	4.7	5.4
35–44 years . . . . .	21.0	24.8	24.4	24.1	28.9	26.3	28.3	28.9	29.1
45–54 years . . . . .	46.5	54.4	52.0	52.7	55.5	54.4	59.1	60.1	58.5
55–64 years . . . . .	64.3	63.2	64.7	79.9	90.5	88.5	83.6	88.2	90.4
65–74 years . . . . .	67.0	72.3	77.3	84.3	100.1	99.3	100.5	101.0	102.5
75–84 years . . . . .	---	87.5	101.8	114.1	128.2	121.0	112.1	125.3	139.0
85 years and over. . . . .	---	92.1	112.1	149.9	149.6	152.5	162.1	162.5	176.6

<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 1950–88. 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 32. Maternal mortality rates for complications of pregnancy, childbirth, and the puerperium, according to race and age: United States, selected years 1950–88**

[Data are based on the National Vital Statistics System]

<i>Race and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1984	1985	1986	1987	1988
Deaths per 100,000 live births									
All races									
All ages, age adjusted . . . . .	73.7	32.1	21.5	9.4	7.3	7.6	7.0	6.1	8.0
All ages, crude . . . . .	83.3	37.1	21.5	9.2	7.8	7.8	7.2	6.6	8.4
Under 20 years . . . . .	70.7	22.7	18.9	7.6	6.3	6.9	5.9	5.1	7.0
20–24 years . . . . .	47.6	20.7	13.0	5.8	4.3	5.4	5.7	4.8	7.2
25–29 years . . . . .	63.5	29.8	17.0	7.7	6.9	6.4	5.8	5.3	6.1
30–34 years . . . . .	107.7	50.3	31.6	13.6	11.5	8.9	7.8	8.9	9.3
35 years and over <sup>2</sup> . . . . .	222.0	104.3	81.9	36.3	21.9	25.0	21.4	15.1	21.9
White									
All ages, age adjusted . . . . .	53.1	22.4	14.5	6.8	4.9	5.0	4.7	4.9	5.6
All ages, crude . . . . .	61.1	26.0	14.4	6.7	5.4	5.2	4.9	5.1	5.9
Under 20 years . . . . .	44.9	14.8	13.9	5.9	*4.3	*4.3	*4.1	*5.4	*3.8
20–24 years . . . . .	35.7	15.3	8.4	4.3	*2.0	3.4	3.7	3.9	5.5
25–29 years . . . . .	45.0	20.3	11.2	5.5	5.7	4.7	3.6	3.9	4.6
30–34 years . . . . .	75.9	34.3	18.8	9.4	7.8	5.2	5.2	6.0	7.1
35 years and over <sup>2</sup> . . . . .	174.1	73.9	59.6	25.8	16.0	17.8	16.1	11.8	12.4
Black									
All ages, age adjusted . . . . .	---	92.0	64.3	23.9	20.5	21.0	19.3	14.3	19.8
All ages, crude . . . . .	---	103.6	59.8	21.5	19.7	20.4	18.8	14.2	19.5
Under 20 years . . . . .	---	54.8	31.8	12.8	*11.4	*12.1	*10.6	*4.1	*11.8
20–24 years . . . . .	---	56.9	41.0	13.4	15.2	14.0	13.9	9.4	14.5
25–29 years . . . . .	---	92.8	63.8	21.4	15.6	18.4	19.3	14.3	14.3
30–34 years . . . . .	---	150.6	115.6	41.9	37.9	35.8	29.0	30.9	26.7
35 years and over <sup>2</sup> . . . . .	---	299.5	204.7	96.5	*67.6	72.6	*58.6	*43.1	84.8

<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 1950–88. Public Health Service. Washington. U.S. Government Printing Office; Vital Statistics of the United States, Vol. I, Natality, for data years 1950–88. 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 33 (page 1 of 2). Death rates for motor vehicle accidents, according to sex, race and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
All races									
	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	23.3	22.5	27.4	22.9	19.1	18.8	19.4	19.5	19.7
All ages, crude . . . . .	23.1	21.3	26.9	23.5	19.6	19.2	19.9	19.8	20.0
Under 1 year . . . . .	8.4	8.1	9.8	7.0	4.4	4.8	4.9	5.3	5.6
1–4 years. . . . .	11.5	10.0	11.5	9.2	6.9	7.1	7.0	6.8	6.9
5–14 years. . . . .	8.8	7.9	10.2	7.9	6.7	6.8	6.9	7.0	7.0
15–24 years. . . . .	34.4	38.0	47.2	44.8	36.7	36.1	39.0	37.8	38.5
25–34 years. . . . .	24.6	24.3	30.9	29.1	23.8	22.8	24.2	24.2	23.9
35–44 years. . . . .	20.3	19.3	24.9	20.9	17.1	17.1	16.6	17.3	17.4
45–54 years. . . . .	22.2	21.4	25.5	18.6	15.4	15.2	15.1	15.4	15.8
55–64 years. . . . .	29.2	25.1	27.9	17.4	15.7	15.5	15.1	15.6	15.7
65–74 years. . . . .	38.8	31.4	32.8	19.2	18.0	17.7	17.9	18.5	19.2
75–84 years. . . . .	52.7	41.8	43.5	28.1	28.2	27.6	28.8	29.3	30.2
85 years and over. . . . .	45.1	37.9	34.2	27.6	25.0	26.1	25.3	27.1	29.1
White male									
All ages, age adjusted. . . . .	35.9	34.0	40.1	34.8	28.4	27.6	28.7	28.4	28.5
All ages, crude . . . . .	35.1	31.5	39.1	35.9	29.1	28.2	29.2	28.8	28.7
Under 1 year . . . . .	9.1	8.8	9.1	7.0	3.9	4.5	4.1	4.3	5.8
1–4 years. . . . .	13.2	11.3	12.2	9.5	7.5	7.6	7.0	7.2	6.9
5–14 years. . . . .	12.0	10.3	12.6	9.8	8.4	8.5	8.7	9.1	8.7
15–24 years. . . . .	58.3	62.7	75.2	73.8	59.1	57.4	62.6	59.2	60.3
25–34 years. . . . .	39.1	38.6	47.0	46.6	37.3	35.5	37.3	36.8	36.1
35–44 years. . . . .	30.9	28.4	35.2	30.7	24.3	24.1	23.7	24.4	24.6
45–54 years. . . . .	31.6	29.7	34.6	26.3	21.7	20.9	20.8	20.6	21.5
55–64 years. . . . .	41.9	34.4	39.0	23.9	20.9	20.6	19.9	20.8	20.5
65–74 years. . . . .	59.1	45.5	46.2	25.8	24.0	21.7	22.4	24.0	24.2
75–84 years. . . . .	86.4	66.8	69.2	43.6	41.8	41.2	42.9	43.4	43.4
85 years and over. . . . .	79.3	61.9	65.5	57.3	52.6	56.4	51.6	58.6	59.3
Black male									
All ages, age adjusted. . . . .	39.8	38.2	50.1	32.9	27.2	27.7	29.2	28.5	29.6
All ages, crude . . . . .	37.2	33.1	44.3	31.1	26.4	26.7	28.6	27.7	28.9
Under 1 year . . . . .	---	6.8	10.6	7.8	5.7	5.9	8.0	8.3	7.7
1–4 years. . . . .	---	12.7	16.9	13.7	9.8	10.7	10.7	9.9	9.2
5–14 years. . . . .	9.7	10.4	16.1	10.5	8.7	8.9	9.6	9.2	9.5
15–24 years. . . . .	41.6	46.4	58.1	34.9	31.9	32.1	35.3	36.2	38.0
25–34 years. . . . .	57.4	51.0	70.4	44.9	36.8	37.2	41.7	38.2	38.3
35–44 years. . . . .	45.9	43.6	59.5	41.2	33.8	35.4	35.1	35.2	37.3
45–54 years. . . . .	49.9	48.1	61.4	39.1	28.5	29.9	31.4	32.4	32.2
55–64 years. . . . .	58.8	47.3	62.1	40.3	31.5	34.3	31.9	30.1	30.2
65–74 years. . . . .	48.5	46.1	54.9	41.8	35.5	30.0	27.2	31.2	37.0
75–84 years. . . . .	---	51.8	51.6	46.5	45.0	42.2	53.1	36.2	45.2
85 years and over. . . . .	---	58.6	45.7	34.0	57.1	36.9	62.7	40.6	65.7
White female									
All ages, age adjusted. . . . .	10.6	11.1	14.4	12.3	10.9	10.8	11.0	11.4	11.6
All ages, crude . . . . .	10.9	11.2	14.8	12.8	11.5	11.4	11.5	11.9	12.1
Under 1 year . . . . .	7.8	7.5	10.2	7.1	4.4	3.9	4.6	5.8	5.3
1–4 years. . . . .	10.1	8.3	9.6	7.7	5.4	5.7	6.0	5.9	6.2
5–14 years. . . . .	5.6	5.3	6.9	5.7	5.1	5.2	4.9	4.9	5.2
15–24 years. . . . .	12.6	15.6	22.7	23.0	20.1	20.1	21.5	21.7	21.8
25–34 years. . . . .	9.0	9.0	12.7	12.2	11.0	10.0	10.8	11.6	11.7
35–44 years. . . . .	8.1	8.9	12.3	10.6	9.4	9.4	8.4	9.3	9.1
45–54 years. . . . .	10.8	11.4	14.3	10.2	8.9	8.9	8.5	9.2	9.5
55–64 years. . . . .	15.0	15.3	16.1	10.5	10.3	9.9	9.6	10.4	10.5
65–74 years. . . . .	20.9	19.3	22.1	13.4	13.0	14.3	14.4	13.7	14.5
75–84 years. . . . .	25.4	23.8	28.1	19.0	20.6	19.9	20.5	22.0	22.8
85 years and over. . . . .	22.3	22.2	18.1	15.3	13.8	15.1	14.7	15.9	17.7

See footnote at end of table.

**Table 33 (page 2 of 2). Death rates for motor vehicle accidents, according to sex, race and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Black female	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	10.3	10.0	13.8	8.4	7.6	8.2	8.5	8.7	9.2
All ages, crude . . . . .	10.2	9.7	13.4	8.3	7.8	8.3	8.5	8.8	9.3
Under 1 year . . . . .	---	8.1	11.9	5.3	5.1	7.8	5.3	5.3	5.5
1–4 years. . . . .	---	8.8	12.6	9.5	6.9	6.8	6.9	7.5	7.5
5–14 years. . . . .	6.2	5.9	9.3	5.2	4.4	4.3	4.8	4.7	5.6
15–24 years. . . . .	11.5	9.9	13.4	8.0	8.4	9.1	9.1	9.5	10.7
25–34 years. . . . .	10.7	9.8	13.3	10.6	9.0	9.2	10.3	11.1	11.1
35–44 years. . . . .	11.1	11.0	16.1	8.3	8.6	9.1	8.7	9.2	10.1
45–54 years. . . . .	10.6	11.8	16.4	9.1	6.4	8.2	8.7	9.0	8.9
55–64 years. . . . .	14.0	14.0	17.0	9.3	8.5	9.5	10.9	8.8	9.7
65–74 years. . . . .	12.7	14.2	16.3	8.5	9.7	9.6	9.7	11.8	9.6
75–84 years. . . . .	---	8.8	14.4	11.1	13.7	15.0	10.0	10.9	14.1
85 years and over. . . . .	---	21.1	15.4	12.3	9.8	9.4	11.0	7.2	10.8

<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 1950–88. 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 homicide and legal intervention, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Deaths per 100,000 resident population									
All races									
All ages, age adjusted. . . . .	5.4	5.2	9.1	10.8	8.4	8.3	9.0	8.6	9.0
All ages, crude . . . . .	5.3	4.7	8.3	10.7	8.4	8.3	9.0	8.7	9.0
Under 1 year . . . . .	4.4	4.8	4.3	5.9	6.5	5.3	7.4	7.2	8.2
1–4 years. . . . .	0.6	0.7	1.9	2.5	2.4	2.4	2.7	2.3	2.6
5–14 years. . . . .	0.5	0.5	0.9	1.2	1.3	1.2	1.1	1.2	1.3
15–24 years . . . . .	6.3	5.9	11.7	15.6	12.0	12.1	14.2	14.0	15.4
25–34 years . . . . .	9.9	9.7	16.6	19.6	14.7	14.7	16.1	15.1	16.0
35–44 years . . . . .	8.8	8.1	13.7	15.1	11.3	11.3	11.4	10.8	10.9
45–54 years . . . . .	6.1	6.2	10.1	11.1	8.5	8.1	8.3	7.7	7.1
55–64 years . . . . .	4.0	4.2	7.1	7.0	5.8	5.7	5.4	5.5	5.2
65–74 years . . . . .	3.2	2.8	5.0	5.7	4.2	4.3	4.4	4.3	4.2
75–84 years . . . . .	2.6	2.4	4.0	5.2	4.4	4.3	4.6	4.8	4.5
85 years and over. . . . .	2.3	2.4	4.2	5.3	4.3	4.1	4.7	5.1	4.7
White male									
All ages, age adjusted. . . . .	3.9	3.9	7.3	10.9	8.2	8.1	8.4	7.7	7.7
All ages, crude . . . . .	3.9	3.6	6.8	10.9	8.3	8.2	8.6	7.9	7.9
Under 1 year . . . . .	4.3	3.8	2.9	4.3	4.9	3.7	5.4	6.0	5.6
1–4 years. . . . .	0.4	0.6	1.4	2.0	1.9	1.9	1.9	1.8	2.2
5–14 years. . . . .	0.4	0.4	0.5	0.9	0.9	1.1	0.9	0.8	1.0
15–24 years . . . . .	3.7	4.4	7.9	15.5	11.1	11.2	12.5	11.2	11.5
25–34 years . . . . .	5.4	6.2	13.0	18.9	14.1	13.9	14.6	13.2	13.2
35–44 years . . . . .	6.4	5.5	11.0	15.5	11.8	11.5	11.6	10.2	10.4
45–54 years . . . . .	5.5	5.0	9.0	11.9	9.4	8.6	8.6	8.3	7.6
55–64 years . . . . .	4.4	4.3	7.7	7.8	6.3	6.3	6.0	6.3	6.0
65–74 years . . . . .	4.1	3.4	5.6	6.9	4.2	4.5	4.3	4.2	4.1
75–84 years . . . . .	3.5	2.7	5.1	6.3	4.2	4.5	4.6	4.9	4.3
85 years and over. . . . .	1.8	2.7	6.4	6.4	5.3	3.9	4.4	5.4	5.1
Black male									
All ages, age adjusted. . . . .	51.1	44.9	82.1	71.9	50.8	49.9	55.9	53.8	58.2
All ages, crude . . . . .	47.3	36.6	67.6	66.6	48.7	48.4	55.0	53.3	58.0
Under 1 year . . . . .	---	10.3	14.3	18.6	20.1	16.0	22.5	19.4	19.3
1–4 years. . . . .	---	1.7	5.1	7.2	5.0	6.5	9.3	4.8	7.5
5–14 years. . . . .	1.8	1.4	4.2	2.9	3.2	3.2	3.2	4.3	4.2
15–24 years . . . . .	58.9	46.4	102.5	84.3	61.5	66.1	79.2	85.6	101.8
25–34 years . . . . .	110.5	92.0	158.5	145.1	96.2	94.3	108.0	98.9	108.8
35–44 years . . . . .	83.7	77.5	126.2	110.3	78.1	76.3	79.4	78.4	79.2
45–54 years . . . . .	54.6	54.8	100.5	83.8	57.1	51.1	56.3	46.0	45.2
55–64 years . . . . .	35.7	31.8	59.8	55.6	40.6	37.8	35.4	32.8	29.1
65–74 years . . . . .	18.7	19.1	40.6	33.9	30.3	27.6	30.0	28.0	26.2
75–84 years . . . . .	---	16.1	19.0	27.6	28.3	21.5	27.9	29.5	30.5
85 years and over. . . . .	---	10.3	19.6	17.0	28.6	16.9	25.4	29.0	31.4
White female									
All ages, age adjusted. . . . .	1.4	1.5	2.2	3.2	2.9	2.9	2.9	2.9	2.8
All ages, crude . . . . .	1.4	1.4	2.1	3.2	2.9	2.9	3.0	3.0	2.9
Under 1 year . . . . .	3.9	3.5	2.9	4.3	4.0	4.3	5.1	4.2	6.0
1–4 years. . . . .	0.6	0.5	1.2	1.5	1.7	1.6	1.4	1.5	1.6
5–14 years. . . . .	0.4	0.3	0.5	1.0	0.9	0.8	0.8	0.8	0.8
15–24 years . . . . .	1.3	1.5	2.7	4.7	4.3	3.6	4.3	3.9	3.9
25–34 years . . . . .	1.9	2.0	3.4	4.3	3.9	4.4	4.4	4.6	4.4
35–44 years . . . . .	2.2	2.2	3.2	4.1	3.4	3.6	3.5	3.5	3.2
45–54 years . . . . .	1.6	1.9	2.2	3.0	2.7	2.9	2.8	2.7	2.5
55–64 years . . . . .	1.3	1.5	2.0	2.1	2.2	2.3	1.9	1.9	2.0
65–74 years . . . . .	1.1	1.1	1.7	2.5	1.9	2.2	2.2	2.4	2.3
75–84 years . . . . .	1.2	1.2	2.5	3.3	2.9	3.1	3.1	3.1	3.0
85 years and over. . . . .	1.9	1.5	1.9	4.0	2.6	3.2	3.3	3.8	2.9

See footnote at end of table.

**Table 34 (page 2 of 2). Death rates for homicide and legal intervention, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Black female	Deaths per 100,000 resident population								
All ages, age adjusted. . . . .	11.7	11.8	15.0	13.7	11.0	10.8	11.8	12.3	12.7
All ages, crude . . . . .	11.5	10.4	13.3	13.5	11.2	11.0	12.1	12.6	13.2
Under 1 year . . . . .	---	13.8	10.7	12.8	16.4	10.3	17.0	18.7	23.5
1–4 years. . . . .	---	1.7	6.3	6.4	6.7	6.3	6.8	7.2	6.3
5–14 years. . . . .	1.2	1.0	2.0	2.2	3.1	2.0	2.3	2.0	3.1
15–24 years. . . . .	16.5	11.9	17.7	18.4	14.8	14.2	16.2	17.7	17.4
25–34 years. . . . .	26.6	24.9	25.6	25.8	19.3	19.8	21.9	22.4	25.5
35–44 years. . . . .	17.8	20.5	25.1	17.7	14.4	14.8	14.8	14.4	14.6
45–54 years. . . . .	8.5	12.7	17.5	12.5	7.5	9.0	8.5	10.5	7.7
55–64 years. . . . .	3.6	6.8	8.1	8.9	6.7	6.4	6.8	7.6	6.8
65–74 years. . . . .	3.4	3.3	7.7	8.6	6.8	7.2	8.7	6.9	9.0
75–84 years. . . . .	---	2.5	5.7	6.7	9.8	7.6	8.6	10.4	9.9
85 years and over. . . . .	---	2.6	9.8	8.5	7.5	11.5	13.1	10.5	12.7

<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 1950–88. 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 suicide, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Deaths per 100,000 resident population									
<b>All races</b>									
All ages, age adjusted. . . . .	11.0	10.6	11.8	11.4	11.6	11.5	11.9	11.7	11.4
All ages, crude. . . . .	11.4	10.6	11.6	11.9	12.4	12.3	12.8	12.7	12.4
Under 1 year . . . . .	...	...	...	...	...	...	...	...	...
1–4 years. . . . .	...	...	...	...	...	...	...	...	...
5–14 years. . . . .	0.2	0.3	0.3	0.4	0.7	0.8	0.8	0.7	0.7
15–24 years. . . . .	4.5	5.2	8.8	12.3	12.5	12.9	13.1	12.9	13.2
25–34 years. . . . .	9.1	10.0	14.1	16.0	15.5	15.2	15.7	15.4	15.4
35–44 years. . . . .	14.3	14.2	16.9	15.4	15.1	14.6	15.2	15.0	14.8
45–54 years. . . . .	20.9	20.7	20.0	15.9	16.2	15.6	16.4	15.9	14.6
55–64 years. . . . .	27.0	23.7	21.4	15.9	17.3	16.7	17.0	16.6	15.6
65–74 years. . . . .	29.3	23.0	20.8	16.9	18.8	18.5	19.7	19.4	18.4
75–84 years. . . . .	31.1	27.9	21.2	19.1	22.0	24.1	25.2	25.8	25.9
85 years and over. . . . .	28.8	26.0	19.0	19.2	18.4	19.1	20.8	22.1	20.5
<b>White male</b>									
All ages, age adjusted. . . . .	18.1	17.5	18.2	18.9	19.7	19.9	20.5	20.1	19.8
All ages, crude. . . . .	19.0	17.6	18.0	19.9	21.3	21.5	22.3	22.1	21.7
Under 1 year . . . . .	...	...	...	...	...	...	...	...	...
1–4 years. . . . .	...	...	...	...	...	...	...	...	...
5–14 years. . . . .	0.3	0.5	0.5	0.7	1.1	1.3	1.2	1.2	1.1
15–24 years. . . . .	6.6	8.6	13.9	21.4	22.0	22.7	23.6	22.7	23.4
25–34 years. . . . .	13.8	14.9	19.9	25.6	25.8	25.4	26.4	25.6	25.7
35–44 years. . . . .	22.4	21.9	23.3	23.5	23.7	23.5	23.9	23.9	24.1
45–54 years. . . . .	34.1	33.7	29.5	24.2	25.3	25.1	26.3	25.4	23.2
55–64 years. . . . .	45.9	40.2	35.0	25.8	28.8	28.6	28.7	28.7	27.0
65–74 years. . . . .	53.2	42.0	38.7	32.5	35.6	35.3	37.6	36.8	35.4
75–84 years. . . . .	61.9	55.7	45.5	45.5	52.0	57.1	58.9	60.9	61.5
85 years and over. . . . .	61.9	61.3	45.8	52.8	55.8	60.3	66.3	71.9	65.8
<b>Black male</b>									
All ages, age adjusted. . . . .	7.0	7.8	9.9	11.1	11.2	11.3	11.5	12.0	11.8
All ages, crude. . . . .	6.3	6.4	8.0	10.3	10.6	10.8	11.1	11.6	11.5
Under 1 year . . . . .	...	...	...	...	...	...	...	...	...
1–4 years. . . . .	...	...	...	...	...	...	...	...	...
5–14 years. . . . .	—	0.1	0.1	0.3	0.5	0.6	0.8	0.8	0.6
15–24 years. . . . .	4.9	4.1	10.5	12.3	11.2	13.3	11.5	12.9	14.5
25–34 years. . . . .	9.3	12.4	19.2	21.8	20.7	19.6	21.3	21.1	22.1
35–44 years. . . . .	10.4	12.8	12.6	15.6	16.5	14.9	17.5	17.9	16.4
45–54 years. . . . .	10.4	10.8	13.8	12.0	11.6	13.5	12.8	13.0	11.7
55–64 years. . . . .	16.5	16.2	10.6	11.7	13.4	11.5	9.9	10.3	10.6
65–74 years. . . . .	10.0	11.3	8.7	11.1	13.8	15.8	16.1	17.6	12.9
75–84 years. . . . .	---	6.6	8.9	10.5	15.1	15.6	16.0	20.9	17.6
85 years and over. . . . .	---	6.9	8.7	18.9	11.1	7.7	17.9	13.0	10.0
<b>White female</b>									
All ages, age adjusted. . . . .	5.3	5.3	7.2	5.7	5.6	5.3	5.4	5.3	5.1
All ages, crude. . . . .	5.5	5.3	7.1	5.9	5.9	5.6	5.9	5.7	5.5
Under 1 year . . . . .	...	...	...	...	...	...	...	...	...
1–4 years. . . . .	...	...	...	...	...	...	...	...	...
5–14 years. . . . .	0.1	0.1	0.1	0.2	0.3	0.5	0.3	0.3	0.4
15–24 years. . . . .	2.7	2.3	4.2	4.6	4.7	4.7	4.7	4.6	4.6
25–34 years. . . . .	5.2	5.8	9.0	7.5	6.6	6.4	6.2	6.3	6.1
35–44 years. . . . .	8.2	8.1	13.0	9.1	8.4	7.7	8.3	7.9	7.4
45–54 years. . . . .	10.5	10.9	13.5	10.2	10.0	9.0	9.6	9.4	8.6
55–64 years. . . . .	10.7	10.9	12.3	9.1	9.1	8.4	9.0	8.4	7.9
65–74 years. . . . .	10.6	8.8	9.6	7.0	7.8	7.3	7.7	7.6	7.3
75–84 years. . . . .	8.4	9.2	7.2	5.7	6.8	7.0	8.0	7.5	7.4
85 years and over. . . . .	8.9	6.1	5.8	5.8	5.1	4.7	5.0	4.8	5.3

See footnote at end of table.

**Table 35 (page 2 of 2). Death rates for suicide, according to sex, race, and age: United States, selected years 1950–88**

[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	1984	1985	1986	1987	1988
Black female	Deaths per 100,000 resident population								
All ages, age adjusted.....	1.7	1.9	2.9	2.4	2.3	2.1	2.4	2.1	2.4
All ages, crude.....	1.5	1.6	2.6	2.2	2.2	2.1	2.3	2.1	2.4
Under 1 year.....	...	...	...	...	...	...	...	...	...
1–4 years.....	...	...	...	...	...	...	...	...	...
5–14 years.....	–	0.0	0.2	0.1	0.2	0.2	0.2	0.2	0.5
15–24 years.....	1.8	1.3	3.8	2.3	2.4	2.0	2.3	2.5	2.6
25–34 years.....	2.6	3.0	5.7	4.1	3.5	3.0	3.8	4.0	3.8
35–44 years.....	2.0	3.0	3.7	4.6	3.2	3.6	2.8	2.9	3.5
45–54 years.....	3.5	3.1	3.7	2.8	3.5	3.2	3.2	2.2	3.8
55–64 years.....	1.1	3.0	2.0	2.3	3.1	2.2	4.2	1.8	2.5
65–74 years.....	1.9	2.3	2.9	1.7	2.5	2.0	2.8	2.5	2.0
75–84 years.....	---	1.3	1.7	1.4	0.5	4.5	2.6	2.3	1.3
85 years and over.....	---	–	2.8	–	0.8	1.4	–	–	–

<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 1950–88. 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. Death rates for human immunodeficiency virus (HIV) infection, according to sex, race, and age: United States, 1987 and 1988**

[Data are based on the National Vital Statistics System]

Race and age	Both sexes		Male		Female	
	1987	1988	1987	1988	1987	1988
All races						
Deaths per 100,000 resident population						
All ages, age adjusted . . . . .	5.5	6.6	10.0	12.0	1.1	1.4
All ages, crude . . . . .	5.5	6.8	10.2	12.4	1.1	1.4
Under 1 year . . . . .	2.3	2.1	2.1	2.5	2.5	1.7
1-4 years . . . . .	0.7	0.8	0.7	0.8	0.7	0.7
5-14 years . . . . .	0.1	0.2	0.2	0.2	0.1	0.1
15-24 years . . . . .	1.3	1.4	2.2	2.4	0.3	0.5
25-34 years . . . . .	11.6	13.8	20.5	24.2	2.7	3.5
35-44 years . . . . .	14.0	17.5	26.2	32.5	2.1	3.0
45-54 years . . . . .	7.9	9.7	15.4	18.8	0.8	1.1
55-64 years . . . . .	3.5	4.0	6.7	7.6	0.5	0.7
65-74 years . . . . .	1.3	1.6	2.3	2.8	0.5	0.6
75-84 years . . . . .	0.8	0.8	1.2	1.5	0.6	0.4
85 years and over . . . . .	0.5	0.4	0.7	1.0	0.3	0.1
White						
All ages, age adjusted . . . . .	4.4	5.3	8.3	9.9	0.6	0.7
All ages, crude . . . . .	4.5	5.4	8.6	10.3	0.6	0.7
Under 1 year . . . . .	1.1	1.1	1.3	1.4	0.9	0.7
1-4 years . . . . .	0.4	0.4	0.4	0.4	0.4	0.4
5-14 years . . . . .	0.1	0.1	0.2	0.2	0.1	0.1
15-24 years . . . . .	1.0	1.1	1.8	1.8	0.1	0.3
25-34 years . . . . .	9.1	10.7	16.8	19.5	1.3	1.7
35-44 years . . . . .	11.3	14.0	21.7	26.7	1.0	1.4
45-54 years . . . . .	6.9	8.4	13.5	16.4	0.5	0.6
55-64 years . . . . .	3.0	3.4	5.9	6.5	0.4	0.5
65-74 years . . . . .	1.3	1.5	2.3	2.5	0.5	0.6
75-84 years . . . . .	0.8	0.8	1.2	1.4	0.6	0.4
85 years and over . . . . .	0.4	0.4	0.6	0.9	0.3	0.2
Black						
All ages, age adjusted . . . . .	14.2	17.9	25.4	31.6	4.7	6.2
All ages, crude . . . . .	13.6	17.2	23.4	29.3	4.7	6.3
Under 1 year . . . . .	9.4	8.1	7.3	8.7	11.7	7.5
1-4 years . . . . .	2.4	3.0	2.4	3.2	2.4	2.8
5-14 years . . . . .	0.3	0.4	0.3	0.4	0.3	0.5
15-24 years . . . . .	3.3	3.8	5.3	5.9	1.4	1.7
25-34 years . . . . .	30.9	37.8	52.0	62.8	12.0	15.4
35-44 years . . . . .	39.1	50.2	72.9	91.7	10.8	15.4
45-54 years . . . . .	17.7	23.0	35.4	45.2	3.3	5.0
55-64 years . . . . .	7.9	9.7	15.6	18.4	1.5	2.6
65-74 years . . . . .	1.6	3.4	2.3	6.4	1.0	1.1
75-84 years . . . . .	0.4	1.4	0.4	2.6	0.5	0.7
85 years and over . . . . .	1.4	0.4	2.9	1.4	0.7	-

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 1987-88. Public Health Service. Washington. U.S. Government Printing Office.

**Table 37. Deaths for selected occupational diseases for males, according to age: United States, selected years 1970–88**

[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
25 years and over													
	Number of deaths <sup>1</sup>												
Malignant neoplasm of peritoneum and pleura (mesothelioma) . . . . .	602	591	557	559	552	556	576	584	584	571	564	575	556
Coalworkers' pneumoconiosis . . . . .	1,155	973	840	918	977	1,053	954	926	923	947	882	823	757
Asbestosis . . . . .	25	43	64	86	96	98	99	128	131	130	180	195	206
Silicosis . . . . .	351	243	162	220	202	165	176	149	160	138	135	153	128
25–64 years													
Malignant neoplasm of peritoneum and pleura (mesothelioma) . . . . .	308	280	254	246	241	229	234	211	211	210	200	196	187
Coalworkers' pneumoconiosis . . . . .	294	188	116	130	136	116	116	88	97	89	71	71	56
Asbestosis . . . . .	17	22	31	29	30	21	26	30	25	29	37	32	38
Silicosis . . . . .	90	64	50	51	49	44	42	37	34	30	22	32	26
65 years and over													
Malignant neoplasm of peritoneum and pleura (mesothelioma) . . . . .	294	311	303	313	311	327	342	373	373	361	364	379	369
Coalworkers' pneumoconiosis . . . . .	861	785	724	788	841	937	838	838	826	858	811	752	701
Asbestosis . . . . .	8	21	33	57	66	77	73	98	106	101	143	163	168
Silicosis . . . . .	261	179	112	169	153	121	134	112	126	108	113	121	102

<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. In 1980 and 1983–86 among men 25 years and over the numbers of additional deaths for which occupational disease is a nonunderlying cause are shown below.

<i>Nonunderlying cause of death</i>	1980	1983	1984	1985	1986
Malignant neoplasm of peritoneum and pleura (mesothelioma) . . . . .	135	115	124	102	106
Coalworkers' pneumoconiosis . . . . .	1,587	1,758	1,742	1,652	1,536
Asbestosis . . . . .	228	321	298	382	494
Silicosis . . . . .	232	205	210	187	175

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 38. Provisional death rates for all causes, according to race, sex, and age: United States, 1987–89**

[Data are based on a 10-percent sample of death certificates from the National Vital Statistics System]

Sex and age	All races			White			Black		
	1987	1988	1989	1987	1988	1989	1987	1988	1989
Deaths per 100,000 resident population									
Both sexes									
All ages, age adjusted.....	536.2	536.3	524.1	514.0	513.4	500.0	767.1	769.9	761.2
All ages, crude.....	874.0	883.0	868.1	900.2	910.0	893.3	843.6	853.9	848.1
Under 1 year.....	1,006.5	1,001.9	986.0	836.9	818.4	819.2	2,001.7	2,030.4	1,899.8
1–4 years.....	51.6	50.7	43.8	49.1	47.6	39.0	68.1	66.1	69.6
5–14 years.....	25.6	26.2	26.6	24.2	23.9	24.5	35.7	38.7	38.5
15–24 years.....	101.6	104.8	103.5	98.3	98.8	95.8	128.6	143.3	150.1
25–34 years.....	131.4	133.6	139.7	116.0	115.6	119.1	248.7	266.5	286.5
35–44 years.....	211.8	217.6	221.0	183.2	188.7	191.1	467.2	476.9	485.4
45–54 years.....	498.9	486.4	479.1	454.2	441.4	434.1	913.3	908.9	904.1
55–64 years.....	1,246.8	1,246.3	1,210.0	1,187.9	1,193.9	1,153.3	1,922.3	1,859.7	1,825.2
65–74 years.....	2,763.6	2,731.2	2,628.2	2,711.3	2,679.4	2,573.2	3,609.4	3,587.3	3,504.1
75–84 years.....	6,266.1	6,324.4	6,167.5	6,243.7	6,305.2	6,155.4	7,209.9	7,257.6	6,970.4
85 years and over.....	15,405.7	15,577.7	15,083.2	15,698.5	15,888.0	15,362.5	12,868.8	13,206.1	13,110.2
Male									
All ages, age adjusted.....	698.6	699.8	679.6	671.0	670.5	647.9	1,005.4	1,018.4	1,010.0
All ages, crude.....	935.1	944.2	922.0	951.6	960.3	934.6	973.1	988.4	984.5
Under 1 year.....	1,122.7	1,121.5	1,076.7	938.7	937.5	910.0	2,218.0	2,196.7	1,993.6
1–4 years.....	58.4	56.2	46.6	54.2	51.7	42.0	85.1	82.8	73.6
5–14 years.....	31.8	30.5	32.3	30.1	29.0	30.3	45.6	39.1	44.5
15–24 years.....	150.5	154.0	152.0	145.3	144.4	139.0	194.9	214.2	235.7
25–34 years.....	189.1	195.0	203.3	166.7	169.6	173.4	370.3	404.9	432.9
35–44 years.....	290.4	296.2	301.7	251.1	254.7	260.4	673.5	703.9	701.2
45–54 years.....	638.0	636.5	628.2	577.7	573.0	563.8	1,244.4	1,294.3	1,288.9
55–64 years.....	1,625.8	1,624.2	1,569.8	1,554.7	1,557.4	1,497.5	2,473.5	2,415.9	2,371.3
65–74 years.....	3,635.7	3,583.2	3,414.6	3,585.7	3,533.8	3,348.0	4,592.0	4,527.3	4,516.3
75–84 years.....	8,206.1	8,243.2	7,950.4	8,200.1	8,234.6	7,943.6	9,238.8	9,360.3	8,902.9
85 years and over.....	18,037.2	18,475.2	17,695.3	18,456.4	18,933.7	18,110.4	14,956.5	15,342.9	14,958.3
Female									
All ages, age adjusted.....	404.5	403.5	396.4	386.9	385.8	378.8	579.9	574.9	564.6
All ages, crude.....	815.9	825.0	816.9	851.0	861.8	853.8	726.7	732.6	725.0
Under 1 year.....	883.8	876.3	890.9	729.7	692.8	722.9	1,780.9	1,860.1	1,803.3
1–4 years.....	44.4	44.9	40.8	43.7	43.3	35.9	50.5	48.8	65.4
5–14 years.....	19.1	21.7	20.6	18.1	18.5	18.3	25.6	38.4	32.3
15–24 years.....	51.7	54.5	53.9	50.0	52.0	51.4	64.0	74.1	66.5
25–34 years.....	73.6	71.2	75.9	64.2	60.5	63.8	140.1	142.8	155.4
35–44 years.....	135.4	141.0	142.2	115.7	123.0	122.0	295.0	286.9	304.6
45–54 years.....	367.3	344.3	337.9	335.0	314.2	308.7	644.4	596.3	593.2
55–64 years.....	909.6	909.4	887.8	857.8	865.7	841.2	1,465.6	1,399.1	1,373.6
65–74 years.....	2,070.4	2,051.4	1,997.1	2,012.4	1,993.0	1,946.8	2,879.4	2,887.1	2,744.7
75–84 years.....	5,102.4	5,166.6	5,083.4	5,075.9	5,145.3	5,072.3	5,979.6	5,997.8	5,812.5
85 years and over.....	14,376.5	14,451.7	14,070.3	14,641.8	14,727.8	14,317.0	11,921.1	12,259.5	12,224.2

NOTE: Includes deaths of nonresidents of the United States.

SOURCES: National Center for Health Statistics: Annual summary of births, marriages, divorces, and deaths, United States, 1989. Monthly Vital Statistics Report. Vol. 38, No. 13. DHHS Pub. No. (PHS) 90–1120. Aug. 1990. Public Health Service. Hyattsville, Md.

**Table 39. Provisional age-adjusted death rates for selected causes of death: United States, 1987–89**

[Data are based on a 10-percent sample of death certificates from the National Vital Statistics System]

<i>Cause of death</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>
	Deaths per 100,000 resident population		
All causes . . . . .	536.2	536.3	524.1
Diseases of heart . . . . .	169.9	166.7	155.9
Ischemic heart disease . . . . .	114.0	110.4	104.9
Cerebrovascular diseases . . . . .	30.1	29.8	28.5
Malignant neoplasms . . . . .	133.1	133.3	133.7
Respiratory system . . . . .	39.3	40.6	40.1
Breast <sup>1</sup> . . . . .	23.0	23.3	23.4
Chronic obstructive pulmonary diseases . . . . .	18.7	19.2	19.4
Pneumonia and influenza . . . . .	13.2	14.2	13.3
Chronic liver disease and cirrhosis . . . . .	9.0	9.0	8.7
Diabetes mellitus . . . . .	9.6	9.9	11.3
Accidents and adverse effects . . . . .	34.6	35.1	33.5
Motor vehicle accidents . . . . .	19.7	20.1	19.4
Suicide . . . . .	11.7	11.3	11.7
Homicide and legal intervention . . . . .	8.4	9.0	9.4
Human immunodeficiency virus infection . . . . .	5.3	6.5	8.3

<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, 1989. Monthly Vital Statistics Report. Vol. 38, No. 13. DHHS Pub. No. (PHS) 90-1120. Aug. 1990. Public Health Service. Hyattsville, Md.

**Table 40. Provisional death rates for the 3 leading causes of death, according to age: United States, 1987–89**

[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>1987</i>	<i>1988</i>	<i>1989</i>
<b>Deaths per 100,000 resident population</b>			
<b>Diseases of heart</b>			
All ages . . . . .	313.4	312.2	296.3
Under 1 year . . . . .	23.9	23.6	18.8
1–14 years . . . . .	1.3	1.4	1.1
15–24 years . . . . .	2.9	2.8	2.1
25–34 years . . . . .	7.5	7.3	7.5
35–44 years . . . . .	34.4	33.0	30.8
45–54 years . . . . .	140.7	131.4	124.6
55–64 years . . . . .	408.9	405.6	377.8
65–74 years . . . . .	1,019.5	985.6	910.1
75–84 years . . . . .	2,556.3	2,554.4	2,412.5
85 years and over . . . . .	7,122.1	7,119.1	6,742.6
<b>Malignant neoplasms</b>			
All ages . . . . .	196.1	198.6	200.3
Under 1 year . . . . .	3.7	1.3	1.5
1–14 years . . . . .	3.7	3.5	3.2
15–24 years . . . . .	5.1	5.0	5.3
25–34 years . . . . .	12.5	10.8	13.3
35–44 years . . . . .	44.4	44.3	45.0
45–54 years . . . . .	164.5	157.2	158.5
55–64 years . . . . .	448.5	456.5	451.4
65–74 years . . . . .	845.8	845.4	843.5
75–84 years . . . . .	1,282.8	1,324.8	1,338.4
85 years and over . . . . .	1,631.7	1,664.5	1,655.2
<b>Cerebrovascular diseases</b>			
All ages . . . . .	61.3	61.1	59.4
Under 1 year . . . . .	2.4	1.0	2.8
1–14 years . . . . .	0.2	0.1	0.3
15–24 years . . . . .	0.9	0.9	0.4
25–34 years . . . . .	2.2	2.1	1.9
35–44 years . . . . .	6.6	7.1	6.7
45–54 years . . . . .	20.8	20.4	18.1
55–64 years . . . . .	51.8	51.9	50.6
65–74 years . . . . .	153.4	155.7	147.6
75–84 years . . . . .	563.0	544.4	530.2
85 years and over . . . . .	1,734.2	1,710.3	1,632.8

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, 1989. Monthly Vital Statistics Report. Vol. 38, No. 13. DHHS Pub. No. (PHS) 90–1120. Aug. 1990. Public Health Service. Hyattsville, Md.

**Table 41. Progress toward 1990 health promotion goals: United States, selected years 1977–88**

1990 goals	1977	1979	1980	1982	1983	1984	1985	1986	1987	1988	1990 goal
Infants (under 1 year)		Deaths per 1,000 live births									
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	13.1	12.6	11.5	11.2	10.8	10.6	10.4	10.1	10.0	9
Children (1–14 years)		Deaths per 100,000 population									
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	40.1	38.5	36.7	35.3	34.1	33.8	33.7	33.3	33.2	34
Adolescents and young adults (15–24 years)											
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 92 per 100,000 . . . . .	114.8	114.8	115.4	101.0	96.0	96.8	95.9	102.3	99.4	102.1	92
Adults (25–64 years)											
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	500.2	498.0	462.3	452.8	443.5	438.7	431.0	423.4	419.3	400
Older adults (65 years and over)		Restricted-activity days per person									
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>1</sup> . . . . .	36.5	41.9	39.2	31.6	32.1	31.8	33.1	32.1	30.3	30.6	30
		Bed-disability days per person									
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>1</sup> . . . . .	14.5	13.7	13.8	14.7	16.7	15.1	13.7	14.9	14.0	14.4	12

<sup>1</sup>Levels of estimates for 1982–88 may not be comparable to estimates for previous years because the 1982–88 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 1977–88 Public Health Service. Washington. U S. Government Printing Office; 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, 1988. Vital and Health Statistics. Series 10, No. 173. DHHS Pub. No. (PHS) 89–1501. Public Health Service. Washington. U.S. Government Printing Office, Oct 1989

**Table 42. 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.

SOURCE: Division of Immunization, Center for Prevention Services, Centers for Disease Control: Unpublished data from the United States Immunization Survey.

