



# Health United States 1988

U.S. DEPARTMENT OF HEALTH  
AND HUMAN SERVICES

Public Health Service

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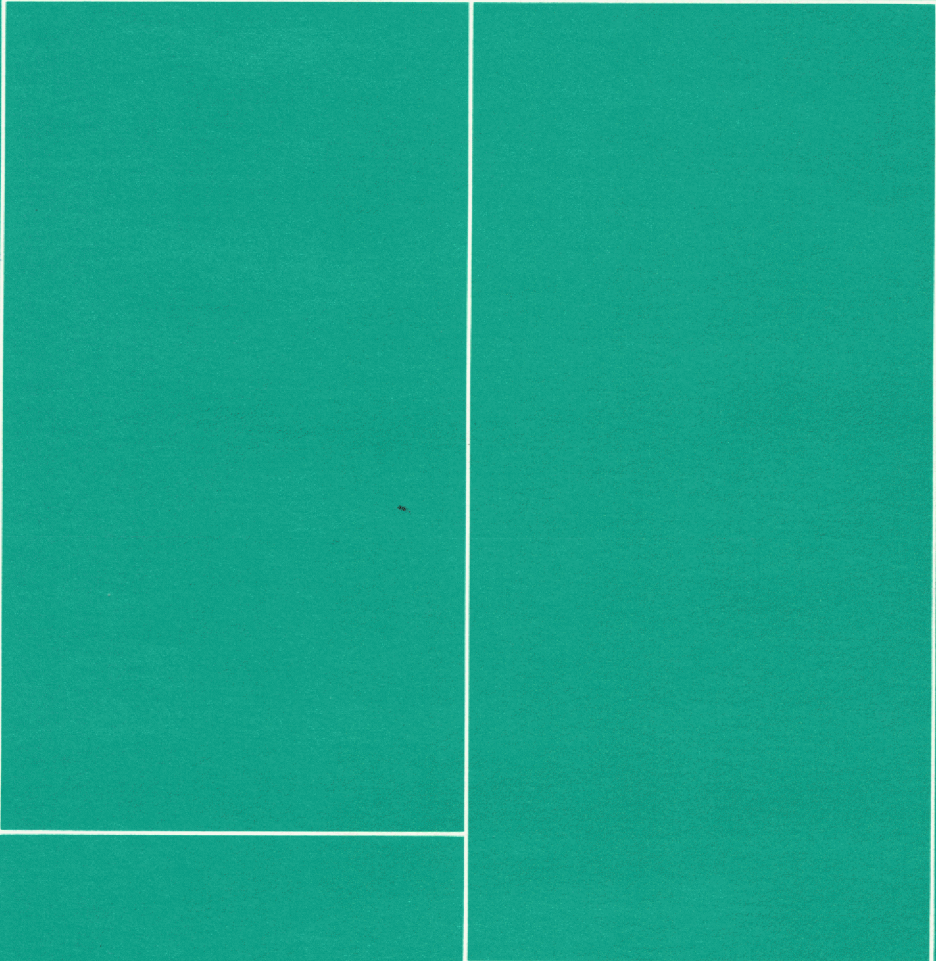
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National Center for Health Statistics

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# Preface

*Health, United States, 1988* is the 13th 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(a)(1) of the Public Health Service Act, as amended by the Public Health Service Amendments of 1987 (Pub. L. 100-177). It presents statistics concerning recent trends in the health care sector. 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, a chartbook on geographic variation in mortality for selected causes of death consists of 29 charts and accompanying text. Second, 125 detailed statistical tables 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. The major criterion used in selecting the detailed tables is the availability of comparable 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 in order to highlight major trends.

To most effectively use *Health, United States*, the reader should become familiar with the guide to tables and the two appendixes. The guide to tables provides an index to the data presented in the tables. The guide enables the reader to identify tables that crossclassify 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 report rested with the Division of Analysis, Office of Analysis and Epidemiology, National Center for Health Statistics, under the supervision of Diane M. Makuc, Joel C. Kleinman, and Jacob J. Feldman. The chartbook was prepared by Mitchell B. Pierre, Jr., Diane K. Wagener, and Eve K. Moscicki. Detailed tables were prepared by Margaret A. Cooke, Virginia M. Freid, Ilene B. Gottfried, and Rebecca A. Placek with assistance from Fanchon F. Finucane, Karen Pitchersky, Mavis B. Prather, Ildy I. Shannon, and Carolyn F. Smith. Production planning and coordination were managed by Rebecca A. Placek with typing assistance from Jeanenne M. Barry and Shari L. Rapisardi.

Publications management and editorial review were provided by Rolfe W. Larson and John E. Mounts. Printing and production were managed by Linda L. Bean, assisted by Patricia L. Wilson. Text was composed by Annette F. Gaidurgis and detailed tables by Jacqueline M. Davis. Graphics were supervised by Stephen L. Sloan. The designer was Patricia A. Vaughan.