**Table 43. Selected notifiable disease rates, according to disease: United States, selected years 1950–89**

[Data are based on reporting by State health departments]

Disease	1950	1960	1970	1980	1985	1987	1988	1989
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	10.39	11.60	14.43
Hepatitis B <sup>1</sup>	---	---	4.08	8.39	11.50	10.65	9.43	9.43
Mumps	---	---	55.55	3.86	1.30	5.43	2.05	2.34
Pertussis (whooping cough)	79.82	8.23	2.08	0.76	1.50	1.16	1.40	1.67
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	0.13	0.09	0.16
Rubeola (measles)	211.01	245.42	23.23	5.96	1.18	1.50	1.38	7.33
Salmonellosis, excluding typhoid fever	---	3.85	10.84	14.88	27.37	20.92	19.91	19.26
Shigellosis	15.45	6.94	6.79	8.41	7.14	9.80	12.46	10.07
Tuberculosis <sup>3</sup>	80.50	30.83	18.22	12.25	9.30	9.25	9.13	9.46
Varicella (chickenpox)	---	---	---	96.69	123.23	136.68	122.43	121.77
Sexually transmitted diseases: <sup>4</sup>								
Syphilis <sup>5</sup>	146.02	68.78	45.26	30.51	28.50	35.81	42.37	44.94
Primary and secondary	16.73	9.06	10.89	12.06	11.45	14.54	16.43	18.07
Early latent	39.71	10.11	8.08	9.00	9.15	11.55	14.58	17.68
Late and late latent	70.22	45.91	24.94	9.30	7.77	9.44	11.05	8.63
Congenital	8.97	2.48	0.97	0.12	0.14	0.28	0.30	0.38
Gonorrhea	192.45	145.33	297.22	444.99	384.28	323.14	298.74	297.36
Chancroid	3.34	0.94	0.70	0.35	0.87	2.07	2.04	1.90
Granuloma inguinale	1.19	0.17	0.06	0.02	0.02	0.01	0.00	0.00
Lymphogranuloma venereum	0.95	0.47	0.30	0.09	0.10	0.13	0.07	0.08
Number of cases								
Diphtheria	5,796	918	435	3	3	3	2	3
Hepatitis A <sup>1</sup>	---	---	56,797	29,087	23,210	25,280	28,507	35,821
Hepatitis B <sup>1</sup>	---	---	8,310	19,015	26,611	25,916	23,177	23,419
Mumps	---	---	104,953	8,576	2,982	12,848	4,866	5,712
Pertussis (whooping cough)	120,718	14,809	4,249	1,730	3,589	2,823	3,450	4,157
Poliomyelitis, total	33,300	3,190	33	9	7	6	9	5
Paralytic <sup>2</sup>	---	2,525	31	8	7	6	9	5
Rubella (German measles)	---	---	56,552	3,904	630	306	225	396
Rubeola (measles)	319,124	441,703	47,351	13,506	2,822	3,655	3,396	18,193
Salmonellosis, excluding typhoid fever	---	6,929	22,096	33,715	65,347	50,916	48,948	47,812
Shigellosis	23,367	12,487	13,845	19,041	17,057	23,860	30,617	25,010
Tuberculosis <sup>3</sup>	121,742	55,494	37,137	27,749	22,201	22,517	22,436	23,495
Varicella (chickenpox)	---	---	---	190,894	178,162	213,196	192,857	185,441
Sexually transmitted diseases: <sup>4</sup>								
Syphilis <sup>5</sup>	217,558	122,538	91,382	68,832	67,563	86,545	103,437	110,797
Primary and secondary	23,939	16,145	21,982	27,204	27,131	35,145	40,117	44,540
Early latent	59,256	18,017	16,311	20,297	21,689	27,914	35,600	43,898
Late and late latent	113,569	81,798	50,348	20,979	18,414	22,811	26,987	21,418
Congenital	13,377	4,416	1,953	277	329	681	751	941
Gonorrhea	286,746	258,933	600,072	1,004,029	911,419	780,905	719,536	733,151
Chancroid	4,977	1,680	1,416	788	2,067	4,998	5,001	4,692
Granuloma inguinale	1,783	296	124	51	44	22	11	7
Lymphogranuloma venereum	1,427	835	612	199	226	303	185	189

<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

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 1989 reports of notifiable diseases, Morbidity and Mortality Weekly Report 38(54). Public Health Service, Atlanta, Ga., Oct. 1990, in press; Division of Sexually Transmitted Diseases, Center for Prevention Services, Centers for Disease Control: Selected data.

**Table 44. Acquired immunodeficiency syndrome (AIDS) cases, according to age at diagnosis, sex, and race/ethnicity: United States, 1984–90**

[Data are based on reporting by State health departments]

Age at diagnosis, sex, and race/ethnicity	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>		
Total <sup>3</sup> . . . . .	147,525	4,436	8,181	13,123	21,114	30,850	33,710	33,215	...	
<b>Male</b>										
All males, 13 years and over <sup>3</sup> . . . . .	131,390	4,110	7,530	11,967	19,114	27,234	29,728	29,050	100.0	
White, not Hispanic . . . . .	79,414	2,602	4,788	7,506	12,336	16,155	17,575	16,865	60.4	
Black, not Hispanic . . . . .	33,831	949	1,712	2,762	4,326	7,153	8,086	8,156	25.7	
Hispanic . . . . .	16,797	537	973	1,588	2,256	3,663	3,710	3,696	12.8	
American Indian <sup>4</sup> . . . . .	183	3	6	19	23	30	52	49	0.1	
Asian or Pacific Islander <sup>5</sup> . . . . .	844	16	49	79	126	167	210	192	0.6	
13–19 years . . . . .	419	17	29	44	70	87	89	75	0.3	
20–29 years . . . . .	25,941	844	1,477	2,483	3,827	5,494	5,769	5,484	19.7	
30–39 years . . . . .	61,462	1,982	3,606	5,644	8,883	12,683	13,933	13,477	46.8	
40–49 years . . . . .	29,993	896	1,657	2,551	4,286	6,119	6,832	7,060	22.8	
50–59 years . . . . .	9,918	306	600	922	1,462	2,012	2,258	2,148	7.5	
60 years and over . . . . .	3,657	65	161	323	586	839	847	806	2.8	
<b>Female</b>										
All females, 13 years and over <sup>3</sup> . . . . .	13,666	276	523	971	1,679	3,047	3,377	3,599	100.0	
White, not Hispanic . . . . .	3,852	78	142	272	544	856	948	969	28.2	
Black, not Hispanic . . . . .	7,531	142	284	524	892	1,654	1,892	2,042	55.1	
Hispanic . . . . .	2,147	56	93	162	229	502	498	560	15.7	
American Indian <sup>4</sup> . . . . .	29	–	3	1	3	5	9	7	0.2	
Asian or Pacific Islander <sup>5</sup> . . . . .	75	–	1	8	11	22	19	12	0.5	
13–19 years . . . . .	132	4	4	12	11	24	29	45	1.0	
20–29 years . . . . .	3,636	95	175	277	479	779	884	868	26.6	
30–39 years . . . . .	6,450	129	232	449	748	1,508	1,624	1,689	47.2	
40–49 years . . . . .	1,971	25	49	130	228	413	511	593	14.4	
50–59 years . . . . .	731	6	26	47	91	146	172	229	5.3	
60 years and over . . . . .	746	17	37	56	122	177	157	175	5.5	
<b>Children</b>										
All children, under 13 years <sup>3</sup> . . . . .	2,469	50	128	185	321	569	605	566	100.0	
White, not Hispanic . . . . .	565	10	25	42	85	151	115	127	22.9	
Black, not Hispanic . . . . .	1,352	28	84	106	162	302	342	300	54.8	
Hispanic . . . . .	531	12	19	36	71	111	140	135	21.5	
American Indian <sup>4</sup> . . . . .	5	–	–	–	2	–	2	1	0.2	
Asian or Pacific Islander <sup>5</sup> . . . . .	12	–	–	1	1	4	3	3	0.5	
Under 1 year . . . . .	629	6	32	36	89	160	140	160	25.5	
1–12 years . . . . .	1,840	44	96	149	232	409	465	406	74.5	

<sup>1</sup>Includes cases prior to 1984.

<sup>2</sup>Data are as of September 30, 1990, 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, Center for Infectious Diseases, AIDS Program.

**Table 45. Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to age at diagnosis, sex, and race/ethnicity: United States, 1984–90**

[Data are based on reporting by State health departments]

Age at diagnosis, sex, and race/ethnicity	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>		
Total <sup>3</sup> . . . . .	90,914	3,276	6,430	11,012	14,710	18,379	22,616	12,294	...	
<b>Male</b>										
All males, 13 years and over <sup>3</sup> . . . . .	81,434	2,983	5,881	9,992	13,117	16,312	20,172	11,015	100.0	
White, not Hispanic . . . . .	49,174	1,833	3,648	6,247	7,815	9,537	12,027	6,968	60.4	
Black, not Hispanic . . . . .	21,245	732	1,443	2,370	3,459	4,479	5,378	2,806	26.1	
Hispanic . . . . .	10,265	395	755	1,298	1,728	2,137	2,555	1,122	12.6	
American Indian <sup>4</sup> . . . . .	111	3	4	12	21	19	26	25	0.1	
Asian or Pacific Islander <sup>5</sup> . . . . .	498	17	29	50	76	102	142	77	0.6	
13–19 years . . . . .	246	12	23	37	44	41	55	29	0.3	
20–29 years . . . . .	15,194	577	1,138	1,898	2,481	3,069	3,650	1,986	18.7	
30–39 years . . . . .	37,139	1,366	2,690	4,600	5,991	7,313	9,221	5,041	45.6	
40–49 years . . . . .	19,049	684	1,295	2,258	2,960	3,807	4,852	2,746	23.4	
50–59 years . . . . .	6,988	270	545	841	1,105	1,443	1,721	889	8.6	
60 years and over . . . . .	2,818	74	190	358	536	639	673	324	3.5	
<b>Female</b>										
All females, 13 years and over <sup>3</sup> . . . . .	8,171	244	444	879	1,333	1,801	2,149	1,139	100.0	
White, not Hispanic . . . . .	2,352	58	144	249	416	513	573	359	28.8	
Black, not Hispanic . . . . .	4,512	138	214	475	734	986	1,221	644	55.2	
Hispanic . . . . .	1,229	47	82	144	175	284	331	127	15.0	
American Indian <sup>4</sup> . . . . .	16	—	3	—	2	1	5	4	0.2	
Asian or Pacific Islander <sup>5</sup> . . . . .	51	1	—	7	6	16	14	5	0.6	
13–19 years . . . . .	66	1	5	11	11	11	12	11	0.8	
20–29 years . . . . .	2,089	90	130	240	348	443	494	282	25.6	
30–39 years . . . . .	3,787	106	201	401	588	839	1,067	514	46.3	
40–49 years . . . . .	1,161	22	48	102	175	265	337	192	14.2	
50–59 years . . . . .	470	9	18	43	87	101	124	73	5.8	
60 years and over . . . . .	598	16	42	82	124	142	115	67	7.3	
<b>Children</b>										
All children, under 13 years <sup>3</sup> . . . . .	1,309	49	105	141	260	266	295	140	100.0	
White, not Hispanic . . . . .	323	9	29	34	67	67	78	28	24.7	
Black, not Hispanic . . . . .	695	28	59	76	124	141	147	88	53.1	
Hispanic . . . . .	278	12	16	29	66	55	67	23	21.2	
American Indian <sup>4</sup> . . . . .	3	—	—	—	2	—	1	—	0.2	
Asian or Pacific Islander <sup>5</sup> . . . . .	9	—	1	2	1	3	1	1	0.7	
Under 1 year . . . . .	303	5	24	37	60	60	71	38	23.1	
1–12 years . . . . .	1,006	44	81	104	200	206	224	102	76.9	

<sup>1</sup>Includes cases prior to 1984.

<sup>2</sup>Data are as of September 30, 1990, 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, Center for Infectious Diseases, AIDS Program.

**Table 46 (page 1 of 2). Acquired immunodeficiency syndrome (AIDS) cases, according to race/ethnicity, sex, and transmission category for persons 13 years of age and over: United States, 1984–90**

[Data are based on reporting by State health departments]

Race/ethnicity, 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>	1984	1989 <sup>2</sup>	1990 <sup>2</sup>		
	Number, by year of report								Percent distribution			
Total <sup>3</sup> . . . . .	145,056	4,386	8,053	12,938	20,793	30,281	33,105	32,649	100.0	100.0	100.0	100.0
Male homosexual/bisexual . . . . .	88,367	2,863	5,416	8,500	13,552	17,901	19,604	18,748	60.9	65.3	59.2	57.4
Intravenous drug use . . . . .	29,695	774	1,395	2,240	3,537	6,872	7,186	7,179	20.5	17.6	21.7	22.0
Male homosexual/bisexual and intravenous drug use . . . . .	9,639	408	587	986	1,533	2,001	2,109	1,747	6.6	9.3	6.4	5.4
Hemophilia/coagulation disorder . . . . .	1,306	36	74	123	211	294	284	266	0.9	0.8	0.9	0.8
Born in Caribbean/African countries . . . . .	1,968	112	139	218	267	367	383	348	1.4	2.6	1.2	1.1
Heterosexual contact <sup>4</sup> . . . . .	5,430	56	139	338	632	1,169	1,464	1,603	3.7	1.3	4.4	4.9
Sex with intravenous drug user . . . . .	3,790	42	106	237	433	844	1,036	1,069	2.6	1.0	3.1	3.3
Transfusion . . . . .	3,399	50	166	302	624	825	732	670	2.3	1.1	2.2	2.1
Undetermined <sup>5</sup> . . . . .	5,252	87	137	231	437	852	1,343	2,088	3.6	2.0	4.1	6.4
Race/ethnicity												
White, not Hispanic . . . . .	83,266	2,680	4,930	7,778	12,880	17,011	18,523	17,834	100.0	100.0	100.0	100.0
Male homosexual/bisexual . . . . .	63,640	2,156	4,035	6,196	10,023	12,834	13,835	13,262	76.4	80.4	74.7	74.4
Intravenous drug use . . . . .	6,536	145	251	406	817	1,487	1,703	1,621	7.8	5.4	9.2	9.1
Male homosexual/bisexual and intravenous drug use . . . . .	5,845	264	375	646	990	1,160	1,261	996	7.0	9.9	6.8	5.6
Hemophilia/coagulation disorder . . . . .	1,106	26	63	113	183	241	237	226	1.3	1.0	1.3	1.3
Born in Caribbean/African countries . . . . .	6	1	—	1	1	1	—	2	0.0	0.0	—	0.0
Heterosexual contact <sup>4</sup> . . . . .	1,645	17	33	96	205	366	444	480	2.0	0.6	2.4	2.7
Sex with intravenous drug user . . . . .	908	10	19	48	102	207	259	262	1.1	0.4	1.4	1.5
Transfusion . . . . .	2,480	37	129	233	472	607	541	436	3.0	1.4	2.9	2.4
Undetermined <sup>5</sup> . . . . .	2,008	34	44	87	189	315	502	811	2.4	1.3	2.7	4.5
Black, not Hispanic . . . . .	41,362	1,091	1,996	3,286	5,218	8,807	9,978	10,198	100.0	100.0	100.0	100.0
Male homosexual/bisexual . . . . .	15,024	402	794	1,323	2,116	3,079	3,580	3,441	36.3	36.8	35.9	33.7
Intravenous drug use . . . . .	16,172	404	751	1,206	1,882	3,711	3,978	3,989	39.1	37.0	39.9	39.1
Male homosexual/bisexual and intravenous drug use . . . . .	2,712	97	142	238	384	596	630	559	6.6	8.9	6.3	5.5
Hemophilia/coagulation disorder . . . . .	87	5	4	4	11	27	17	19	0.2	0.5	0.2	0.2
Born in Caribbean/African countries . . . . .	1,941	111	139	216	263	361	376	342	4.7	10.2	3.8	3.4
Heterosexual contact <sup>4</sup> . . . . .	2,768	22	80	161	317	563	767	846	6.7	2.0	7.7	8.3
Sex with intravenous drug user . . . . .	2,081	17	64	120	245	442	579	604	5.0	1.6	5.8	5.9
Transfusion . . . . .	589	10	26	45	93	142	124	147	1.4	0.9	1.2	1.4
Undetermined <sup>5</sup> . . . . .	2,069	40	60	93	152	328	506	855	5.0	3.7	5.1	8.4
Hispanic . . . . .	18,944	593	1,066	1,750	2,485	4,165	4,208	4,256	100.0	100.0	100.0	100.0
Male homosexual/bisexual . . . . .	8,720	289	543	892	1,260	1,781	1,946	1,819	46.0	48.7	46.2	42.7
Intravenous drug use . . . . .	6,832	224	385	615	828	1,640	1,456	1,532	36.1	37.8	34.6	36.0
Male homosexual/bisexual and intravenous drug use . . . . .	1,024	46	68	98	147	239	201	177	5.4	7.8	4.8	4.2
Hemophilia/coagulation disorder . . . . .	86	4	7	5	10	22	20	17	0.5	0.7	0.5	0.4
Born in Caribbean/African countries . . . . .	11	—	—	—	3	3	2	2	0.1	—	0.0	0.0
Heterosexual contact <sup>4</sup> . . . . .	965	17	26	78	107	225	231	268	5.1	2.9	5.5	6.3
Sex with intravenous drug user . . . . .	771	15	23	69	85	186	184	197	4.1	2.5	4.4	4.6
Transfusion . . . . .	252	2	6	18	41	59	55	69	1.3	0.3	1.3	1.6
Undetermined <sup>5</sup> . . . . .	1,054	11	31	44	89	196	297	372	5.6	1.9	7.1	8.7

See footnotes at end of table.

**Table 46 (page 2 of 2). Acquired immunodeficiency syndrome (AIDS) cases, according to race/ethnicity, sex, and transmission category for persons 13 years of age and over: United States, 1984–90**

[Data are based on reporting by State health departments]

Race/ethnicity, 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>	1984	1989 <sup>2</sup>	1990 <sup>2</sup>		
	Number, by year of report								Percent distribution			
Sex												
Male . . . . .	131,390	4,110	7,530	11,967	19,114	27,234	29,728	29,050	100.0	100.0	100.0	100.0
Homosexual/bisexual . . . . .	88,367	2,863	5,416	8,500	13,552	17,901	19,604	18,748	67.3	69.7	65.9	64.5
Intravenous drug use . . . . .	22,728	604	1,112	1,759	2,701	5,257	5,441	5,452	17.3	14.7	18.3	18.8
Homosexual/bisexual and intravenous drug use . . . . .	9,639	408	587	986	1,533	2,001	2,109	1,747	7.3	9.9	7.1	6.0
Hemophilia/coagulation disorder . . . . .	1,272	34	71	119	206	290	277	257	1.0	0.8	0.9	0.9
Born in Caribbean/African countries . . . . .	1,436	95	109	162	192	262	251	252	1.1	2.3	0.8	0.9
Heterosexual contact <sup>4</sup> . . . . .	1,602	10	27	66	158	332	481	526	1.2	0.2	1.6	1.8
Sex with intravenous drug user . . . . .	1,118	9	25	47	113	233	358	332	0.9	0.2	1.2	1.1
Transfusion . . . . .	2,099	29	107	197	410	496	452	391	1.6	0.7	1.5	1.3
Undetermined <sup>5</sup> . . . . .	4,247	67	101	178	362	695	1,113	1,677	3.2	1.6	3.7	5.8
Female . . . . .	13,666	276	523	971	1,679	3,047	3,377	3,599	100.0	100.0	100.0	100.0
Intravenous drug use . . . . .	6,967	170	283	481	836	1,615	1,745	1,727	51.0	61.6	51.7	48.0
Hemophilia/coagulation disorder . . . . .	34	2	3	4	5	4	7	9	0.2	0.7	0.2	0.3
Born in Caribbean/African countries . . . . .	532	17	30	56	75	105	132	96	3.9	6.2	3.9	2.7
Heterosexual contact <sup>4</sup> . . . . .	3,828	46	112	272	474	837	983	1,077	28.0	16.7	29.1	29.9
Sex with intravenous drug user . . . . .	2,672	33	81	190	320	611	678	737	19.6	12.0	20.1	20.5
Transfusion . . . . .	1,300	21	59	105	214	329	280	279	9.5	7.6	8.3	7.8
Undetermined <sup>5</sup> . . . . .	1,005	20	36	53	75	157	230	411	7.4	7.2	6.8	11.4

<sup>1</sup>Includes cases prior to 1984.

<sup>2</sup>Data are as of September 30, 1990, 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, Center for Infectious Diseases, AIDS Program.

**Table 47 (page 1 of 2). Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to race/ethnicity, sex, and transmission category for persons 13 years of age and over: United States, 1984–90**

[Data are based on reporting by State health departments]

Race/ethnicity, sex, and transmission category	Number, by year of death									Percent distribution			
	All years <sup>1,2</sup>	1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>	All years <sup>1,2</sup>	1984	1989 <sup>2</sup>	1990 <sup>2</sup>	
Total <sup>3</sup> . . . . .	89,605	3,227	6,325	10,871	14,450	18,113	22,321	12,154	100.0	100.0	100.0	100.0	
Male homosexual/bisexual . . . . .	55,005	2,003	4,065	6,975	8,681	10,796	13,589	7,632	61.4	62.1	60.9	62.8	
Intravenous drug use . . . . .	17,916	627	1,175	1,964	2,996	3,937	4,628	2,176	20.0	19.4	20.7	17.9	
Male homosexual/bisexual and intravenous drug use . . . . .	6,228	308	468	819	1,070	1,190	1,397	782	7.0	9.5	6.3	6.4	
Hemophilia/coagulation disorder . . . . .	875	24	71	103	160	189	192	119	1.0	0.7	0.9	1.0	
Born in Caribbean/African countries . . . . .	1,083	79	106	141	190	175	193	68	1.2	2.4	0.9	0.6	
Heterosexual contact <sup>4</sup> . . . . .	3,000	43	120	260	436	671	887	554	3.3	1.3	4.0	4.6	
Sex with intravenous drug user . . . . .	2,107	37	84	179	307	474	630	375	2.4	1.1	2.8	3.1	
Transfusion . . . . .	2,546	65	189	352	515	582	539	276	2.8	2.0	2.4	2.3	
Undetermined <sup>5</sup> . . . . .	2,952	78	131	257	402	573	896	547	3.3	2.4	4.0	4.5	
Race/ethnicity													
White, not Hispanic . . . . .	51,526	1,891	3,792	6,496	8,231	10,050	12,600	7,327	100.0	100.0	100.0	100.0	
Male homosexual/bisexual . . . . .	39,442	1,483	3,003	5,092	6,162	7,549	9,654	5,620	76.5	78.4	76.6	76.7	
Intravenous drug use . . . . .	3,745	104	217	348	612	800	1,032	539	7.3	5.5	8.2	7.4	
Male homosexual/bisexual and intravenous drug use . . . . .	3,700	188	290	521	642	679	807	473	7.2	9.9	6.4	6.5	
Hemophilia/coagulation disorder . . . . .	745	21	59	91	139	166	152	101	1.4	1.1	1.2	1.4	
Born in Caribbean/African countries . . . . .	—	—	—	—	—	—	—	—	—	—	—	—	
Heterosexual contact <sup>4</sup> . . . . .	867	6	31	80	124	196	250	172	1.7	0.3	2.0	2.3	
Sex with intravenous drug user . . . . .	460	5	12	38	67	98	146	90	0.9	0.3	1.2	1.2	
Transfusion . . . . .	1,906	52	145	273	393	443	377	202	3.7	2.7	3.0	2.8	
Undetermined <sup>5</sup> . . . . .	1,121	37	47	91	159	217	328	220	2.2	2.0	2.6	3.0	
Black, not Hispanic . . . . .	25,757	870	1,657	2,845	4,193	5,465	6,599	3,450	100.0	100.0	100.0	100.0	
Male homosexual/bisexual . . . . .	9,613	296	635	1,123	1,556	2,052	2,437	1,269	37.3	34.0	36.9	36.8	
Intravenous drug use . . . . .	10,013	350	643	1,102	1,636	2,202	2,588	1,287	38.9	40.2	39.2	37.3	
Male homosexual/bisexual and intravenous drug use . . . . .	1,795	79	123	208	306	365	422	237	7.0	9.1	6.4	6.9	
Hemophilia/coagulation disorder . . . . .	63	1	6	3	13	11	19	10	0.2	0.1	0.3	0.3	
Born in Caribbean/African countries . . . . .	1,074	79	105	141	188	175	188	67	4.2	9.1	2.8	1.9	
Heterosexual contact <sup>4</sup> . . . . .	1,601	23	62	114	248	348	487	307	6.2	2.6	7.4	8.9	
Sex with intravenous drug user . . . . .	1,217	19	50	85	190	268	364	233	4.7	2.2	5.5	6.8	
Transfusion . . . . .	403	10	27	45	81	90	106	43	1.6	1.1	1.6	1.2	
Undetermined <sup>5</sup> . . . . .	1,195	32	56	109	165	222	352	230	4.6	3.7	5.3	6.7	
Hispanic . . . . .	11,494	442	837	1,442	1,903	2,421	2,886	1,249	100.0	100.0	100.0	100.0	
Male homosexual/bisexual . . . . .	5,387	205	404	705	872	1,069	1,339	658	46.9	46.4	46.4	52.7	
Intravenous drug use . . . . .	4,075	172	310	505	739	917	985	335	35.5	38.9	34.1	26.8	
Male homosexual/bisexual and intravenous drug use . . . . .	697	40	54	85	118	139	160	63	6.1	9.0	5.5	5.0	
Hemophilia/coagulation disorder . . . . .	53	2	4	9	6	9	16	6	0.5	0.5	0.6	0.5	
Born in Caribbean/African countries . . . . .	6	—	1	—	2	—	3	—	0.1	—	0.1	—	
Heterosexual contact <sup>4</sup> . . . . .	512	14	27	63	63	122	142	72	4.5	3.2	4.9	5.8	
Sex with intravenous drug user . . . . .	420	13	22	55	50	105	116	50	3.7	2.9	4.0	4.0	
Transfusion . . . . .	177	2	11	26	29	39	42	25	1.5	0.5	1.5	2.0	
Undetermined <sup>5</sup> . . . . .	587	7	26	49	74	126	199	90	5.1	1.6	6.9	7.2	

See footnotes at end of table.

**Table 47 (page 2 of 2). Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to race/ethnicity, sex, and transmission category for persons 13 years of age and over: United States, 1984–90**

[Data are based on reporting by State health departments]

<i>Race/ethnicity, sex, and transmission category</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>All years<sup>1,2</sup></i>	<i>1984</i>	<i>1989<sup>2</sup></i>	<i>1990<sup>2</sup></i>
	Number, by year of death								Percent distribution			
Sex												
Male.....	81,434	2,983	5,881	9,992	13,117	16,312	20,172	11,015	100.0	100.0	100.0	100.0
Homosexual/bisexual.....	55,005	2,003	4,065	6,975	8,681	10,796	13,589	7,632	67.5	67.1	67.4	69.3
Intravenous drug use.....	13,809	480	941	1,521	2,320	3,017	3,557	1,651	17.0	16.1	17.6	15.0
Homosexual/bisexual and intravenous drug use.....	6,228	308	468	819	1,070	1,190	1,397	782	7.6	10.3	6.9	7.1
Hemophilia/coagulation disorder.....	851	23	67	100	158	183	188	115	1.0	0.8	0.9	1.0
Born in Caribbean/African countries.....	783	60	86	96	139	120	128	48	1.0	2.0	0.6	0.4
Heterosexual contact <sup>4</sup> .....	818	6	26	47	115	170	263	187	1.0	0.2	1.3	1.7
Sex with intravenous drug user.....	581	6	23	33	78	127	177	134	0.7	0.2	0.9	1.2
Transfusion.....	1,576	42	120	242	307	359	337	159	1.9	1.4	1.7	1.4
Undetermined <sup>5</sup> .....	2,364	61	108	192	327	477	713	441	2.9	2.0	3.5	4.0
Female.....	8,171	244	444	879	1,333	1,801	2,149	1,139	100.0	100.0	100.0	100.0
Intravenous drug use.....	4,107	147	234	443	676	920	1,071	525	50.3	60.2	49.8	46.1
Hemophilia/coagulation disorder.....	24	1	4	3	2	6	4	4	0.3	0.4	0.2	0.4
Born in Caribbean/African countries.....	300	19	20	45	51	55	65	20	3.7	7.8	3.0	1.8
Heterosexual contact <sup>4</sup> .....	2,182	37	94	213	321	501	624	367	26.7	15.2	29.0	32.2
Sex with intravenous drug user.....	1,526	31	61	146	229	347	453	241	18.7	12.7	21.1	21.2
Transfusion.....	970	23	69	110	208	223	202	117	11.9	9.4	9.4	10.3
Undetermined <sup>5</sup> .....	588	17	23	65	75	96	183	106	7.2	7.0	8.5	9.3

<sup>1</sup>Includes cases prior to 1984.

<sup>2</sup>Data are as of September 30, 1990, 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, Center for Infectious Diseases, AIDS Program.

**Table 48 (page 1 of 2). Acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1983–90**

[Data are based on reporting by State health departments]

Geographic division and State	All years <sup>1,2</sup>	Number, by year of report								12 months ending September 30, 1990
		1983	1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>	Cases per 100,000 population <sup>3</sup>
United States . . . . .	147,525	2,058	4,436	8,181	13,123	21,114	30,850	33,710	33,215	16.62
New England . . . . .	5,720	58	154	280	529	847	1,287	1,398	1,143	11.24
Maine . . . . .	202	—	—	11	22	28	27	66	48	5.60
New Hampshire . . . . .	180	2	3	4	13	32	38	37	51	4.90
Vermont . . . . .	68	—	1	2	6	15	11	20	12	3.70
Massachusetts . . . . .	3,136	34	87	165	282	452	711	756	636	13.70
Rhode Island . . . . .	360	4	6	12	30	69	85	88	66	9.50
Connecticut . . . . .	1,774	18	57	86	176	251	415	431	330	12.90
Middle Atlantic . . . . .	46,888	1,038	1,956	3,153	4,858	6,131	10,279	9,324	9,611	31.01
New York . . . . .	32,874	865	1,584	2,483	3,780	3,965	6,973	6,018	6,750	45.30
New Jersey . . . . .	9,829	136	281	468	768	1,509	2,454	2,231	1,919	30.80
Pennsylvania . . . . .	4,185	37	91	202	310	657	852	1,075	942	9.70
East North Central . . . . .	10,027	59	198	353	822	1,405	2,146	2,650	2,363	7.25
Ohio . . . . .	2,160	7	31	53	212	335	507	486	521	5.80
Indiana . . . . .	954	3	25	27	71	133	79	388	228	6.30
Illinois . . . . .	4,417	38	100	188	347	629	991	1,140	965	10.80
Michigan . . . . .	1,887	9	32	61	150	211	456	506	458	6.40
Wisconsin . . . . .	609	2	10	24	42	97	113	130	191	4.70
West North Central . . . . .	3,348	15	44	129	241	474	769	832	840	5.84
Minnesota . . . . .	774	4	11	41	96	130	166	176	147	4.20
Iowa . . . . .	204	—	2	12	21	29	42	56	42	1.90
Missouri . . . . .	1,736	7	27	50	74	238	411	441	487	11.70
North Dakota . . . . .	20	—	—	2	4	1	3	8	2	0.60
South Dakota . . . . .	19	—	—	1	2	2	7	4	3	0.40
Nebraska . . . . .	171	1	2	7	10	24	51	33	43	3.10
Kansas . . . . .	424	3	2	16	34	50	89	114	116	5.70
South Atlantic . . . . .	27,819	273	584	1,300	2,072	3,697	5,460	7,111	7,232	20.74
Delaware . . . . .	292	2	3	12	22	39	62	80	72	12.80
Maryland . . . . .	2,981	27	54	148	188	457	545	718	839	23.20
District of Columbia . . . . .	2,550	19	90	178	226	465	501	497	571	110.26
Virginia . . . . .	1,897	27	40	108	160	242	348	392	580	10.00
West Virginia . . . . .	175	—	5	6	8	23	20	55	58	4.30
North Carolina . . . . .	1,568	9	15	66	81	210	278	447	462	9.00
South Carolina . . . . .	990	11	7	38	58	84	173	332	287	10.70
Georgia . . . . .	4,025	25	56	191	303	516	838	1,099	984	18.90
Florida . . . . .	13,341	153	314	553	1,026	1,661	2,695	3,491	3,379	33.30
East South Central . . . . .	2,955	10	24	72	165	324	759	762	837	6.65
Kentucky . . . . .	462	4	10	17	32	48	91	114	146	4.60
Tennessee . . . . .	1,037	2	5	18	72	72	330	266	272	6.80
Alabama . . . . .	837	3	6	29	33	153	213	216	182	5.70
Mississippi . . . . .	619	1	3	8	28	51	125	166	237	10.70
West South Central . . . . .	13,984	112	315	617	1,183	2,162	2,861	3,156	3,558	16.33
Arkansas . . . . .	415	—	1	10	29	48	80	79	168	7.60
Louisiana . . . . .	2,177	18	55	104	165	337	401	510	587	16.10
Oklahoma . . . . .	666	5	9	20	50	107	149	168	158	6.70
Texas . . . . .	10,726	89	250	483	939	1,670	2,231	2,399	2,645	19.40
Mountain . . . . .	4,129	33	73	161	333	635	896	1,122	870	8.28
Montana . . . . .	49	—	—	1	3	6	16	13	10	1.80
Idaho . . . . .	71	—	—	4	3	10	11	23	20	2.30
Wyoming . . . . .	33	—	1	1	4	3	6	16	2	0.80
Colorado . . . . .	1,513	21	38	62	166	226	325	389	281	10.40
New Mexico . . . . .	315	1	3	14	21	47	60	94	75	5.90
Arizona . . . . .	1,247	7	20	50	79	216	278	332	264	10.50
Utah . . . . .	323	2	7	17	21	39	81	74	82	5.60
Nevada . . . . .	578	2	4	12	36	88	119	181	136	15.79

See footnotes at end of table.

**Table 48 (page 2 of 2). Acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1983–90**

[Data are based on reporting by State health departments]

Geographic division and State	All years <sup>1,2</sup>	Number, by year of report								12 months ending September 30, 1990	Cases per 100,000 population <sup>3</sup>
		1983	1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>		
Pacific . . . . .	32,655	460	1,088	2,116	2,920	5,439	6,393	7,355	6,761	22.22	
Washington . . . . .	1,996	6	59	112	170	328	348	497	475	12.50	
Oregon . . . . .	928	5	13	35	64	160	177	228	244	10.60	
California . . . . .	29,033	440	1,002	1,936	2,613	4,853	5,744	6,433	5,892	25.50	
Alaska . . . . .	98	1	1	5	16	15	19	17	24	5.00	
Hawaii . . . . .	600	8	13	28	57	83	105	180	126	15.80	

<sup>1</sup>Includes cases prior to 1983.

<sup>2</sup>Data are as of September 30, 1990, 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, Center for Infectious Diseases, AIDS Program

**Table 49 (page 1 of 2). Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1983–90**

[Data are based on reporting by State health departments]

Geographic division and State	All	Number, by year of death								
	years <sup>1,2</sup>	1983	1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>	
United States . . . . .	90,914	1,441	3,276	6,430	11,012	14,710	18,379	22,616	12,294	
New England . . . . .	3,310	46	108	222	389	562	710	783	449	
Maine . . . . .	108	—	—	7	16	11	19	28	27	
New Hampshire . . . . .	96	2	—	7	13	16	25	20	11	
Vermont . . . . .	34	1	1	1	6	5	5	9	6	
Massachusetts . . . . .	1,793	30	60	113	189	302	390	455	235	
Rhode Island . . . . .	210	2	5	8	23	44	45	54	28	
Connecticut . . . . .	1,069	11	42	86	142	184	226	217	142	
Middle Atlantic . . . . .	29,103	758	1,477	2,564	4,009	5,117	5,937	6,550	2,298	
New York . . . . .	20,343	624	1,156	1,991	2,899	3,578	4,132	4,474	1,183	
New Jersey . . . . .	6,011	104	232	419	800	1,100	1,250	1,366	674	
Pennsylvania . . . . .	2,749	30	89	154	310	439	555	710	441	
East North Central . . . . .	6,146	44	135	320	596	893	1,263	1,733	1,128	
Ohio . . . . .	1,306	9	32	62	126	187	259	369	254	
Indiana . . . . .	554	7	14	23	61	79	111	142	114	
Illinois . . . . .	2,843	21	65	158	280	400	599	814	487	
Michigan . . . . .	1,117	5	16	60	94	167	234	322	216	
Wisconsin . . . . .	326	2	8	17	35	60	60	86	57	
West North Central . . . . .	1,897	6	35	99	215	303	389	499	346	
Minnesota . . . . .	456	2	9	26	61	77	85	99	95	
Iowa . . . . .	89	1	2	7	15	18	20	21	4	
Missouri . . . . .	948	2	18	47	90	136	198	280	175	
North Dakota . . . . .	15	—	—	2	3	2	3	5	—	
South Dakota . . . . .	9	—	—	1	3	1	3	1	—	
Nebraska . . . . .	111	1	2	4	13	16	30	26	19	
Kansas . . . . .	269	—	4	12	30	53	50	67	53	
South Atlantic . . . . .	16,850	198	450	985	1,719	2,559	3,387	4,516	2,926	
Delaware . . . . .	174	—	2	6	20	30	30	45	38	
Maryland . . . . .	1,799	13	53	114	174	274	342	491	327	
District of Columbia . . . . .	1,590	14	42	133	203	238	314	377	260	
Virginia . . . . .	1,194	20	25	80	141	201	270	316	139	
West Virginia . . . . .	107	0	5	6	8	12	12	36	28	
North Carolina . . . . .	950	5	25	44	91	134	189	316	145	
South Carolina . . . . .	552	2	13	30	46	79	114	154	110	
Georgia . . . . .	2,407	17	55	127	228	343	501	663	456	
Florida . . . . .	8,077	127	230	445	808	1,248	1,615	2,118	1,423	
East South Central . . . . .	1,748	11	26	79	150	255	373	505	335	
Kentucky . . . . .	311	5	11	15	24	36	54	98	65	
Tennessee . . . . .	589	3	6	27	64	84	118	148	131	
Alabama . . . . .	506	3	6	27	34	79	111	145	100	
Mississippi . . . . .	342	—	3	10	28	56	90	114	39	
West South Central . . . . .	8,716	78	222	516	987	1,487	1,838	2,313	1,241	
Arkansas . . . . .	244	2	—	10	24	36	58	82	32	
Louisiana . . . . .	1,388	13	32	95	140	218	266	364	249	
Oklahoma . . . . .	426	1	11	12	40	66	89	132	71	
Texas . . . . .	6,658	62	179	399	783	1,167	1,425	1,735	889	
Mountain . . . . .	2,474	19	62	135	280	384	511	609	461	
Montana . . . . .	27	—	—	1	3	5	6	8	4	
Idaho . . . . .	43	—	—	1	3	6	12	7	14	
Wyoming . . . . .	20	—	1	2	1	4	2	6	4	
Colorado . . . . .	944	11	40	58	112	145	179	201	195	
New Mexico . . . . .	174	—	2	7	23	25	32	56	25	
Arizona . . . . .	726	4	11	41	87	111	171	185	111	
Utah . . . . .	187	1	3	12	25	31	40	39	36	
Nevada . . . . .	353	3	5	13	26	57	69	107	72	

See footnotes at end of table.

**Table 49 (page 2 of 2). Deaths among acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1983–90**

[Data are based on reporting by State health departments]

Geographic division and State	All years <sup>1,2</sup>	Number, by year of death							
		1983	1984	1985	1986	1987	1988	1989 <sup>2</sup>	1990 <sup>2</sup>
Pacific .....	20,670	281	761	1,510	2,667	3,150	3,971	5,108	3,110
Washington .....	1,111	7	31	82	127	181	233	283	167
Oregon .....	532	2	9	24	67	74	111	134	110
California .....	18,634	270	713	1,365	2,433	2,839	3,538	4,600	2,768
Alaska .....	40	1	—	6	7	4	9	9	3
Hawaii .....	353	1	8	33	33	52	80	82	62

<sup>1</sup>Includes cases prior to 1983.

<sup>2</sup>Data are as of September 30, 1990, 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, Center for Infectious Diseases, AIDS Program.

**Table 50. Age-adjusted cancer incidence rates for selected cancer sites, according to sex and race: Selected years 1973–88**

[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]

<i>Race, sex, and site</i>	1973	1975	1980	1983	1984	1985	1986	1987	1988	<i>Estimated annual percent change<sup>1</sup></i>
Number of new cases per 100,000 population <sup>2</sup>										
White male										
All sites . . . . .	363.8	377.8	404.4	417.5	422.1	426.6	431.8	447.7	436.1	1.2
Oral cavity and pharynx . . . . .	17.5	18.2	16.8	17.9	16.9	16.5	16.1	17.1	14.9	-0.7
Esophagus . . . . .	4.8	4.8	4.9	5.0	4.8	5.3	5.2	5.5	5.3	0.7
Stomach . . . . .	14.0	12.5	12.3	10.8	10.8	10.6	10.7	10.4	10.6	-1.7
Colon and rectum . . . . .	54.2	55.0	58.4	60.1	62.8	63.4	62.1	61.0	58.8	0.7
Colon . . . . .	34.7	36.0	39.1	41.3	43.2	43.3	42.8	41.8	40.6	1.2
Rectum . . . . .	19.5	19.0	19.3	18.7	19.6	20.1	19.2	19.2	18.2	-0.2
Pancreas . . . . .	12.7	12.4	11.0	11.3	11.0	10.7	10.9	10.6	10.4	-0.9
Lung and bronchus . . . . .	72.5	75.7	82.0	82.2	84.4	82.1	81.8	83.7	80.6	0.7
Prostate gland . . . . .	62.4	68.5	78.1	83.4	82.2	86.0	89.5	100.5	101.9	2.9
Urinary bladder . . . . .	27.2	28.5	31.2	30.5	32.1	31.0	32.0	33.3	32.3	1.1
Non-Hodgkin's lymphoma . . . . .	10.3	11.4	12.5	14.4	15.4	15.6	16.5	18.0	17.4	3.8
Leukemia . . . . .	14.4	14.1	14.2	14.2	13.6	13.8	13.6	13.0	12.4	-0.7
Black male										
All sites . . . . .	437.7	435.3	507.6	527.7	530.6	523.1	518.9	526.9	512.5	1.5
Oral cavity and pharynx . . . . .	16.3	17.2	22.9	23.4	26.9	22.2	24.3	25.9	21.5	2.6
Esophagus . . . . .	12.9	17.3	16.4	20.1	17.5	19.1	21.3	17.7	16.1	1.0
Stomach . . . . .	25.9	19.8	21.4	22.1	17.6	18.3	18.4	20.1	20.0	-0.8
Colon and rectum . . . . .	42.4	46.7	63.3	60.6	55.2	59.5	58.1	59.0	56.6	1.8
Colon . . . . .	31.3	33.8	45.8	46.0	42.3	45.9	42.9	45.3	41.5	2.1
Rectum . . . . .	11.0	12.9	17.5	14.6	12.9	13.6	15.2	13.7	15.0	1.1
Pancreas . . . . .	15.7	15.3	17.6	18.8	15.1	19.6	16.0	15.4	15.9	-0.1
Lung and bronchus . . . . .	104.4	100.7	130.7	129.4	138.6	129.5	131.7	120.8	119.4	1.7
Prostate gland . . . . .	105.2	110.9	125.5	131.1	136.7	130.9	127.1	139.3	136.0	1.9
Urinary bladder . . . . .	10.7	13.6	14.5	15.1	15.5	15.9	17.2	17.3	14.2	1.8
Non-Hodgkin's lymphoma . . . . .	9.0	7.1	9.3	9.1	10.9	9.8	10.9	9.2	11.8	2.9
Leukemia . . . . .	12.0	12.4	12.8	12.6	10.1	12.7	10.4	12.6	10.1	-0.5
White female										
All sites . . . . .	293.9	308.9	308.7	321.9	330.6	340.7	337.8	347.9	341.7	0.9
Colon and rectum . . . . .	41.6	42.9	44.5	43.9	44.5	45.8	42.9	41.1	39.6	-0.1
Colon . . . . .	30.2	30.9	32.7	32.5	32.2	33.8	32.0	30.1	28.9	0.0
Rectum . . . . .	11.4	12.0	11.7	11.4	12.3	11.9	10.9	11.0	10.7	-0.4
Pancreas . . . . .	7.5	7.1	7.3	8.1	8.4	8.1	7.8	7.5	7.4	0.4
Lung and bronchus . . . . .	17.9	21.9	28.3	34.4	34.9	36.0	37.6	39.5	41.0	5.3
Melanoma of skin . . . . .	5.8	6.8	8.9	9.0	8.9	9.8	10.0	10.3	9.4	3.5
Breast . . . . .	83.9	89.0	86.8	95.2	99.6	106.1	108.5	116.5	112.9	1.9
Cervix uteri . . . . .	12.7	11.1	9.0	7.9	8.3	7.5	7.9	7.3	7.7	-3.3
Corpus uteri . . . . .	29.4	33.5	25.2	24.6	23.9	23.2	22.4	22.7	21.3	-2.8
Ovary . . . . .	14.7	14.4	13.9	14.0	14.7	15.0	13.5	14.5	15.4	0.0
Non-Hodgkin's lymphoma . . . . .	7.5	8.4	9.2	10.0	11.0	11.1	11.1	11.1	11.6	2.8
Black female										
All sites . . . . .	279.2	292.6	302.7	317.0	321.9	324.6	327.7	323.3	327.0	1.2
Colon and rectum . . . . .	40.6	42.9	49.3	49.1	47.6	46.2	47.0	46.8	44.8	1.2
Colon . . . . .	29.2	32.4	40.8	36.1	37.8	36.3	36.5	36.3	35.7	1.7
Rectum . . . . .	11.5	10.5	8.5	13.0	9.8	9.9	10.5	10.4	9.1	-0.2
Pancreas . . . . .	11.5	11.7	12.9	12.3	13.3	11.6	13.1	14.8	13.5	1.2
Lung and bronchus . . . . .	20.7	20.4	33.9	34.6	40.0	40.8	43.2	38.3	41.3	5.2
Breast . . . . .	68.0	77.1	73.4	85.8	83.7	93.4	94.2	90.2	96.5	2.1
Cervix uteri . . . . .	29.5	27.8	19.0	15.1	17.6	16.1	15.3	15.0	15.4	-4.4
Corpus uteri . . . . .	14.8	16.8	14.0	15.7	14.9	15.1	13.9	13.1	13.1	-0.6
Ovary . . . . .	10.3	10.1	9.9	11.6	9.4	10.0	9.0	10.1	10.3	0.2
Non-Hodgkin's lymphoma . . . . .	5.4	4.0	5.9	7.9	5.9	6.8	6.7	8.1	7.2	4.0

<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 1973–88.

<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, 1973–1988. NIH Pub. No. 91-2789. U.S. Department of Health and Human Services. Public Health Service. Bethesda, Md., 1991.

**Table 51. Five-year relative cancer survival rates for selected sites, according to race and sex: 1974–76, 1977–80, and 1981–87**

[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	1977–80	1981–87	1974–76	1977–80	1981–87	1974–76	1977–80	1981–87
Male									
All sites . . . . .	40.7	43.0	45.6	41.7	44.2	47.2	31.1	32.4	33.4
Oral cavity and pharynx . . . . .	52.1	50.8	49.0	54.3	53.4	52.0	30.2	29.0	28.1
Esophagus . . . . .	3.6	4.9	7.0	4.3	5.8	7.7	2.2	2.9	5.8
Stomach . . . . .	13.6	14.8	15.8	12.8	13.8	14.7	15.6	15.4	16.8
Colon . . . . .	49.4	51.6	57.4	49.8	51.9	58.4	43.5	46.0	45.0
Rectum . . . . .	47.4	48.7	53.2	47.7	49.8	54.2	34.2	38.6	40.6
Pancreas . . . . .	3.0	2.4	2.6	3.2	2.3	2.4	1.2	3.5	3.8
Lung and bronchus . . . . .	11.0	11.7	11.6	11.0	11.9	11.8	10.9	9.7	9.9
Prostate gland . . . . .	66.5	70.7	74.1	67.4	71.8	75.6	57.7	62.2	63.0
Urinary bladder . . . . .	73.5	76.2	79.7	74.3	76.7	80.2	53.9	61.4	65.3
Non-Hodgkin's lymphoma . . . . .	46.8	46.1	49.5	47.5	46.7	50.2	43.5	42.5	42.4
Leukemia . . . . .	32.5	35.0	34.8	33.0	35.9	38.0	31.1	27.7	28.5
Female									
All sites . . . . .	56.4	55.5	56.3	57.2	56.2	57.4	46.5	45.9	44.0
Colon . . . . .	50.3	53.1	56.6	50.5	53.3	57.2	47.1	49.1	49.1
Rectum . . . . .	49.2	50.7	55.6	49.5	51.4	56.3	48.2	36.9	47.7
Pancreas . . . . .	2.3	2.7	3.6	2.2	2.2	3.2	3.2	6.8	4.9
Lung and bronchus . . . . .	15.5	16.3	16.0	15.7	16.3	16.3	12.6	17.1	13.0
Melanoma of skin . . . . .	84.3	86.2	86.6	84.4	86.4	86.7	---	---	*75.9
Breast . . . . .	74.1	74.4	77.0	74.7	75.1	78.2	62.8	63.0	63.1
Cervix uteri . . . . .	68.3	67.4	65.9	69.1	68.3	67.5	63.0	61.9	57.4
Corpus uteri . . . . .	88.2	84.3	82.9	89.0	85.6	84.4	62.2	56.2	55.5
Ovary . . . . .	36.4	38.1	38.8	38.2	37.5	38.7	40.8	39.6	36.1
Non-Hodgkin's lymphoma . . . . .	47.2	50.5	52.2	47.3	50.4	52.7	53.4	57.2	47.0

\*Standard error is greater than 10 percentage points.

NOTES: Rates are based on followup of patients through 1986. 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, 1973–1988. NIH Pub. No. 91–2789. U.S. Department of Health and Human Services. Public Health Service. Bethesda, Md., 1991; National Cancer Institute, Division of Cancer Prevention and Control. Unpublished data.

**Table 52. Limitation of activity caused by chronic conditions, according to selected characteristics: United States, 1984 and 1989**

[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	
	1984	1989	1984	1989	1984	1989	1984	1989
	Percent of population							
Total <sup>1,2</sup> . . . . .	13.3	13.4	3.9	4.1	5.7	5.2	3.7	3.9
Age								
Under 15 years . . . . .	4.9	5.0	1.3	1.3	3.1	3.1	0.4	0.5
Under 5 years . . . . .	2.5	2.3	0.8	0.6	1.2	1.1	0.5	0.6
5-14 years . . . . .	6.2	6.4	1.6	1.6	4.2	4.2	0.4	0.5
15-44 years . . . . .	8.2	8.9	2.6	2.7	3.7	3.7	2.0	2.4
45-64 years . . . . .	23.3	22.2	5.5	5.6	9.6	7.7	8.3	8.8
65 years and over . . . . .	39.0	38.3	14.3	15.5	13.8	12.7	10.8	10.1
65-74 years . . . . .	37.0	35.0	13.4	13.5	12.5	11.0	11.1	10.4
75 years and over . . . . .	42.2	43.4	15.8	18.5	16.0	15.3	10.4	9.6
Sex <sup>1</sup>								
Male . . . . .	13.5	13.5	3.7	3.9	5.2	5.0	4.6	4.6
Female . . . . .	13.2	13.1	4.2	4.4	6.0	5.4	2.9	3.3
Race <sup>1</sup>								
White . . . . .	13.0	13.1	4.0	4.2	5.7	5.3	3.4	3.6
Black . . . . .	16.3	16.3	3.8	4.0	6.3	5.7	6.3	6.7
Family income <sup>1,3</sup>								
Less than \$14,000 . . . . .	23.2	23.2	5.4	5.5	9.3	8.4	8.5	9.3
\$14,000-\$24,999 . . . . .	14.7	14.8	3.9	4.5	6.3	5.9	4.4	4.5
\$25,000-\$34,999 . . . . .	11.8	11.7	3.6	3.8	5.4	4.9	2.7	2.9
\$35,000-\$49,999 . . . . .	10.3	9.9	3.6	3.5	4.4	4.1	2.3	2.3
\$50,000 or more . . . . .	9.1	8.4	3.3	3.4	3.9	3.3	1.9	1.7
Geographic region <sup>1</sup>								
Northeast . . . . .	12.4	11.8	3.5	3.9	5.5	4.5	3.4	3.4
Midwest . . . . .	12.9	13.1	3.8	4.0	5.6	5.4	3.5	3.6
South . . . . .	14.4	14.5	4.2	4.3	6.1	5.7	4.0	4.5
West . . . . .	13.3	13.3	4.0	4.1	5.5	5.1	3.7	4.0
Location of residence <sup>1</sup>								
Within MSA . . . . .	12.9	12.8	3.8	4.0	5.6	5.0	3.6	3.7
Outside MSA . . . . .	14.1	14.9	4.1	4.4	6.0	5.9	4.0	4.6

<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 1989. Income categories for 1984 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 53. Disability days associated with acute conditions and incidence of acute conditions, according to age: United States, 1983–89**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Age	1983	1984	1985	1986	1987	1988	1989
Restricted-activity days							
	Number per person						
All ages <sup>1</sup> . . . . .	7.2	7.4	6.8	7.7	6.8	7.1	7.5
Under 15 years . . . . .	8.2	7.9	6.9	8.2	7.5	8.1	8.4
Under 5 years . . . . .	9.5	8.8	7.5	9.0	9.4	9.7	9.6
5–14 years . . . . .	7.5	7.4	6.7	7.8	6.6	7.2	7.8
15–44 years . . . . .	6.6	7.1	6.5	7.0	6.5	6.7	7.3
45–64 years . . . . .	6.3	6.6	6.0	7.0	6.1	5.8	5.9
65 years and over . . . . .	9.2	9.1	9.6	10.2	8.0	8.2	9.1
65–74 years . . . . .	8.7	8.3	8.9	10.2	8.2	7.3	8.2
75 years and over . . . . .	10.1	10.2	10.9	10.1	7.7	9.6	10.4
Bed-disability days <sup>2</sup>							
All ages <sup>1</sup> . . . . .	3.4	3.3	3.1	3.4	3.0	3.1	3.5
Under 15 years . . . . .	4.0	3.6	3.4	3.8	3.4	3.9	4.2
Under 5 years . . . . .	4.7	3.8	3.5	3.9	4.4	4.9	4.5
5–14 years . . . . .	3.6	3.5	3.3	3.8	2.8	3.4	4.0
15–44 years . . . . .	3.0	3.2	2.8	3.1	2.8	2.8	3.2
45–64 years . . . . .	2.8	2.6	2.7	3.1	2.6	2.4	2.8
65 years and over . . . . .	4.5	3.9	3.9	4.6	3.4	3.4	4.2
65–74 years . . . . .	4.4	3.7	2.8	3.9	3.7	3.1	3.6
75 years and over . . . . .	4.7	4.3	5.7	5.5	3.0	4.0	5.0
Incidence of acute conditions <sup>3</sup>							
	Number per 100 persons						
All ages <sup>1</sup> . . . . .	182.9	184.9	183.1	189.5	180.8	184.8	190.5
Under 15 years . . . . .	288.1	289.3	280.0	302.7	281.7	296.5	299.7
Under 5 years . . . . .	354.5	345.1	334.6	360.4	358.9	362.8	369.5
5–14 years . . . . .	252.8	259.2	250.9	271.7	240.4	261.3	262.3
15–44 years . . . . .	165.1	172.2	170.1	180.5	168.7	162.6	173.5
45–64 years . . . . .	109.3	104.4	112.9	125.1	101.4	107.9	113.6
65 years and over . . . . .	100.9	98.8	98.4	119.5	100.4	108.9	100.2
65–74 years . . . . .	103.1	97.4	98.9	118.2	94.8	107.8	97.4
75 years and over . . . . .	97.3	101.0	97.7	121.5	109.4	110.6	104.6

<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 54. Self-assessment of health, according to selected characteristics: United States, 1984 and 1989**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Total	Excellent		Very good		Good		Fair or poor	
		1984	1989	1984	1989	1984	1989	1984	1989
Percent distribution									
Total <sup>1,2</sup> . . . . .	100.0	40.3	40.7	25.8	27.9	23.4	22.2	10.5	9.1
Age									
Under 15 years . . . . .	100.0	53.2	53.6	24.9	27.0	18.7	17.0	3.2	2.4
Under 5 years . . . . .	100.0	53.6	54.8	25.1	26.9	17.9	15.7	3.5	2.6
5–14 years . . . . .	100.0	53.0	52.9	24.7	27.0	19.2	17.7	3.0	2.3
15–44 years . . . . .	100.0	43.8	43.4	28.5	30.3	21.7	20.6	6.0	5.6
45–64 years . . . . .	100.0	26.6	28.9	24.4	26.9	29.3	28.0	19.6	16.1
65 years and over . . . . .	100.0	15.9	16.4	20.4	23.1	31.5	31.9	32.2	28.5
65–74 years . . . . .	100.0	16.2	17.8	20.6	24.0	31.9	31.9	31.3	26.3
75 years and over . . . . .	100.0	15.3	14.3	20.0	21.7	30.9	32.0	33.7	32.0
Sex <sup>1</sup>									
Male . . . . .	100.0	42.5	43.0	25.5	27.5	21.8	20.8	10.1	8.6
Female . . . . .	100.0	38.2	38.5	26.1	28.4	24.9	23.5	11.0	9.5
Race <sup>1</sup>									
White . . . . .	100.0	41.9	42.6	26.2	28.4	22.3	20.8	9.6	8.2
Black . . . . .	100.0	30.0	30.4	22.4	24.9	29.4	28.9	18.2	15.9
Family income <sup>1,3</sup>									
Less than \$14,000 . . . . .	100.0	28.6	27.6	21.7	23.8	28.7	29.3	21.0	19.4
\$14,000–\$24,999 . . . . .	100.0	34.6	35.7	25.2	28.9	27.3	25.2	12.9	10.1
\$25,000–\$34,999 . . . . .	100.0	41.5	41.9	28.0	30.2	22.6	21.1	7.9	6.9
\$35,000–\$49,999 . . . . .	100.0	46.6	46.0	28.0	29.7	19.3	19.2	6.1	5.1
\$50,000 or more . . . . .	100.0	53.5	54.2	26.6	26.9	15.3	15.2	4.6	3.7
Geographic region <sup>1</sup>									
Northeast . . . . .	100.0	42.4	42.6	25.4	29.3	23.4	20.9	8.8	7.2
Midwest . . . . .	100.0	40.6	41.8	26.5	28.7	22.9	21.2	9.8	8.3
South . . . . .	100.0	37.0	38.4	25.6	26.6	24.4	23.8	12.9	11.2
West . . . . .	100.0	42.8	41.7	25.5	28.0	22.3	21.8	9.4	8.5
Location of residence <sup>1</sup>									
Within MSA . . . . .	100.0	41.2	41.7	25.8	28.0	23.1	21.7	9.9	8.6
Outside MSA . . . . .	100.0	38.3	37.3	25.8	27.8	24.0	24.1	11.9	10.8

<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 1989. Income categories for 1984 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 55. Current cigarette smoking by persons 18 years of age and over, according to sex, race, and age: United States, selected years 1965–87**

[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
Percent of persons 18 years of age and over						
All persons						
18 years and over, age adjusted . . . . .	42.3	37.2	33.5	32.2	30.0	28.7
18 years and over, crude . . . . .	42.4	37.1	33.5	32.1	30.1	28.8
All males						
18 years and over, age adjusted . . . . .	51.6	42.9	37.2	34.7	32.1	31.0
18 years and over, crude . . . . .	51.9	43.1	37.5	35.1	32.6	31.2
18–24 years . . . . .	54.1	42.1	35.0	32.9	28.0	28.2
25–34 years . . . . .	60.7	50.5	43.9	38.8	38.2	34.8
35–44 years . . . . .	58.2	51.0	41.8	41.0	37.6	36.6
45–64 years . . . . .	51.9	42.6	39.3	35.9	33.4	33.5
65 years and over . . . . .	28.5	24.8	20.9	22.0	19.6	17.2
White:						
18 years and over, age adjusted . . . . .	50.8	41.7	36.5	34.1	31.3	30.4
18–24 years . . . . .	53.0	40.8	34.3	32.5	28.4	29.2
25–34 years . . . . .	60.1	49.5	43.6	38.6	37.3	33.8
35–44 years . . . . .	57.3	50.1	41.3	40.8	36.6	36.2
45–64 years . . . . .	51.3	41.2	38.3	35.0	32.1	32.4
65 years and over . . . . .	27.7	24.3	20.5	20.6	18.9	16.0
Black:						
18 years and over, age adjusted . . . . .	59.2	54.0	44.1	41.3	39.9	39.0
18–24 years . . . . .	62.8	54.9	40.2	34.2	27.2	24.9
25–34 years . . . . .	68.4	58.5	47.5	39.9	45.6	44.9
35–44 years . . . . .	67.3	61.5	48.6	45.5	45.0	44.0
45–64 years . . . . .	57.9	57.8	50.0	44.8	46.1	44.3
65 years and over . . . . .	36.4	29.7	26.2	38.9	27.7	30.3
All females						
18 years and over, age adjusted . . . . .	34.0	32.5	30.3	29.9	28.2	26.7
18 years and over, crude . . . . .	33.9	32.1	29.9	29.5	27.9	26.5
18–24 years . . . . .	38.1	34.1	33.8	35.5	30.4	26.1
25–34 years . . . . .	43.7	38.8	33.7	32.6	32.0	31.8
35–44 years . . . . .	43.7	39.8	37.0	33.8	31.5	29.6
45–64 years . . . . .	32.0	33.4	30.7	31.0	29.9	28.6
65 years and over . . . . .	9.6	12.0	13.2	13.1	13.5	13.7
White:						
18 years and over, age adjusted . . . . .	34.3	32.3	30.6	30.1	28.3	27.2
18–24 years . . . . .	38.4	34.0	34.5	36.5	31.8	27.8
25–34 years . . . . .	43.4	38.6	34.1	32.2	32.0	31.9
35–44 years . . . . .	43.9	39.3	37.2	34.8	31.0	29.2
45–64 years . . . . .	32.7	33.0	30.6	30.6	29.7	29.0
65 years and over . . . . .	9.8	12.3	13.8	13.2	13.3	13.9
Black:						
18 years and over, age adjusted . . . . .	32.1	35.9	30.8	31.8	30.7	27.2
18–24 years . . . . .	37.1	35.6	31.8	32.0	23.7	20.4
25–34 years . . . . .	47.8	42.2	35.2	38.0	36.2	35.8
35–44 years . . . . .	42.8	46.4	37.7	32.7	40.2	35.3
45–64 years . . . . .	25.7	38.9	34.2	36.3	33.4	28.4
65 years and over . . . . .	7.1	8.9	8.5	13.1	14.5	11.7

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 56. 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 1974–87**

[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
Percent of persons 25 years of age and over, age adjusted					
All persons <sup>1</sup> . . . . .	37.1	33.3	31.7	30.2	29.1
Less than 12 years. . . . .	43.8	41.1	40.8	41.0	40.6
12 years . . . . .	36.4	33.7	33.6	32.1	31.8
13–15 years . . . . .	35.8	33.2	30.3	29.7	27.2
16 or more years . . . . .	27.5	22.8	20.7	18.6	16.7
All males <sup>1</sup> . . . . .	43.0	37.6	35.1	32.9	31.5
Less than 12 years. . . . .	52.4	48.1	47.2	46.0	45.7
12 years . . . . .	42.6	39.1	37.4	35.6	35.2
13–15 years . . . . .	41.6	36.5	33.0	33.0	28.4
16 or more years . . . . .	28.6	23.1	21.8	19.7	17.3
White males <sup>1</sup> . . . . .	41.9	36.9	34.5	31.9	30.6
Less than 12 years. . . . .	51.6	48.0	47.9	45.2	45.3
12 years . . . . .	42.2	38.6	37.1	34.8	34.6
13–15 years . . . . .	41.4	36.4	32.6	32.3	28.0
16 or more years . . . . .	28.1	22.8	21.1	19.2	17.4
Black males <sup>1</sup> . . . . .	53.8	44.9	42.8	42.5	41.9
Less than 12 years. . . . .	58.3	50.1	46.0	51.1	49.4
12 years . . . . .	*51.2	48.4	47.2	41.9	43.6
13–15 years . . . . .	*45.7	39.3	44.7	42.3	32.4
16 or more years . . . . .	*41.8	*37.9	*31.3	*32.0	20.9
All females <sup>1</sup> . . . . .	32.2	29.6	28.8	27.8	26.9
Less than 12 years. . . . .	36.8	35.0	35.3	36.7	36.1
12 years . . . . .	32.5	29.9	30.9	29.6	29.2
13–15 years . . . . .	30.2	30.0	27.5	26.7	26.0
16 or more years . . . . .	26.1	22.5	19.2	17.4	16.1
White females <sup>1</sup> . . . . .	31.9	29.8	28.8	27.6	27.0
Less than 12 years. . . . .	37.0	36.1	35.5	37.1	37.0
12 years . . . . .	32.1	29.9	30.9	29.4	29.4
13–15 years . . . . .	30.5	30.6	28.0	27.1	26.2
16 or more years . . . . .	25.8	21.9	18.9	16.8	16.4
Black females <sup>1</sup> . . . . .	35.9	30.6	31.8	32.1	28.6
Less than 12 years. . . . .	36.4	31.9	36.9	39.2	35.0
12 years . . . . .	41.9	33.0	35.2	32.3	28.1
13–15 years . . . . .	33.2	*28.8	26.5	23.7	27.2
16 or more years . . . . .	*35.2	*43.4	*38.7	27.5	19.5

<sup>1</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 57. 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 and sex: United States, selected years 1974–90**

[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, and sex</i>	1974	1976	1977	1979	1982	1985	1988	1990
<b>Cigarettes</b>								
Percent of population								
Both sexes:								
12–17 years . . . . .	25	23	22	( <sup>1</sup> )	15	15	12	12
12–13 years . . . . .	13	11	10	( <sup>1</sup> )	*3	6	3	2
14–15 years . . . . .	25	20	22	( <sup>1</sup> )	10	14	11	14
16–17 years . . . . .	38	39	35	( <sup>1</sup> )	30	25	20	18
18–25 years . . . . .	49	49	47	( <sup>1</sup> )	40	37	35	32
Male:								
12–17 years . . . . .	27	21	23	( <sup>1</sup> )	16	16	12	12
18–25 years . . . . .	50	48	50	( <sup>1</sup> )	37	38	36	36
Female:								
12–17 years . . . . .	24	26	22	( <sup>1</sup> )	13	15	11	11
18–25 years . . . . .	47	51	44	( <sup>1</sup> )	42	35	35	27
<b>Alcohol<sup>2</sup></b>								
Both sexes:								
12–17 years . . . . .	34	32	31	37	27	31	25	25
12–13 years . . . . .	19	19	13	20	10	11	6	8
14–15 years . . . . .	32	31	28	36	23	35	23	26
16–17 years . . . . .	51	47	52	55	45	46	42	38
18–25 years . . . . .	69	69	70	76	68	71	65	63
Male:								
12–17 years . . . . .	39	36	37	39	27	34	27	25
18–25 years . . . . .	---	79	82	84	75	78	75	74
Female:								
12–17 years . . . . .	29	29	25	36	27	28	23	24
18–25 years . . . . .	---	58	59	68	61	64	57	53
<b>Marijuana</b>								
Both sexes:								
12–17 years . . . . .	12	12	17	17	12	12	6	5
12–13 years . . . . .	*2	*3	*4	4	*2	*4	1	*
14–15 years . . . . .	12	13	16	17	8	11	5	5
16–17 years . . . . .	20	21	30	28	23	21	12	10
18–25 years . . . . .	25	25	27	35	27	22	15	13
Male:								
12–17 years . . . . .	12	14	20	19	13	13	6	6
18–25 years . . . . .	---	31	35	45	36	27	20	17
Female:								
12–17 years . . . . .	11	11	13	14	10	11	7	4
18–25 years . . . . .	---	19	20	26	19	17	11	9
<b>Cocaine</b>								
Both sexes:								
12–17 years . . . . .	*1.0	*1.0	*0.8	1.4	1.6	1.5	1.1	0.6
18–25 years . . . . .	3.1	2.0	3.7	9.3	6.8	7.6	4.5	2.2
Male:								
12–17 years . . . . .	---	---	---	---	1.8	2.0	0.9	0.7
18–25 years . . . . .	---	---	---	---	9.1	9.0	6.0	2.8
Female:								
12–17 years . . . . .	---	---	---	---	*1.5	*1.0	1.4	*
18–25 years . . . . .	---	---	---	---	4.7	6.3	3.0	1.6

<sup>1</sup>Data not comparable because definitions differ.

<sup>2</sup>In 1979, 1982, 1985, 1988, and 1990, private answer sheets were used for alcohol questions; in earlier years, respondents answered questions aloud

\*Relative standard error greater than 30 percent. Estimates with relative standard error greater than 50 percent are not shown.

SOURCES: National Institute on Drug Abuse: National Household Survey on Drug Abuse: Main Findings, 1979, by P. M. Fishburne, H. I. Abelson, and I. Cisin. DHHS Pub. No. (ADM) 80–976. Alcohol, Drug Abuse, and Mental Health Administration. Washington, U.S. Government Printing Office, 1980; National Household Survey on Drug Abuse: Main Findings, 1982, by J. D. Miller et al. DHHS Pub. No. (ADM) 83–1263. Alcohol, Drug Abuse, and Mental Health Administration. Washington, U.S. Government Printing Office, 1983; National Household Survey on Drug Abuse: Main Findings, 1985. DHHS Pub. No. (ADM) 88–1586. National Household Survey on Drug Abuse: Main Findings, 1988; National Household Survey on Drug Abuse: Main Findings, 1990; Unpublished data

**Table 58. Cocaine-related emergency room episodes, according to age, sex, and race/ethnicity: selected metropolitan areas, 1985–89**

[Data are based on a sample of emergency rooms in 21 metropolitan areas]

Age, sex, and race/ethnicity	1985	1986	1987	1988	1989	1985–86	1986–87	1987–88	1988–89
All races, both sexes <sup>1</sup>									
	Number of episodes					Annual percent change			
All ages <sup>2</sup>	10,231	18,551	32,042	42,510	41,602	81.3	72.7	32.7	-2.1
12–17 years	255	497	668	894	801	94.9	34.4	33.8	-10.4
18–24 years	2,657	4,811	8,038	10,653	9,502	81.1	67.1	32.5	-10.8
25–34 years	5,169	9,451	16,352	21,176	20,853	82.8	73.0	29.5	-1.5
35–44 years	1,758	3,073	5,751	8,099	8,599	74.8	87.1	40.8	6.2
45–64 years	362	622	1,077	1,547	1,692	71.8	73.2	43.6	9.4
White male									
All ages <sup>2</sup>	2,187	3,809	5,903	7,585	6,889	74.2	55.0	28.5	-9.2
12–17 years	77	113	155	187	195	46.8	37.2	20.6	4.3
18–24 years	658	1,086	1,607	2,019	1,742	65.0	48.0	25.6	-13.7
25–34 years	1,110	1,935	3,114	3,860	3,370	74.3	60.9	24.0	-12.7
35–44 years	282	570	867	1,292	1,322	102.1	52.1	49.0	2.3
45–64 years	55	97	143	212	241	76.4	47.4	48.3	13.7
Black male									
All ages <sup>2</sup>	3,446	6,285	11,645	16,365	16,353	82.4	85.3	40.5	-0.1
12–17 years	37	84	141	199	191	127.0	67.9	41.1	-4.0
18–24 years	615	1,260	2,335	3,297	3,045	104.9	85.3	41.2	-7.6
25–34 years	1,755	3,265	5,882	8,092	8,080	86.0	80.2	37.6	-0.1
35–44 years	825	1,292	2,674	3,877	4,051	56.6	107.0	45.0	4.5
45–64 years	202	342	569	862	931	69.3	66.4	51.5	8.0
Hispanic male									
All ages <sup>2</sup>	845	1,494	2,108	2,693	2,635	76.8	41.1	27.8	-2.2
12–17 years	21	50	62	88	70	138.1	24.0	41.9	-20.5
18–24 years	240	422	557	807	717	75.8	32.0	44.9	-11.2
25–34 years	398	712	999	1,185	1,164	78.9	40.3	18.6	-1.8
35–44 years	160	244	409	480	532	52.5	67.6	17.4	10.8
45–64 years	25	56	76	121	140	124.0	35.7	59.2	15.7
White female									
All ages <sup>2</sup>	1,175	1,912	2,914	3,705	3,521	62.7	52.4	27.1	-5.0
12–17 years	66	131	118	161	135	98.5	-9.9	36.4	-16.1
18–24 years	442	654	976	1,265	1,041	48.0	49.2	29.6	-17.7
25–34 years	553	927	1,470	1,782	1,767	67.6	58.6	21.2	-0.8
35–44 years	97	179	308	447	500	84.5	72.1	45.1	11.9
45–64 years	15	19	35	47	73	26.7	84.2	34.3	55.3
Black female									
All ages <sup>2</sup>	1,557	3,174	5,872	7,606	7,664	103.9	85.0	29.5	0.8
12–17 years	26	49	104	122	99	88.5	112.2	17.3	-18.9
18–24 years	374	845	1,592	2,007	1,812	125.9	88.4	26.1	-9.7
25–34 years	875	1,724	3,114	4,024	4,200	97.0	80.6	29.2	4.4
35–44 years	242	498	919	1,269	1,365	105.8	84.5	38.1	7.6
45–64 years	35	51	122	163	167	45.7	139.2	33.6	2.5
Hispanic female									
All ages <sup>2</sup>	318	571	794	1,006	945	79.6	39.1	26.7	-6.1
12–17 years	10	34	27	52	36	240.0	-20.6	92.6	-30.8
18–24 years	110	193	259	338	283	75.5	34.2	30.5	-16.3
25–34 years	147	268	411	440	416	82.3	53.4	7.1	-5.5
35–44 years	43	64	85	150	175	48.8	32.8	76.5	16.7
45–64 years	8	10	10	25	30	25.0	0.0	150.0	20.0

<sup>1</sup>Includes unknown race/ethnicity and/or sex.

<sup>2</sup>Includes ages under 12, over 64, and unknown.

SOURCE: National Institute on Drug Abuse, Drug Abuse Warning Network, data as of March 1990.

**Table 59. Alcohol consumption status of persons 18 years of age and over, according to sex: United States, selected years 1971–85**

[Data are based on interviews of samples of the noninstitutionalized population]

<i>Sex and alcohol consumption</i>	1971	1973	1974	1975	1976	1979	1983	1985
Both sexes		Percent distribution						
Abstain . . . . .	36	34	36	36	33	33	40	35
Light . . . . .	34	29	28	31	38	34	29	35
Moderate . . . . .	20	23	28	21	19	24	21	22
Heavier . . . . .	10	14	11	12	10	9	10	8
Male								
Abstain . . . . .	30	25	24	27	26	25	28	24
Light . . . . .	29	24	24	27	33	29	28	33
Moderate . . . . .	26	29	34	26	24	31	28	29
Heavier . . . . .	15	22	18	20	18	14	16	14
Female								
Abstain . . . . .	42	42	42	45	39	40	50	45
Light . . . . .	40	35	32	35	44	38	30	37
Moderate . . . . .	13	17	21	15	15	18	15	15
Heavier . . . . .	5	6	5	4	3	4	4	3

NOTE: Alcohol consumption status is defined in ounces of absolute alcohol (ethanol) consumed per day as follows: abstain, 0; 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 on Alcohol Abuse and Alcoholism. Rockville, Md., Dec. 1981. Data for 1983 and 1985 computed by the National Institute on Alcohol Abuse and Alcoholism from data compiled by the National Center for Health Statistics, Division of Health Interview Statistics.

**Table 60 (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	31.2	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 60 (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 61. 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
Percent of population									
Both sexes <sup>1</sup>									
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 62. 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									
Percent of population with high serum cholesterol									
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 63. 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
Both sexes									
Percent of population									
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 64. Air pollution, according to source and type of pollutant: United States, selected years 1970–88**

[Data are calculated emissions estimates]

Type of pollutant and year	All sources	Transportation	Stationary fuel combustion	Industrial processes	Solid waste	Other
Particulate matter						
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.....	7.1	1.4	1.8	2.8	0.3	0.8
1986.....	6.8	1.4	1.8	2.5	0.3	0.8
1987.....	7.0	1.4	1.8	2.5	0.3	1.0
1988.....	6.9	1.4	1.7	2.6	0.3	0.9
Sulfur oxides						
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	3.1	0.0	0.0
1987.....	20.6	0.9	16.6	3.2	0.0	0.0
1988.....	20.7	0.9	16.4	3.4	0.0	0.0
Nitrogen oxides						
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.....	19.8	8.9	10.2	0.6	0.1	0.1
1986.....	19.0	8.3	10.0	0.6	0.1	0.1
1987.....	19.3	8.0	10.5	0.6	0.1	0.1
1988.....	19.8	8.1	10.8	0.6	0.1	0.2
Volatile organic compounds						
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.....	21.1	7.5	0.9	9.2	0.6	2.9
1984.....	20.3	7.2	1.0	8.8	0.6	2.7
1985.....	19.1	6.9	0.9	8.5	0.6	2.2
1986.....	18.3	6.5	0.9	8.1	0.6	2.2
1987.....	18.6	6.4	0.9	8.3	0.6	2.4
1988.....	18.6	6.1	0.9	8.5	0.6	2.4
Carbon monoxide						
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.....	67.0	47.9	7.4	4.4	2.0	5.3
1986.....	63.1	44.6	7.5	4.3	1.7	5.0
1987.....	64.1	43.2	7.6	4.5	1.7	7.1
1988.....	61.2	41.2	7.6	4.7	1.7	6.0
Lead						
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.....	21.1	15.5	0.5	2.3	2.8	---
1986.....	8.6	3.5	0.5	1.9	2.7	---
1987.....	8.0	3.0	0.5	1.9	2.6	---
1988.....	7.6	2.6	0.5	2.0	2.5	---

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, 1940–1988. EPA-450/4-90-001. U.S. Environmental Protection Agency. Research Triangle Park, N.C., Mar. 1990.

**Table 65. Employees with potential exposure to continuous noise without controls in selected industries, according to 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 with potential exposure								
All industries . . . . .	3,451,828	2,543,810	935,163	976,695	1,196,451	946,106	1,320,214	621,008
General building contractors . . . . .	77,526	93,120	22,783	63,862	54,743	22,563	*-	*6,693
Heavy construction contractors . . . . .	36,697	95,661	17,706	38,848	9,057	43,385	*9,933	*13,427
Special trade contractors . . . . .	70,362	171,213	38,605	151,886	31,756	19,327	*-	---
Textile mill products . . . . .	51,306	101,109	20,055	21,898	25,312	46,430	*5,938	32,780
Apparel and other textile products . . . . .	131,850	122,264	77,077	19,896	54,300	73,380	*472	*28,987
Lumber and wood products . . . . .	54,135	99,913	32,468	61,981	14,743	29,783	*6,923	*8,147
Paper and allied products . . . . .	175,953	77,728	38,330	19,760	75,073	41,214	*62,549	16,753
Printing and publishing . . . . .	120,275	116,221	36,600	43,960	16,805	38,081	66,869	34,179
Chemicals and allied products . . . . .	48,037	42,329	14,569	12,036	25,749	21,281	7,718	9,011
Primary metals industries . . . . .	414,976	132,726	35,585	17,135	88,711	55,683	290,679	59,907
Fabricated metal products . . . . .	354,055	194,830	126,239	86,187	145,497	70,147	82,318	38,495
Machinery, except electrical . . . . .	245,086	140,604	56,522	63,052	64,348	47,989	124,215	29,562
Miscellaneous manufacturing industries . . . . .	71,039	22,038	20,442	8,793	32,232	13,244	*18,364	*-
Transportation by air . . . . .	31,352	47,441	*946	13,034	6,665	*30,658	*23,740	3,749
Auto repair services and garages . . . . .	17,861	33,820	17,301	33,114	*560	*706	---	---
Miscellaneous repair services . . . . .	24,294	4,282	4,125	2,688	*17,304	*1,593	*2,865	---
Electric and electronic equipment . . . . .	90,585	72,471	4,287	12,126	35,673	16,224	50,624	44,120
Percent of employees with potential exposure								
All industries . . . . .	9.0	7.6	6.1	8.8	10.8	9.6	11.1	5.0
General building contractors . . . . .	11.1	10.4	7.6	11.3	14.7	11.4	*-	*5.0
Heavy construction contractors . . . . .	6.7	16.1	6.0	13.7	3.8	20.9	*67.3	*13.3
Special trade contractors . . . . .	5.5	10.8	4.1	12.1	9.5	5.8	*-	---
Textile mill products . . . . .	22.1	14.2	21.7	20.7	26.2	13.4	*13.8	12.6
Apparel and other textile products . . . . .	14.4	9.8	15.4	4.7	14.3	12.0	*1.2	*13.9
Lumber and wood products . . . . .	33.9	17.2	39.6	20.4	28.9	16.2	*26.0	*8.8
Paper and allied products . . . . .	30.8	12.4	30.3	14.4	28.3	14.6	*35.0	8.1
Printing and publishing . . . . .	9.7	9.8	10.5	9.2	5.4	10.6	11.6	9.9
Chemicals and allied products . . . . .	5.0	4.6	7.4	6.7	13.5	8.2	1.3	1.9
Primary metals industries . . . . .	30.8	12.4	29.5	12.4	39.9	17.9	28.9	9.6
Fabricated metal products . . . . .	26.2	13.0	28.3	15.5	28.1	11.8	21.3	11.0
Machinery, except electrical . . . . .	15.9	5.9	21.1	10.4	17.4	7.3	13.8	2.7
Miscellaneous manufacturing industries . . . . .	18.5	4.2	14.7	5.3	21.2	8.9	*19.7	*-
Transportation by air . . . . .	6.1	10.5	*3.1	16.8	11.2	*28.0	*5.6	1.4
Auto repair services and garages . . . . .	14.0	8.0	15.7	8.0	*3.3	*8.6	---	---
Miscellaneous repair services . . . . .	13.2	2.1	2.7	1.5	*76.4	*6.5	*28.8	---
Electric and electronic equipment . . . . .	6.0	3.7	4.3	5.3	10.7	2.9	4.7	3.7

\*Based on fewer than 10 facilities.

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 66. Health and safety services in manufacturing 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 in thousands							
Employees . . . . .	38,263	33,218	15,394	11,078	10,883	9,856	11,985	12,283
Occupational health and safety practices								
	Percent of employees							
Regularly monitor environmental conditions <sup>2</sup> . . . . .	21.7	48.0	2.5	11.1	12.0	43.4	55.5	85.1
Personal protective devices required in some work areas <sup>3</sup> . . . . .	39.2	53.5	32.5	45.9	45.9	59.0	41.6	56.0
Employer provides protective devices . . . . .	52.5	80.2	41.9	70.4	59.8	82.8	59.7	86.8
Medical facilities and practices								
Health unit at the facility . . . . .	31.5	42.7	3.3	3.8	18.8	31.7	79.5	86.7
Access to physician or clinic . . . . .	70.7	100.0	49.0	100.0	76.3	100.0	93.5	100.0
Preemployment medical exams . . . . .	38.5	49.4	12.8	20.0	35.0	47.0	74.9	77.9
Periodic medical exams . . . . .	14.4	30.1	6.0	8.4	13.4	26.4	26.1	52.7
Records of employee absenteeism showing type of illness . . . . .	14.2	4.8	4.7	8.1	10.1	3.0	30.4	3.3

<sup>1</sup>Includes facilities with fewer than 8 employees.

<sup>2</sup>Monitoring environmental conditions such as presence of fumes, gases, dust, noise, vibration, radiation.

<sup>3</sup>Includes respirators, protective clothing, etc.