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# 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 . . . . .			6-8				8		
Prenatal care . . . . .			6, 7						
Abortion . . . . .	9		9						9-11
Contraception . . . . .	12		12						
Mortality									
Life expectancy . . . . .	13	13, 20	13					20	
Infant . . . . .	14		14, 15				15	19	
Neonatal . . . . .	14		14, 16				16		
Postneonatal . . . . .			14, 17				17		
Fetal . . . . .	14		14, 18				18		
Perinatal . . . . .			14					19	
All causes . . . . .	21, 34	21, 22, 34	21, 22, 34						
Years of potential life lost . . . . .			23						23
Heart disease . . . . .	24, 36	22, 24	22, 24						35
Cerebrovascular disease . . . . .	25, 36	22, 25	22, 25						35
Cancer . . . . .	26, 36	22, 26	22, 26						35
Respiratory cancer . . . . .	27	22, 27	22, 27						35
Breast cancer . . . . .	28		22, 28						35
Complications of pregnancy . . . . .	29		29						
Motor vehicle accident . . . . .	30	22, 30	22, 30						35
Homicide . . . . .	31	22, 31	22, 31						35
Suicide . . . . .	32	22, 32	22, 32						35
Occupational disease . . . . .	33								
Other causes of death . . . . .		22	22						35
Determinants and measures of health									
Health promotion goals . . . . .	37								
Childhood vaccination . . . . .			38		38				
Diseases, notifiable . . . . .									39
Acquired immunodeficiency syndrome (AIDS) . . . . .	40-43	40-43	40-43				44, 45		42, 43
Cancer incidence . . . . .			46						46
Cancer survival . . . . .			47						47
Limitation of activity . . . . .	48	48	48	48	48	48			
Disability days . . . . .	49								49
Self-assessment of health . . . . .	50	50	50	50	50	50			
Cigarette smoking . . . . .	51, 52	51, 52	51						
Alcohol consumption . . . . .	52	52, 53							
Marijuana use . . . . .	52	52							
Cocaine . . . . .	52	52							
Elevated blood pressure . . . . .	54, 55	54, 55	54, 55						
Elevated serum cholesterol . . . . .	56	56	56						
Overweight . . . . .	57	57	57						
Air pollutants . . . . .									58
Occupational health and safety . . . . .									59, 60

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 . . . . .	61	61	61	61	61		61	
Interval since last contact . . . . .	62	62	62	62	62		62	
Physician's office visits:								
Physician's specialty . . . . .	63	63	63					
Visit characteristics . . . . .	64	64	64					64
Dentist visits, interval since last visit . . . . .	65	65	65	65	65		65	
Outpatient visits in short-stay hospitals . . . . .						73		