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 67. Physician contacts, according to place of contact and selected patient characteristics: United States, 1984 and 1989**

[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>	
	1984	1989		1984	1989	1984	1989	1984	1989	1984	1989	1984	1989
	Number per person			Percent distribution									
Total <sup>3,4</sup>	5.0	5.3	100.0	56.0	59.6	14.3	13.2	15.1	12.3	1.6	1.4	13.1	13.4
Age													
Under 15 years	4.3	4.6	100.0	53.9	62.2	14.0	11.8	19.2	14.5	*0.5	*0.5	12.4	11.1
Under 5 years	6.5	6.7	100.0	53.1	61.4	14.3	9.8	20.1	15.5	*0.5	*0.5	11.9	12.8
5-14 years	3.2	3.5	100.0	54.7	63.0	13.6	13.8	18.2	13.4	*0.6	*0.4	13.0	9.4
15-44 years	4.4	4.6	100.0	55.4	58.1	15.0	13.5	13.9	11.4	0.7	0.6	15.0	16.3
45-64 years	5.7	6.1	100.0	59.2	59.0	14.6	14.4	12.8	12.5	1.3	1.6	12.2	12.5
65 years and over	8.2	8.9	100.0	57.6	59.6	11.5	13.3	12.7	9.4	9.2	7.5	9.1	10.3
65-74 years	7.7	8.2	100.0	60.4	58.4	12.5	15.5	12.3	10.0	5.1	4.0	9.7	12.1
75 years and over	9.1	9.9	100.0	53.8	61.1	10.1	10.4	13.2	8.7	14.8	12.0	8.2	7.9
Sex <sup>3</sup>													
Male	4.4	4.8	100.0	55.1	58.1	15.9	15.0	13.2	11.2	1.6	1.2	14.3	14.5
Female	5.6	5.9	100.0	56.5	60.5	13.2	12.1	16.2	12.9	1.6	1.6	12.5	12.9
Race <sup>3</sup>													
White	5.1	5.5	100.0	57.6	60.9	12.8	12.2	15.8	12.9	1.5	1.4	12.3	12.7
Black	4.8	4.9	100.0	43.9	50.6	25.4	20.4	10.2	9.3	2.2	2.0	18.4	17.8
Family income <sup>3,5</sup>													
Less than \$14,000	5.8	6.3	100.0	46.7	48.5	19.7	18.0	12.0	10.8	2.5	2.4	19.1	20.3
\$14,000-\$24,999	4.8	5.2	100.0	53.4	58.9	16.7	14.3	14.3	12.9	0.9	1.4	14.7	12.5
\$25,000-\$34,999	4.9	5.5	100.0	59.2	61.0	13.5	12.1	14.8	12.4	0.8	0.8	11.7	13.7
\$35,000-\$49,999	5.2	5.2	100.0	60.8	63.1	10.9	12.1	17.5	12.9	1.0	0.6	9.8	11.4
\$50,000 or more	5.5	6.0	100.0	60.5	63.4	10.5	10.7	16.8	13.6	1.7	1.7	10.6	10.7
Geographic region <sup>3</sup>													
Northeast	4.9	5.3	100.0	57.6	59.8	16.4	16.0	12.8	12.8	2.0	1.4	11.2	10.0
Midwest	5.2	5.4	100.0	53.3	57.6	12.9	13.3	16.9	12.9	1.7	1.7	15.2	14.5
South	4.7	5.3	100.0	56.7	62.5	13.5	11.1	15.9	12.3	1.6	1.6	12.2	12.5
West	5.3	5.5	100.0	56.8	57.4	15.0	13.8	13.7	11.3	0.8	0.9	13.7	16.5
Location of residence <sup>3</sup>													
Within MSA	5.3	5.4	100.0	54.6	59.1	15.2	13.3	15.7	12.7	1.7	1.3	12.9	13.6
Outside MSA	4.4	5.2	100.0	59.4	61.3	12.1	12.9	13.5	11.0	1.4	2.0	13.6	12.7

<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 1989. Income categories for 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.

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

**Table 68. Interval since last physician contact, according to selected patient characteristics: United States, 1964, 1984, and 1989**

[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	1984	1989	1964	1984	1989	1964	1984	1989
Percent distribution										
Total <sup>2,3</sup>	100.0	66.9	75.7	77.7	14.0	10.9	10.2	19.1	13.3	12.0
Age										
Under 15 years	100.0	68.4	81.1	82.6	14.8	11.5	10.4	16.7	7.5	7.0
Under 5 years	100.0	80.7	92.1	93.3	11.1	6.1	5.0	8.2	1.8	1.6
5–14 years	100.0	61.7	75.1	76.8	16.9	14.4	13.3	21.4	10.5	9.9
15–44 years	100.0	66.3	71.2	72.8	15.0	12.5	11.9	18.7	16.3	15.3
45–64 years	100.0	64.5	73.8	76.5	13.0	9.5	9.2	22.5	16.7	14.3
65 years and over	100.0	69.7	83.0	86.7	9.3	5.7	4.8	21.0	11.2	8.5
65–74 years	100.0	68.8	81.9	85.1	9.4	6.0	5.3	21.8	12.1	9.6
75 years and over	100.0	71.3	84.8	89.1	9.3	5.3	4.0	19.5	9.9	6.9
Sex <sup>2</sup>										
Male	100.0	63.5	71.2	73.0	15.0	11.9	11.4	21.5	16.9	15.6
Female	100.0	69.9	79.9	82.2	13.1	10.0	9.1	17.0	10.0	8.7
Race <sup>2</sup>										
White	100.0	68.1	76.1	78.2	13.8	10.6	10.1	18.1	13.3	11.8
Black <sup>4</sup>	100.0	58.3	75.2	77.0	15.1	12.3	11.3	26.6	12.6	11.7
Family income <sup>2,5</sup>										
Less than \$14,000	100.0	58.6	74.9	76.2	13.2	10.9	10.3	28.2	14.2	13.4
\$14,000–\$24,999	100.0	62.5	73.9	76.4	14.2	11.1	10.6	23.3	15.0	13.1
\$25,000–\$34,999	100.0	66.8	76.5	77.7	14.5	10.8	10.4	18.7	12.8	11.9
\$35,000–\$49,999	100.0	70.2	77.2	79.2	14.0	10.2	9.8	15.7	12.6	11.1
\$50,000 or more	100.0	73.6	79.6	81.9	12.9	9.9	9.0	13.5	10.5	9.1
Geographic region <sup>2</sup>										
Northeast	100.0	68.0	77.8	80.6	14.1	9.8	9.5	17.9	12.4	9.9
Midwest	100.0	66.6	75.7	78.7	14.2	11.1	9.9	19.2	13.2	11.3
South	100.0	65.2	74.4	76.3	13.9	11.9	10.7	20.9	13.6	13.0
West	100.0	69.0	75.7	76.4	13.7	10.3	10.4	17.3	14.0	13.1
Location of residence <sup>2</sup>										
Within MSA	100.0	68.2	76.7	78.2	14.0	10.3	10.0	17.8	12.9	11.8
Outside MSA	100.0	64.0	73.7	76.1	14.1	12.1	11.0	21.9	14.2	12.9

<sup>1</sup>Includes persons who never visited a physician.

<sup>2</sup>Age adjusted.

<sup>3</sup>Includes all other races not shown separately and unknown family income.

<sup>4</sup>1964 data include all other races.

<sup>5</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 1984 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 69. Office visits to physicians, according to physician specialty and selected patient characteristics: United States, 1980 and 1985**

[Data are based on reporting by a sample of office-based physicians]

Characteristic	All specialties <sup>1</sup>		General and family practice		Internal medicine		Obstetrics and gynecology		Pediatrics		General surgery	
	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985	1980	1985
	Visits per person											
Total <sup>2</sup> . . . . .	2.63	2.71	0.86	0.81	0.30	0.30	0.23	0.22	0.37	0.40	0.13	0.12
Age												
Under 15 years . . . . .	2.21	2.31	0.54	0.58	0.03	0.05	0.01	0.01	1.20	1.28	0.05	0.03
15-44 years . . . . .	2.36	2.28	0.81	0.75	0.20	0.19	0.48	0.44	0.04	0.06	0.12	0.10
45-64 years . . . . .	2.99	3.10	1.08	0.99	0.58	0.49	0.12	0.15	0.01	0.01	0.20	0.21
65 years and over . . . . .	4.22	4.85	1.56	1.41	0.95	1.07	0.06	0.07	0.01	0.01	0.22	0.30
65-74 years . . . . .	4.01	4.54	1.49	1.31	0.89	1.00	0.06	0.09	0.00	0.00	0.23	0.29
75 years and over . . . . .	4.58	5.35	1.70	1.57	1.06	1.18	0.05	0.04	0.01	0.01	0.20	0.32
Sex <sup>2</sup>												
Male . . . . .	2.25	2.28	0.73	0.68	0.28	0.25	0.01	0.00	0.39	0.38	0.12	0.11
Female . . . . .	2.98	3.11	0.98	0.94	0.33	0.33	0.44	0.42	0.34	0.42	0.13	0.14
Race <sup>2</sup>												
White . . . . .	2.73	2.84	0.89	0.84	0.31	0.31	0.23	0.22	0.39	0.43	0.13	0.12
All other . . . . .	2.03	1.94	0.70	0.69	0.24	0.21	0.23	0.18	0.25	0.23	0.08	0.11

<sup>1</sup>Includes other specialties not shown separately.

<sup>2</sup>Age adjusted.

NOTE: Rates are based on the civilian noninstitutionalized population, excluding Alaska and Hawaii.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Ambulatory Medical Care Survey.

**Table 70. Office visits to physicians, according to selected patient characteristics: United States, 1980 and 1985**

[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	
	1980	1985	1980	1985	1980	1985
	Percent of visits					
Total <sup>2</sup> . . . . .	15.3	17.7	47.3	42.6	58.0	58.8
Age						
Under 15 years . . . . .	14.6	17.8	57.5	50.8	48.8	49.2
15-44 years . . . . .	18.7	20.8	46.9	41.6	58.2	58.9
45-64 years . . . . .	12.7	14.8	38.9	36.3	64.5	65.6
65 years and over . . . . .	8.6	10.5	36.7	35.6	71.3	72.8
65-74 years . . . . .	8.9	11.2	38.0	34.6	70.5	72.6
75 years and over . . . . .	8.3	9.6	35.1	36.9	72.6	73.1
Sex <sup>2</sup>						
Male . . . . .	17.3	19.5	46.4	43.3	55.9	56.7
Female . . . . .	14.4	16.9	47.7	42.2	58.9	59.8
Race <sup>2</sup>						
White . . . . .	14.8	17.4	47.3	42.3	57.8	58.4
All other . . . . .	18.9	20.1	48.0	45.0	60.1	62.2
Location of physician's office <sup>2</sup>						
Within MSA . . . . .	15.5	18.6	44.9	39.8	60.0	60.5
Outside MSA . . . . .	14.6	14.3	55.1	53.8	51.6	52.1

<sup>1</sup>Time spent in face-to-face contact between physician and patient.

<sup>2</sup>Age adjusted.

NOTE: Rates are based on the civilian noninstitutionalized population, excluding Alaska and Hawaii.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Ambulatory Medical Care Survey.

**Table 71. Dental visits and interval since last visit, according to selected patient characteristics: United States, 1964, 1981, and 1986**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Interval since last dental visit <sup>1</sup>									Never visited dentist		
	Dental visits			Less than 1 year			2 years or more					
	1964	1981	1986	1964	1981	1986	1964	1981	1986	1964	1981	1986
	Number per person						Percent of population					
Total <sup>2,3</sup>	1.6	1.7	2.0	42.7	50.4	56.3	28.7	25.1	25.0	15.5	11.0	10.4
Age												
Under 15 years	1.3	1.5	1.7	39.6	48.5	53.8	5.4	6.7	7.2	46.6	34.6	33.1
Under 5 years	0.3	0.5	0.4	11.1	15.0	19.5	0.3	0.6	0.5	87.0	82.2	78.5
5–14 years	1.9	2.0	2.3	55.1	65.2	71.7	8.2	9.8	10.7	24.6	10.9	9.3
15–44 years	1.9	1.8	2.0	51.8	55.6	61.6	26.9	24.9	26.1	4.0	2.1	1.6
45–64 years	1.7	1.8	2.2	39.1	50.1	55.9	46.3	36.6	35.5	1.3	0.6	0.6
65 years and over	0.8	1.5	2.1	21.5	34.9	42.6	69.0	56.6	51.1	1.5	0.5	0.5
65–74 years	0.9	1.6	2.4	24.9	38.9	47.3	65.2	52.1	46.6	1.1	0.3	0.5
75 years and over	0.6	1.3	1.6	14.9	28.1	35.1	76.3	64.0	58.3	2.4	0.6	*0.5
Sex <sup>2</sup>												
Male	1.4	1.5	1.8	40.9	48.4	54.1	29.6	26.5	26.7	16.1	11.4	10.6
Female	1.7	1.8	2.1	44.4	52.4	58.5	28.0	23.8	23.3	15.0	10.8	10.1
Race <sup>2</sup>												
White	1.7	1.8	2.1	45.3	52.6	58.4	27.8	24.0	23.6	13.8	10.4	9.9
Black <sup>4</sup>	0.8	1.1	1.3	22.3	36.3	42.6	37.6	33.9	35.6	28.0	14.4	12.7
Family income <sup>2,5</sup>												
Less than \$10,000	0.9	1.1	1.3	26.4	37.3	41.0	35.4	33.7	36.2	27.4	15.3	13.4
\$10,000–\$14,999	0.9	1.3	1.3	30.0	37.8	42.7	35.2	33.2	34.2	22.0	14.3	13.6
\$15,000–\$19,999	1.4	1.4	1.6	39.7	42.6	49.3	30.6	30.3	29.9	15.8	13.0	12.0
\$20,000–\$34,999	1.9	1.7	2.2	50.1	50.5	59.0	25.3	24.8	22.7	10.9	10.6	10.0
\$35,000 or more	2.7	2.1	2.7	63.9	63.9	71.8	16.8	16.4	14.0	7.2	7.6	7.1
Geographic region <sup>2</sup>												
Northeast	2.1	2.1	2.2	48.5	55.6	60.9	26.1	22.6	23.0	12.5	9.0	8.9
Midwest	1.6	1.7	2.0	44.6	52.5	60.0	29.3	24.9	23.5	12.9	9.8	8.7
South	1.2	1.5	1.6	35.8	45.2	49.5	30.9	28.5	29.1	20.9	12.9	12.1
West	1.7	1.7	2.2	43.8	50.8	59.1	27.9	22.4	21.5	14.3	11.9	10.7
Location of residence <sup>2</sup>												
Within MSA	1.8	1.8	2.0	44.9	52.4	57.8	27.5	23.3	23.9	14.4	10.7	10.2
Outside MSA	1.2	1.4	1.7	37.8	46.3	51.8	31.8	28.7	28.3	17.9	11.8	11.0

<sup>1</sup>Percent not shown for an interval of 1 year—less than 2 years.

<sup>2</sup>Age adjusted.

<sup>3</sup>Includes all other races not shown separately and unknown family income.

<sup>4</sup>1964 data are for all other races.

<sup>5</sup>Family income categories for 1986. 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 1981 are: less than \$7,000; \$7,000–\$9,999; \$10,000–\$14,999; \$15,000–\$24,999; and \$25,000 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 72. Discharges, days of care, and average length of stay in short-stay hospitals, according to selected characteristics: United States, 1964, 1984, and 1989**

[Data are based on household interviews of a sample of the civilian noninstitutionalized population]

Characteristic	Discharges			Days of care			Average length of stay		
	1964	1984	1989	1964	1984	1989	1964	1984	1989
	Number per 1,000 population						Number of days		
Total <sup>1,2</sup>	109.1	114.7	92.6	970.9	871.9	646.6	8.9	7.6	7.0
Age									
Under 15 years	67.6	60.9	44.1	405.7	334.4	256.4	6.0	5.5	5.8
Under 5 years	94.3	96.7	76.6	731.1	595.8	506.2	7.8	6.2	6.6
5-14 years	53.1	41.6	26.7	229.1	193.4	122.8	4.3	4.6	4.6
15-44 years	100.6	81.7	67.0	760.7	530.8	371.8	7.6	6.5	5.5
45-64 years	146.2	160.6	130.5	1,559.3	1,344.5	937.5	10.7	8.4	7.2
65 years and over	190.0	318.0	265.6	2,292.7	2,917.6	2,360.8	12.1	9.2	8.9
65-74 years	181.2	277.7	236.7	2,150.4	2,528.3	2,004.3	11.9	9.1	8.5
75 years and over	206.7	382.6	311.0	2,560.4	3,542.9	2,918.6	12.4	9.3	9.4
Sex <sup>1</sup>									
Male	103.8	114.2	95.0	1,010.2	926.6	690.0	9.7	8.1	7.3
Female	113.7	115.8	91.2	933.4	829.2	615.7	8.2	7.2	6.8
Race <sup>1</sup>									
White	112.4	114.3	92.0	961.4	833.2	635.9	8.6	7.3	6.9
Black <sup>3</sup>	84.0	127.2	105.2	1,062.9	1,247.8	798.9	12.7	9.8	7.6
Family income <sup>1,4</sup>									
Less than \$14,000	102.4	150.2	131.3	1,051.2	1,420.3	1,013.0	10.3	9.5	7.7
\$14,000-\$24,999	116.4	126.6	91.2	1,213.9	991.2	600.5	10.4	7.8	6.6
\$25,000-\$34,999	110.7	109.4	93.0	939.8	733.1	630.5	8.5	6.7	6.8
\$35,000-\$49,999	109.2	99.9	75.0	882.6	678.3	476.9	8.1	6.8	6.4
\$50,000 or more	110.7	95.9	72.1	918.9	614.8	497.4	8.3	6.4	6.9
Geographic region <sup>1</sup>									
Northeast	98.5	104.5	80.2	993.8	877.5	589.5	10.1	8.4	7.4
Midwest	109.2	125.2	98.4	944.9	965.6	690.2	8.7	7.7	7.0
South	117.8	126.4	106.5	968.0	953.7	721.6	8.2	7.5	6.8
West	110.5	92.9	75.7	985.9	596.7	528.8	8.9	6.4	7.0
Location of residence <sup>1</sup>									
Within MSA	107.5	108.1	89.0	1,015.4	864.6	649.7	9.4	8.0	7.3
Outside MSA	113.3	128.4	105.1	871.9	888.9	639.1	7.7	6.9	6.1

<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 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 1984 are: less than \$10,000; \$10,000-\$18,999; \$19,000-\$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 73. Discharges, days of care, and average length of stay in non-Federal short-stay hospitals, according to selected characteristics: United States, 1980–89**

[Data are based on a sample of hospital records]

Characteristic	1980 <sup>1</sup>	1981	1982	1983	1984	1985	1986	1987	1988 <sup>2</sup>	1989 <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
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
Female . . . . .	178.1	179.5	176.5	174.4	164.7	152.7	146.2	141.2	130.2	127.4
Age										
Under 15 years . . . . .	71.6	72.9	71.2	70.8	62.0	57.2	53.5	51.3	49.2	48.2
15–44 years . . . . .	150.2	148.7	145.0	140.3	132.2	125.1	118.9	115.1	104.0	102.8
45–64 years . . . . .	194.8	195.3	195.5	192.2	183.3	169.5	162.2	156.9	140.5	135.0
65 years and over . . . . .	383.7	396.5	398.8	412.7	400.4	368.3	367.3	350.5	334.1	330.2
65–74 years . . . . .	315.9	330.0	324.2	334.2	319.6	294.9	296.8	280.9	262.8	257.3
75 years and over . . . . .	489.1	498.4	511.4	529.3	520.1	476.5	470.5	451.6	436.5	433.6
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
Midwest . . . . .	176.4	179.9	176.0	167.9	156.7	143.5	139.8	135.3	120.2	116.8
South . . . . .	166.2	165.2	165.2	167.7	159.5	143.4	136.3	127.9	118.9	119.0
West . . . . .	138.0	141.1	138.2	139.6	132.3	131.0	127.8	128.6	103.6	98.3
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
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
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
Age										
Under 15 years . . . . .	315.8	337.1	326.4	323.4	277.7	260.8	244.7	240.6	245.3	234.3
15–44 years . . . . .	787.0	769.6	742.0	707.5	647.3	603.6	575.7	556.9	493.1	481.1
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
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
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
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
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
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
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
West . . . . .	844.6	859.3	825.7	821.9	756.5	717.9	703.0	712.5	606.7	537.0
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
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
Female . . . . .	6.7	6.7	6.6	6.4	6.1	6.0	5.9	5.9	5.9	5.9
Age										
Under 15 years . . . . .	4.4	4.6	4.6	4.6	4.5	4.6	4.6	4.7	5.0	4.9
15–44 years . . . . .	5.2	5.2	5.1	5.0	4.9	4.8	4.8	4.8	4.7	4.7
45–64 years . . . . .	8.2	8.0	7.9	7.6	7.2	7.0	6.8	6.8	6.8	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
65–74 years . . . . .	10.0	9.9	9.6	9.2	8.5	8.2	8.0	8.2	8.4	8.2
75 years and over . . . . .	11.4	11.1	10.6	10.2	9.3	9.2	9.0	9.1	9.3	9.4
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
Midwest . . . . .	7.4	7.3	7.3	7.1	6.8	6.7	6.5	6.5	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
West . . . . .	6.1	6.1	6.0	5.9	5.7	5.5	5.5	5.5	5.9	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 and 1989 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 74. Discharges, days of care, and average length of stay in non-Federal short-stay hospitals for patients discharged with the diagnosis of acquired immunodeficiency syndrome (AIDS) and for all patients: United States, 1984–89**

[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	
<b>Diagnosis of AIDS</b>					
Total:					
1984	10	0.04	123	0.52	12.1
1985	23	0.10	387	1.63	17.1
1986	37	0.16	606	2.53	16.2
1987	50	0.21	782	3.24	15.7
1988 <sup>1</sup>	71	0.29	983	4.03	13.8
1989 <sup>1</sup>	96	0.39	1,303	5.28	13.6
<b>Male, 20–49 years:</b>					
1984	*9	*0.17	*114	*2.26	*13.2
1985	21	0.41	355	6.90	16.8
1986	30	0.58	482	9.21	16.0
1987	40	0.75	621	11.70	15.6
1988 <sup>1</sup>	58	1.09	753	13.98	12.9
1989 <sup>1</sup>	74	1.36	962	17.64	13.0
<b>All patients</b>					
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>1</sup>	31,146	127.6	203,678	834.3	6.5
1989 <sup>1</sup>	30,947	125.5	200,827	814.5	6.5
<b>Male, 20–49 years:</b>					
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	506.3	6.2
1987	4,075	76.8	26,295	495.2	6.5
1988 <sup>1</sup>	3,670	68.2	22,697	421.6	6.2
1989 <sup>1</sup>	3,676	67.4	22,967	421.0	6.2

<sup>1</sup>Comparisons of 1988 and 1989 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. AIDS diagnostic category based on the International Classification of Diseases, 9th Revision, Clinical Modification and International Classification of Diseases, 9th Revision Update. For a listing of the code numbers, see Appendix II, table VI.

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 75 (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, 1985, 1988, and 1989**

[Data are based on a sample of hospital records]

Sex, age, and first-listed diagnosis	Discharges				Days of care			
	1980	1985	1988 <sup>1</sup>	1989 <sup>1</sup>	1980	1985	1988 <sup>1</sup>	1989 <sup>1</sup>
Both sexes								
Number per 1,000 population								
Total <sup>2,3</sup>	159.1	138.0	117.8	115.5	1,136.5	877.1	754.8	732.2
Females with delivery	14.7	14.1	13.4	13.9	55.5	46.1	39.2	40.5
Diseases of heart	13.1	13.7	13.2	12.6	123.5	98.4	92.2	86.4
Malignant neoplasms	7.6	7.4	6.2	5.8	90.5	65.2	57.6	53.2
Fracture, all sites	4.9	4.4	3.8	3.8	51.2	37.1	30.8	30.9
Pneumonia, all forms	3.5	3.6	3.6	4.0	27.7	26.5	28.5	30.2
Male								
All ages <sup>2,3</sup>	140.1	123.5	105.8	103.9	1,072.6	841.2	739.6	720.8
Diseases of heart	15.9	16.8	16.4	15.6	145.0	116.9	111.8	104.6
Malignant neoplasms	8.2	7.8	6.4	6.3	98.7	71.1	59.9	57.7
Fracture, all sites	5.2	4.7	4.1	3.9	46.9	35.3	29.3	29.3
Pneumonia, all forms	4.1	3.9	4.1	4.6	32.5	29.8	32.3	34.6
Cerebrovascular diseases	3.5	3.6	2.8	2.8	41.9	36.0	26.8	28.2
Inguinal hernia	4.3	3.0	2.0	1.6	20.0	9.3	4.8	4.1
Under 15 years <sup>3</sup>	78.7	63.8	54.6	55.1	341.5	287.5	275.5	268.3
Bronchitis, emphysema, and asthma	4.0	4.1	4.1	4.2	16.3	13.7	11.0	12.2
Pneumonia, all forms	5.2	4.3	3.9	4.6	25.2	18.1	16.9	18.7
Acute respiratory infection	5.9	5.2	3.8	5.0	22.0	17.2	11.7	17.1
Congenital anomalies	4.0	3.8	3.5	3.0	22.2	20.5	18.7	14.5
Fracture, all sites	3.7	3.2	2.6	2.8	22.7	16.6	13.5	15.0
Chronic disease of tonsils and adenoids	5.4	3.5	2.3	1.7	9.2	5.1	3.3	2.0
Otitis media and eustachian tube disorders	4.5	2.2	2.0	1.7	11.3	4.7	4.2	3.4
15–44 years <sup>3</sup>	91.5	75.4	61.5	59.8	581.0	458.9	388.2	371.5
Fracture, all sites	6.3	5.3	4.5	4.2	50.1	34.7	27.1	25.8
Psychoses	3.0	3.7	3.9	3.8	39.2	47.4	51.9	51.3
Diseases of heart	2.9	3.0	2.8	2.6	21.7	16.6	16.1	13.9
Intervertebral disc disorders	2.3	2.9	2.5	2.1	20.7	18.7	12.6	9.4
Lacerations and open wounds	3.4	2.6	2.2	2.2	17.9	11.0	9.4	8.1
Alcohol dependence syndrome	3.5	3.5	2.1	1.9	33.4	38.8	24.8	21.2
45–64 years <sup>3</sup>	195.4	176.2	146.4	142.8	1,590.3	1,219.9	993.2	962.1
Diseases of heart	33.7	36.6	34.1	32.8	288.1	237.4	210.1	195.4
Malignant neoplasms	14.4	13.1	9.8	10.8	167.2	119.8	95.1	96.8
Cerebrovascular diseases	4.7	5.0	4.2	4.0	49.6	50.7	35.7	34.2
Intervertebral disc disorders	3.7	4.6	3.9	3.5	34.5	32.8	21.8	18.1
Fracture, all sites	4.0	4.0	3.6	3.6	36.5	29.7	26.6	32.2
Inguinal hernia	6.9	5.1	3.3	2.4	36.5	15.3	7.7	5.9
Alcohol dependence syndrome	6.4	4.5	2.2	2.0	67.8	43.4	18.8	16.9
65 years and over <sup>3</sup>	411.8	393.2	360.3	354.4	4,244.0	3,315.0	3,083.5	3,047.0
Diseases of heart	78.5	82.6	84.0	79.7	786.3	626.9	635.7	603.6
Malignant neoplasms	46.2	44.4	37.0	35.4	587.9	418.4	351.8	335.6
Pneumonia, all forms	15.0	17.3	20.1	21.4	166.1	172.6	200.4	200.8
Cerebrovascular diseases	24.4	25.1	18.3	18.9	301.2	249.7	191.9	207.7
Hyperplasia of prostate	18.1	15.5	15.4	15.3	176.7	103.5	93.0	84.2
Female								
All ages <sup>2,3</sup>	178.1	152.7	130.2	127.4	1,201.7	914.7	772.6	746.6
Delivery	29.0	27.7	26.5	27.5	109.4	91.0	77.4	80.2
Diseases of heart	10.7	11.0	10.5	10.1	105.1	82.5	75.7	70.8
Malignant neoplasms	7.3	7.3	6.2	5.6	85.8	61.7	56.6	50.2
Fracture, all sites	4.4	4.0	3.3	3.5	52.1	36.6	30.4	30.5
Pneumonia, all forms	3.0	3.2	3.2	3.4	24.0	24.3	25.7	27.0
Pregnancy with abortive outcome	4.1	2.8	1.9	1.6	8.7	5.9	4.3	3.7

See footnotes at end of table.

**Table 75 (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, 1985, 1988, and 1989**

[Data are based on a sample of hospital records]

Sex, age, and first-listed diagnosis	Discharges				Days of care			
	1980	1985	1988 <sup>1</sup>	1989 <sup>1</sup>	1980	1985	1988 <sup>1</sup>	1989 <sup>1</sup>
Female—Con.								
Number per 1,000 population								
Under 15 years <sup>3</sup> . . . . .	64.2	50.2	43.4	40.9	288.9	232.9	213.6	198.6
Pneumonia, all forms . . . . .	3.6	3.6	3.1	3.6	17.7	16.4	14.9	16.7
Acute respiratory infection . . . . .	4.6	3.6	2.5	3.0	16.0	11.3	8.9	10.4
Bronchitis, emphysema, and asthma . . . . .	2.5	2.6	2.5	2.4	9.6	9.0	7.3	6.8
Chronic disease of tonsils and adenoids . . . . .	6.4	3.7	2.4	1.8	11.2	6.0	2.5	2.1
Congenital anomalies . . . . .	3.2	1.9	2.1	2.0	19.4	11.3	14.5	12.6
Noninfectious enteritis and colitis . . . . .	3.7	2.3	2.0	1.5	16.8	6.8	5.4	5.7
15–44 years <sup>3</sup> . . . . .	206.9	173.4	145.6	144.9	986.4	744.3	595.6	588.2
Delivery . . . . .	70.7	67.8	64.9	67.4	264.5	222.4	189.4	196.2
Pregnancy with abortive outcome . . . . .	9.9	6.7	4.6	3.9	21.2	14.4	10.5	9.0
Psychoses . . . . .	2.4	3.4	3.6	3.4	36.7	52.3	57.7	48.4
Benign neoplasms . . . . .	4.8	3.4	3.0	2.8	25.7	17.2	13.2	11.5
Cholelithiasis . . . . .	2.6	2.4	2.7	2.4	19.5	14.4	13.3	11.4
Inflammatory disease of female pelvic organs . . . . .	5.1	3.7	2.5	2.4	25.7	17.7	11.6	10.3
Disorders of menstruation . . . . .	6.6	2.6	1.5	1.1	21.6	9.7	5.5	4.0
45–64 years <sup>3</sup> . . . . .	194.3	163.4	135.1	127.9	1,604.1	1,168.1	920.5	850.0
Diseases of heart . . . . .	17.8	17.9	17.2	16.0	152.9	120.5	106.5	95.4
Malignant neoplasms . . . . .	16.6	15.6	14.7	11.3	190.8	129.6	122.2	92.2
Benign neoplasms . . . . .	6.7	5.1	4.9	4.4	44.8	32.0	24.8	21.2
Psychoses . . . . .	3.1	4.1	4.2	4.3	50.6	70.5	62.0	64.0
Cholelithiasis . . . . .	4.7	4.4	4.1	4.4	42.9	30.9	24.2	23.7
Diabetes . . . . .	6.3	3.8	2.8	3.2	63.5	31.4	21.8	22.3
65 years and over <sup>3</sup> . . . . .	364.7	351.4	316.2	313.5	3,999.8	3,147.1	2,892.3	2,850.1
Diseases of heart . . . . .	64.8	68.1	65.8	63.8	701.1	551.3	520.6	497.8
Malignant neoplasms . . . . .	28.5	28.1	23.4	23.5	383.8	280.6	258.5	247.7
Cerebrovascular diseases . . . . .	21.6	23.3	19.6	20.1	287.9	249.3	193.0	205.1
Fracture, all sites . . . . .	19.2	19.3	16.6	17.9	309.5	232.5	192.7	206.0
Pneumonia, all forms . . . . .	9.7	11.8	13.4	14.2	109.2	116.9	138.7	139.6
Eye diseases and conditions . . . . .	16.4	8.2	5.8	4.0	67.3	21.0	12.5	10.6

<sup>1</sup>Comparisons of 1988 and later years 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>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 5 highest discharge rates in 1980 and 1988. 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 VI.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Hospital Discharge Survey.

**Table 76 (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, 1985, 1988, and 1989**

[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</i>	<i>1985</i>	<i>1988<sup>1</sup></i>	<i>1989<sup>1</sup></i>	<i>1980</i>	<i>1985</i>	<i>1988<sup>1</sup></i>	<i>1989<sup>1</sup></i>
<b>Both sexes</b>								
	Number in thousands				Number of days			
Total <sup>2</sup> . . . . .	37,832	35,056	31,146	30,947	7.3	6.5	6.5	6.5
Females with delivery . . . . .	3,762	3,854	3,781	3,937	3.8	3.3	2.9	2.9
Diseases of heart . . . . .	3,201	3,584	3,641	3,534	9.5	7.3	7.1	7.0
Malignant neoplasms . . . . .	1,829	1,911	1,670	1,608	12.0	8.9	9.4	9.2
Fracture, all sites . . . . .	1,163	1,129	1,014	1,021	10.8	8.7	8.4	8.5
Pneumonia, all forms . . . . .	782	854	924	1,033	8.3	7.9	8.4	8.1
<b>Male</b>								
All ages <sup>2</sup> . . . . .	15,145	14,160	12,642	12,583	7.7	6.9	7.1	7.0
Diseases of heart . . . . .	1,688	1,910	1,955	1,892	9.1	7.0	6.9	6.8
Malignant neoplasms . . . . .	875	892	772	770	12.0	9.1	9.4	9.2
Fracture, all sites . . . . .	582	550	506	480	9.0	7.7	7.2	7.5
Pneumonia, all forms . . . . .	414	433	472	544	8.2	7.8	8.3	7.8
Cerebrovascular diseases . . . . .	371	416	336	344	12.1	10.0	9.8	10.3
Inguinal hernia . . . . .	458	343	232	193	4.7	3.1	2.5	2.6
Under 15 years <sup>2</sup> . . . . .	2,063	1,698	1,486	1,521	4.3	4.5	5.0	4.9
Bronchitis, emphysema, and asthma . . . . .	105	110	111	115	4.0	3.3	2.7	2.9
Pneumonia, all forms . . . . .	136	115	105	126	4.9	4.2	4.4	4.1
Acute respiratory infection . . . . .	154	138	103	137	3.8	3.3	3.1	3.4
Congenital anomalies . . . . .	106	101	95	83	5.5	5.4	5.4	4.8
Fracture, all sites . . . . .	97	85	71	77	6.2	5.2	5.2	5.4
Chronic disease of tonsils and adenoids . . . . .	141	92	64	46	1.7	1.5	1.4	1.2
Otitis media and eustachian tube disorders . . . . .	118	59	55	47	2.5	2.1	2.1	2.0
15–44 years <sup>2</sup> . . . . .	4,687	4,153	3,485	3,405	6.3	6.1	6.3	6.2
Fracture, all sites . . . . .	320	290	257	241	8.0	6.6	6.0	6.1
Psychoses . . . . .	155	204	219	217	12.9	12.8	13.4	13.5
Diseases of heart . . . . .	149	165	159	146	7.5	5.5	5.7	5.4
Intervertebral disc disorders . . . . .	120	161	139	122	8.8	6.4	5.1	4.4
Lacerations and open wounds . . . . .	176	143	124	124	5.2	4.2	4.3	3.7
Alcohol dependence syndrome . . . . .	180	195	118	109	9.5	11.0	11.9	11.1
45–64 years <sup>2</sup> . . . . .	4,127	3,776	3,221	3,179	8.1	6.9	6.8	6.7
Diseases of heart . . . . .	712	784	751	730	8.5	6.5	6.2	6.0
Malignant neoplasms . . . . .	304	281	215	240	11.6	9.1	9.7	9.0
Cerebrovascular diseases . . . . .	99	107	93	88	10.6	10.2	8.5	8.7
Intervertebral disc disorders . . . . .	78	98	86	78	9.4	7.2	5.6	5.2
Fracture, all sites . . . . .	85	85	79	80	9.0	7.5	7.4	9.0
Inguinal hernia . . . . .	146	110	72	53	5.3	3.0	2.3	2.5
Alcohol dependence syndrome . . . . .	134	97	49	44	10.7	9.6	8.4	8.5
65 years and over <sup>2</sup> . . . . .	4,268	4,533	4,450	4,478	10.3	8.4	8.6	8.6
Diseases of heart . . . . .	814	953	1,038	1,007	10.0	7.6	7.6	7.6
Malignant neoplasms . . . . .	479	512	457	447	12.7	9.4	9.5	9.5
Pneumonia, all forms . . . . .	156	199	248	271	11.1	10.0	10.0	9.4
Cerebrovascular diseases . . . . .	253	289	226	238	12.3	9.9	10.5	11.0
Hyperplasia of prostate . . . . .	188	179	191	193	9.8	6.7	6.0	5.5
<b>Female</b>								
All ages <sup>2</sup> . . . . .	22,686	20,896	18,504	18,364	7.0	6.2	6.2	6.1
Delivery . . . . .	3,762	3,854	3,781	3,937	3.8	3.3	2.9	2.9
Diseases of heart . . . . .	1,513	1,674	1,686	1,642	10.0	7.6	7.4	7.2
Malignant neoplasms . . . . .	954	1,019	898	838	12.0	8.7	9.4	9.3
Fracture, all sites . . . . .	580	579	508	541	12.6	9.8	9.7	9.4
Pneumonia, all forms . . . . .	368	421	452	489	8.4	8.1	8.6	8.4
Pregnancy with abortive outcome . . . . .	531	382	266	229	2.1	2.1	2.3	2.3

See footnotes at end of table.

**Table 76 (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, 1985, 1988, and 1989**

[Data are based on a sample of hospital records]

Sex, age, and first-listed diagnosis	Discharges				Average length of stay			
	1980	1985	1988 <sup>1</sup>	1989 <sup>1</sup>	1980	1985	1988 <sup>1</sup>	1989 <sup>1</sup>
Female—Con.	Number in thousands				Number of days			
Under 15 years <sup>2</sup> . . . . .	1,609	1,274	1,125	1,077	4.5	4.6	4.9	4.9
Pneumonia, all forms . . . . .	91	91	79	95	4.9	4.6	4.9	4.6
Acute respiratory infection . . . . .	115	91	65	78	3.5	3.2	3.5	3.5
Bronchitis, emphysema, and asthma . . . . .	63	65	66	64	3.8	3.5	2.9	2.8
Chronic disease of tonsils and adenoids . . . . .	160	94	61	48	1.8	1.6	1.1	1.2
Congenital anomalies . . . . .	80	49	55	53	6.1	5.9	6.8	6.2
Noninfectious enteritis and colitis . . . . .	92	59	52	39	4.6	2.9	2.7	3.8
15–44 years <sup>2</sup> . . . . .	10,949	9,813	8,448	8,443	4.8	4.3	4.1	4.1
Delivery . . . . .	3,741	3,838	3,768	3,926	3.7	3.3	2.9	2.9
Pregnancy with abortive outcome . . . . .	525	378	264	227	2.1	2.2	2.3	2.3
Psychoses . . . . .	129	192	210	197	15.1	15.4	15.9	14.3
Benign neoplasms . . . . .	253	194	176	161	5.4	5.0	4.4	4.2
Cholelithiasis . . . . .	138	133	157	142	7.5	6.1	4.9	4.7
Inflammatory disease of female pelvic organs . . . . .	268	210	145	137	5.1	4.8	4.6	4.4
Disorders of menstruation . . . . .	347	148	88	66	3.3	3.7	3.6	3.5
45–64 years <sup>2</sup> . . . . .	4,533	3,834	3,235	3,092	8.3	7.1	6.8	6.6
Diseases of heart . . . . .	415	420	411	386	8.6	6.7	6.2	6.0
Malignant neoplasms . . . . .	387	367	351	273	11.5	8.3	8.3	8.2
Benign neoplasms . . . . .	156	120	116	108	6.7	6.3	5.1	4.8
Psychoses . . . . .	72	95	99	104	16.3	17.4	14.9	14.9
Cholelithiasis . . . . .	109	103	97	107	9.2	7.1	6.0	5.4
Diabetes . . . . .	148	88	67	78	10.0	8.3	7.8	6.9
65 years and over <sup>2</sup> . . . . .	5,596	5,975	5,696	5,752	11.0	9.0	9.1	9.1
Diseases of heart . . . . .	995	1,158	1,185	1,170	10.8	8.1	7.9	7.8
Malignant neoplasms . . . . .	437	478	422	431	13.5	10.0	11.0	10.6
Cerebrovascular diseases . . . . .	331	396	352	368	13.3	10.7	9.9	10.2
Fracture, all sites . . . . .	295	328	300	329	16.1	12.1	11.6	11.5
Pneumonia, all forms . . . . .	150	201	242	261	11.2	9.9	10.3	9.8
Eye diseases and conditions . . . . .	251	140	105	73	4.1	2.5	2.1	2.7

<sup>1</sup>Comparisons of 1988 and later years 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>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 5 highest discharge rates in 1980 and 1988. 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 VI.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Hospital Discharge Survey.

**Table 77 (page 1 of 2). Operations for inpatients discharged from non-Federal short-stay hospitals, according to sex, age, and surgical category: United States, 1980, 1985, 1988, and 1989**

[Data are based on a sample of hospital records]

Sex, age, and surgical category	Operations in thousands				Operations per 1,000 population			
	1980	1985	1988 <sup>1</sup>	1989 <sup>1,2</sup>	1980	1985	1988 <sup>1</sup>	1989 <sup>1,2</sup>
<b>Male</b>								
All ages <sup>2,3,4</sup> . . . . .	8,505	8,805	9,069	8,886	78.1	76.3	75.4	72.8
Cardiac catheterization . . . . .	228	439	598	601	2.2	3.9	5.2	5.1
Prostatectomy . . . . .	335	367	358	376	3.1	3.2	2.9	3.0
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	325	339	337	342	2.9	2.8	2.7	2.8
Direct heart revascularization (coronary bypass) . . . . .	108	172	270	271	1.0	1.6	2.3	2.3
Repair of inguinal hernia . . . . .	483	370	261	220	4.6	3.3	2.2	1.8
Operations on muscles, tendons, fascia, and bursa . . . . .	210	194	181	191	1.9	1.7	1.5	1.6
Under 15 years <sup>2,4</sup> . . . . .	1,068	831	751	703	40.7	31.3	27.6	25.5
Tonsillectomy, with or without adenoidectomy . . . . .	138	97	69	49	5.3	3.6	2.6	1.8
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	55	57	52	54	2.1	2.1	1.9	2.0
Myringotomy . . . . .	115	53	45	41	4.4	2.0	1.6	1.5
Appendectomy, excluding incidental <sup>5</sup> . . . . .	43	41	33	37	1.6	1.5	1.2	1.3
Repair of inguinal hernia . . . . .	86	46	31	28	3.3	1.7	1.1	1.0
Circumcision . . . . .	43	31	20	19	1.6	1.2	0.7	0.7
15-44 years <sup>2,4</sup> . . . . .	2,900	2,717	2,489	2,408	56.6	49.4	43.9	42.3
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	188	187	178	176	3.7	3.4	3.1	3.1
Excision or destruction of intervertebral disc and spinal fusion . . . . .	67	119	111	115	1.3	2.2	2.0	2.0
Operations on muscles, tendons, fascia, and bursa . . . . .	110	100	93	86	2.2	1.8	1.6	1.5
Appendectomy, excluding incidental <sup>5</sup> . . . . .	85	88	88	83	1.7	1.6	1.5	1.5
Debridement of wound, infection, or burn . . . . .	75	75	84	93	1.5	1.4	1.5	1.6
Repair of inguinal hernia . . . . .	127	91	62	46	2.5	1.7	1.1	0.8
Excision of semilunar cartilage of knee . . . . .	94	48	30	37	1.8	0.9	0.5	0.6
45-64 years <sup>2,4</sup> . . . . .	2,313	2,494	2,568	2,498	109.5	116.4	116.7	112.2
Cardiac catheterization . . . . .	129	241	296	291	6.1	11.3	13.5	13.0
Direct heart revascularization (coronary bypass) . . . . .	72	102	134	129	3.4	4.8	6.1	5.8
Repair of inguinal hernia . . . . .	152	116	80	58	7.2	5.4	3.6	2.6
Excision or destruction of intervertebral disc and spinal fusion . . . . .	43	60	69	70	2.1	2.8	3.1	3.2
Prostatectomy . . . . .	83	81	67	71	3.9	3.8	3.1	3.2
Operations on muscles, tendons, fascia, and bursa . . . . .	58	50	44	57	2.8	2.3	2.0	2.6
65 years and over <sup>2,4</sup> . . . . .	2,224	2,762	3,261	3,277	214.6	239.5	264.0	259.4
Prostatectomy . . . . .	251	284	290	304	24.2	24.7	23.4	24.1
Cardiac catheterization . . . . .	52	126	222	230	5.0	10.9	17.9	18.2
Direct heart revascularization (coronary bypass) . . . . .	27	57	122	131	2.6	5.0	9.8	10.4
Biopsies on the digestive system . . . . .	61	107	121	83	5.9	9.3	9.8	6.6
Pacemaker insertion or replacement . . . . .	75	82	120	106	7.3	7.1	9.7	8.4
Repair of inguinal hernia . . . . .	119	116	88	87	11.4	10.1	7.1	6.9
Extraction of lens . . . . .	124	53	24	16	12.0	4.6	1.9	1.3
<b>Female</b>								
All ages <sup>2,3,4</sup> . . . . .	15,989	15,994	16,555	14,484	126.1	117.2	116.9	101.0
Procedures to assist delivery <sup>2</sup> . . . . .	2,391	2,494	3,131	2,446	18.4	18.0	22.0	17.1
Cesarean section <sup>6</sup> . . . . .	619	877	933	938	4.8	6.3	6.5	6.6
Repair of current obstetrical laceration . . . . .	355	548	690	762	2.8	3.9	4.9	5.3
Hysterectomy . . . . .	649	670	578	541	5.2	5.0	4.3	3.9
Oophorectomy and salpingo-oophorectomy . . . . .	483	525	451	421	3.9	4.0	3.4	3.1
Bilateral destruction or occlusion of fallopian tubes . . . . .	641	466	406	389	4.9	3.3	2.9	2.7
Diagnostic dilation and curettage of uterus . . . . .	923	349	143	137	7.3	2.6	1.1	1.0

See footnotes at end of table.

**Table 77 (page 2 of 2). Operations for inpatients discharged from non-Federal short-stay hospitals, according to sex, age, and surgical category: United States, 1980, 1985, 1988, and 1989**

[Data are based on a sample of hospital records]

Sex, age, and surgical category	Operations in thousands				Operations per 1,000 population			
	1980	1985	1988 <sup>1</sup>	1989 <sup>1,2</sup>	1980	1985	1988 <sup>1</sup>	1989 <sup>1,2</sup>
Female—Con.								
Under 15 years <sup>2,4</sup> . . . . .	771	553	519	462	30.8	21.8	20.0	17.6
Tonsillectomy, with or without adenoidectomy . . . . .	156	100	66	53	6.2	3.9	2.5	2.0
Myringotomy . . . . .	87	36	32	27	3.5	1.4	1.2	1.0
Appendectomy, excluding incidental <sup>4</sup> . . . . .	34	28	25	24	1.4	1.1	1.0	0.9
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	32	33	24	29	1.3	1.3	0.9	1.1
Operations on muscles, tendons, fascia, and bursa . . . . .	23	11	16	15	0.9	0.5	0.6	0.6
Adenoidectomy without tonsillectomy . . . . .	31	*7	*6	*	1.2	*0.3	*0.2	*
15–44 years <sup>2,4</sup> . . . . .	9,625	9,340	10,007	8,071	181.9	165.0	172.5	138.6
Procedures to assist delivery <sup>2</sup> . . . . .	2,381	2,483	3,121	2,439	45.0	43.9	53.8	41.9
Cesarean section . . . . .	614	875	931	936	11.6	15.5	16.0	16.1
Repair of current obstetrical laceration . . . . .	352	546	688	760	6.7	9.6	11.9	13.0
Bilateral destruction or occlusion of fallopian tubes . . . . .	632	461	404	386	11.9	8.1	7.0	6.6
Hysterectomy . . . . .	402	421	340	317	7.6	7.4	5.9	5.4
Diagnostic dilation and curettage of uterus . . . . .	625	232	86	82	11.8	4.1	1.5	1.4
45–64 years <sup>2,4</sup> . . . . .	3,113	2,893	2,622	2,492	133.4	123.3	109.5	103.1
Hysterectomy . . . . .	203	190	188	165	8.7	8.1	7.9	6.8
Oophorectomy and salpingo-oophorectomy . . . . .	162	165	165	144	7.0	7.0	6.9	5.9
Cardiac catheterization . . . . .	58	108	136	135	2.5	4.6	5.7	5.6
Cholecystectomy . . . . .	107	104	101	114	4.6	4.4	4.2	4.7
Biopsies on the digestive system . . . . .	66	71	61	54	2.8	3.0	2.6	2.2
Diagnostic dilation and curettage of uterus . . . . .	241	83	40	41	10.3	3.5	1.7	1.7
Biopsies on the integumentary system (breast, skin, and subcutaneous tissue) . . . . .	69	48	38	30	2.9	2.1	1.6	1.2
65 years and over <sup>2,4</sup> . . . . .	2,480	3,208	3,407	3,459	161.6	188.7	189.2	188.5
Cardiac catheterization . . . . .	32	101	163	185	2.1	6.0	9.1	10.1
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	127	163	156	180	8.3	9.6	8.6	9.8
Biopsies on the digestive system . . . . .	72	140	144	101	4.7	8.2	8.0	5.5
Arthroplasty and replacement of hip . . . . .	72	108	112	---	4.7	6.4	6.2	---
Pacemaker insertion or replacement . . . . .	70	86	103	115	4.6	5.0	5.7	6.2
Cholecystectomy . . . . .	83	89	100	99	5.4	5.2	5.5	5.4
Insertion of prosthetic lens (pseudophakos) . . . . .	93	92	63	40	6.1	5.4	3.5	2.2
Extraction of lens . . . . .	211	104	61	44	13.8	6.1	3.4	2.4

<sup>1</sup>Comparisons of 1988 and later years 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>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, and 23.8 percent in 1989.

\*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 5 most common operations in 1980 and 1988. 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 VII.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Hospital Discharge Survey.

**Table 78 (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, 1985, 1988, and 1989**

[Data are based on a sample of hospital records]

Sex, age, and procedure category	Procedures in thousands				Procedures per 1,000 population			
	1980	1985	1988 <sup>1</sup>	1989 <sup>1,2</sup>	1980	1985	1988 <sup>1</sup>	1989 <sup>1,2</sup>
<b>Male</b>								
All ages <sup>2,3,4</sup> . . . . .	3,386	5,889	6,665	7,202	31.3	51.1	55.6	59.3
Computerized axial tomography (CAT scan) . . . . .	152	671	775	721	1.4	5.8	6.3	5.8
Angiocardigraphy using contrast material . . . . .	174	431	749	767	1.6	3.9	6.4	6.5
Diagnostic ultrasound . . . . .	114	478	599	628	1.0	4.1	5.1	5.2
Cystoscopy . . . . .	543	461	399	356	5.1	4.0	3.2	2.8
Radioisotope scan . . . . .	236	375	315	287	2.1	3.3	2.6	2.3
Arteriography using contrast material . . . . .	180	262	246	233	1.7	2.3	2.0	1.9
Endoscopy of large intestine . . . . .	228	259	170	158	2.1	2.2	1.4	1.2
Under 15 years <sup>2,4</sup> . . . . .	217	297	424	566	8.3	11.1	15.6	20.5
Spinal tap . . . . .	39	62	84	97	1.5	2.3	3.1	3.5
Diagnostic ultrasound . . . . .	*6	23	51	49	*0.2	0.9	1.9	1.8
Computerized axial tomography (CAT scan) . . . . .	17	35	42	46	0.7	1.3	1.5	1.7
Electroencephalogram . . . . .	*5	19	15	17	*0.2	0.7	0.5	0.6
Application of cast or splint . . . . .	21	16	14	12	0.8	0.6	0.5	0.4
Radioisotope scan . . . . .	*8	*9	11	14	*0.3	*0.4	0.4	0.5
Cystoscopy . . . . .	23	11	*	*	0.9	0.4	*	*
15-44 years <sup>2,4</sup> . . . . .	884	1,294	1,382	1,477	17.3	23.5	24.4	25.9
Computerized axial tomography (CAT scan) . . . . .	37	174	218	196	0.7	3.2	3.8	3.4
Diagnostic ultrasound . . . . .	25	96	111	117	0.5	1.7	2.0	2.0
Angiocardigraphy using contrast material . . . . .	30	55	89	98	0.6	1.0	1.6	1.7
Contrast myelogram . . . . .	88	130	79	65	1.7	2.4	1.4	1.1
Radioisotope scan . . . . .	48	67	62	58	0.9	1.2	1.1	1.0
Arthroscopy of knee . . . . .	94	75	55	55	1.8	1.4	1.0	1.0
Cystoscopy . . . . .	80	47	36	37	1.6	0.9	0.6	0.6
Application of cast or splint . . . . .	54	30	27	25	1.1	0.6	0.5	0.4
Endoscopy of large intestine . . . . .	52	54	25	25	1.0	1.0	0.4	0.4
45-64 years <sup>2,4</sup> . . . . .	1,128	1,866	2,038	2,103	53.4	87.1	92.6	94.4
Angiocardigraphy using contrast material . . . . .	106	251	388	386	5.0	11.7	17.6	17.3
Computerized axial tomography (CAT scan) . . . . .	43	182	200	179	2.0	8.5	9.1	8.1
Diagnostic ultrasound . . . . .	41	146	173	188	1.9	6.8	7.9	8.5
Radioisotope scan . . . . .	75	121	102	88	3.5	5.7	4.7	3.9
Arteriography using contrast material . . . . .	76	94	95	77	3.6	4.4	4.3	3.4
Cystoscopy . . . . .	153	114	93	84	7.3	5.3	4.2	3.8
Endoscopy of large intestine . . . . .	86	76	48	36	4.0	3.5	2.2	1.6
65 years and over <sup>2,4</sup> . . . . .	1,158	2,432	2,821	3,056	111.8	211.0	228.4	241.8
Computerized axial tomography (CAT scan) . . . . .	54	280	316	299	5.2	24.3	25.6	23.7
Cystoscopy . . . . .	287	288	266	232	27.7	25.0	21.6	18.3
Diagnostic ultrasound . . . . .	42	213	264	274	4.0	18.4	21.4	21.7
Angiocardigraphy using contrast material . . . . .	35	123	264	274	3.4	10.7	21.3	21.7
Radioisotope scan . . . . .	105	177	139	127	10.1	15.4	11.3	10.1
Arteriography using contrast material . . . . .	72	135	110	117	7.0	11.7	8.9	9.3
Endoscopy of large intestine . . . . .	86	126	94	95	8.3	10.9	7.6	7.5
<b>Female</b>								
All ages <sup>2,3,4</sup> . . . . .	3,532	6,072	6,902	9,471	27.5	43.3	47.3	64.7
Diagnostic ultrasound . . . . .	204	756	963	930	1.6	5.4	6.6	6.3
Computerized axial tomography (CAT scan) . . . . .	154	707	838	798	1.2	4.9	5.6	5.3
Angiocardigraphy using contrast material . . . . .	84	219	439	432	0.7	1.6	3.1	3.0
Radioisotope scan . . . . .	289	463	390	347	2.1	3.2	2.6	2.3
Endoscopy of small intestine . . . . .	164	281	279	291	1.3	2.0	1.8	1.9
Endoscopy of large intestine . . . . .	307	331	238	255	2.3	2.3	1.5	1.6
Cystoscopy . . . . .	324	184	143	131	2.6	1.3	1.0	0.9
Laparoscopy (excluding that for ligation and division of fallopian tubes) . . . . .	235	209	133	125	1.8	1.5	0.9	0.9

See footnotes at end of table.

**Table 78 (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, 1985, 1988, and 1989**

[Data are based on a sample of hospital records]

Sex, age, and procedure category	Procedures in thousands				Procedures per 1,000 population			
	1980	1985	1988 <sup>1</sup>	1989 <sup>1,2</sup>	1980	1985	1988 <sup>1</sup>	1989 <sup>1,2</sup>
Female—Con.								
Under 15 years <sup>2,4</sup> . . . . .	191	256	356	418	7.6	10.1	13.8	15.9
Spinal tap . . . . .	26	50	70	75	1.0	2.0	2.7	2.9
Diagnostic ultrasound . . . . .	*5	25	45	33	*0.2	1.0	1.7	1.3
Computerized axial tomography (CAT scan) . . . . .	*10	33	39	37	*0.4	1.3	1.5	1.4
Electroencephalogram . . . . .	*	15	19	14	*	0.6	0.7	0.5
Application of cast or splint . . . . .	13	6	9	*7	0.5	0.2	0.3	*0.3
Radioisotope scan . . . . .	*6	*8	6	*6	*0.2	*0.3	0.2	*0.2
Cystoscopy . . . . .	38	*8	*5	*	1.5	*0.3	*0.2	*
15–44 years <sup>2,4</sup> . . . . .	1,203	1,606	1,643	3,850	22.7	28.4	28.3	66.1
Diagnostic ultrasound . . . . .	94	283	365	348	1.8	5.0	6.3	6.0
Computerized axial tomography (CAT scan) . . . . .	36	137	156	157	0.7	2.4	2.7	2.7
Laparoscopy (excluding that for ligation and division of fallopian tubes) . . . . .	214	197	124	118	4.1	3.5	2.1	2.0
Biliary tract X-ray . . . . .	60	90	109	94	1.1	1.6	1.9	1.6
Radioisotope scan . . . . .	49	83	62	60	0.9	1.5	1.1	1.0
Contrast myelogram . . . . .	66	96	57	46	1.2	1.7	1.0	0.8
Cystoscopy . . . . .	97	51	44	38	1.8	0.9	0.8	0.7
Endoscopy of large intestine . . . . .	77	58	29	41	1.5	1.0	0.5	0.7
45–64 years <sup>2,4</sup> . . . . .	1,030	1,584	1,711	1,771	44.2	67.5	71.4	73.3
Angiocardiology using contrast material . . . . .	49	105	189	173	2.1	4.5	7.9	7.2
Computerized axial tomography (CAT scan) . . . . .	42	167	188	176	1.8	7.1	7.8	7.3
Diagnostic ultrasound . . . . .	44	154	176	190	1.9	6.6	7.3	7.9
Radioisotope scan . . . . .	92	128	113	99	3.9	5.5	4.7	4.1
Endoscopy of small intestine . . . . .	55	78	68	67	2.3	3.3	2.8	2.8
Endoscopy of large intestine . . . . .	94	89	54	58	4.0	3.8	2.3	2.4
Cystoscopy . . . . .	93	48	33	37	4.0	2.1	1.4	1.5
65 years and over <sup>2,4</sup> . . . . .	1,107	2,626	3,192	3,431	72.1	154.4	177.2	187.0
Computerized axial tomography (CAT scan) . . . . .	66	370	455	428	4.3	21.8	25.3	23.3
Diagnostic ultrasound . . . . .	62	294	377	359	4.0	17.3	20.9	19.6
Angiocardiology using contrast material . . . . .	21	90	209	220	1.4	5.3	11.6	12.0
Radioisotope scan . . . . .	143	244	209	182	9.3	14.4	11.6	9.9
Endoscopy of large intestine . . . . .	131	181	154	155	8.5	10.7	8.6	8.4
Cystoscopy . . . . .	96	77	61	51	6.2	4.5	3.4	2.8

<sup>1</sup>Comparisons of 1988 and later years 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>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 5 most common procedures in 1980 and 1988. 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 VIII.

SOURCE: Division of Health Care Statistics, National Center for Health Statistics: Data from the National Hospital Discharge Survey.

**Table 79. 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 1960–88**

[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
<b>Admissions</b>									
	Number in thousands								
All ownerships . . . . .	24,324	30,706	35,270	38,140	37,143	35,478	34,399	33,592	33,233
Federal . . . . .	1,354	1,454	1,751	1,942	1,941	1,977	1,988	1,959	1,753
Non-Federal . . . . .	22,970	29,252	33,519	36,198	35,202	33,501	32,410	31,633	31,480
Nonprofit . . . . .	16,788	20,948	23,735	25,576	25,246	24,188	23,492	22,946	22,946
Proprietary . . . . .	1,550	2,031	2,646	3,165	3,314	3,242	3,231	3,157	3,090
State-local government . . . . .	4,632	6,273	7,138	7,458	6,642	6,071	5,687	5,530	5,444
<b>Size of hospital:</b>									
6–99 beds . . . . .	---	---	5,639	5,436	4,676	4,311	4,066	3,968	3,871
100–199 beds . . . . .	---	---	7,276	7,452	6,919	6,713	6,503	6,244	6,196
200–299 beds . . . . .	---	---	6,287	6,789	6,636	6,484	6,514	6,403	6,480
300–499 beds . . . . .	---	---	8,795	10,137	10,250	9,620	9,220	9,016	8,885
500 beds or more . . . . .	---	---	7,274	8,327	8,661	8,348	8,094	7,961	7,802
<b>Average length of stay</b>									
	Number of days								
All ownerships . . . . .	8.4	8.7	8.0	7.8	7.5	7.3	7.3	7.4	7.5
Federal . . . . .	21.4	17.0	14.4	12.9	11.9	11.6	11.3	11.3	12.5
Non-Federal . . . . .	7.6	8.2	7.7	7.6	7.3	7.1	7.1	7.2	7.2
Nonprofit . . . . .	7.4	8.2	7.8	7.7	7.4	7.2	7.2	7.2	7.2
Proprietary . . . . .	5.7	6.8	6.6	6.5	6.3	6.1	6.1	6.3	6.2
State-local government . . . . .	8.8	8.7	7.6	7.4	7.3	7.2	7.4	7.6	7.6
<b>Size of hospital:</b>									
6–99 beds . . . . .	---	---	6.5	6.3	6.2	6.0	6.2	6.4	6.5
100–199 beds . . . . .	---	---	7.2	7.1	6.9	6.7	6.7	6.9	6.9
200–299 beds . . . . .	---	---	7.6	7.5	7.1	6.9	6.9	7.0	7.1
300–499 beds . . . . .	---	---	8.2	8.0	7.6	7.3	7.3	7.3	7.4
500 beds or more . . . . .	---	---	10.2	9.6	9.1	8.8	8.8	8.8	9.0
<b>Outpatient visits<sup>1</sup></b>									
	Number in thousands								
All ownerships . . . . .	---	173,058	245,938	255,320	267,868	272,833	285,216	300,960	326,575
Federal . . . . .	---	39,514	49,627	48,568	51,394	50,059	50,946	53,256	55,139
Non-Federal . . . . .	---	133,545	196,311	206,752	216,474	222,773	234,270	247,704	271,436
Nonprofit . . . . .	---	90,992	132,368	142,864	153,928	160,002	168,284	178,089	195,864
Proprietary . . . . .	---	4,698	7,713	9,696	11,090	12,378	14,896	16,566	17,926
State-local government . . . . .	---	37,854	56,230	54,192	51,457	50,394	51,091	53,049	57,646
<b>Size of hospital:</b>									
6–99 beds . . . . .	---	---	41,346	41,875	39,614	41,813	43,111	48,273	52,294
100–199 beds . . . . .	---	---	40,433	45,686	48,280	50,542	56,005	57,267	63,663
200–299 beds . . . . .	---	---	38,122	41,119	43,784	45,805	46,783	50,626	56,570
300–499 beds . . . . .	---	---	63,019	65,550	70,295	68,664	69,883	73,369	78,569
500 beds or more . . . . .	---	---	63,019	61,089	65,896	66,008	69,434	71,426	75,480
<b>Outpatient surgery</b>									
	Percent of total surgeries								
All ownerships . . . . .	---	---	---	16.4	27.8	34.5	40.3	44.2	46.9
Federal . . . . .	---	---	---	18.9	28.3	34.0	40.6	49.3	49.0
Non-Federal . . . . .	---	---	---	16.3	27.8	34.5	40.3	43.9	46.8
Nonprofit . . . . .	---	---	---	17.1	28.8	35.5	40.8	44.3	47.0
Proprietary . . . . .	---	---	---	14.3	26.0	34.1	41.9	47.3	50.5
State-local government . . . . .	---	---	---	13.6	23.9	29.7	37.0	39.3	43.1
<b>Size of hospital:</b>									
6–99 beds . . . . .	---	---	---	17.8	29.6	36.5	44.6	49.4	52.8
100–199 beds . . . . .	---	---	---	15.4	28.1	36.4	43.0	47.1	50.2
200–299 beds . . . . .	---	---	---	16.7	29.3	36.5	41.8	45.7	49.3
300–499 beds . . . . .	---	---	---	17.1	28.5	34.5	40.0	43.1	46.6
500 beds or more . . . . .	---	---	---	15.3	24.9	30.5	35.3	39.1	39.5

<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.

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, 1985–90 Editions. Chicago, 1976, 1981, 1985–90. (Copyrights 1961, 1971, 1976, 1981, 1985–89: Used with the permission of the American Hospital Association.)

**Table 80. 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 81. 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
Continence										
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 82. 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>3,4,6</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 83. 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 84. 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 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
Number in thousands									
Both sexes									
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
Rate per 100,000 civilian population									
Both sexes									
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									
Rate per 100,000 civilian population									
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: Survey and Reports Branch, Division of Biometry and Applied Sciences, 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; Unpublished data.

**Table 85. Admissions to selected inpatient psychiatric organizations, according to selected primary diagnoses and age: United States, 1975, 1980, and 1986**

[Data are based on a 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 IX.

SOURCES: Survey and Reports Branch, Division of Biometry and Applied Sciences, 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; Unpublished data.

**Table 86. Persons employed in health service sites: United States, selected years 1970–89**

[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
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
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
Offices of physicians . . . . .	477	618	777	898	888	896	894	896	950	985	1,039
Offices of dentists . . . . .	222	331	415	415	441	468	480	497	552	521	560
Offices of chiropractors <sup>2</sup> . . . . .	19	30	40	53	54	61	59	66	72	77	97
Hospitals . . . . .	2,690	3,441	4,036	4,341	4,348	4,288	4,269	4,368	4,444	4,520	4,568
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
Other health service sites . . . . .	330	634	872	886	801	859	899	963	1,123	1,211	1,325
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
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
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
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
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
Hospitals . . . . .	63.4	57.9	55.0	55.6	55.2	54.0	54.0	53.7	52.4	51.5	50.1
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
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

<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 1983–90. 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, and Vol. 37, No. 1. Washington. U.S. Government Printing Office, Jan. 1983–90; American Chiropractic Association: Unpublished data.

**Table 87 (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, and 1987**

Geographic division and State	Doctors of medicine <sup>2</sup>								
	Total physicians <sup>1</sup>			Patient care <sup>3</sup>			Primary care <sup>4</sup>		
	1975	1985	1987	1975	1985	1987	1975	1985	1987
	Number per 10,000 civilian population								
United States . . . . .	15.3	20.7	21.4	13.5	18.0	18.9	4.1	5.4	5.5
New England . . . . .	19.1	26.7	27.7	16.9	22.9	24.2	4.6	6.2	6.2
Maine . . . . .	12.8	18.7	19.3	10.7	15.6	16.0	3.8	5.4	5.4
New Hampshire . . . . .	14.3	18.1	18.5	13.1	16.7	17.2	4.6	5.6	5.7
Vermont . . . . .	18.2	23.8	24.5	15.5	20.3	21.5	5.2	6.5	6.6
Massachusetts . . . . .	20.8	30.2	31.2	18.3	25.4	27.0	4.7	6.4	6.4
Rhode Island . . . . .	17.8	23.3	24.9	16.1	20.2	21.8	4.4	5.5	5.6
Connecticut . . . . .	19.8	27.6	29.0	17.7	24.3	25.7	4.7	6.4	6.5
Middle Atlantic . . . . .	19.5	26.1	27.3	17.0	22.2	23.6	4.5	5.9	6.0
New York . . . . .	22.7	29.0	30.1	20.2	25.2	26.9	5.1	6.3	6.3
New Jersey . . . . .	16.2	23.4	24.5	14.0	19.8	21.1	4.1	5.5	5.8
Pennsylvania . . . . .	16.6	23.6	24.8	13.9	19.2	20.4	4.0	5.4	5.5
East North Central . . . . .	13.9	19.3	19.9	12.0	16.4	17.1	3.7	5.0	5.1
Ohio . . . . .	14.1	19.9	20.6	12.2	16.8	17.5	3.7	4.8	4.8
Indiana . . . . .	10.6	14.7	15.4	9.6	13.2	14.0	3.8	4.6	4.7
Illinois . . . . .	14.5	20.5	21.1	13.1	18.2	18.9	4.1	5.5	5.7
Michigan . . . . .	15.4	20.8	21.3	12.0	16.0	16.4	3.2	4.5	4.4
Wisconsin . . . . .	12.5	17.7	18.4	11.4	15.9	16.7	4.0	5.4	5.6
West North Central . . . . .	13.3	18.3	19.1	11.4	15.6	16.4	3.8	5.2	5.3
Minnesota . . . . .	14.9	20.5	21.1	13.7	18.5	19.3	4.6	6.5	6.5
Iowa . . . . .	11.4	15.6	16.5	9.4	12.4	13.1	3.5	4.3	4.4
Missouri . . . . .	15.0	20.5	21.3	11.6	16.3	17.1	3.3	4.7	4.6
North Dakota . . . . .	9.7	15.8	16.7	9.2	14.9	15.8	4.1	5.8	6.0
South Dakota . . . . .	8.2	13.4	14.0	7.7	12.3	13.0	3.4	5.0	5.6
Nebraska . . . . .	12.1	15.7	16.7	10.9	14.4	15.5	4.2	5.3	5.4
Kansas . . . . .	12.8	17.3	17.8	11.2	15.1	15.7	3.9	5.2	5.1
South Atlantic . . . . .	14.0	19.7	20.8	12.6	17.6	18.6	3.7	5.2	5.4
Delaware . . . . .	14.3	19.7	20.2	12.7	17.1	17.7	3.8	4.7	4.7
Maryland . . . . .	18.6	30.4	31.5	16.5	24.9	26.7	4.2	6.5	6.8
District of Columbia . . . . .	39.6	55.3	57.2	34.6	45.6	47.5	7.2	10.3	10.6
Virginia . . . . .	12.9	19.5	20.1	11.9	17.8	18.6	3.8	5.4	5.6
West Virginia . . . . .	11.0	16.3	17.2	10.0	14.6	15.2	3.3	4.4	4.6
North Carolina . . . . .	11.7	16.9	17.7	10.6	15.0	16.1	3.5	4.7	4.9
South Carolina . . . . .	10.0	14.7	15.5	9.3	13.6	14.5	3.3	4.5	4.7
Georgia . . . . .	11.5	16.2	16.8	10.6	14.7	15.4	3.3	4.3	4.4
Florida . . . . .	15.2	20.2	21.1	13.4	17.8	18.7	3.9	5.3	5.6
East South Central . . . . .	10.5	15.0	15.9	9.7	14.0	14.9	3.2	4.5	4.7
Kentucky . . . . .	10.9	15.1	16.0	10.1	13.9	15.1	3.6	4.8	5.0
Tennessee . . . . .	12.4	17.7	18.6	11.3	16.2	17.3	3.2	4.7	4.9
Alabama . . . . .	9.2	14.2	15.0	8.6	13.1	14.0	3.0	4.2	4.4
Mississippi . . . . .	8.4	11.8	12.5	8.0	11.1	11.9	3.1	4.2	4.3
West South Central . . . . .	11.9	16.4	17.1	10.5	14.5	15.2	3.5	4.5	4.5
Arkansas . . . . .	9.1	13.8	14.4	8.5	12.8	13.5	3.4	4.8	4.9
Louisiana . . . . .	11.4	17.3	17.9	10.5	16.1	16.8	3.3	4.5	4.5
Oklahoma . . . . .	11.6	16.1	16.7	9.4	12.9	13.4	3.2	4.0	4.4
Texas . . . . .	12.5	16.8	17.3	11.0	14.7	15.3	3.6	4.5	4.5
Mountain . . . . .	14.3	17.8	18.5	12.6	15.7	16.3	4.1	5.0	5.2
Montana . . . . .	10.6	14.0	15.2	10.1	13.2	14.4	4.5	5.4	5.7
Idaho . . . . .	9.5	12.1	12.2	8.9	11.4	11.5	4.0	4.8	4.8
Wyoming . . . . .	9.5	12.9	13.3	8.9	12.0	12.6	4.1	4.6	5.1
Colorado . . . . .	17.3	20.7	21.0	15.0	17.7	18.3	4.6	5.6	5.6
New Mexico . . . . .	12.2	17.0	17.7	10.1	14.7	15.5	3.4	4.8	5.2
Arizona . . . . .	16.7	20.2	20.9	14.1	17.1	17.8	4.2	5.1	5.2
Utah . . . . .	14.1	17.2	17.7	13.0	15.5	16.1	3.8	4.4	4.5
Nevada . . . . .	11.9	16.0	16.1	10.9	14.5	14.7	3.6	4.6	4.7

See footnotes at end of table.

**Table 87 (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, and 1987**

Geographic division and State	Doctors of medicine <sup>2</sup>								
	Total physicians <sup>1</sup>			Patient care <sup>3</sup>			Primary care <sup>4</sup>		
	1975	1985	1987	1975	1985	1987	1975	1985	1987
	Number per 10,000 civilian population								
Pacific . . . . .	17.9	22.5	22.9	16.3	20.5	20.9	5.2	6.6	6.5
Washington . . . . .	15.3	20.2	20.8	13.6	17.9	18.5	4.7	6.3	6.4
Oregon . . . . .	15.6	19.7	20.0	13.8	17.6	18.1	4.6	6.1	6.0
California . . . . .	18.8	23.7	23.8	17.3	21.5	21.7	5.5	6.7	6.6
Alaska . . . . .	8.4	13.0	13.8	7.8	12.1	12.7	3.5	5.6	5.7
Hawaii . . . . .	16.2	21.5	22.5	14.7	19.8	20.7	4.9	7.0	7.1

<sup>1</sup>Includes active non-Federal doctors of medicine and doctors of osteopathy in all other specialties not shown separately.

<sup>2</sup>Excludes doctors of osteopathy; States with large numbers are Florida, Michigan, Missouri, New Jersey, Ohio, Pennsylvania, and Texas.

<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.

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, and unpublished data; 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.

**Table 88. Active physicians, according to type of physician, and number per 10,000 population: United States and outlying U.S. areas, selected 1950–88 estimates and 1990 and 2000 projections**

[Data are based on reporting by physicians and medical schools]

Year	<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.....	573,600	548,300	25,300	23.3
Projections				
1990.....	601,100	573,300	27,800	24.0
2000.....	721,600	682,100	39,500	26.9

NOTES: 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 1990 and 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. 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 89. Physicians, according to activity and place of medical education: United States and outlying U.S. areas, selected years 1970–87**

[Data are based on reporting by physicians]

Activity and place of medical education	1970	1975	1980	1985	1986	1987
	Number of physicians					
Doctors of medicine . . . . .	334,028	393,742	467,679	552,716	569,160	585,597
Professionally active . . . . .	310,845	340,280	414,916	497,140	505,750	521,328
Place of medical education:						
U.S. medical graduates . . . . .	256,427	---	333,325	392,007	398,314	410,300
Foreign medical graduates <sup>1</sup> . . . . .	54,418	---	81,591	105,133	107,436	111,028
Activity:						
Non-Federal . . . . .	281,344	312,089	397,129	475,573	483,812	499,582
Patient care . . . . .	255,027	287,837	361,915	431,527	436,877	453,230
Office-based practice . . . . .	188,924	213,334	271,268	329,041	325,757	337,507
General and family practice . . . . .	50,816	46,347	47,772	53,862	53,622	55,117
Cardiovascular diseases . . . . .	3,882	5,046	6,725	9,054	9,413	9,925
Dermatology . . . . .	2,932	3,442	4,372	5,325	5,354	5,532
Gastroenterology . . . . .	1,112	1,696	2,735	4,135	4,409	4,764
Internal medicine . . . . .	22,950	28,188	40,514	52,712	52,287	55,452
Pediatrics . . . . .	10,310	12,687	17,436	22,392	22,530	23,370
Pulmonary diseases . . . . .	785	1,166	2,040	3,035	3,188	3,474
General surgery . . . . .	18,068	19,710	22,409	24,708	23,542	23,689
Obstetrics and gynecology . . . . .	13,847	15,613	19,503	23,525	23,580	24,271
Ophthalmology . . . . .	7,627	8,795	10,598	12,212	12,134	12,538
Orthopedic surgery . . . . .	6,533	8,148	10,719	13,033	13,061	13,520
Otolaryngology . . . . .	3,914	4,297	5,262	5,751	5,768	6,022
Plastic surgery . . . . .	1,166	1,706	2,437	3,299	3,355	3,520
Urological surgery . . . . .	4,273	5,025	6,222	7,081	7,030	7,182
Anesthesiology . . . . .	7,369	8,970	11,336	15,285	15,310	15,986
Diagnostic radiology . . . . .	896	1,978	4,190	7,735	8,065	8,557
Emergency medicine . . . . .	---	---	---	---	7,277	7,564
Neurology . . . . .	1,192	1,862	3,245	4,691	4,797	5,087
Pathology, anatomical/clinical . . . . .	2,993	4,195	5,952	6,877	6,529	6,747
Psychiatry . . . . .	10,078	12,173	15,946	18,521	18,162	18,695
Radiology . . . . .	5,781	6,970	7,791	7,355	6,144	6,149
Other specialty . . . . .	12,400	15,320	24,064	28,453	20,200	20,346
Hospital-based practice . . . . .	66,103	74,503	90,647	102,486	111,120	115,723
Residents and interns . . . . .	45,840	53,527	59,615	72,159	77,618	79,483
Full-time hospital staff . . . . .	20,263	20,976	31,032	30,327	33,502	36,240
Other professional activity <sup>2</sup> . . . . .	26,317	24,252	35,214	44,046	46,935	46,352
Federal . . . . .	29,501	28,191	17,787	21,567	21,938	21,746
Patient care . . . . .	23,508	24,100	14,597	17,293	16,985	16,902
Office-based practice . . . . .	3,515	2,095	732	1,156	1,221	1,149
Hospital-based practice . . . . .	19,993	22,005	13,865	16,137	15,764	15,753
Residents and interns . . . . .	5,388	4,275	2,427	3,252	2,858	2,717
Full-time hospital staff . . . . .	14,605	17,730	11,438	12,885	12,906	13,036
Other professional activity <sup>2</sup> . . . . .	5,993	4,091	3,190	4,274	4,953	4,844
Inactive . . . . .	19,621	21,449	25,744	38,646	46,835	48,042
Not classified <sup>3</sup> . . . . .	358	26,145	20,629	13,950	13,661	13,364
Unknown address . . . . .	3,204	5,868	6,390	2,980	2,914	2,863

<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: Numbers in this table differ from previous editions; data are now included for Puerto Rico, Virgin Islands, Guam and other outlying areas. Data for 1970–86 are as of December 31. Data for 1987 are as of January 1, 1988

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; Unpublished data. (Copyrights 1971, 1976, 1982, and 1986–87: Used with the permission of the American Medical Association)

**Table 90. Active health personnel and number per 100,000 population, according to occupation and geographic region: United States, 1970, 1980, and 1988**

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 . . . . .	---	---	---	---	---	---
Non-Federal . . . . .	290,862	142.7	185.0	127.5	114.8	158.2
Doctors of medicine <sup>2</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>3</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 . . . . .	17,548	7.8	---	---	---	---
Non-Federal . . . . .	409,480	182.0	224.5	165.2	157.0	200.0
Doctors of medicine <sup>2</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>3</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
1988						
Physicians . . . . .	539,228	223.0	---	---	---	---
Federal <sup>4</sup> . . . . .	21,746	9.0	---	---	---	---
Non-Federal . . . . .	517,482	214.0	274.5	197.2	187.4	217.7
Doctors of medicine <sup>2,4</sup> . . . . .	493,743	204.3	262.1	181.4	181.2	212.0
Doctors of osteopathy . . . . .	23,739	9.7	12.4	15.8	6.2	5.7
Dentists <sup>3</sup> . . . . .	142,200	58.0	---	---	---	---
Optometrists . . . . .	26,100	10.6	---	---	---	---
Pharmacists . . . . .	157,800	63.8	---	---	---	---
Podiatrists . . . . .	11,500	4.7	---	---	---	---
Registered nurses . . . . .	1,648,000	670.4	844.5	726.3	560.4	614.3
Associate and diploma <sup>5</sup> . . . . .	1,054,300	433.2	550.2	484.9	364.9	368.3
Baccalaureate <sup>5</sup> . . . . .	468,860	192.6	236.1	197.6	158.9	199.6
Masters and doctorate <sup>5</sup> . . . . .	103,810	42.6	58.9	40.9	33.8	43.2
Veterinarians . . . . .	47,500	19.2	---	---	---	---

<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>Excludes physicians not classified according to activity status.

<sup>3</sup>Excludes dentists in military service.

<sup>4</sup>Doctors of medicine data are as of January 1, 1988.

<sup>5</sup>Data are for 1987.

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 1988. Rockville, Md., 1988; 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, Rockville, Md., 1990; Unpublished data.

**Table 91. Full-time equivalent employment in selected occupations for community hospitals: United States, 1981 and 1985–88**

[Data are based on reporting by a census of registered hospitals]

Occupation	1981	1985	1986	1987	1988	Average annual percent change	
						1981–85	1985–88
All hospital personnel <sup>1</sup> . . . . .	3,069,955	3,024,929	3,055,071	3,143,077	3,231,745	-0.4	2.2
Administrators and assistant administrators . . . . .	26,734	30,174	32,990	32,978	35,715	3.1	5.8
Registered nurses . . . . .	629,354	709,253	736,253	758,976	770,613	3.0	2.8
Licensed practical nurses . . . . .	234,226	186,780	174,154	170,433	170,637	-5.5	-3.0
Ancillary nursing personnel . . . . .	280,614	235,853	226,821	234,162	244,297	-4.3	1.2
Medical record administrators and technicians . . . . .	38,186	41,199	44,057	45,064	46,937	1.9	4.4
Licensed pharmacists and pharmacy technicians . . . . .	47,053	52,973	54,679	57,297	58,759	3.0	3.5
Medical technologists and other laboratory personnel . . . . .	147,451	144,831	145,622	146,183	148,635	-0.4	0.9
Dietitians and dietetic technicians . . . . .	40,192	33,305	34,241	34,539	35,126	-4.6	1.8
Radiologic service personnel . . . . .	90,738	91,353	94,683	97,944	101,098	0.2	3.4
Occupational therapists and recreational therapists . . . . .	8,481	10,030	11,210	12,331	13,133	4.3	9.4
Physical therapists and physical therapy assistants and aides . . . . .	27,675	29,064	30,216	31,692	32,680	1.2	4.0
Speech pathologists and audiologists . . . . .	2,463	3,253	3,776	4,035	4,346	7.2	10.1
Respiratory therapists and respiratory therapy technicians . . . . .	47,312	51,056	52,751	54,103	55,690	1.9	2.9
Medical social workers . . . . .	13,915	15,192	16,042	17,747	18,685	2.2	7.1
Total trainee personnel <sup>2</sup> . . . . .	66,906	63,367	67,366	65,284	67,587	-1.3	2.2

<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, 1985, 1986, 1987, and 1988 Annual Survey of Hospitals.

**Table 92 (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>	1978	1984 <sup>1</sup>	1986	1988 <sup>2</sup>	1978	1984 <sup>1</sup>	1986	1988 <sup>2</sup>
<b>All organizations</b>								
	Number				Percent distribution			
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 92 (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 93. First-year enrollment and graduates of health professions schools and number of schools, according to profession: United States, selected 1950–89 estimates and 1990 and 2000 projections**

[Data are based on reporting by health professions schools]

Year	Medicine	Osteopathy	Nursing <sup>1</sup>	Dentistry	Optometry	Pharmacy	Chiropractic
<b>First-year enrollment</b>							
1980.....	17,014	1,426	105,952	6,132	1,202	8,035	---
1981.....	17,204	1,496	110,201	6,030	1,258	7,551	---
1982.....	17,320	1,582	115,279	5,855	1,249	6,899	---
1983.....	17,230	1,682	120,579	5,498	1,147	6,574	---
1984.....	17,175	1,746	123,824	5,274	1,219	6,715	---
1985.....	16,992	1,750	118,224	5,047	1,187	6,849	---
1986.....	16,929	1,737	100,791	4,843	1,251	7,084	---
1987.....	16,779	1,724	90,693	4,554	1,234	7,632	---
1988.....	16,686	1,692	94,269	4,370	1,268	7,864	---
1989.....	16,781	1,780	---	4,196	1,271	8,067	---
<b>Graduates</b>							
1950.....	5,553	373	25,790	2,565	961	---	---
1960.....	7,081	427	29,895	3,253	364	3,497	660
1970.....	8,367	432	43,103	3,749	445	4,758	642
1975.....	12,714	702	73,915	4,969	806	6,712	1,093
1980.....	15,135	1,059	75,523	5,256	1,073	7,278	2,049
1981.....	15,667	1,151	73,985	5,550	1,092	7,362	2,526
1982.....	15,985	1,017	74,052	5,371	1,106	6,859	2,631
1983.....	15,824	1,317	77,408	5,756	1,166	6,374	2,948
1984.....	16,327	1,287	80,312	5,337	1,188	5,963	---
1985.....	16,319	1,474	82,075	5,353	1,114	5,724	---
1986.....	16,125	1,560	77,027	4,957	1,085	5,800	---
1987.....	15,836	1,587	70,561	4,717	1,081	5,854	---
1988.....	15,887	1,572	64,839	4,581	1,106	6,184	2,797
1989 <sup>2</sup> .....	15,646	1,617	---	---	---	---	---
1990 <sup>3</sup> .....	16,362	1,598	61,700	3,960	1,140	6,620	2,860
2000 <sup>3</sup> .....	15,774	1,557	66,600	3,790	1,200	7,120	2,950
<b>Schools<sup>4</sup></b>							
1950.....	79	6	1,304	42	10	---	20
1960.....	86	6	1,128	47	10	76	12
1970.....	103	7	1,340	53	11	74	11
1975.....	114	9	1,362	59	12	73	12
1980.....	126	14	1,385	60	15	72	14
1981.....	126	15	1,401	60	16	72	16
1982.....	127	15	1,432	60	16	72	16
1983.....	127	15	1,466	60	16	72	17
1984.....	127	15	1,477	60	16	72	17
1985.....	127	15	1,473	60	16	72	17
1986.....	127	15	1,469	59	16	73	17
1987.....	127	15	1,465	58	16	74	17
1988.....	127	15	1,442	58	16	74	17
1989.....	127	15	---	58	16	74	17

<sup>1</sup>Registered nurses only.

<sup>2</sup>Data for medicine are estimated.

<sup>3</sup>Projected.

<sup>4</sup>Some nursing schools offer more than 1 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; American Dental Association Council on Dental Education: Annual Report on Dental Education 1988–89. Chicago, 1989; American Medical Association: Medical education in the United States. JAMA. Vol. 262, No. 8. August 25, 1989; American Association of Colleges of Osteopathic Medicine: Annual Statistical Report 1989. Rockville, Md., 1989; American Chiropractic Association: Unpublished data.

**Table 94 (page 1 of 2). First-year and total enrollment of minorities in schools for selected health occupations, according to race/ethnicity: United States, academic years 1978–79 and 1988–89**

Occupation and race/ethnicity	First-year enrollment				Total enrollment			
	1978–79 <sup>1</sup>	1988–89 <sup>2</sup>	1978–79 <sup>1</sup>	1988–89 <sup>2</sup>	1978–79	1988–89 <sup>2</sup>	1978–79	1988–89 <sup>2</sup>
<b>Allopathic medicine</b>								
	Number of students		Percent of students		Number of students		Percent of students	
All races <sup>3</sup> . . . . .	16,501	16,868	100.0	100.0	62,213	65,300	100.0	100.0
Non-Hispanic white . . . . .	14,048	12,386	85.1	73.4	53,720	50,366	86.3	77.1
Non-Hispanic black . . . . .	1,061	1,210	6.4	7.2	3,537	3,995	5.7	6.1
Hispanic . . . . .	665	949	4.0	5.6	2,265	3,566	3.6	5.5
Mexican American . . . . .	260	295	1.6	1.7	882	1,128	1.4	1.7
Mainland Puerto Rican . . . . .	75	127	0.5	0.8	277	438	0.4	0.7
Other Hispanic . . . . .	330	527	2.0	3.1	1,106	2,000	1.8	3.1
American Indian . . . . .	47	76	0.3	0.5	202	237	0.3	0.4
Asian . . . . .	452	2,100	2.7	12.4	1,592	6,595	2.6	10.1
<b>Osteopathic medicine</b>								
All races . . . . .	1,322	1,780	100.0	100.0	4,221	6,614	100.0	100.0
Non-Hispanic white <sup>3</sup> . . . . .	1,248	1,469	94.4	82.5	4,029	5,801	95.5	87.7
Non-Hispanic black . . . . .	31	85	2.3	4.8	87	159	2.1	2.4
Hispanic . . . . .	17	81	1.3	4.6	36	240	0.9	3.6
American Indian . . . . .	10	8	0.8	0.4	24	33	0.6	0.5
Asian . . . . .	16	137	1.2	7.7	45	381	1.1	5.8
<b>Podiatry</b>								
All races . . . . .	718	595	100.0	100.0	2,498	2,608	100.0	100.0
Non-Hispanic white <sup>3</sup> . . . . .	641	453	89.3	76.1	2,335	2,102	93.5	80.6
Non-Hispanic black . . . . .	41	71	5.7	11.9	77	236	3.1	9.0
Hispanic . . . . .	8	24	1.1	4.0	27	95	1.1	3.6
American Indian . . . . .	2	2	0.3	0.3	8	5	0.3	0.2
Asian . . . . .	26	40	3.6	6.7	51	156	2.0	6.0
<b>Dentistry<sup>4</sup></b>								
All races . . . . .	6,235	4,148	100.0	100.0	22,179	17,094	100.0	100.0
Non-Hispanic white <sup>3</sup> . . . . .	5,554	2,842	89.1	68.5	19,914	12,683	89.8	74.2
Non-Hispanic black . . . . .	280	288	4.5	6.9	977	984	4.4	5.8
Hispanic . . . . .	122	316	2.0	7.6	414	1,038	1.9	6.1
American Indian . . . . .	16	21	0.3	0.5	64	63	0.3	0.4
Asian . . . . .	263	681	4.2	16.4	810	2,326	3.7	13.6
<b>Optometry</b>								
All races . . . . .	1,180	1,271	100.0	100.0	4,436	4,509	100.0	100.0
Non-Hispanic white <sup>3</sup> . . . . .	---	---	---	---	4,131	3,821	93.1	84.7
Non-Hispanic black . . . . .	---	---	---	---	62	117	1.4	2.6
Hispanic . . . . .	---	---	---	---	66	139	1.5	3.1
American Indian . . . . .	---	---	---	---	11	22	0.2	0.5
Asian . . . . .	---	---	---	---	166	410	3.7	9.1
<b>Pharmacy<sup>5</sup></b>								
All races . . . . .	8,127	7,309	100.0	100.0	23,078	21,418	100.0	100.0
Non-Hispanic white <sup>3</sup> . . . . .	7,275	5,948	89.5	81.4	20,815	16,589	90.2	77.5
Non-Hispanic black . . . . .	351	453	4.3	6.2	942	1,729	4.1	8.1
Hispanic . . . . .	156	280	1.9	3.8	376	1,055	1.6	4.9
American Indian . . . . .	11	16	0.1	0.2	34	45	0.1	0.2
Asian . . . . .	309	612	3.8	8.4	840	2,000	3.6	9.3
<b>Veterinary medicine</b>								
All races <sup>3</sup> . . . . .	2,086	2,195	100.0	100.0	7,312	8,558	100.0	100.0
Non-Hispanic white . . . . .	1,990	2,025	95.4	92.3	7,010	7,995	95.9	93.4
Non-Hispanic black . . . . .	---	64	---	2.9	---	200	---	2.3
Hispanic . . . . .	---	61	---	2.8	---	196	---	2.3
American Indian . . . . .	---	13	---	0.6	---	47	---	0.5
Asian . . . . .	---	28	---	1.3	---	94	---	1.1

See footnotes at end of table

**Table 94 (page 2 of 2). First-year and total enrollment of minorities in schools for selected health occupations, according to race/ethnicity: United States, academic years 1978–79 and 1988–89**

Occupation and race/ethnicity	First-year enrollment				Total enrollment			
	1978–79 <sup>1</sup>	1988–89 <sup>2</sup>	1978–79 <sup>1</sup>	1988–89 <sup>2</sup>	1978–79	1988–89 <sup>2</sup>	1978–79	1988–89 <sup>2</sup>
Registered nurses <sup>6</sup>	Number of students		Percent of students		Number of students		Percent of students	
All races <sup>3</sup> . . . . .	107,476	94,269	100.0	100.0	239,486	184,924	100.0	100.0
Non-Hispanic white . . . . .	96,406	78,526	89.7	83.3	219,369	155,890	91.6	84.3
Non-Hispanic black . . . . .	7,295	8,707	6.8	9.2	12,630	16,732	5.3	9.0
Hispanic . . . . .	1,664	2,606	1.5	2.8	3,079	4,392	1.3	2.4
American Indian . . . . .	---	583	---	0.6	---	876	---	0.5
Asian . . . . .	---	1,817	---	1.9	---	3,613	---	2.0

<sup>1</sup>First-year enrollments for podiatry are for 1979–80.

<sup>2</sup>First-year enrollments for pharmacy and registered nurse students and total enrollments for optometry and pharmacy students are for 1987–88.

<sup>3</sup>Includes race/ethnicity unspecified.

<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. Forthcoming; Association of American Medical Colleges, Section for Student Services: Unpublished data; American Association of Colleges of Osteopathic Medicine: Annual Statistical Report, 1989. Rockville, Md., 1989; National League for Nursing: Nursing Student Census, 1989. 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.

**Table 95. First-year and total enrollment of women in schools for selected health occupations, according to race/ethnicity: United States, academic years 1971–72, 1978–79, and 1988–89**

Enrollment, occupation, and race/ethnicity	Both sexes			Women		
	1971–72 <sup>1</sup>	1978–79	1988–89 <sup>2</sup>	1971–72 <sup>1</sup>	1978–79	1988–89 <sup>2</sup>
<b>First-year enrollment</b>	<b>Number of students</b>			<b>Percent of students</b>		
Allopathic medicine <sup>3</sup> . . . . .	12,361	16,501	16,868	13.7	25.2	37.1
Non-Hispanic white . . . . .	---	14,048	12,386	---	23.5	35.1
Non-Hispanic black . . . . .	881	1,061	1,210	22.7	41.9	55.2
Hispanic . . . . .	---	665	949	---	31.7	38.4
Mexican American . . . . .	118	260	295	8.5	25.4	40.7
Mainland Puerto Rican . . . . .	40	75	127	15.0	42.7	46.5
Other Hispanic . . . . .	---	330	527	---	34.2	35.1
American Indian . . . . .	23	47	76	34.8	25.5	55.3
Asian . . . . .	217	452	2,100	19.4	29.4	37.3
Osteopathic medicine . . . . .	670	1,322	1,780	4.3	16.8	32.1
Dentistry <sup>3</sup> . . . . .	4,705	6,235	4,148	3.1	15.9	33.0
Optometry . . . . .	906	1,180	1,271	5.3	19.6	---
Pharmacy <sup>4</sup> . . . . .	6,532	8,127	7,309	25.8	43.6	59.2
Veterinary medicine . . . . .	1,453	2,086	2,195	15.3	36.7	58.9
Registered nurses . . . . .	93,344	107,476	94,269	94.5	95.3	93.8
<b>Total enrollment</b>						
Allopathic medicine <sup>3</sup> . . . . .	43,650	62,213	65,300	10.9	24.3	35.2
Non-Hispanic white . . . . .	---	53,720	50,366	---	22.9	33.5
Non-Hispanic black . . . . .	2,055	3,537	3,995	20.4	40.2	53.8
Hispanic . . . . .	---	2,265	3,566	---	28.0	36.4
Mexican American . . . . .	252	882	1,128	9.5	23.5	36.2
Mainland Puerto Rican . . . . .	76	277	438	17.1	36.1	39.3
Other Hispanic . . . . .	---	1,106	2,000	---	29.7	35.9
American Indian . . . . .	42	202	237	23.8	27.2	43.0
Asian . . . . .	647	1,592	6,595	17.9	29.3	36.2
Osteopathic medicine . . . . .	2,304	4,221	6,614	3.4	16.3	30.0
Podiatry . . . . .	1,268	2,498	2,608	1.2	10.7	25.7
Optometry . . . . .	3,094	4,436	4,509	---	---	39.3
Veterinary medicine . . . . .	5,149	7,312	8,558	11.5	33.8	57.2
Registered nurses . . . . .	211,239	239,486	184,924	95.5	95.3	93.8

<sup>1</sup>Total enrollments for registered nurse students are for 1972–73.

<sup>2</sup>First-year enrollments for pharmacy and registered nurse students and total enrollments for optometry and pharmacy students are for 1987–88.

<sup>3</sup>Excludes Puerto Rican schools

<sup>4</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. Forthcoming; Association of American Medical Colleges, Section for Student Services: Unpublished data; American Association of Colleges of Osteopathic Medicine: Annual Statistical Report, 1989. Rockville, Md., 1989; National League for Nursing: Nursing Student Census, 1989. 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

**Table 96. Short-stay hospitals, beds, and occupancy rates, according to type of ownership and size of hospital: United States, selected years 1960–88**

[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
Hospitals					Number				
All ownerships . . . . .	5,768	6,193	6,310	6,229	6,118	6,091	6,035	5,967	5,892
Federal . . . . .	361	334	331	325	304	307	307	308	313
Non-Federal . . . . .	5,407	5,859	5,979	5,904	5,814	5,784	5,728	5,659	5,579
Nonprofit . . . . .	3,291	3,386	3,364	3,339	3,366	3,364	3,338	3,289	3,256
Proprietary . . . . .	856	769	775	730	786	805	834	828	790
State-local government . . . . .	1,260	1,704	1,840	1,835	1,662	1,615	1,556	1,542	1,533
Size of hospital:									
6–99 beds . . . . .	---	---	3,196	2,953	2,769	2,751	2,732	2,736	2,694
100–199 beds . . . . .	---	---	1,413	1,436	1,436	1,458	1,445	1,408	1,391
200–299 beds . . . . .	---	---	701	742	764	765	781	776	779
300–499 beds . . . . .	---	---	651	724	761	736	706	686	671
500 beds or more . . . . .	---	---	349	374	388	381	371	361	357
Beds									
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
Federal . . . . .	96,394	87,492	89,049	88,144	82,415	84,612	85,071	84,523	84,419
Non-Federal . . . . .	639,057	848,232	946,976	992,020	1,019,751	1,003,138	981,540	961,490	949,462
Nonprofit . . . . .	445,753	591,937	658,948	692,929	716,869	707,806	689,685	673,308	668,101
Proprietary . . . . .	37,029	52,739	73,495	87,033	99,980	103,921	106,716	105,746	103,623
State-local government . . . . .	156,275	203,556	214,533	212,058	202,902	191,411	185,139	182,436	177,738
Size of hospital:									
6–99 beds . . . . .	---	---	165,148	155,259	148,882	147,703	146,202	145,541	143,006
100–199 beds . . . . .	---	---	201,587	203,023	202,855	206,029	204,139	198,777	196,555
200–299 beds . . . . .	---	---	171,057	180,047	184,450	185,033	189,017	188,294	189,236
300–499 beds . . . . .	---	---	247,410	276,201	289,737	279,700	266,477	258,841	253,110
500 beds or more . . . . .	---	---	250,823	265,634	276,242	269,285	260,776	254,560	251,974
Occupancy rate					Percent of beds occupied				
All ownerships . . . . .	75.7	77.9	75.0	75.6	69.5	65.5	64.9	65.5	65.9
Federal . . . . .	82.5	77.5	77.6	77.8	76.6	74.3	72.6	71.8	71.2
Non-Federal . . . . .	74.7	78.0	74.8	75.4	68.9	64.8	64.2	64.9	65.5
Nonprofit . . . . .	76.6	80.1	77.4	78.2	71.4	67.2	66.8	67.6	68.2
Proprietary . . . . .	65.4	72.2	65.9	65.2	57.0	52.1	50.7	51.1	50.9
State-local government . . . . .	71.6	73.2	69.7	70.7	65.9	62.8	62.6	63.1	63.8
Size of hospital:									
6–99 beds . . . . .	---	---	61.1	60.6	53.0	48.4	47.3	47.8	48.3
100–199 beds . . . . .	---	---	71.3	71.6	64.1	60.0	58.8	59.2	59.7
200–299 beds . . . . .	---	---	77.1	77.3	70.2	65.9	65.5	65.6	66.0
300–499 beds . . . . .	---	---	80.0	80.0	73.5	69.4	69.0	70.1	70.9
500 beds or more . . . . .	---	---	80.9	81.9	77.6	74.9	74.9	75.6	75.8

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, 1985–90 Editions. Chicago, 1976, 1981, 1985–90. (Copyrights 1961, 1971, 1976, 1981, 1985–89: Used with the permission of the American Hospital Association.)

**Table 97. Long-term hospitals, beds, and occupancy rates, according to type of hospital and ownership: United States, selected years 1970–88**

[Data are based on reporting by a census of registered hospitals]

Type of hospital and ownership	1970	1975	1980	1983	1984	1985	1986	1987	1988
<b>Hospitals</b>									
	Number								
General . . . . .	75	44	17	22	25	23	21	21	20
Federal . . . . .	38	23	9	13	15	14	13	13	10
Non-Federal . . . . .	37	21	8	9	10	9	8	8	10
Psychiatric . . . . .	459	419	381	377	382	383	390	391	393
Federal . . . . .	33	26	23	22	19	19	18	18	17
Nonprofit . . . . .	56	45	47	50	54	57	55	51	53
Proprietary . . . . .	39	51	57	65	77	81	91	96	103
State–local government . . . . .	331	297	254	240	232	226	226	226	220
Tuberculosis and other respiratory diseases . . . . .	103	34	10	5	5	5	2	3	3
All other . . . . .	200	196	150	124	124	122	129	126	121
Federal . . . . .	1	2	1	2	3	3	4	3	2
Nonprofit . . . . .	110	94	66	58	61	59	61	58	55
Proprietary . . . . .	2	9	11	10	10	13	15	17	15
State–local government . . . . .	87	91	72	54	50	47	49	48	49
<b>Beds</b>									
General . . . . .	42,569	17,329	8,253	11,464	13,846	12,985	11,112	11,508	9,807
Federal . . . . .	31,403	14,406	7,205	9,978	11,994	10,073	9,079	9,232	7,449
Non-Federal . . . . .	11,166	2,923	1,048	1,486	1,852	2,912	2,033	2,276	2,358
Psychiatric . . . . .	551,847	344,257	218,400	183,843	171,367	162,968	157,378	150,727	143,853
Federal . . . . .	41,500	27,523	20,871	18,549	16,205	15,739	15,167	14,585	12,285
Nonprofit . . . . .	8,892	5,366	6,645	6,814	6,941	6,708	6,668	5,994	5,950
Proprietary . . . . .	3,399	4,821	5,877	7,214	8,458	8,832	9,270	9,786	10,014
State–local government . . . . .	498,056	306,547	185,007	151,266	139,763	131,689	126,273	120,362	115,604
Tuberculosis and other respiratory diseases . . . . .	19,937	5,699	1,500	547	664	574	183	339	312
All other . . . . .	49,152	49,268	37,911	29,578	30,124	29,519	29,614	27,541	26,013
Federal . . . . .	357	968	357	578	1,694	1,599	1,812	1,451	1,043
Nonprofit . . . . .	12,638	12,733	10,038	8,363	9,049	9,391	9,829	8,785	8,107
Proprietary . . . . .	101	879	1,356	1,213	1,067	1,364	1,844	1,681	1,472
State–local government . . . . .	36,056	34,688	26,160	19,424	18,314	17,165	16,129	15,624	15,391
<b>Occupancy rate</b>									
	Percent of beds occupied								
General . . . . .	79.2	84.4	83.9	85.3	83.9	80.2	79.1	76.5	78.3
Federal . . . . .	80.4	85.2	84.6	85.9	84.1	80.7	77.8	74.7	76.9
Non-Federal . . . . .	75.8	80.4	79.0	81.3	83.0	78.6	85.0	83.8	82.6
Psychiatric . . . . .	84.9	81.3	85.9	87.6	87.6	87.2	87.0	87.9	87.5
Federal . . . . .	83.4	88.3	87.9	86.8	86.9	83.5	79.6	83.1	84.5
Nonprofit . . . . .	85.2	84.8	87.2	87.2	86.8	86.5	85.5	81.7	78.9
Proprietary . . . . .	78.4	74.1	76.3	77.3	77.2	77.6	75.8	75.8	77.8
State–local government . . . . .	85.0	80.8	86.0	88.2	88.4	88.3	88.8	89.8	89.1
Tuberculosis and other respiratory diseases . . . . .	61.9	57.6	66.4	66.4	62.3	64.3	59.6	70.5	76.6
All other . . . . .	83.3	82.3	85.9	86.6	88.8	88.7	87.5	87.2	87.6
Federal . . . . .	73.4	86.3	65.3	79.4	84.4	81.9	80.1	82.2	83.9
Nonprofit . . . . .	82.8	83.3	87.3	89.3	90.0	89.9	88.4	87.9	89.2
Proprietary . . . . .	87.1	86.0	86.5	92.0	92.1	85.6	82.6	76.3	80.6
State–local government . . . . .	83.6	81.7	85.6	85.3	88.4	88.9	88.4	88.5	87.6

SOURCES: American Hospital Association: Hospitals. JAHA 45(15):463–467, Aug. 1971; Hospital Statistics, 1976, 1981, 1984–90 Editions. Chicago, 1976, 1981, 1984–90. (Copyrights 1971, 1976, 1981, 1984–89: Used with the permission of the American Hospital Association.)

**Table 98. 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 99 (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 1940–88**

[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	1986	1987	1988	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–88
United States . . . . .	3.2	3.3	3.6	4.3	4.5	4.2	4.1	4.0	3.9	0.6	1.8	0.5	-1.8
New England . . . . .	4.4	4.2	3.9	4.1	4.1	4.0	3.8	3.6	3.6	-0.6	0.5	0.0	-1.6
Maine . . . . .	3.0	3.2	3.4	4.7	4.7	4.2	4.2	4.0	3.9	0.6	3.3	0.0	-2.3
New Hampshire . . . . .	4.2	4.2	4.4	4.0	3.9	3.4	3.3	3.2	3.2	0.2	-0.9	-0.3	-2.4
Vermont . . . . .	3.3	4.0	4.5	4.5	4.4	3.8	4.0	3.3	3.1	1.6	0.0	-0.2	-4.3
Massachusetts . . . . .	5.1	4.8	4.2	4.4	4.4	4.4	4.3	4.0	4.0	-1.0	0.5	0.0	-1.2
Rhode Island . . . . .	3.9	3.8	3.7	4.0	3.8	3.6	3.5	3.4	3.3	-0.3	0.8	-0.5	-1.7
Connecticut . . . . .	3.7	3.6	3.4	3.4	3.5	3.3	3.1	3.0	3.0	-0.4	0.0	0.3	-1.9
Middle Atlantic . . . . .	3.9	3.8	4.0	4.4	4.6	4.4	4.3	4.2	4.1	0.1	1.0	0.4	-1.4
New York . . . . .	4.3	4.1	4.3	4.6	4.5	4.4	4.3	4.2	4.2	0.0	0.7	-0.2	-0.9
New Jersey . . . . .	3.5	3.2	3.1	3.6	4.2	3.9	3.9	3.8	3.7	-0.6	1.5	1.6	-1.6
Pennsylvania . . . . .	3.5	3.8	4.1	4.7	4.8	4.7	4.6	4.4	4.4	0.8	1.4	0.2	-1.1
East North Central . . . . .	3.2	3.2	3.6	4.4	4.7	4.5	4.3	4.2	4.1	0.6	2.0	0.7	-1.7
Ohio . . . . .	2.7	2.9	3.4	4.2	4.7	4.6	4.4	4.3	4.2	1.2	2.1	1.1	-1.4
Indiana . . . . .	2.3	2.6	3.1	4.0	4.5	4.2	4.2	4.1	4.1	1.5	2.6	1.2	-1.2
Illinois . . . . .	3.4	3.6	4.0	4.7	5.1	4.7	4.5	4.4	4.3	0.8	1.6	0.8	-2.1
Michigan . . . . .	4.0	3.3	3.3	4.3	4.4	4.1	4.0	3.9	3.8	-1.0	2.7	0.2	-1.8
Wisconsin . . . . .	3.4	3.7	4.3	5.2	4.9	4.6	4.5	4.2	4.0	1.2	1.9	-0.6	-2.5
West North Central . . . . .	3.1	3.7	4.3	5.7	5.8	5.4	5.3	5.2	5.1	1.6	2.9	0.2	-1.6
Minnesota . . . . .	3.9	4.4	4.8	6.1	5.7	5.2	5.0	4.8	4.8	1.0	2.4	-0.7	-2.1
Iowa . . . . .	2.7	3.2	3.9	5.6	5.7	5.2	5.2	5.2	5.2	1.9	3.7	0.2	-1.1
Missouri . . . . .	2.9	3.3	3.9	5.1	5.7	5.2	5.1	4.9	4.9	1.5	2.7	1.1	-1.9
North Dakota . . . . .	3.5	4.3	5.2	6.8	7.4	7.4	7.2	7.3	7.0	2.0	2.7	0.8	-0.7
South Dakota . . . . .	2.8	4.4	4.5	5.6	5.5	6.6	6.5	6.3	5.6	2.4	2.2	-0.2	0.2
Nebraska . . . . .	3.4	4.2	4.4	6.2	6.0	6.0	5.9	5.9	5.8	1.3	3.5	-0.3	-0.4
Kansas . . . . .	2.8	3.4	4.2	5.4	5.8	5.2	5.0	4.9	4.7	2.0	2.5	0.7	-2.6
South Atlantic . . . . .	2.5	2.8	3.3	4.0	4.5	4.1	4.0	3.9	3.8	1.4	1.9	1.2	-2.1
Delaware . . . . .	4.4	3.9	3.7	3.7	3.6	3.5	3.4	3.1	3.1	-0.9	0.0	-0.3	-1.9
Maryland . . . . .	3.9	3.6	3.3	3.1	3.6	3.4	3.3	3.0	2.9	-0.8	-0.6	1.5	-2.7
District of Columbia . . . . .	5.5	5.5	5.9	7.4	7.3	7.8	7.7	7.6	7.8	0.4	2.3	-0.1	0.8
Virginia . . . . .	2.2	2.5	3.0	3.7	4.1	3.8	3.7	3.6	3.5	1.6	2.1	1.0	-2.0
West Virginia . . . . .	2.7	3.1	4.1	5.4	5.5	5.1	5.1	4.8	4.7	2.1	2.8	0.2	-1.9
North Carolina . . . . .	2.2	2.6	3.4	3.8	4.2	3.7	3.5	3.4	3.4	2.2	1.1	1.0	-2.6
South Carolina . . . . .	1.8	2.4	2.9	3.7	3.9	3.6	3.4	3.4	3.3	2.4	2.5	0.5	-2.1
Georgia . . . . .	1.7	2.0	2.8	3.8	4.6	4.3	4.3	4.3	4.1	2.5	3.1	1.9	-1.4
Florida . . . . .	2.8	2.9	3.1	4.4	5.1	4.6	4.4	4.2	4.2	0.5	3.6	1.5	-2.4
East South Central . . . . .	1.7	2.1	3.0	4.4	5.1	5.0	5.0	4.9	4.7	2.9	3.9	1.5	-1.0
Kentucky . . . . .	1.8	2.2	3.0	4.0	4.5	4.4	4.4	4.5	4.3	2.6	2.9	1.2	-0.6
Tennessee . . . . .	1.9	2.3	3.4	4.7	5.5	5.3	5.3	5.0	4.8	3.0	3.3	1.6	-1.7
Alabama . . . . .	1.5	2.0	2.8	4.3	5.1	5.0	5.0	4.8	4.6	3.2	4.4	1.7	-1.3
Mississippi . . . . .	1.4	1.7	2.9	4.4	5.3	5.2	5.2	5.3	5.4	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	4.0	3.9	2.3	2.7	0.9	-2.3
Arkansas . . . . .	1.4	1.6	2.9	4.2	5.0	4.8	4.7	4.5	4.5	3.7	3.8	1.8	-1.3
Louisiana . . . . .	3.1	3.8	3.9	4.2	4.8	4.6	4.5	4.5	4.4	1.2	0.7	1.3	-1.1
Oklahoma . . . . .	1.9	2.5	3.2	4.5	4.6	4.1	4.0	4.0	4.0	2.6	3.5	0.2	-1.7
Texas . . . . .	2.0	2.7	3.3	4.3	4.7	4.1	3.8	3.7	3.7	2.5	2.7	0.9	-2.9
Mountain . . . . .	3.6	3.8	3.5	4.3	3.8	3.5	3.4	3.3	3.3	-0.1	2.1	-1.2	-1.7
Montana . . . . .	4.9	5.3	5.1	5.8	5.9	5.5	5.7	5.6	5.6	0.2	1.3	0.2	-0.7
Idaho . . . . .	2.6	3.4	3.2	4.0	3.7	3.5	3.3	3.2	3.2	1.0	2.3	-0.8	-1.8
Wyoming . . . . .	3.5	3.9	4.6	5.5	3.6	4.3	4.4	4.6	4.8	1.4	1.8	-4.1	3.7
Colorado . . . . .	3.9	4.2	3.8	4.6	4.2	3.6	3.5	3.3	3.3	-0.1	1.9	-0.9	-3.0
New Mexico . . . . .	2.7	2.2	2.9	3.5	3.1	2.9	2.9	2.8	2.8	0.4	1.9	-1.2	-1.3
Arizona . . . . .	3.4	4.0	3.0	4.1	3.6	3.2	3.1	3.0	2.9	-0.6	3.2	-1.3	-2.7
Utah . . . . .	3.2	2.9	2.8	3.6	3.1	2.7	2.7	2.7	2.7	-0.7	2.5	-1.5	-1.7
Nevada . . . . .	5.0	4.4	3.9	4.2	4.2	3.7	3.7	3.5	3.2	-1.2	0.7	0.0	-3.3

See footnotes at end of table.

**Table 99 (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 1940–88**

[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	1986	1987	1988	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–88
Pacific .....	4.1	3.2	3.1	3.7	3.5	3.2	3.1	3.0	2.9	-1.4	1.8	-0.6	-2.3
Washington .....	3.4	3.6	3.3	3.5	3.1	3.0	3.0	2.9	2.7	-0.1	0.6	-1.2	-1.7
Oregon .....	3.5	3.1	3.5	4.0	3.5	3.2	3.1	3.0	2.9	0.0	1.3	-1.3	-2.3
California .....	4.4	3.3	3.0	3.8	3.6	3.2	3.1	3.0	2.9	-1.9	2.4	-0.5	-2.7
Alaska .....	...	...	2.4	2.3	2.7	2.2	2.4	2.4	2.4	...	-0.4	1.6	-1.5
Hawaii .....	...	...	3.7	3.4	3.1	2.8	2.6	2.5	2.7	...	-0.8	-0.9	-1.7

<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 1988 annual survey; U.S. Bureau of the Census: Current Population Reports. Series P-25, Nos. 72, 304, 460, 640, 970, 1010, 1024, 1044, and 1058. Washington. U.S. Government Printing Office, 1953, 1965, 1971, 1976, 1980, 1985, 1986, 1989, and 1990.

**Table 100 (page 1 of 2). Occupancy rates in community hospitals and average annual percent change, according to geographic division and State: United States, selected years 1940–88**

[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	1986	1987	1988	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–88
United States . . . . .	69.9	74.7	77.3	75.2	65.1	64.5	65.0	65.7	0.3	0.3	-0.3	-1.7
New England . . . . .	72.5	75.2	79.7	80.1	72.8	69.7	71.9	73.6	0.2	0.6	0.1	-1.1
Maine . . . . .	72.4	73.2	73.0	74.5	66.8	67.0	68.0	70.8	0.1	-0.0	0.2	-0.6
New Hampshire . . . . .	65.3	66.5	73.4	73.2	63.4	65.0	64.9	65.7	0.1	1.0	-0.0	-1.3
Vermont . . . . .	68.8	68.5	76.3	73.7	68.0	67.6	67.1	66.8	-0.0	1.1	-0.3	-1.2
Massachusetts . . . . .	71.8	75.8	80.3	81.7	74.1	68.8	71.0	73.4	0.3	0.6	0.2	-1.3
Rhode Island . . . . .	77.7	75.7	82.9	85.9	76.2	75.0	80.5	83.2	-0.1	0.9	0.4	-0.4
Connecticut . . . . .	75.9	78.2	82.6	80.4	75.4	73.4	76.4	76.4	0.1	0.5	-0.3	-0.6
Middle Atlantic . . . . .	75.5	78.1	82.4	83.2	77.1	76.8	77.9	79.4	0.2	0.5	0.1	-0.6
New York . . . . .	78.9	79.4	82.9	85.9	83.9	82.1	83.4	85.4	0.0	0.4	0.4	-0.1
New Jersey . . . . .	72.4	78.4	82.5	82.8	74.8	74.9	76.8	78.2	0.4	0.5	0.0	-0.7
Pennsylvania . . . . .	71.3	76.0	81.5	79.5	68.7	70.2	70.7	71.3	0.3	0.7	-0.2	-1.4
East North Central . . . . .	71.0	78.4	79.5	76.9	64.2	62.9	62.9	63.8	0.5	0.1	-0.3	-2.3
Ohio . . . . .	72.1	81.3	81.8	79.2	63.9	63.8	64.4	65.5	0.6	0.1	-0.3	-2.3
Indiana . . . . .	68.5	79.6	80.3	77.6	61.6	57.8	58.0	58.3	0.8	0.1	-0.3	-3.5
Illinois . . . . .	73.1	76.0	79.3	74.9	64.4	64.1	63.2	63.1	0.2	0.4	-0.6	-2.1
Michigan . . . . .	71.5	80.5	80.6	78.2	67.4	64.3	64.7	66.2	0.6	0.0	-0.3	-2.1
Wisconsin . . . . .	65.2	73.9	73.2	73.6	61.8	61.1	61.1	63.5	0.6	-0.1	0.1	-1.8
West North Central . . . . .	65.7	71.8	73.6	71.2	60.3	60.0	60.4	60.9	0.4	0.2	-0.3	-1.9
Minnesota . . . . .	71.0	72.3	73.9	73.7	63.8	63.4	63.4	64.1	0.1	0.2	-0.0	-1.7
Iowa . . . . .	63.6	72.6	71.9	68.7	57.3	58.1	59.4	60.8	0.7	-0.1	-0.5	-1.5
Missouri . . . . .	68.6	75.8	79.3	75.1	63.0	62.9	63.0	61.9	0.5	0.5	-0.5	-2.4
North Dakota . . . . .	61.9	71.3	67.1	68.6	61.1	61.2	61.1	64.1	0.7	-0.6	0.2	-0.8
South Dakota . . . . .	59.1	66.0	66.3	60.6	57.5	56.6	57.7	59.4	0.6	0.0	-0.9	-0.2
Nebraska . . . . .	59.0	65.6	69.9	67.4	58.4	56.6	55.7	56.1	0.5	0.6	-0.4	-2.3
Kansas . . . . .	60.4	69.1	71.4	68.8	54.3	54.2	55.3	56.5	0.7	0.3	-0.4	-2.4
South Atlantic . . . . .	66.7	74.8	77.9	75.5	65.5	65.7	66.4	66.6	0.6	0.4	-0.3	-1.6
Delaware . . . . .	59.2	70.2	78.8	81.8	68.0	69.1	74.8	77.2	0.9	1.2	0.4	-0.7
Maryland . . . . .	74.6	73.9	79.3	84.0	73.5	73.3	77.6	77.8	-0.0	0.7	0.6	-1.0
District of Columbia . . . . .	76.2	80.8	77.7	83.0	75.9	76.6	78.2	75.9	0.3	-0.4	0.7	-1.1
Virginia . . . . .	70.0	78.0	81.1	77.8	67.2	67.6	67.6	67.3	0.5	0.4	-0.4	-1.8
West Virginia . . . . .	62.1	74.5	79.3	75.6	60.7	60.2	60.2	60.8	0.9	0.6	-0.5	-2.7
North Carolina . . . . .	64.6	73.9	78.5	77.8	64.9	67.1	69.0	71.3	0.7	0.6	-0.1	-1.1
South Carolina . . . . .	69.1	76.9	76.4	77.0	67.7	69.3	67.5	67.0	0.5	-0.1	0.1	-1.7
Georgia . . . . .	62.7	71.7	76.5	70.4	64.4	63.9	65.7	65.7	0.7	0.7	-0.8	-0.9
Florida . . . . .	57.5	73.9	76.2	71.7	62.5	62.1	61.5	61.5	1.3	0.3	-0.6	-1.9
East South Central . . . . .	62.6	71.8	78.2	74.6	62.7	61.8	60.8	61.2	0.7	0.9	-0.5	-2.4
Kentucky . . . . .	61.6	73.4	79.6	77.4	64.0	63.3	60.2	60.8	0.9	0.8	-0.3	-3.0
Tennessee . . . . .	65.5	75.9	78.2	75.9	64.6	63.2	64.3	64.8	0.7	0.3	-0.3	-2.0
Alabama . . . . .	59.0	70.8	80.0	73.3	62.3	61.5	59.3	60.1	0.9	1.2	-0.9	-2.5
Mississippi . . . . .	63.8	62.8	73.6	70.5	58.1	57.7	57.2	57.1	-0.1	1.6	-0.4	-2.6
West South Central . . . . .	62.5	68.7	73.2	69.7	56.9	56.3	55.9	55.9	0.5	0.6	-0.5	-2.7
Arkansas . . . . .	55.6	70.0	74.4	69.6	56.0	56.9	58.1	56.8	1.2	0.6	-0.7	-2.5
Louisiana . . . . .	75.0	67.9	73.6	69.7	58.6	58.1	55.9	55.8	-0.5	0.8	-0.5	-2.7
Oklahoma . . . . .	54.5	71.0	72.5	68.1	56.2	56.3	56.9	57.2	1.3	0.2	-0.6	-2.2
Texas . . . . .	59.6	68.2	73.0	70.1	56.6	55.7	55.3	55.5	0.7	0.7	-0.4	-2.9
Mountain . . . . .	60.9	69.9	71.2	69.6	58.6	58.3	58.7	59.7	0.7	0.2	-0.2	-1.9
Montana . . . . .	62.8	60.3	65.9	66.1	59.1	58.8	60.1	62.6	-0.2	0.9	0.0	-0.7
Idaho . . . . .	65.4	55.9	66.1	65.2	56.6	56.9	55.0	56.7	-0.8	1.7	-0.1	-1.7
Wyoming . . . . .	47.5	61.1	63.1	57.2	52.0	50.7	50.7	50.5	1.3	0.3	-1.0	-1.5
Colorado . . . . .	62.1	80.6	74.0	71.6	59.0	59.3	59.9	60.7	1.3	-0.9	-0.3	-2.0
New Mexico . . . . .	47.8	65.1	69.8	66.2	60.0	59.5	60.1	57.9	1.6	0.7	-0.5	-1.7
Arizona . . . . .	61.2	74.2	73.3	74.2	61.5	62.6	61.8	63.6	1.0	-0.1	0.1	-1.9
Utah . . . . .	65.8	70.0	73.7	70.0	58.7	58.0	57.4	56.6	0.3	0.5	-0.5	-2.6
Nevada . . . . .	67.9	70.7	72.7	68.8	52.6	47.1	52.4	55.9	0.2	0.3	-0.5	-2.6

See footnotes at end of table.

**Table 100 (page 2 of 2). Occupancy rates in community hospitals and average annual percent change, according to geographic division and State: United States, selected years 1940–88**

[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	1986	1987	1988	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–88
Pacific . . . . .	69.7	71.4	71.0	69.0	61.6	61.1	63.3	63.6	0.1	-0.1	-0.3	-1.0
Washington . . . . .	67.5	63.4	69.7	71.7	58.5	57.6	59.0	59.9	-0.3	1.0	0.3	-2.2
Oregon . . . . .	71.2	65.8	69.3	69.3	55.6	54.9	55.5	56.4	-0.4	0.5	0.0	-2.5
California . . . . .	69.9	74.3	71.3	68.5	62.3	61.9	64.3	64.4	0.3	-0.4	-0.4	-0.8
Alaska . . . . .	...	53.8	59.1	58.3	62.6	55.2	52.6	49.7	...	0.9	-0.1	-2.0
Hawaii . . . . .	...	61.5	75.7	74.7	76.4	74.4	79.9	83.5	...	2.1	-0.1	1.4

<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 1988 annual survey.

**Table 101 (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 1960–88**

[Data are based on reporting by facilities]

Geographic division and State	Employees per 100 average daily patients							Average annual percent change		
	1960 <sup>1</sup>	1970	1980	1985	1986	1987	1988	1960–70 <sup>1</sup>	1970–80	1980–88
United States . . . . .	226	302	394	472	492	511	526	2.9	2.7	3.7
New England . . . . .	249	351	456	532	563	587	599	3.5	2.7	3.5
Maine . . . . .	227	289	409	494	504	525	534	2.4	3.5	3.4
New Hampshire . . . . .	240	310	400	517	519	539	558	2.6	2.6	4.2
Vermont . . . . .	227	318	348	434	436	522	528	3.4	0.9	5.3
Massachusetts . . . . .	252	365	488	547	593	625	632	3.8	2.9	3.3
Rhode Island . . . . .	270	383	454	547	566	547	549	3.6	1.7	2.4
Connecticut . . . . .	247	347	440	529	553	568	594	3.5	2.4	3.8
Middle Atlantic . . . . .	225	311	383	450	465	488	494	3.3	2.1	3.2
New York . . . . .	233	336	396	436	457	481	480	3.7	1.7	2.4
New Jersey . . . . .	225	278	332	423	423	438	453	2.1	1.8	4.0
Pennsylvania . . . . .	214	287	390	491	503	529	544	3.0	3.1	4.2
East North Central . . . . .	226	299	396	494	521	546	559	2.8	2.8	4.4
Ohio . . . . .	232	302	392	526	543	567	579	2.7	2.6	5.0
Indiana . . . . .	216	280	374	482	525	556	575	2.6	2.9	5.5
Illinois . . . . .	226	301	407	492	510	538	553	2.9	3.1	3.9
Michigan . . . . .	239	313	417	513	554	569	579	2.7	2.9	4.2
Wisconsin . . . . .	199	277	367	405	430	464	471	3.4	2.9	3.2
West North Central . . . . .	212	273	357	422	438	457	477	2.6	2.7	3.7
Minnesota . . . . .	220	273	347	384	395	407	428	2.2	2.4	2.7
Iowa . . . . .	208	258	349	427	441	452	468	2.2	3.1	3.7
Missouri . . . . .	217	289	385	471	506	535	557	2.9	2.9	4.7
North Dakota . . . . .	177	254	295	326	335	342	354	3.7	1.5	2.3
South Dakota . . . . .	188	247	352	323	339	364	399	2.8	3.6	1.6
Nebraska . . . . .	220	276	326	397	408	424	445	2.3	1.7	4.0
Kansas . . . . .	210	270	368	478	463	487	508	2.5	3.1	4.1
South Atlantic . . . . .	217	295	379	458	478	491	516	3.1	2.5	3.9
Delaware . . . . .	243	328	405	526	556	573	601	3.0	2.1	5.1
Maryland . . . . .	237	354	403	473	508	514	535	4.1	1.3	3.6
District of Columbia . . . . .	240	363	483	599	572	601	619	4.2	2.9	3.1
Virginia . . . . .	193	289	369	435	461	475	504	4.1	2.5	4.0
West Virginia . . . . .	198	255	351	452	462	481	504	2.6	3.2	4.6
North Carolina . . . . .	196	277	363	464	507	502	521	3.5	2.7	4.6
South Carolina . . . . .	185	257	356	426	444	466	483	3.3	3.3	3.9
Georgia . . . . .	233	294	396	458	470	476	499	2.4	3.0	2.9
Florida . . . . .	245	295	375	450	462	486	514	1.9	2.4	4.0
East South Central . . . . .	227	275	348	409	420	448	468	1.9	2.4	3.8
Kentucky . . . . .	229	276	332	403	409	451	464	1.9	1.9	4.3
Tennessee . . . . .	231	284	359	420	437	456	488	2.1	2.4	3.9
Alabama . . . . .	233	266	357	410	425	458	477	1.3	3.0	3.7
Mississippi . . . . .	207	270	334	392	394	411	422	2.7	2.1	3.0
West South Central . . . . .	225	297	384	471	498	519	537	2.8	2.6	4.3
Arkansas . . . . .	209	274	355	429	440	451	476	2.7	2.6	3.7
Louisiana . . . . .	218	292	392	483	493	529	547	3.0	3.0	4.3
Oklahoma . . . . .	218	296	404	480	496	503	529	3.1	3.2	3.4
Texas . . . . .	232	304	383	473	510	532	547	2.7	2.3	4.6
Mountain . . . . .	226	299	413	486	508	536	535	2.8	3.3	3.3
Montana . . . . .	216	247	302	351	350	366	370	1.4	2.0	2.6
Idaho . . . . .	255	281	374	427	444	511	491	1.0	2.9	3.5
Wyoming . . . . .	217	251	445	417	423	442	437	1.5	5.9	-0.2
Colorado . . . . .	221	306	398	481	517	565	555	3.3	2.7	4.2
New Mexico . . . . .	228	314	430	536	531	557	546	3.3	3.2	3.0
Arizona . . . . .	222	327	455	523	547	574	564	3.9	3.4	2.7
Utah . . . . .	243	304	460	579	604	615	661	2.3	4.2	4.6
Nevada . . . . .	224	284	427	490	530	502	534	2.4	4.2	2.8

See footnote at end of table

**Table 101 (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 1960–88**

[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>1986</i>	<i>1987</i>	<i>1988</i>	<i>1960–70<sup>1</sup></i>	<i>1970–80</i>	<i>1980–88</i>
Pacific . . . . .	243	327	467	545	564	561	578	3.0	3.6	2.7
Washington . . . . .	263	313	428	544	565	585	613	1.8	3.2	4.6
Oregon . . . . .	232	303	417	548	597	638	669	2.7	3.2	6.1
California . . . . .	241	334	481	550	563	555	570	3.3	3.7	2.1
Alaska . . . . .	220	301	454	515	555	546	584	3.2	4.2	3.2
Hawaii . . . . .	226	278	401	435	500	475	457	2.1	3.7	1.6

<sup>1</sup>Includes hospital units of institutions for 1960, 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 1988 annual survey.

**Table 102 (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 102 (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 103. Gross national product and national health expenditures: United States, selected years 1929–88**

[Data are compiled by the Health Care Financing Administration]

Year	Gross national product in billions	National health expenditures		
		Amount in billions	Percent of gross national product	Amount per capita
1929.....	\$ 103.1	\$ 3.6	3.5	\$ 29
1935.....	72.2	2.9	4.0	23
1940.....	99.7	4.0	4.0	29
1950.....	284.8	12.7	4.5	80
1955.....	398.0	17.7	4.4	101
1960.....	515.3	27.1	5.3	143
1965.....	705.1	41.6	5.9	204
1966.....	772.0	45.9	5.9	222
1967.....	816.4	51.7	6.3	248
1968.....	892.6	58.5	6.6	278
1969.....	963.9	65.7	6.8	309
1970.....	1,015.5	74.4	7.3	346
1971.....	1,102.7	82.3	7.5	379
1972.....	1,212.8	92.3	7.6	421
1973.....	1,359.3	102.5	7.5	464
1974.....	1,472.8	116.1	7.9	521
1975.....	1,598.4	132.9	8.3	592
1976.....	1,782.8	152.2	8.5	672
1977.....	1,990.5	172.0	8.6	753
1978.....	2,249.7	193.4	8.6	838
1979.....	2,508.2	216.6	8.6	930
1980.....	2,731.9	249.1	9.1	1,059
1981.....	3,052.6	288.6	9.5	1,215
1982.....	3,166.0	323.8	10.2	1,349
1983.....	3,405.7	356.1	10.5	1,469
1984.....	3,772.2	387.0	10.3	1,581
1985.....	4,014.9	420.1	10.5	1,700
1986.....	4,231.6	450.5	10.6	1,806
1987.....	4,524.3	488.8	10.8	1,941
1988.....	4,880.6	539.9	11.1	2,124

NOTES: These data include extensive revisions back to 1960 and differ from previous editions of Health, United States. See Appendix I. They reflect Bureau of Economic Analysis, Department of Commerce, revisions to the gross national product as of December 1989 and Social Security Administration revisions to the population as of July 1989.

SOURCE: Office of National Cost Estimates, Office of the Actuary: National health expenditures, 1988. Health Care Financing Review Vol. 11, No. 4. HCFA Pub. No. 03298. Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1990.

**Table 104. Total health expenditures as a percentage of gross domestic product: Selected countries, selected years 1960–87**

<i>Country</i>	<i>1960</i>	<i>1965</i>	<i>1970</i>	<i>1975</i>	<i>1980</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>
Australia . . . . .	4.6	4.9	5.0	5.7	6.5	7.0	7.1	7.1
Austria . . . . .	4.6	5.0	5.4	7.3	7.9	8.1	8.3	8.4
Belgium . . . . .	3.4	3.9	4.0	5.8	6.6	7.2	7.2	7.2
Canada . . . . .	5.5	6.1	7.2	7.3	7.4	8.4	8.7	8.6
Denmark . . . . .	3.6	4.8	6.1	6.5	6.8	6.2	6.0	6.0
Finland . . . . .	3.9	4.9	5.7	6.3	6.5	7.2	7.3	7.4
France . . . . .	4.2	5.2	5.8	6.8	7.6	8.6	8.7	8.6
Germany . . . . .	4.7	5.1	5.5	7.8	7.9	8.2	8.1	8.2
Greece . . . . .	3.2	3.6	4.0	4.1	4.3	4.9	5.3	5.3
Iceland . . . . .	1.2	2.8	4.3	5.9	6.4	7.3	7.7	7.8
Ireland . . . . .	4.0	4.4	5.6	7.7	8.5	8.0	7.8	7.4
Italy . . . . .	3.3	4.0	4.8	5.8	6.8	6.7	6.6	6.9
Japan . . . . .	2.9	4.3	4.4	5.5	6.4	6.6	6.7	6.8
Netherlands . . . . .	3.9	4.4	6.0	7.7	8.2	8.3	8.3	8.5
New Zealand . . . . .	4.4	4.5	5.1	6.4	7.2	6.6	6.9	6.9
Norway . . . . .	3.3	3.9	5.0	6.7	6.6	6.4	7.1	7.5
Portugal . . . . .	---	---	---	6.4	5.9	7.0	6.6	6.4
Spain . . . . .	2.3	2.7	4.1	5.1	5.9	6.0	6.1	6.0
Sweden . . . . .	4.7	5.6	7.2	8.0	9.5	9.4	9.1	9.0
Switzerland . . . . .	3.3	3.8	5.2	7.0	7.3	7.7	7.6	7.7
United Kingdom . . . . .	3.9	4.1	4.5	5.5	5.8	6.0	6.1	6.1
United States . . . . .	5.2	6.0	7.4	8.4	9.2	10.6	10.9	11.2

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.

SOURCES: Organization for Economic Cooperation and Development: Measuring Health Care 1960–1983, OECD Pub. No. 43239. Paris, France, 1985; G. Schieber and J. Poullier: International health care expenditure trends: 1987. Health Affairs. Vol. 8, No. 4, Fall 1989.

**Table 105. National health expenditures, percent distribution, and average annual percent change, according to type of expenditure: United States, selected years 1960–88**

[Data are compiled by the Health Care Financing Administration]

Type of expenditure	1960	1965	1970	1975	1980	1984	1985	1986	1987	1988
Amount in billions										
Total	\$27.1	\$41.6	\$74.4	\$132.9	\$249.1	\$387.0	\$420.1	\$450.5	\$488.8	\$539.9
Percent distribution										
All expenditures	100	100	100	100	100	100	100	100	100	100
Health services and supplies	94	92	93	94	95	96	96	96	96	96
Personal health care	88	86	87	88	88	87	87	88	89	89
Hospital care	34	34	38	39	41	41	40	40	40	39
Physician services	19	20	18	18	17	17	18	18	19	19
Dentist services	7	7	6	6	6	6	6	5	6	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	4
Home health care	—	—	—	—	1	1	1	1	1	1
Drugs and other medical nondurables	16	14	12	10	8	8	8	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	6	5	5	5
Government public health activities	1	2	2	2	3	3	3	3	3	3
Research and construction	6	8	7	6	5	4	4	4	4	4
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	1984–85	1985–86	1986–87	1987–88	
Average annual percent change										
All expenditures	4.4	6.0	6.0	6.5	11.0	8.5	7.2	8.5	10.4	
Health services and supplies	4.1	6.1	6.1	6.7	11.2	8.9	7.4	8.5	10.4	
Personal health care	4.1	6.2	6.0	6.5	11.0	8.4	8.3	9.3	10.0	
Hospital care	4.2	7.1	6.5	6.9	10.4	6.8	6.8	8.1	9.3	
Physician services	4.5	5.2	5.5	6.0	12.1	10.1	10.9	13.3	13.1	
Dentist services	3.6	5.3	5.9	5.7	10.1	8.7	6.4	9.6	8.5	
Nursing home care	5.7	11.1	7.4	7.2	11.3	9.5	7.5	8.2	8.5	
Other professional services	7.4	11.8	18.3	19.9	13.9	10.8	10.0	10.2	11.6	
Home health care	9.6	19.7	23.2	27.2	9.9	10.9	3.7	4.9	5.9	
Drugs and other medical nondurables	3.3	4.1	4.0	4.5	9.9	8.2	10.2	8.7	8.5	
Vision products and other medical durables	4.4	4.9	4.3	4.9	11.0	17.0	13.6	3.4	10.1	
Other personal health care	1.7	5.2	7.0	5.4	8.4	8.9	11.2	10.5	10.5	
Program administration and net cost of health insurance	5.1	3.7	6.2	9.2	15.5	13.8	-7.2	-4.2	17.7	
Government public health activities	5.2	8.2	8.2	9.1	11.3	14.0	9.6	7.8	9.1	
Research and construction	7.3	4.4	4.5	3.1	6.4	-0.4	3.7	7.8	12.6	
Noncommercial research	8.2	2.5	5.5	5.1	7.4	9.5	9.5	4.9	10.1	
Construction	6.7	5.7	3.9	1.6	5.4	-8.8	-2.4	11.1	15.3	

NOTES: These data include extensive revisions back to 1960 and differ from previous editions of Health, United States. See Appendix I. The category home health care was added. Drugs and other medical nondurables replaced drugs and medical sundries. Vision products and other medical durables replaced eyeglasses and appliances. Other personal health care replaced other health services.

SOURCE: Office of National Cost Estimates, Office of the Actuary: National health expenditures, 1988. Health Care Financing Review. Vol. 11, No. 4. HCFA Pub. No. 03298. Health Care Financing Administration, Washington, U.S. Government Printing Office, Summer 1990

**Table 106. Personal health care expenditures average annual percent change and percent distribution of factors affecting growth: United States, 1960–88**

[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					
1960–88	11.3	100	57	10	34
1960–61	6.1	100	30	28	43
1961–62	7.6	100	30	20	50
1962–63	9.3	100	23	16	62
1963–64	9.9	100	23	14	63
1964–65	8.6	100	36	15	49
1965–66	10.5	100	46	11	44
1966–67	13.6	100	46	8	46
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	40	9	52
1972–73	11.7	100	41	7	52
1973–74	14.6	100	63	6	31
1974–75	14.7	100	73	6	22
1975–76	14.0	100	65	6	29
1976–77	12.3	100	68	7	25
1977–78	12.0	100	67	8	25
1978–79	12.8	100	70	8	22
1979–80	15.7	100	73	6	21
1980–81	16.0	100	71	6	22
1981–82	12.2	100	78	9	13
1982–83	10.0	100	71	10	19
1983–84	8.4	100	75	12	14
1984–85	8.4	100	65	12	23
1985–86	8.3	100	61	12	28
1986–87	9.3	100	63	11	27
1987–88	10.0	100	68	10	23

<sup>1</sup>Represents changes in use and/or kinds of services and supplies.

NOTES: These data include extensive revisions back to 1960 and differ from previous editions of Health, United States. See Appendix I.

SOURCE: Office of National Cost Estimates, Office of the Actuary: National health expenditures, 1988. Health Care Financing Review. Vol. 11, No. 4. HCFA Pub. No. 03298. Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1990.

**Table 107. Consumer Price Index average annual percent change for all items and selected items: United States, selected years 1950–89**

[Data are based on reporting by samples of providers and other retail outlets]

<i>Year</i>	<i>All items</i>	<i>Medical care</i>	<i>Food</i>	<i>Apparel and upkeep</i>	<i>Housing</i>	<i>Energy</i>	<i>Personal care</i>
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	109.0	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
Average annual percent change							
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
1985–86.....	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

NOTE: 1982–84=100.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor: Consumer Price Index. Various releases.

**Table 108. Consumer Price Index and average annual percent change for all items and medical care components: United States, selected years 1950–89**

[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	1987	1988	1989
	Consumer Price Index									
CPI, all items . . . . .	24.1	29.6	31.5	38.8	53.8	82.4	107.6	113.6	118.3	124.0
Less medical care . . . . .	---	30.2	32.0	39.2	54.3	82.8	107.2	112.6	117.0	122.4
CPI, all services . . . . .	16.9	24.1	26.6	35.0	48.0	77.9	109.9	120.2	125.7	131.9
All medical care . . . . .	15.1	22.3	25.2	34.0	47.5	74.9	113.5	130.1	138.6	149.3
Medical care services . . . . .	12.8	19.5	22.7	32.3	46.6	74.8	113.2	130.0	138.3	148.9
Professional medical services . . . . .	---	---	---	37.0	50.8	77.9	113.5	128.8	137.5	146.4
Physicians' services . . . . .	15.7	21.9	25.1	34.5	48.1	76.5	113.3	130.4	139.8	150.1
Dental services . . . . .	21.0	27.0	30.3	39.2	53.2	78.9	114.2	128.8	137.5	146.1
Eye care <sup>1</sup> . . . . .	---	---	---	---	---	---	---	103.5	108.7	112.4
Services by other medical professionals <sup>1</sup> . . . . .	---	---	---	---	---	---	---	102.4	108.3	114.2
Hospital and related services . . . . .	---	---	---	---	---	69.2	116.1	131.6	143.9	160.5
Hospital rooms . . . . .	4.9	9.3	12.3	23.6	38.3	68.0	115.4	131.1	143.3	158.1
Other inpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	103.9	114.0	128.9
Outpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	103.3	112.5	124.7
Medical care commodities . . . . .	39.7	46.9	45.0	46.5	53.3	75.4	115.2	131.0	139.9	150.8
Prescription drugs . . . . .	43.4	54.0	47.8	47.4	51.2	72.5	120.1	140.8	152.0	165.2
Nonprescription drugs and medical supplies <sup>1</sup> . . . . .	---	---	---	---	---	---	---	103.1	108.1	114.6
Internal and respiratory over-the-counter drugs . . . . .	---	---	39.0	42.3	51.8	74.9	112.2	123.9	130.8	138.8
Nonprescription medical equipment and supplies . . . . .	---	---	---	---	---	79.2	109.6	119.6	123.9	131.1
<i>Item and medical care component</i>	1950–60	1960–65	1965–70	1970–75	1975–80	1980–85	1985–87	1987–88	1988–89	
	Average annual percent change									
CPI, all items . . . . .	2.1	1.3	4.3	6.8	8.9	5.5	2.8	4.1	4.8	
Less medical care . . . . .	---	1.2	4.1	6.7	8.8	5.3	2.5	3.9	4.6	
CPI, all services . . . . .	3.6	2.0	5.6	6.5	10.2	7.1	4.6	4.6	4.9	
All medical care . . . . .	4.0	2.5	6.2	6.9	9.5	8.7	7.1	6.5	7.7	
Medical care services . . . . .	4.3	3.1	7.3	7.6	9.9	8.6	7.2	6.4	7.7	
Professional medical services . . . . .	---	---	---	6.5	8.9	7.8	6.5	6.8	6.5	
Physicians' services . . . . .	3.4	2.8	6.6	6.9	9.7	8.2	7.3	7.2	7.4	
Dental services . . . . .	2.5	2.3	5.3	6.3	8.2	7.7	6.2	6.8	6.3	
Eye care <sup>1</sup> . . . . .	---	---	---	---	---	---	---	5.0	3.4	
Services by other medical professionals <sup>1</sup> . . . . .	---	---	---	---	---	---	---	5.8	5.4	
Hospital and related services . . . . .	---	---	---	---	---	10.9	6.5	9.3	11.5	
Hospital rooms . . . . .	6.6	5.8	13.9	10.2	12.2	11.2	6.6	9.3	10.3	
Other inpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	9.7	13.1	
Outpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	8.9	10.8	
Medical care commodities . . . . .	1.7	-0.8	0.7	2.8	7.2	8.8	6.6	6.8	7.8	
Prescription drugs . . . . .	2.2	-2.4	-0.2	1.6	7.2	10.6	8.3	8.0	8.7	
Nonprescription drugs and medical supplies <sup>1</sup> . . . . .	---	---	---	---	---	---	---	4.8	6.0	
Internal and respiratory over-the-counter drugs . . . . .	---	---	1.6	4.1	7.7	8.4	5.1	5.6	6.1	
Nonprescription medical equipment and supplies . . . . .	---	---	---	---	---	6.7	4.5	3.6	5.8	

<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 109. Non-Federal short-stay hospital expenses and personnel and average annual percent change: United States, 1971-88**

[Data are based on reporting by a census of registered hospitals]

Year and period	Adjusted 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
Average annual percent change						
1971-88.....	12.6	12.1	11.4	...	2.8	2.4
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

<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, 1989 Edition. Chicago, 1989. (Copyright 1989: Used with the permission of the American Hospital Association)

**Table 110. Hospital expenses and average annual percent change in short-stay hospitals, according to type of ownership and size of hospital: United States, selected years 1970–88**

[Data are based on reporting by a census of registered hospitals]

Type of ownership and size of hospital	1970	1975	1980	1984	1985	1986	1987	1988	1980–84	1984–88
Total expenses	Amount in billions								Average annual percent change	
All ownership . . . . .	19.7	42.7	83.8	133.1	141.3	152.4	164.9	182.0	12.3	8.1
Federal . . . . .	1.1	3.6	6.8	9.6	10.6	11.5	12.0	13.1	8.8	8.2
Non-Federal short-stay <sup>1</sup> . . . . .	18.6	39.1	77.0	123.5	130.7	140.9	152.9	168.9	12.6	8.1
Nonprofit . . . . .	13.6	28.0	55.8	90.9	96.2	103.6	112.4	124.8	13.0	8.2
Proprietary . . . . .	0.7	2.6	5.8	10.3	11.5	13.0	14.1	15.5	15.1	11.0
State-local government . . . . .	4.1	8.6	15.3	22.4	23.0	24.3	26.4	28.6	10.0	6.3
Size of hospital:										
6–99 beds . . . . .	2.2	4.4	8.0	11.7	12.5	13.3	14.6	16.1	9.9	8.4
100–199 beds . . . . .	3.4	7.1	13.4	20.7	22.5	24.7	26.5	29.4	11.5	9.2
200–299 beds . . . . .	3.4	7.0	13.8	21.9	23.9	27.0	29.4	33.0	12.2	10.7
300–499 beds . . . . .	5.6	11.3	23.7	38.9	40.3	42.4	45.5	50.0	13.2	6.4
500 beds or more . . . . .	5.1	12.9	24.9	39.9	42.2	45.1	48.9	53.5	12.5	7.6
Expenses per inpatient day	Amount									
Non-Federal short-stay <sup>1</sup> . . . . .	68	133	244	410	460	499	537	581	13.8	9.1
Nonprofit . . . . .	72	133	246	415	463	504	544	591	14.0	9.2
Proprietary . . . . .	50	133	257	438	500	552	585	649	14.3	10.3
State-local government . . . . .	67	132	236	379	429	458	490	514	12.6	8.0
Size of hospital:										
6–99 beds . . . . .	45	102	198	334	381	400	426	456	14.0	8.1
100–199 beds . . . . .	58	119	218	366	409	447	481	520	13.8	9.2
200–299 beds . . . . .	68	128	235	395	447	488	523	572	13.8	9.7
300–499 beds . . . . .	74	138	257	431	482	528	569	615	13.8	9.3
500 beds or more . . . . .	72	155	275	450	503	548	600	654	13.1	9.8
Expenses per inpatient stay	Amount									
Non-Federal short-stay <sup>1</sup> . . . . .	579	1,026	1,844	2,984	3,239	3,530	3,849	4,194	12.8	8.9
Nonprofit . . . . .	597	1,045	1,900	3,072	3,308	3,588	3,912	4,267	12.8	8.6
Proprietary . . . . .	348	886	1,676	2,749	3,033	3,342	3,617	4,023	13.2	10.0
State-local government . . . . .	585	1,016	1,724	2,769	3,073	3,396	3,720	3,990	12.6	9.6
Size of hospital:										
6–99 beds . . . . .	339	665	1,234	2,047	2,276	2,444	2,700	2,971	13.5	9.8
100–199 beds . . . . .	470	865	1,554	2,502	2,739	2,999	3,301	3,603	12.7	9.5
200–299 beds . . . . .	585	990	1,773	2,818	3,070	3,390	3,684	4,023	12.3	9.3
300–499 beds . . . . .	665	1,147	2,047	3,270	3,535	3,832	4,161	4,569	12.4	8.7
500 beds or more . . . . .	870	1,637	2,627	4,043	4,387	4,770	5,216	5,756	11.4	9.2

<sup>1</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 111. National health expenditures and average annual percent change, according to source of funds: United States, selected years 1929–88**

[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 <sup>1</sup>	Percent of total	Amount in billions	Amount per capita <sup>1</sup>	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.....	193.4	113.6	492	58.8	79.8	346	41.2
1979.....	216.6	126.2	542	58.3	90.4	388	41.7
1980.....	249.1	143.9	612	57.8	105.2	447	42.2
1981.....	288.6	166.8	702	57.8	121.8	512	42.2
1982.....	323.8	189.0	788	58.4	134.8	561	41.6
1983.....	356.1	208.5	860	58.5	147.7	609	41.5
1984.....	387.0	227.3	929	58.7	159.7	652	41.3
1985.....	420.1	245.2	992	58.4	174.9	708	41.6
1986.....	450.5	259.8	1,041	57.7	190.7	765	42.3
1987.....	488.8	280.5	1,114	57.4	208.3	827	42.6
1988.....	539.9	312.4	1,229	57.9	227.5	895	42.1
Average annual percent change							
1929–65.....	7.0	6.6	5.2	...	8.8	7.3	...
1965–88.....	11.8	10.5	9.5	...	14.4	13.3	...
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.....	13.4	13.1	12.1	...	13.8	12.7	...
1980–85.....	11.0	11.2	10.2	...	10.7	9.6	...
1980–81.....	15.9	15.9	14.8	...	15.8	14.6	...
1981–82.....	12.2	13.3	12.2	...	10.7	9.6	...
1982–83.....	10.0	10.3	9.2	...	9.6	8.5	...
1983–84.....	8.7	9.1	8.0	...	8.1	7.1	...
1984–85.....	8.5	7.9	6.8	...	9.5	8.5	...
1985–86.....	7.2	6.0	4.9	...	9.1	8.0	...
1986–87.....	8.5	8.0	7.0	...	9.2	8.2	...
1987–88.....	10.4	11.4	10.3	...	9.2	8.2	...

<sup>1</sup>Reflects July 1989 revisions to the social security area population estimates.

NOTES: These data include extensive revisions back to 1960 and differ from previous editions of Health, United States. See Appendix I.

SOURCE: Office of National Cost Estimates, Office of the Actuary: National health expenditures, 1988. Health Care Financing Review. Vol. 11, No. 4. HCFA Pub. No. 03298 Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1990.

**Table 112. Personal health care expenditures and percent distribution, according to source of funds: United States, selected years 1929–88**

[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	167.2	725	100.0	29.8	28.0	3.0	39.2	28.1	11.1
1979	188.6	810	100.0	28.4	29.0	3.0	39.6	28.5	11.1
1980	218.3	928	100.0	26.8	29.9	3.5	39.9	29.1	10.8
1981	253.2	1,066	100.0	25.9	30.5	3.5	40.1	29.6	10.5
1982	284.1	1,184	100.0	25.3	31.1	3.6	40.0	29.6	10.4
1983	312.4	1,289	100.0	25.2	31.2	3.5	40.1	29.9	10.2
1984	338.6	1,384	100.0	25.1	31.4	3.4	40.1	30.0	10.1
1985	367.2	1,486	100.0	25.0	31.1	3.5	40.4	30.4	10.0
1986	397.7	1,594	100.0	24.3	31.5	3.4	40.8	30.3	10.5
1987	434.7	1,726	100.0	23.6	32.2	3.4	40.9	30.1	10.8
1988	478.3	1,882	100.0	23.7	32.4	3.3	40.6	29.9	10.6

<sup>1</sup>Includes all expenditures for health services and supplies other than expenses for prepayment and administration and government public health activities.

<sup>2</sup>Out-of-pocket payments and private health insurance are combined for these years.

NOTES: These data include extensive revisions back to 1960 and differ from previous editions of Health, United States. See Appendix I. The category out-of-pocket payments replaced direct payment. Other private funds replaced philanthropy and industry.

SOURCE: Office of National Cost Estimates, Office of the Actuary: National health expenditures, 1988. Health Care Financing Review. Vol. 11, No. 4. HCFA Pub. No. 03298. Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1990.

**Table 113. Expenditures for health services and supplies and percent distribution, by type of payer: United States, selected calendar years 1965–88**

[Data are compiled by the Health Care Financing Administration]

Type of payer	1965	1967	1970	1975	1980	1983	1984	1985	1986	1987	1988
Amount in billions <sup>1</sup>											
Total	\$ 38.2	\$ 47.9	\$ 69.1	\$124.7	\$237.8	\$341.1	\$371.5	\$404.7	\$434.5	\$471.6	\$520.5
Private	30.3	35.0	50.1	86.2	161.5	233.0	256.6	280.4	302.4	325.3	359.2
Private business	6.5	8.9	15.1	30.3	67.6	98.7	107.8	114.2	126.3	137.6	149.9
Private employer share of private health insurance premiums	5.4	6.2	11.2	22.4	51.1	75.0	81.4	84.7	92.2	101.1	110.5
Private employer contribution to Medicare hospital insurance trust fund <sup>2</sup>	0.0	1.4	2.1	5.0	10.5	16.0	18.3	20.3	23.3	24.7	26.4
Workers' compensation and temporary disability insurance medical benefits and administration	0.8	1.0	1.4	2.4	5.1	6.5	6.8	7.8	9.3	10.1	11.1
Industrial inplant health services	0.2	0.2	0.3	0.5	0.9	1.2	1.3	1.4	1.6	1.7	1.9
Household (individual)	23.1	25.3	33.6	53.4	87.0	124.2	138.3	154.2	163.7	174.2	194.8
Employee share of private health insurance premiums and individual policy premiums	4.1	4.2	4.6	7.4	13.9	22.4	26.9	33.3	34.0	36.2	42.1
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	19.1	21.7	24.0	27.6	29.5	31.4
Premiums paid by individuals to Medicare supplementary medical insurance trust fund	0.0	0.6	1.0	1.7	2.7	3.9	4.7	5.2	5.2	6.2	8.0
Out-of-pocket health spending by individuals	19.0	18.9	25.6	38.5	58.4	78.8	85.0	91.7	96.8	102.4	113.2
Nonpatient revenue	0.6	0.8	1.5	2.5	7.0	10.2	10.6	11.9	12.4	13.5	14.6
Public	7.9	12.8	18.9	38.5	76.3	108.1	114.9	124.3	132.1	146.3	161.3
Federal Government	3.4	7.0	10.4	21.3	42.6	60.2	63.4	68.8	70.3	77.3	86.2
State and local government	4.5	5.8	8.5	17.2	33.6	47.9	51.5	55.5	61.8	69.0	75.1
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	68.3	69.1	69.3	69.6	69.0	69.0
Private business	17.0	18.6	21.8	24.3	28.4	28.9	29.0	28.2	29.1	29.2	28.8
Private employer share of private health insurance premiums	14.3	13.0	16.2	18.0	21.5	22.0	21.9	20.9	21.2	21.4	21.2
Private employer contribution to Medicare hospital insurance trust fund <sup>2</sup>	0.0	2.9	3.0	4.0	4.4	4.7	4.9	5.0	5.4	5.2	5.1
Workers' compensation and temporary disability insurance medical benefits and administration	2.2	2.2	2.1	2.0	2.1	1.9	1.8	1.9	2.1	2.1	2.1
Industrial inplant health services	0.6	0.5	0.5	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
Household (individual)	60.6	52.8	48.7	42.8	36.6	36.4	37.2	38.1	37.7	36.9	37.4
Employee share of private health insurance premiums and individual policy premiums	10.8	8.8	6.7	5.9	5.8	6.6	7.2	8.2	7.8	7.7	8.1
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	5.6	5.8	5.9	6.4	6.3	6.0
Premiums paid by individuals to Medicare supplementary medical insurance trust fund	0.0	1.3	1.4	1.4	1.1	1.1	1.3	1.3	1.2	1.3	1.5
Out-of-pocket health spending by individuals	49.8	39.5	37.1	30.9	24.6	23.1	22.9	22.7	22.3	21.7	21.8
Nonpatient revenue	1.7	1.7	2.2	2.0	2.9	3.0	2.8	2.9	2.9	2.9	2.8
Public	20.7	26.8	27.4	30.8	32.1	31.7	30.9	30.7	30.4	31.0	31.0
Federal Government	9.0	14.6	15.0	17.1	17.9	17.6	17.1	17.0	16.2	16.4	16.6
State and local government	11.7	12.2	12.3	13.8	14.2	14.0	13.9	13.7	14.2	14.6	14.4

<sup>1</sup>Excludes research and construction.

<sup>2</sup>Includes one-half of self-employment contribution 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 Cost Estimates, Office of the Actuary: Health spending and ability to pay: Business, individuals, and government. Health Care Financing Review, Vol. 10, No. 3. Health Care Financing Administration, Washington, U.S. Government Printing Office, Spring 1989; Unpublished data.

**Table 114. Expenditures on hospital care, nursing home care, and physician services and percent distribution, according to source of funds: United States, selected years, 1960–88**

[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	27.9
1984	157.2	5.1	36.2	4.6	54.0	9.1	28.8
1985	167.9	5.2	35.4	4.9	54.4	9.2	28.9
1986	179.3	4.8	35.4	4.8	55.0	9.2	28.5
1987	193.7	4.5	35.8	4.9	54.8	9.5	27.9
1988	211.8	5.3	35.4	4.9	54.4	9.5	27.5
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	47.9	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	49.0	1.0	1.9	48.1	44.1	1.6
1987	39.7	47.8	1.0	1.9	49.2	45.2	1.6
1988	43.1	48.4	1.1	1.9	48.6	44.4	1.9
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	24.0	43.9	0.0	32.0	4.0	22.0
1984	67.1	23.3	45.3	0.0	31.4	3.8	21.5
1985	74.0	21.8	45.6	0.0	32.6	3.9	22.4
1986	82.1	19.9	46.7	0.0	33.3	3.9	23.1
1987	93.0	19.2	47.3	0.0	33.5	3.8	23.5
1988	105.1	18.9	47.6	0.0	33.4	3.6	23.6

<sup>1</sup>Includes other government expenditures for these health care services, for example, care funded by the Veterans Administration and State and locally financed subsidies to hospitals.

NOTES: These data include extensive revisions back to 1960 and differ from previous editions of Health, United States. See Appendix I. The category out-of-pocket payments replaced direct payment. Other private funds replaced philanthropy and industry.

SOURCE: Office of National Cost Estimates, Office of the Actuary: National health expenditures, 1988. Health Care Financing Review. Vol. 11, No. 4. HCFA Pub. No. 03298. Health Care Financing Administration. Washington. U.S. Government Printing Office, Summer 1990.

**Table 115. 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 116. 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 117. National funding for health research and development and average annual percent change, according to source of funds: United States, selected years 1960–89**

[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 <sup>2</sup> . . . . .	7,150	4,321	465	2,093	271
1980 <sup>2</sup> . . . . .	7,953	4,723	480	2,459	292
1981 <sup>2</sup> . . . . .	8,723	4,848	564	2,998	312
1982 <sup>2</sup> . . . . .	9,540	4,970	634	3,593	343
1983 <sup>2</sup> . . . . .	10,748	5,399	712	4,205	431
1984 <sup>2</sup> . . . . .	12,136	6,087	793	4,765	491
1985 <sup>2</sup> . . . . .	13,502	6,791	874	5,352	486
1986 <sup>2</sup> . . . . .	14,823	6,895	1,026	6,188	714
1987 <sup>2</sup> . . . . .	16,832	7,847	1,145	7,115	725
1988 <sup>2</sup> . . . . .	18,847	8,425	1,272	8,406	744
1989 <sup>3</sup> . . . . .	20,781	9,230	1,339	9,433	779
Average annual percent change					
1960–89 . . . . .	11.5	11.0	12.3	13.3	6.1
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 . . . . .	8.8	5.2	10.6	14.1	11.0
1980–81 . . . . .	9.7	2.6	17.5	21.9	6.8
1981–82 . . . . .	9.4	2.5	12.4	19.8	9.9
1982–83 . . . . .	12.7	8.6	12.3	17.0	25.7
1983–84 . . . . .	12.9	12.7	11.4	13.3	13.9
1984–85 . . . . .	11.3	11.6	10.2	12.3	-1.0
1985–89 . . . . .	9.0	6.3	8.9	12.0	9.9
1985–86 . . . . .	9.8	1.5	17.4	15.6	46.9
1986–87 . . . . .	13.6	13.8	11.6	15.0	1.5
1987–88 . . . . .	12.0	7.4	11.1	18.1	2.6
1988–89 . . . . .	10.3	9.6	5.3	12.2	4.7

<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>Projected.

SOURCES: National Institutes of Health: NIH Data Book, 1990. Public Health Service, U S Department of Health and Human Services, NIH Pub. No. 90-1261, Sept. 1990; National Institutes of Health, Office of Science Policy and Legislation: Selected data

**Table 118. Federal funding for health research and development and percent distribution, according to agency: United States, selected fiscal years 1970–89**

[Data are compiled from Federal Government sources]

Agency	1970 <sup>1</sup>	1975 <sup>1</sup>	1980	1983	1984	1985	1986	1987	1988	1989 <sup>2</sup>
Amount in millions										
Total . . . . .	\$1,667	\$2,832	\$4,723	\$5,399	\$6,087	\$6,791	\$6,895	\$7,847	\$8,425	\$9,230
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	80.0	78.9	79.7	81.1	83.3	84.1	84.7
National Institutes of Health . . . . .	52.4	66.4	67.4	70.2	69.9	71.1	72.6	74.6	74.7	73.4
Centers for Disease Control . . . . .	---	1.5	1.8	1.4	0.7	0.7	0.8	0.8	1.1	1.3
Other Public Health Service . . . . .	16.2	8.3	7.9	7.5	7.5	7.3	7.3	7.7	8.0	9.4
Other Department of Health and Human Services . . . . .	2.0	1.3	1.1	0.8	0.7	0.6	0.5	0.4	0.4	0.6
Other agencies . . . . .	29.4	22.4	21.8	20.0	21.1	20.3	18.9	16.7	15.9	15.3
Department of Agriculture . . . . .	3.0	2.2	3.1	2.7	2.4	2.1	1.1	1.3	1.3	1.2
Department of Defense . . . . .	7.5	4.1	4.5	5.7	6.8	6.5	7.2	5.2	5.1	4.8
Department of Education <sup>3</sup> . . . . .	...	...	0.7	0.5	0.7	0.6	0.6	0.6	0.7	0.6
Department of Energy <sup>4</sup> . . . . .	6.3	5.8	4.5	3.1	3.0	2.6	2.4	2.3	2.4	2.4
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	0.7	0.8	0.5	0.6	0.3	0.3
International Development Cooperation Agency <sup>5</sup> . . . . .	0.6	0.2	0.3	0.6	0.3	0.6	0.4	0.4	0.3	0.3
National Aeronautics and Space Administration . . . . .	5.2	2.6	1.5	1.4	1.8	1.7	1.9	1.7	1.6	1.5
National Science Foundation . . . . .	1.7	1.6	1.6	1.4	1.4	1.3	1.2	1.1	1.0	1.0
Veterans Administration . . . . .	3.5	3.3	2.8	3.0	3.1	3.3	2.7	2.7	2.6	2.5
All other departments and agencies . . . . .	0.9	1.0	0.4	0.4	0.3	0.4	0.4	0.4	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, 1990. Public Health Service, U.S. Department of Health and Human Services, NIH Pub. No. 90-1261, Sept. 1990; Office of Science Policy and Legislation, National Institutes of Health, Public Health Service: Selected data.

**Table 119. Federal spending for human immunodeficiency virus (HIV)-related activities, according to agency and type of activity: United States, fiscal years 1982–89**

<i>Agency and type of activity</i>	<i>1982</i>	<i>1983</i>	<i>1984</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>	<i>1988</i>	<i>1989</i>
Agency	Amount in millions							
All Federal spending . . . . .	\$6	\$44	\$104	\$207	\$507	\$926	\$1,594	\$2,277
Department of Health and Human Services, total . . . . .	6	39	97	197	402	777	1,423	2,004
Public Health Service, total . . . . .	6	29	61	109	234	502	962	1,301
National Institutes of Health . . . . .	4	22	44	64	135	261	474	602
Alcohol, Drug Abuse, and Mental Health Administration . . . . .	—	1	3	3	12	48	112	173
Centers for Disease Control . . . . .	2	6	14	33	62	136	305	378
Food and Drug Administration . . . . .	—	—	1	9	10	16	30	74
Health Resources and Services Administration . . . . .	—	—	—	—	15	12	37	60
Office of the Assistant Secretary for Health . . . . .	—	—	—	—	—	30	4	14
Health Care Financing Administration . . . . .	—	10	30	75	135	215	360	545
Social Security Administration . . . . .	—	—	6	13	33	60	98	153
Other Department of Health and Human Services agencies . . . . .	—	—	—	—	—	—	3	5
Department of Veterans Affairs . . . . .	2	5	7	11	23	55	84	142
Department of Defense . . . . .	—	—	—	—	79	74	53	86
Other departments . . . . .	—	—	—	—	3	20	34	45
Activity								
Research . . . . .	4	22	59	86	203	394	722	981
Public Health Service . . . . .	4	22	57	83	163	366	702	943
Department of Veterans Affairs . . . . .	—	—	2	3	3	6	8	11
Department of Defense . . . . .	—	—	—	—	38	22	12	27
Education and prevention . . . . .	2	7	4	25	75	160	282	377
Public Health Service . . . . .	2	7	4	25	55	116	221	303
Department of Defense . . . . .	—	—	—	—	18	25	26	26
Other . . . . .	—	—	—	—	2	19	35	48
Medical care . . . . .	2	15	35	83	195	312	492	766
Department of Veterans Affairs . . . . .	2	5	5	8	20	49	76	131
Public Health Service . . . . .	—	—	—	—	16	20	39	55
Department of Defense . . . . .	—	—	—	—	23	27	15	33
Other . . . . .	—	—	—	—	1	1	2	2
Health Care Financing Administration:								
Medicaid (Federal share) . . . . .	—	10	30	70	130	200	330	490
Medicare . . . . .	—	—	—	5	5	15	30	55
Cash assistance . . . . .	—	—	6	13	33	60	98	153
Social Security Administration:								
Disability Insurance . . . . .	—	—	5	10	25	45	80	125
Supplemental Security Income . . . . .	—	—	1	3	8	15	18	28

NOTES: These data include extensive revisions and differ from those in Health, United States, 1989. In 1988 total expenditures on HIV-related activities were estimated at \$4.4 billion. This total includes, 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 120. Public health expenditures by State and territorial health agencies, according to source of funds and program area: United States, selected fiscal years 1976–88**

<i>Funds and program area</i>	1976	1978	1980	1982	1984	1985	1986	1987	1988
Amount in millions									
Total . . . . .	\$2,540	\$3,256	\$4,451	\$5,145	\$6,242	\$6,950	\$7,491	\$8,128	\$8,540
Source of funds									
Federal grants and contracts . . . . .	797	1,133	1,573	1,778	2,344	2,556	2,700	2,822	3,072
Department of Agriculture . . . . .	154	351	678	916	1,307	1,455	1,551	1,652	1,690
Other . . . . .	643	782	895	861	1,037	1,101	1,148	1,170	1,381
State . . . . .	1,486	1,802	2,513	2,923	3,352	3,810	4,124	4,562	4,696
Local . . . . .	96	87	114	123	151	149	148	140	144
Fees, reimbursements, and other . . . . .	161	234	250	321	395	435	520	604	628
Program area									
WIC <sup>1</sup> . . . . .	138	337	661	890	1,269	1,431	1,534	1,622	1,660
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
State health agency-operated institutions . . . . .	531	641	819	950	979	1,153	1,236	1,227	1,342
Environmental health . . . . .	199	237	298	355	415	467	480	528	464
Health resources . . . . .	208	297	357	360	563	627	651	709	720
Laboratory . . . . .	104	131	161	182	214	229	238	265	279
Other <sup>3</sup> . . . . .	281	256	457	504	423	521	576	647	592
Percent distribution									
Total . . . . .	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
Department of Agriculture . . . . .	6.1	10.8	15.2	17.8	20.9	20.9	20.7	20.3	19.8
Other . . . . .	25.3	24.0	20.1	16.7	16.6	15.8	15.3	14.4	16.2
State . . . . .	58.5	55.3	56.5	56.8	53.7	54.8	55.0	56.1	55.0
Local . . . . .	3.8	2.7	2.6	2.4	2.4	2.1	2.0	1.7	1.7
Fees, reimbursements, and other . . . . .	6.3	7.2	5.6	6.2	6.3	6.3	6.9	7.4	7.3
Program area									
WIC <sup>1</sup> . . . . .	5.4	10.4	14.8	17.3	20.3	20.6	20.5	20.0	19.4
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
State health agency-operated institutions . . . . .	20.9	19.7	18.4	18.5	15.7	16.6	16.5	15.1	15.7
Environmental health . . . . .	7.8	7.3	6.7	6.9	6.6	6.7	6.4	6.5	5.4
Health resources . . . . .	8.2	9.1	8.0	7.0	9.0	9.0	8.7	8.7	8.4
Laboratory . . . . .	4.1	4.0	3.6	3.5	3.4	3.3	3.2	3.3	3.3
Other <sup>3</sup> . . . . .	11.0	7.9	10.3	9.8	6.8	7.5	7.7	8.0	6.9

<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 121 (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 121 (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 122 (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 122 (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 123 (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 123 (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 124. 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 125. 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 126. Health maintenance organizations and enrollment, according to model type, geographic region, and Federal program: United States, selected years 1976–90**

<i>Plans and enrollment</i>	1976	1978	1980	1982	1984	1985 <sup>1</sup>	1986	1987	1989	1990
<b>Plans</b>	<b>Number</b>									
All plans . . . . .	174	202	235	264	304	478	623	647	604	572
Model type: <sup>2</sup>										
Individual practice association <sup>3</sup> . . . . .	41	70	97	97	125	244	384	409	385	360
Group . . . . .	122	129	138	167	179	234	239	238	219	212
Geographic region:										
Northeast . . . . .	29	49	55	59	67	81	105	114	118	115
Midwest . . . . .	52	57	72	87	105	157	202	203	183	160
South . . . . .	23	33	45	52	67	141	188	194	172	176
West . . . . .	70	63	63	66	65	99	128	136	131	121
<b>Enrollment<sup>4</sup></b>	<b>Number of persons in thousands</b>									
Total . . . . .	5,987	7,450	9,078	10,807	15,101	21,005	25,725	29,232	31,883	33,028
Model type: <sup>2</sup>										
Individual practice association <sup>3</sup> . . . . .	390	1,051	1,694	1,471	2,929	6,379	9,932	12,014	13,542	13,741
Group . . . . .	5,562	6,376	7,384	9,336	12,172	14,625	15,793	17,217	18,342	19,287
Federal program: <sup>5</sup>										
Medicaid <sup>6</sup> . . . . .	---	230	265	197	349	561	802	811	847	---
Medicare . . . . .	---	376	391	431	671	1,064	1,490	1,674	1,761	1,842
	<b>Number per 1,000 population</b>									
Geographic region:										
Northeast . . . . .	19.9	24.9	31.4	39.0	57.8	79.4	100.5	117.0	137.7	145.6
Midwest . . . . .	15.2	18.7	28.1	37.2	61.6	96.8	116.4	130.5	129.2	126.2
South . . . . .	4.3	6.2	8.3	11.1	20.4	37.5	54.4	64.2	70.5	70.5
West . . . . .	96.9	113.3	121.8	128.7	148.0	172.5	190.4	205.6	225.5	232.1

<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. Three HMO's with 23,000 enrollment did not report model type in 1978.

<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 858 thousand on Jan. 1, 1990, 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 as of June 30, 1989.

NOTES: Data as of June 30 each year, except August in 1978, December 31 in 1985–87, and January 1 in 1989 and 1990. HMO's in Guam are not included.

SOURCES: Office of Health Maintenance Organizations: Summary of the National HMO census of prepaid plans-June 1976, National HMO census of prepaid plans 1978, 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, Spring 1988, 1989, 1990, vol. 2; Unpublished data; 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); Regional populations obtained from U.S. Bureau of the Census, unpublished data; Office of Prepaid Health Care, unpublished data; Data computed by the Division of Analysis.

**Table 127. Medicare enrollees and expenditures and percent distribution, according to type of service: United States, selected years 1967–89**

[Data are compiled by the Health Care Financing Administration]

Type of service	1967	1970	1975	1980	1985	1987	1988	1989 <sup>1</sup>
Enrollees <sup>2</sup>								
Number in millions								
Total <sup>3</sup> . . . . .	19.5	20.5	25.0	28.5	31.1	32.4	33.0	33.6
Hospital insurance . . . . .	19.5	20.4	24.6	28.1	30.6	31.8	32.4	33.0
Supplementary medical insurance . . . . .	17.9	19.6	23.9	27.4	30.0	31.2	31.6	32.1
Expenditures								
Amount in millions								
Total . . . . .	\$4,737	\$7,493	\$16,316	\$36,822	\$72,294	\$82,030	\$88,561	\$100,586
Total hospital insurance <sup>4</sup> . . . . .	3,430	5,281	11,581	25,577	48,414	50,289	53,331	60,803
Inpatient hospital . . . . .	3,034	4,827	10,877	24,082	44,702	46,446	49,088	54,277
Skilled nursing facility . . . . .	282	246	278	401	577	623	828	2,783
Home health agency . . . . .	29	51	160	568	2,145	2,207	2,333	2,608
Hospice . . . . .	...	...	...	...	20	70	98	135
Medicaid Professional Standard Review Organization/Peer Review Organization <sup>5</sup> . . . . .	...	...	...	13	136	154	170	208
Administrative expenses <sup>6</sup> . . . . .	77	157	266	512	834	793	815	792
Total supplementary medical insurance . . . . .	1,307	2,212	4,735	11,245	23,880	31,741	35,230	39,783
Physician . . . . .	1,128	1,790	3,415	8,188	17,311	22,619	24,373	27,065
Outpatient hospital . . . . .	33	114	652	1,935	4,304	5,903	6,534	7,680
Home health agency . . . . .	10	34	87	195	54	52	61	55
Group practice prepayment . . . . .	19	26	80	203	720	1,361	2,019	2,308
Independent laboratory . . . . .	7	11	39	114	558	885	983	1,186
Administrative expenses . . . . .	110	237	462	610	933	921	1,260	1,489
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	92.4	92.0	89.3
Skilled nursing facility . . . . .	8.2	4.7	0.5	1.6	1.2	1.2	1.6	4.6
Home health agency . . . . .	0.8	1.0	1.4	2.2	4.4	4.4	4.4	4.3
Hospice . . . . .	...	...	...	...	0.0	0.1	0.2	0.2
Medicaid Professional Standard Review Organization/Peer Review Organization <sup>5</sup> . . . . .	...	...	...	0.1	0.3	0.3	0.3	0.3
Administrative expenses <sup>6</sup> . . . . .	2.2	3.0	2.3	2.0	1.7	1.6	1.5	1.3
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	71.3	69.2	68.0
Outpatient hospital . . . . .	2.5	5.2	13.8	17.2	18.0	18.6	18.5	19.3
Home health agency . . . . .	0.8	1.5	1.8	1.7	0.2	0.2	0.2	0.1
Group practice prepayment . . . . .	1.5	1.2	1.7	1.8	3.0	4.3	5.7	5.8
Independent laboratory . . . . .	0.5	0.5	0.8	1.0	2.3	2.8	2.8	3.0
Administrative expenses . . . . .	8.4	10.7	9.8	5.4	3.9	2.9	3.6	3.7

<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 health insurance terminated after Mar. 31, 1968.

<sup>5</sup>Includes 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>6</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, Mar. 1990.

**Table 128. Medicare enrollment, persons served, and payments for Medicare enrollees 65 years of age and over, according to selected characteristics: United States and other areas, 1967, 1977, 1987, and 1988**

[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 <sup>3</sup>			
	1967	1977	1987	1988	1967	1977	1987	1988	1967	1977	1987	1988	1967	1977	1987	1988
Total . . . . .	19.5	23.8	29.4	29.9	367	570	754	768	\$592	\$1,332	\$3,025	\$3,178	\$217	\$ 759	\$2,281	\$2,440
Age																
65-66 years . . . . .	2.8	3.3	4.0	3.9	300	533	700	706	496	1,075	2,214	2,292	149	573	1,550	1,618
67-68 years . . . . .	2.6	3.2	3.7	3.8	326	511	667	675	521	1,173	2,536	2,658	170	599	1,691	1,793
69-70 years . . . . .	2.4	2.9	3.4	3.4	339	531	705	727	530	1,211	2,670	2,823	180	643	1,902	2,051
71-72 years . . . . .	2.3	2.6	3.1	3.1	351	555	740	753	560	1,228	2,904	3,040	197	681	2,150	2,289
73-74 years . . . . .	2.1	2.3	2.9	2.9	369	576	762	777	574	1,319	3,048	3,224	212	759	2,322	2,505
75-79 years . . . . .	3.9	4.5	5.7	5.8	398	597	787	804	624	1,430	3,312	3,464	248	853	2,608	2,784
80-84 years . . . . .	2.2	3.0	3.7	3.8	430	623	828	841	693	1,549	3,496	3,665	298	965	2,894	3,083
85 years and over . . . . .	1.3	2.1	3.0	3.1	465	652	841	857	740	1,636	3,708	3,940	345	1,068	3,119	3,378
Sex																
Male . . . . .	8.3	9.6	11.8	12.0	357	546	712	724	647	1,505	3,432	3,632	231	821	2,443	2,630
Female . . . . .	11.3	14.2	17.6	17.9	373	586	782	797	554	1,223	2,778	2,902	207	717	2,173	2,313
Race <sup>4</sup>																
White . . . . .	17.4	21.1	25.7	26.1	375	576	760	775	593	1,328	2,993	3,139	222	765	2,275	2,431
Other . . . . .	1.5	2.1	2.8	2.9	260	514	699	708	557	1,404	3,403	3,626	145	722	2,379	2,569
Geographic region <sup>5</sup>																
Northeast . . . . .	5.1	5.7	6.6	6.7	385	613	793	800	604	1,426	3,171	3,394	233	874	2,513	2,716
Midwest . . . . .	5.6	6.3	7.4	7.4	352	541	756	779	599	1,401	2,969	3,036	211	757	2,246	2,364
South . . . . .	5.6	7.5	9.6	9.9	351	556	768	787	528	1,198	2,893	3,065	186	666	2,221	2,413
West . . . . .	2.9	3.8	5.2	5.3	455	632	726	727	620	1,341	3,222	3,383	282	848	2,339	2,459

<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 includes 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 129. Selected rates of non-Federal short-stay hospital utilization and benefit payments for aged and disabled Medicare enrollees, according to geographic division: United States, 1980, 1984, and 1988**

[Data are compiled by the Health Care Financing Administration]

Geographic division	Discharges from short-stay hospitals			Average length of stay in short-stay hospitals			Average days of care in short-stay hospitals		
	1980	1984	1988	1980	1984	1988	1980	1984	1988
	Number per 1,000 hospital insurance enrollees			Number of days per hospital discharge			Number per 1,000 hospital insurance enrollees		
United States . . . . .	372	371	319	10.6	8.9	8.7	4,016	3,297	2,759
New England . . . . .	333	343	296	12.1	10.4	10.4	4,130	3,562	3,076
Middle Atlantic . . . . .	329	348	314	13.4	11.8	11.3	4,528	4,099	3,538
East North Central . . . . .	373	367	314	11.2	9.0	8.3	4,243	3,288	2,611
West North Central . . . . .	426	400	307	9.9	7.9	7.6	4,371	3,176	2,336
South Atlantic . . . . .	372	375	317	10.3	8.6	8.8	3,880	3,205	2,793
East South Central . . . . .	436	450	402	9.6	8.1	8.0	4,260	3,649	3,200
West South Central . . . . .	433	436	352	9.1	7.7	7.8	4,025	3,364	2,754
Mountain . . . . .	360	333	290	8.7	7.3	6.8	3,243	2,432	1,965
Pacific . . . . .	338	326	277	8.7	7.3	8.3	2,988	2,389	2,292

Geographic division	Benefit payments								
	Average total charges in short-stay hospitals <sup>1</sup>			Hospital insurance <sup>2</sup>			Supplementary medical insurance		
	1980	1984	1988	1980	1984	1988	1980	1984	1988
	Amount per day			Amount per enrollee					
United States . . . . .	\$296	\$552	\$ 861	\$ 909	\$1,466	\$1,648	\$390	\$672	\$1,078
New England . . . . .	295	496	734	978	1,543	1,620	402	672	1,006
Middle Atlantic . . . . .	304	502	719	965	1,596	1,909	428	763	1,197
East North Central . . . . .	298	560	866	1,008	1,542	1,701	370	636	1,057
West North Central . . . . .	246	506	810	888	1,387	1,393	304	477	791
South Atlantic . . . . .	277	538	856	818	1,346	1,553	384	663	1,139
East South Central . . . . .	249	491	791	754	1,296	1,626	281	479	816
West South Central . . . . .	259	516	875	798	1,434	1,636	352	652	1,109
Mountain . . . . .	310	623	1,020	782	1,269	1,413	368	625	986
Pacific . . . . .	424	819	1,290	1,003	1,551	1,650	509	863	1,221

<sup>1</sup>Includes charges for Medicare covered and noncovered services and days.

<sup>2</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 Prospective Payment System passthroughs (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 130. Medicaid recipients and medical vendor payments, according to basis of eligibility: United States, selected years 1972–89**

[Data are compiled by the Health Care Financing Administration]

<i>Basis of eligibility</i>	1972 <sup>1</sup>	1975 <sup>1</sup>	1980 <sup>2</sup>	1984 <sup>2</sup>	1985 <sup>2</sup>	1986 <sup>2</sup>	1987 <sup>2</sup>	1988 <sup>2</sup>	1989 <sup>2</sup>
<b>Recipients</b>									
Number in millions									
All recipients . . . . .	17.6	22.0	21.6	21.6	21.8	22.5	23.1	22.9	23.5
Percent distribution									
Total . . . . .	100.0	100.0	. . .	. . .	. . .	. . .	. . .	. . .	. . .
Aged <sup>3</sup> . . . . .	18.8	16.4	15.9	15.0	14.0	13.9	14.1	13.8	13.3
Blind and disabled . . . . .	9.8	11.2	13.5	13.5	13.8	14.2	14.6	15.2	15.3
Adults in AFDC <sup>4</sup> families . . . . .	17.8	20.6	22.6	25.9	25.3	25.1	24.2	24.0	24.3
Children in AFDC <sup>4</sup> families . . . . .	44.5	43.6	43.2	44.8	44.7	44.4	44.0	43.8	43.9
Other Title XIX <sup>5</sup> . . . . .	9.0	8.2	6.9	5.5	5.6	6.0	6.1	5.9	5.0
<b>Vendor payments</b>									
Amount in billions									
All payments . . . . .	\$ 6.3	\$ 12.2	\$ 23.3	\$ 33.9	\$ 37.5	\$ 41.0	\$ 45.0	\$ 48.7	\$ 54.5
Percent distribution									
Total . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Aged <sup>3</sup> . . . . .	30.6	35.6	37.5	37.8	37.6	36.8	35.6	35.2	34.1
Blind and disabled . . . . .	22.2	25.7	32.7	35.3	35.9	36.4	37.3	38.2	38.3
Adults in AFDC <sup>4</sup> families . . . . .	15.3	16.8	13.9	13.0	12.7	11.9	12.4	12.1	12.7
Children in AFDC <sup>4</sup> families . . . . .	18.1	17.9	13.4	11.7	11.8	12.5	12.2	12.0	12.6
Other Title XIX <sup>5</sup> . . . . .	13.9	4.0	2.6	2.1	2.1	2.4	2.4	2.5	2.1
<b>Vendor payments per recipient</b>									
Amount									
All recipients . . . . .	\$358	\$ 556	\$1,079	\$1,569	\$1,719	\$1,821	\$1,949	\$2,126	\$2,318
Aged <sup>3</sup> . . . . .	580	1,206	2,540	3,958	4,605	4,808	4,974	5,426	5,926
Blind and disabled . . . . .	807	1,276	2,618	4,112	4,459	4,686	4,974	5,332	5,817
Adults in AFDC <sup>4</sup> families . . . . .	307	455	662	789	860	864	999	1,069	1,206
Children in AFDC <sup>4</sup> families . . . . .	145	228	335	411	452	512	542	583	668
Other Title XIX <sup>5</sup> . . . . .	555	273	398	590	657	720	763	892	967

<sup>1</sup>Data for fiscal year ending June 30

<sup>2</sup>Data for fiscal year ending September 30. Recipients included in more than 1 category.

<sup>3</sup>65 years and over.

<sup>4</sup>Aid to Families with Dependent Children.

<sup>5</sup>Includes some participants in Supplemental Security Income program and other people deemed medically needy in participating States.

SOURCE: Bureau of Data Management and Strategy, Health Care Financing Administration: Unpublished data.

**Table 131 (page 1 of 2). Medicaid recipients and medical vendor payments, according to type of service: United States, selected fiscal years 1972–89**

[Data are compiled by the Health Care Financing Administration]

Type of service	1972 <sup>1</sup>	1975 <sup>1</sup>	1980 <sup>2</sup>	1984 <sup>2</sup>	1985 <sup>2</sup>	1986 <sup>2</sup>	1987 <sup>2</sup>	1988 <sup>2</sup>	1989 <sup>2</sup>
<b>Recipients</b>									
All recipients . . . . .	17.6	22.0	21.6	21.6	21.8	22.5	23.1	22.9	23.5
Number in millions									
Percent of recipients <sup>3</sup>									
<b>Inpatient services:</b>									
General hospitals . . . . .	16.1	15.6	17.0	16.0	15.7	15.7	16.3	16.7	17.7
Mental hospitals . . . . .	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.4
Skilled nursing facility services . . . . .	3.1	2.9	2.8	2.6	2.5	2.5	2.5	2.5	2.4
<b>Intermediate care facility services:</b>									
Mentally retarded . . . . .	---	0.3	0.6	0.7	0.7	0.6	0.6	0.6	0.6
All other . . . . .	---	3.1	3.7	3.7	3.8	3.7	3.7	3.8	3.8
Physician services . . . . .	69.8	69.1	63.7	65.7	66.0	66.2	66.5	66.6	66.7
Dental services . . . . .	13.6	17.9	21.5	22.9	21.4	22.9	22.2	22.1	17.9
Other practitioner services . . . . .	9.1	12.1	15.0	15.5	15.4	15.3	15.3	15.2	15.1
Outpatient hospital services . . . . .	29.6	33.8	44.9	46.4	46.2	47.5	47.5	46.0	48.3
Clinic services . . . . .	2.8	4.9	7.1	9.4	9.7	9.0	9.4	9.8	10.2
Laboratory and radiological services . . . . .	20.0	21.5	14.9	22.3	29.1	31.6	32.9	33.1	33.0
Home health services . . . . .	0.6	1.6	1.8	2.0	2.5	2.6	2.6	2.5	2.6
Prescribed drugs . . . . .	63.3	64.3	63.4	64.5	63.8	65.3	65.3	66.9	67.7
Family planning services . . . . .	...	5.5	5.2	7.3	7.5	7.7	7.1	6.7	6.7
Early and periodic screening . . . . .	...	...	...	8.6	8.7	9.5	9.7	10.0	10.7
Rural health clinic services . . . . .	...	...	...	0.4	0.4	0.5	0.6	0.6	0.7
Other care . . . . .	14.4	13.2	11.9	11.7	15.5	14.7	15.6	18.2	19.5
<b>Vendor payments</b>									
All payments . . . . .	\$ 6.3	\$ 12.2	\$ 23.3	\$ 33.9	\$ 37.5	\$ 41.0	\$ 45.1	\$ 48.7	\$ 54.5
Amount in billions									
Percent distribution									
Total . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Inpatient services:</b>									
General hospitals . . . . .	40.6	27.6	27.5	26.1	25.2	25.3	25.1	24.8	24.5
Mental hospitals . . . . .	1.8	3.3	3.3	3.1	3.2	2.7	3.1	2.8	2.7
Skilled nursing facility services . . . . .	23.3	19.9	15.8	14.2	13.5	13.8	13.2	13.0	12.2
<b>Intermediate care facility services:</b>									
Mentally retarded . . . . .	---	3.1	8.5	12.6	12.6	12.4	12.4	12.4	12.2
All other . . . . .	---	15.4	18.0	17.2	17.4	16.5	16.2	16.3	16.3
Physician services . . . . .	12.6	10.0	8.0	6.6	6.3	6.2	6.2	6.1	6.3
Dental services . . . . .	2.7	2.8	2.0	1.4	1.2	1.3	1.2	1.2	0.9
Other practitioner services . . . . .	0.9	1.0	0.8	0.7	0.7	0.6	0.6	0.6	0.6
Outpatient hospital services . . . . .	5.8	3.0	4.7	4.9	4.8	4.8	4.9	5.0	5.2
Clinic services . . . . .	0.7	3.2	1.4	1.8	1.9	2.0	2.1	2.3	2.3
Laboratory and radiological services . . . . .	1.3	1.0	0.5	0.6	0.9	1.0	1.1	1.1	1.1
Home health services . . . . .	0.4	0.6	1.4	2.3	3.0	3.3	3.8	4.1	4.7
Prescribed drugs . . . . .	8.1	6.7	5.7	5.8	6.2	6.6	6.6	6.8	6.8
Family planning services . . . . .	...	0.5	0.3	0.5	0.5	0.6	0.5	0.4	0.4
Early and periodic screening . . . . .	...	...	...	0.2	0.2	0.2	0.3	0.3	0.3
Rural health clinic services . . . . .	...	...	...	0.0	0.0	0.0	0.0	0.0	0.0
Other care . . . . .	1.8	1.9	1.9	2.2	2.5	2.7	2.7	2.9	3.5

See footnotes at end of table.

**Table 131 (page 2 of 2). Medicaid recipients and medical vendor payments, according to type of service: United States, selected fiscal years 1972–89**

[Data are compiled by the Health Care Financing Administration]

<i>Type of service</i>	1972 <sup>1</sup>	1975 <sup>1</sup>	1980 <sup>2</sup>	1984 <sup>2</sup>	1985 <sup>2</sup>	1986 <sup>2</sup>	1987 <sup>2</sup>	1988 <sup>2</sup>	1989 <sup>2</sup>
Vendor payments per recipient	Amount								
Total payment per recipient . . . . .	\$ 358	\$ 556	\$ 1,079	\$ 1,569	\$ 1,719	\$ 1,821	\$ 1,949	\$ 2,126	\$ 2,318
Inpatient services:									
General hospitals . . . . .	903	983	1,742	2,552	2,753	2,924	3,000	3,151	3,208
Mental hospitals . . . . .	2,825	6,045	11,742	29,771	19,867	21,000	24,719	22,917	16,397
Skilled nursing facility services . . . . .	2,665	3,863	6,081	8,605	9,274	9,912	10,432	10,974	11,809
Intermediate care facility services:									
Mentally retarded . . . . .	---	5,507	16,438	30,184	32,102	34,979	37,523	41,531	44,999
All other . . . . .	---	2,764	5,326	7,315	7,882	8,180	8,575	9,149	9,994
Physician services . . . . .	65	81	136	156	163	171	181	193	217
Dental services . . . . .	71	86	99	95	98	103	105	114	118
Other practitioner services . . . . .	37	48	61	69	75	73	74	82	89
Outpatient hospital services . . . . .	70	50	113	164	178	185	203	229	250
Clinic services . . . . .	82	358	209	292	337	398	441	490	523
Laboratory and radiological services . . . . .	23	27	38	43	53	60	63	72	76
Home health services . . . . .	229	204	847	1,767	2,093	2,280	2,775	3,541	4,225
Prescribed drugs . . . . .	46	58	96	141	166	183	198	215	232
Family planning services . . . . .	...	55	72	104	119	130	138	135	145
Early and periodic screening . . . . .	...	...	...	42	45	48	51	54	58
Rural health clinic services . . . . .	...	...	...	75	81	93	101	107	133
Other care . . . . .	44	80	172	298	274	331	340	343	418

<sup>1</sup>Data for fiscal year ending June 30.

<sup>2</sup>Data for fiscal year ending September 30.

<sup>3</sup>Recipients included in more than 1 category.

SOURCE: Bureau of Data Management and Strategy, Health Care Financing Administration: Unpublished data.

**Table 132. Veterans medical care expenditures and percent distribution, according to type of service: United States, selected fiscal years 1965–89**

[Data are compiled from Veterans Administration sources]

Type of service	1965 <sup>1</sup>	1970 <sup>1</sup>	1975 <sup>1</sup>	1980	1985	1986	1987 <sup>2</sup>	1988	1989
<b>Patients treated</b>									
	Number in thousands								
Inpatient hospital . . . . .	730	787	1,065	1,235	1,306	1,328	1,077	1,086	1,028
Outpatient care . . . . .	5,987	7,312	13,799	18,206	19,586	20,188	21,890	23,232	22,643
Veterans Administration nursing homes and domiciliaries . . . . .	---	34	30	28	34	37	40	44	44
Community nursing homes . . . . .	---	15	24	28	39	41	42	42	32
All other <sup>3</sup> . . . . .	---	43	53	57	56	56	52	52	48
<b>Expenditures</b>									
	Amount in millions								
All expenditures <sup>4</sup> . . . . .	\$1,150	\$1,689	\$3,328	\$5,981	\$8,936	\$9,275	\$9,673	\$10,230	\$10,949
<b>Percent distribution</b>									
All services . . . . .	100.0	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	57.2	55.5	53.9	54.1
Outpatient care . . . . .	12.0	14.0	17.8	19.1	18.9	20.7	21.5	22.6	23.3
Veterans Administration nursing homes and domiciliaries . . . . .	2.9	4.3	4.8	5.1	5.4	5.9	6.2	6.5	6.7
Community nursing homes . . . . .	0.0	1.2	1.4	2.0	3.0	3.3	3.4	3.5	2.6
All other <sup>3</sup> . . . . .	3.2	9.1	9.6	9.6	12.4	12.9	13.4	13.4	13.3

<sup>1</sup>Data for fiscal year ending June 30; all other data for fiscal year ending September 30.

<sup>2</sup>Reflects reclassification of 1-day dialysis treatment of ambulatory patients as an outpatient procedure rather than a 1-day hospital admission.

<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 Veterans Administration.

<sup>4</sup>Medical care expenditures exclude construction, medical administration, and miscellaneous operating expenses.

SOURCE: Budget Office, Veterans Administration: Unpublished data.

**Table 133. 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 134. 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**

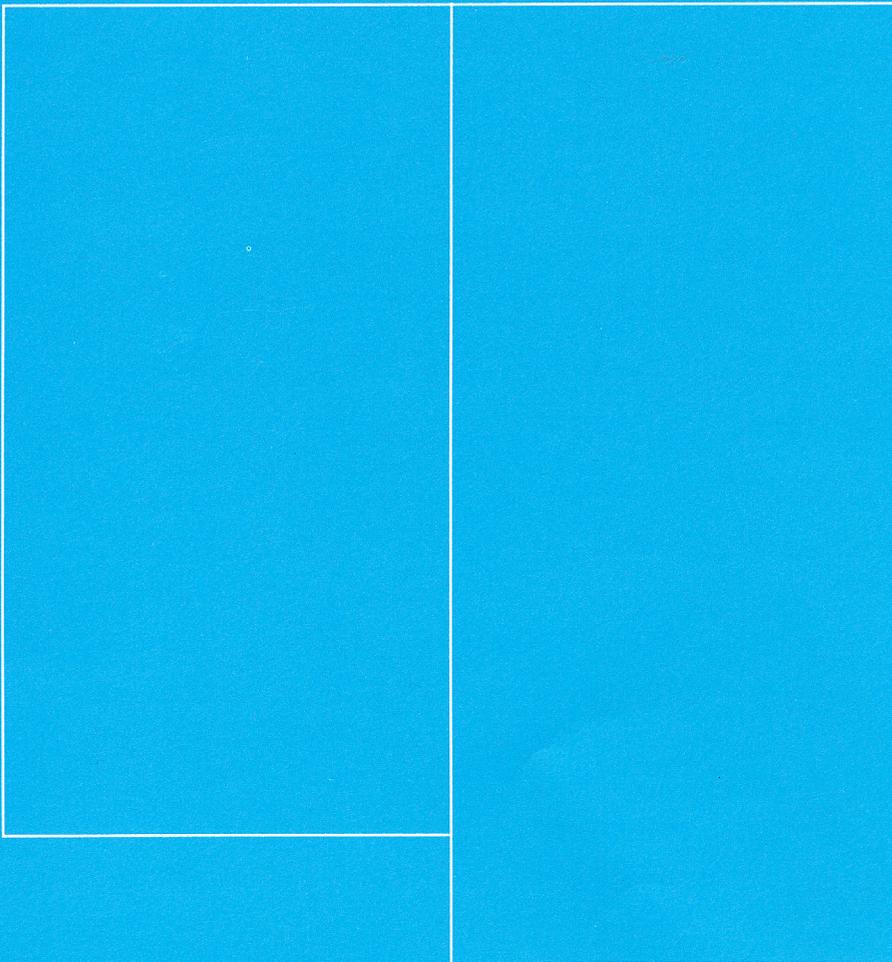
<i>State</i>	<i>1981</i>	<i>1983</i>	<i>1985</i>	<i>1987</i>	<i>Average annual percent change 1981–87</i>
	Amount per capita				
United States . . . . .	\$27	\$31	\$35	\$ 38	5.9
Alabama . . . . .	20	24	28	29	6.5
Alaska . . . . .	38	41	45	50	4.8
Arizona . . . . .	10	10	12	16	8.4
Arkansas . . . . .	17	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.

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# Appendix I

## Sources and Limitations of Data

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### 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 tape. 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 in 1985.

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.

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 1983-87 information on births of Hispanic parentage was available for 23 States and the District of Columbia. 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 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. 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, 1989.

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

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

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

In order to produce estimates for the entire population of eligible women in the United States, data for the interviewed sample women were inflated by the reciprocal of the probability of selection at each stage of sampling and adjusted for 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 are 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 1988, there was a sample of about 122,000 persons and in 1989, a sample of about 117,000 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, 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.

#### **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 through 1980, 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 through 1975, the hospital survey was conducted in conjunction with the American Hospital Association (AHA) Annual

Survey of Hospitals. AHA performed the data collection for its member hospitals, while 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 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. Prior to 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 37 percent of sample hospitals) 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, 526 were within the scope of the survey, and 408 participated in the survey in 1989. Data were abstracted from about 233,000 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, Forthcoming.*

### **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 through April 1974; the second survey from May through December 1977; and the third from August 1985 through 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) selected from about 1,900 such units into which the United States has been divided. In each sample PSU, a sample of practicing physicians is selected. The final stage involves the selection of samples of patient visits during randomly assigned 7-day reporting periods.

For the 1985 survey, a sample of 5,032 non-Federal, office-based physicians was selected from masterfiles maintained by the American Medical Association and the American Osteopathic Association. The physician response rate for 1985 was 70.2 percent, providing data concerning a sample of about 71,594 patient visits.

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, T. McLemore and J. DeLozier. 1985 Summary: National Ambulatory Medical Care Survey. *Advance Data From Vital and Health Statistics*. No. 128. DHHS Pub. No. (PHS) 87–1250. Public Health Service. Hyattsville, Md. 1987.

## **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 nonhospital practice, public and private clinics, and medical record systems (death certificates, tumor registries, hospital discharge abstracts, and communicable disease reports). Using a standard confidential case report form, the health departments collect information without personal identifiers, which is coded and computerized either at the Centers for Disease Control (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 followup, 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, 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, and 30 in 1989. The number of areas reporting mumps was 48 in 1985, 49 in 1987, 48 in 1988, and 50 in 1989.

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 1989 reports of notifiable diseases, *Morbidity and Mortality Weekly Report*, 38(54), Public Health Service, DHHS, Atlanta, Ga., Oct. 1990, or write to Centers for Disease Control, Director, Division of Surveillance and Epidemiology, Atlanta, Ga. 30333.

## 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.

## 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 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 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 1981 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 1981 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).
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**

#### **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 1988 survey is the ninth 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 12 years of age and over living in households in the coterminous United States. Youths (12–17 years) and young adults (18–25 years of age) are oversampled as are blacks and Hispanics.

The most recent survey (1988) is based on home personal interviews of 8,814 randomly selected Americans 12 years of age and over. The interview response rate in this survey was 82 percent for the youth sample (12–17 years).

For more information on the National Household Survey on Drug Abuse, see: Population Estimates, 1988. For further information on drug abuse treatment units, see: National Institute on Drug Abuse, *National Drug and Alcoholism Treatment Unit Survey (NDATUS), Final Report, 1987*. DHHS Pub. No. (ADM) 89–1626, U.S. Government Printing Office, 1989.

#### **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 a nonrandom sample of emergency room and medical examiner facilities. DAWN collects information only about those drug abuse occurrences which 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. Emergency room data in DAWN are from facilities located primarily in 21 metropolitan areas throughout the continental United States and a national panel of emergency rooms. Medical examiner data are collected from 27 metropolitan areas. Within each participating facility, a designated DAWN reporter is responsible for identifying drug abuse episodes by reviewing official records and transcribing and submitting data on each case. A number of quality control procedures are used to assure that DAWN data are as accurate and methodologically consistent as possible. Trend tables using DAWN data include the same group of facilities for all of the time periods shown. Each of the facilities included must meet the criteria of reporting at least 90 percent of the days in any given year. This group of facilities is referred to as a “consistent panel.”

### **National Institute of Mental Health**

#### **Surveys of Mental Health Organizations**

The Survey and Reports Branch of the Division of Biometry and Applied Sciences conducts several inventories of mental health organizations. Some of the data in this report are derived from more than one of these inventories. 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 Inventories of Mental Health Organizations are 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 (e.g., 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. Prior to 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 Survey and Reports 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: Survey and Reports Branch, Division of Biometry and Applied Sciences, 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, 1987*. R. W. Manderscheid and S. A. Barrett, eds. DHHS Pub. No. (ADM) 87-1518, U.S. Government Printing Office, 1987.

## 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 followup information on all previously diagnosed patients.

Data are submitted to the Institute twice a year. Patients included in this report include those diagnosed between 1973 and 1986. Patients diagnosed between 1973 and 1985 have been followed through 1986 and are included in survival calculations using the actuarial method. All patients 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. Currently, the Bureau has provided population projections through 1985. Population projections for 1986 have been made by NCI. 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, 1973-86* by E. Sondik et al., NIH Pub. No. 89-2789. Public Health Service, Bethesda, Md., May 1989.

### 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. Health expenditure estimates presented in this volume include extensive revisions back to 1960. These revisions include the addition of new categories of service, such as home health and new categories of sources of funds, such as nonpatient revenues as well as changes in concepts, data sources, and methodology. Therefore, data in this volume will differ from those appearing in earlier volumes of *Health, United States*.

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 categories. 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 item again would result in double counting) are developed from information gathered by the National Institutes of Health.

Source of funding estimates likewise come from a multiplicity of sources. Data on the Federal health programs are taken from administrative records maintained by the servicing agencies. Among the sources used to estimate State and local government spending for health are the U.S. Bureau of the Census' *Government Finances* and Social Security Administration reports on State-operated Workers' Compensation programs. Federal and State-local expenditures for education and training of medical personnel are excluded from these measures where they are separable. For the private financing of health care, data on the financial experience of health insurance organizations come from special Health Care Financing Administration analyses of private health insurers. 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, 1988, by the Office of National Cost Estimates, *Health Care Financing Review*, Vol. 11, No. 4, HCFA Pub. No. 03298, Health Care Financing Administration, Washington, U.S. Government Printing Office, Summer 1990.

## 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 to provide 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 1989, 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: 1980–87, *Current Population Reports*, Series P–25, No. 1022, Washington, U.S. Government Printing Office, 1988.

## Department of Labor

### Bureau of Labor Statistics

#### 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 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 (BLS) publish data on employment and earnings. The data are collected by the 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 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 1989*, Vol. 36, No. 1, Washington, U.S. Government Printing Office, Jan. 1989.

## 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, 1940–88*, EPA–450/4–90–001, Research Triangle Park, N.C., Mar. 1990, 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 1988*, Pub. No. ST/ESA/STAT/SER.R/16, United Nations, New York, N.Y., 1988.

### **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 1989*, World Health Organization, Geneva, Switzerland, 1989.

### **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 survey universe 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 American Hospital Association 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 1989*, American Association of Colleges of Osteopathic Medicine, Rockville, Md., 1989.

### **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 1988/89*. 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 1988, questionnaires were mailed to all hospitals on AHA files. Overall, 6,322 hospitals reported data, a response rate of 92 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; 38.9 percent of the responding hospitals used this reporting period. In the 1988 survey, the remaining hospitals used various reporting periods.

For more information on the AHA Annual Survey of Hospitals, see: American Hospital Association, *Hospital Statistics, 1989-90 Edition, Data from the American Hospital Association 1988 Annual Survey*, Chicago, 1989.

## **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.*, 1987 edition, Chicago, 1987.

### **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 Association of American Medical Colleges 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 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 of Nursing**

The division of research of the National League of 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 of Nursing, *Nursing Student Census 1989*, 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, 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 (i.e., PHS Act, Section 314(d) grant monies). Today, the Reporting System maintains a data base and publishes annual reports on State health agency personnel, expenditures, funding sources, programs, and services.

The Foundation's 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 and funding sources, and the services and activities in two program areas: personal health and environmental health. Supplementary data on clients, services, and selected health outcomes are collected in the areas of maternal and child health, handicapped children's services, dental health, and tuberculosis control. In addition, special studies are undertaken periodically to gather information on public health topics of high national priority.

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 nine 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,

**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

cause-specific provisional death rates, which are based on 10 age groups 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) x total population on July 1, 1970. Civilian noninstitutionalized population = civilian population on

**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 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.

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

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. In this report, three racial categories are generally used: "white," "all other," and "black." The "all other" category includes all races other than 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. In the National Vital Statistics System, newborn infants are assigned the race of their parents. If the parents are of different races and one is white, the child is assigned the other parent's race. If either parent is Hawaiian, the child is classified as Hawaiian. In all other cases the child is assigned the father's race. Prior to 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 (e.g., 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. Families of members of the Armed Forces are included, however. 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 (e.g., 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.

## 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 nine divisions within four 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 a 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**—Prior to 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.

**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
Tuberculosis . . . . .	001–019	001–019	010–019	010–018
Chronic liver disease and cirrhosis . . . . .	581	581	571	571
Diabetes mellitus . . . . .	260	260	250	250
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
Malignant neoplasm of peritoneum and pleura . . . . .	...	...	158, 163.0	158, 163
Coalworkers' pneumoconiosis . . . . .	...	...	515.1	500
Asbestosis . . . . .	...	...	515.2	501
Silicosis . . . . .	...	...	515.0	502

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 (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 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 (i.e., 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 (supp. 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 (e.g., 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.

*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 (e.g., 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 1 night or more in a hospital as an inpatient,

**Table VI. Codes for diagnostic categories from the *International Classification of Diseases, 9th Revision, Clinical Modification***

Diagnostic category	Code numbers
Females with delivery . . . . .	V27
Acquired immunodeficiency syndrome (AIDS) . . . . .	042.0–042.2, 042.9, 279.19
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

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.

**Table VII. 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
Biopsies on the digestive system (Beginning in 1989) . . . . .	42.24, 44.14, 44.15, 45.14, 45.15, 45.25, 45.27, 48.24, 48.26, 49.22, 49.23, 50.11, 50.12, 51.12–51.14, 52.11, 52.12, 52.14, 54.22, 54.24
Appendectomy, excluding incidental . . . . .	47.0
Cholecystectomy . . . . .	51.2
Repair of inguinal hernia . . . . .	53.0–53.1
Prostatectomy . . . . .	60.2–60.6
Circumcision . . . . .	64.0
Oophorectomy and salpingo-oophorectomy . . . . .	65.3–65.6
Bilateral destruction or occlusion of fallopian tubes . . . . .	66.2–66.3
Hysterectomy . . . . .	68.3–68.7
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 . . . . .	81.5–81.6
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 VIII. 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 . . . . .	45.11–45.13
Endoscopy of large intestine . . . . .	45.21–45.24
Laparoscopy (excluding that for ligation and division of fallopian tubes) . . . . .	54.21
Cystoscopy . . . . .	57.31–57.32
Arthroscopy of knee . . . . .	80.26
Computerized axial tomography (CAT scan) . . . . .	87.03, 87.41, 87.71, 88.01, 88.38
Contrast myelogram . . . . .	87.21
Biliary tract x ray . . . . .	87.5
Arteriography using contrast material . . . . .	88.4
Angiocardiography using contrast material . . . . .	88.5
Diagnostic ultrasound . . . . .	88.7
Electroencephalogram . . . . .	89.14
Radioisotope scan . . . . .	92.0–92.1
Application of cast or splint . . . . .	93.51, 93.53–93.54

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 (NMFI), 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 NMFI, because data from NMFI 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 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 World Health Organization, these hospitals provide medical and

nursing care for more than one category of medical discipline (e.g., 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 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 VI; surgical groupings and code number inclusions are shown in table VII; and diagnostic and other nonsurgical procedure groupings and code number inclusions are shown in table VIII.

*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;

**Table IX. Mental illness codes, according to applicable revision of the *Diagnostic and Statistical Manual of Mental Disorders and International Classification of Diseases***

<i>Diagnostic category</i>	<i>DSM-II/ICDA-8</i>	<i>DSM-III/ICD-9-CM</i>
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

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 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 nonsurgical 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 (forthcoming).

*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 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 (prior to 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; (d) the primary reason for the majority of admissions is mental illness classified by DSM-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.

*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) follow 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.

## 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)/ 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).

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 (e.g., out-of-pocket payments, private health insurance, and government programs) and by type of expenditures (e.g. 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).

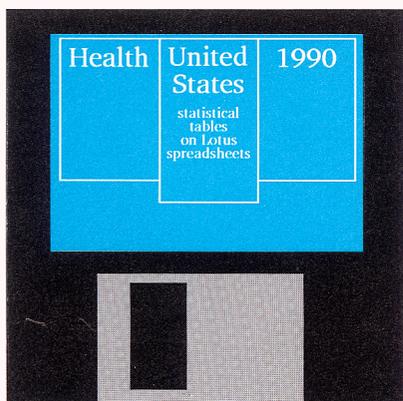
*Nursing home expenditures*—These expenditures cover care rendered in skilled nursing and intermediate care facilities, including those for the mentally retarded. The costs of long-term care provided by hospitals are excluded.

*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.

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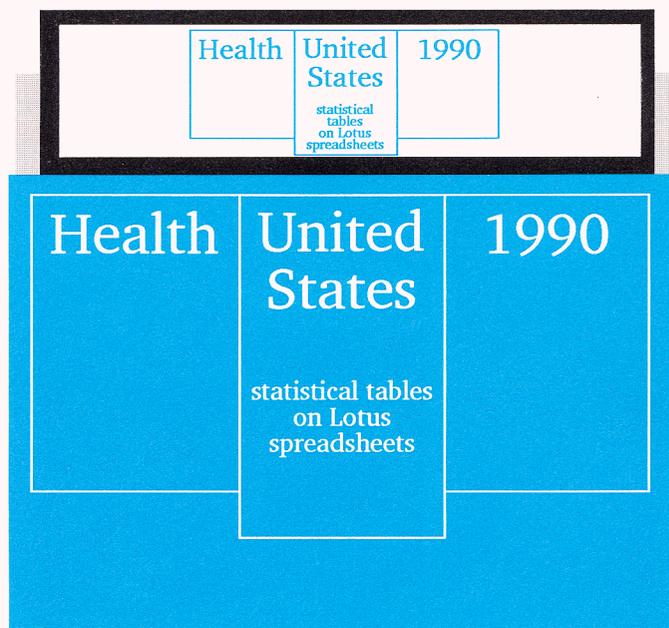
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