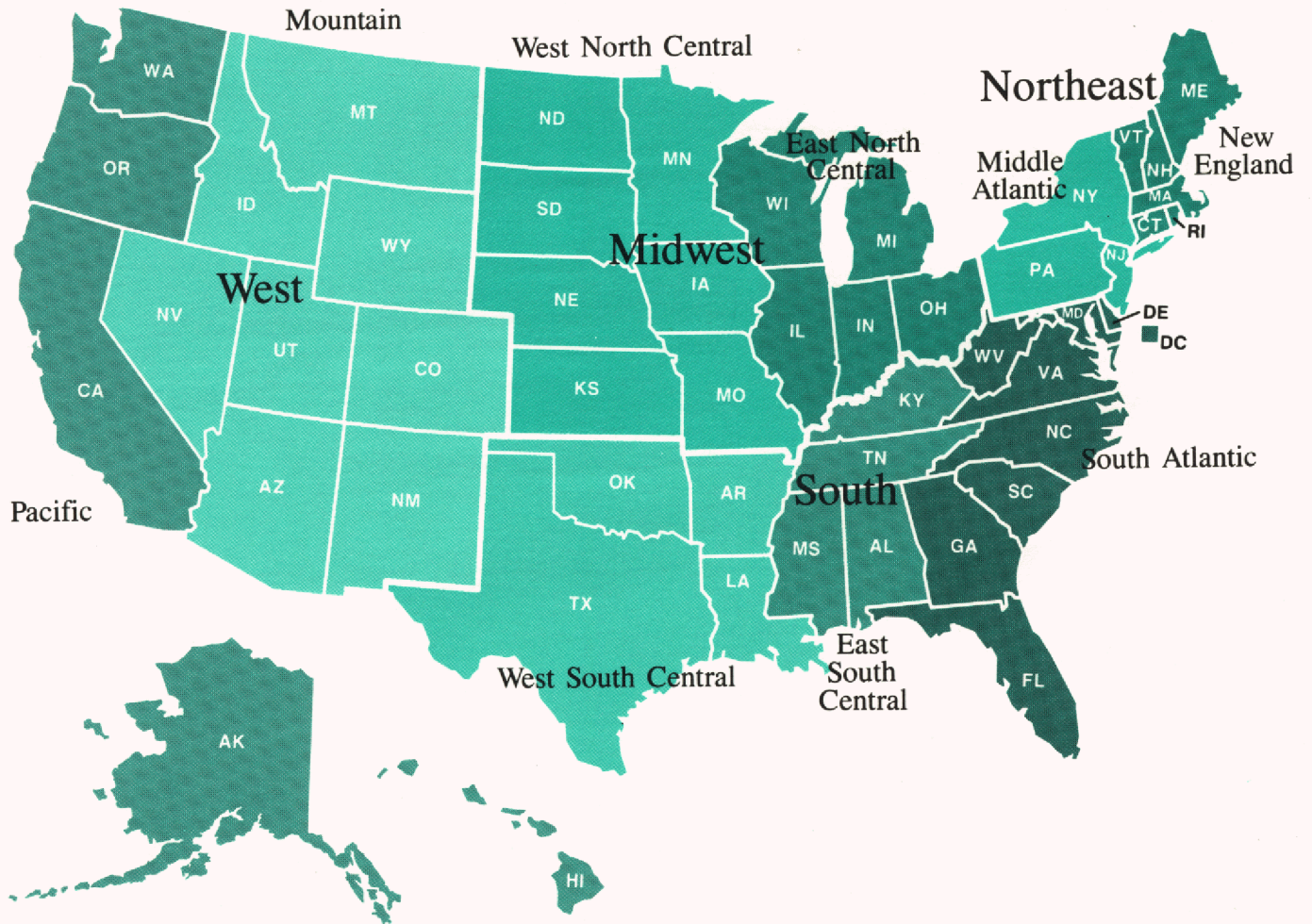
<i>Utilization of health resources</i>	<i>Age</i>	<i>Sex</i>	<i>Race</i>	<i>Family income</i>	<i>Location of residence</i>	<i>Type of ownership/organization</i>	<i>Geographic region</i>	<i>Other variables</i>
<b>Inpatient care</b>								
<b>Short-stay hospitals:</b>								
Average length of stay . . . . .	66, 67	66, 67	66	66	66		66, 67	
Diagnosis . . . . .	68, 70	68, 70						
Discharges . . . . .	66, 67	66, 67	66	66	66		66, 67	
Diagnosis . . . . .	68-70	68-70						
Surgery . . . . .	71	71						
Diagnostic and other nonsurgical procedures . . . . .	72	72						
Days of care . . . . .	66, 67	66, 67	66	66	66		66, 67	
Diagnosis . . . . .	68, 69	68, 69						
Nursing home residents . . . . .	74, 75	74	74					75
<b>Mental health facilities:</b>								
Admissions . . . . .	78, 79	78	78			76, 78, 79		76, 79
Patient care episodes . . . . .						77		

<i>Health care resources</i>	<i>Place of employment</i>	<i>Occupation</i>	<i>Activity/specialty</i>	<i>Minorities/women</i>	<i>Geographic area</i>	
					<i>Region</i>	<i>Division, State</i>
<b>Personnel</b>						
Active health personnel . . . . .	80	84			84	
Physicians . . . . .			81-83		84	81
Hospital employees . . . . .		85				
<b>Health professions education:</b>						
Graduates . . . . .		86				
Schools . . . . .		86				
Student enrollment . . . . .		86, 87		87, 88		

<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>
<b>Facilities</b>						
Short-stay hospitals . . . . .		89	89		89	
Long-stay hospitals . . . . .	90	90	90		90	
Mental health facilities . . . . .		91	91			
Community hospitals . . . . .			92	94	93	92-94
Nursing homes . . . . .			95			95

<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 . . . . .				98, 99	105			96, 97
Gross national product . . . . .								96, 97
Personal health care . . . . .				98, 99, 107	106, 107		114-116	100
Consumer Price Index . . . . .				101-103				
Hospital costs and expenses . . . . .							115	104
Nursing home charges . . . . .	109		109		108	109	116	108, 109
Health research and development . . . . .								111
Human immunodeficiency virus (HIV) . . . . .								112
Public health . . . . .				113	113			
Health care coverage . . . . .	117, 118	117, 118	117, 118			117, 118		117, 118
Health maintenance organizations . . . . .						119		119
Medicare . . . . .	121	121	121	120, 122	122	121	122	121, 122
Medicaid . . . . .				120				123
Veterans medical care . . . . .				124				
State mental health agencies . . . . .							125	

# Geographic Divisions of the United States



# Highlights

## Chartbook

■ In 1985, the age-adjusted percent of current **cigarette smokers** among men 20 years of age and over ranged from 18 percent in Utah to 41 percent in Alaska. The percent of women who were current smokers ranged from 10 percent in Utah to 34 percent in Nevada. Of the 10 States with the highest percentages of male smokers, 8 are in the South, whereas the States with the highest percentages of female smokers are found in all four regions of the United States (figures 1 and 2).

■ Between 1970 and 1985, **heart disease mortality** among persons 45–64 years of age declined substantially in all States. In 1983–85, the highest heart disease death rates among middle-aged white men, minority men, and minority women were in southern States. The highest heart disease death rates among white women were found in four States bordering the Great Lakes and five southern States (figures 3–10).

■ Between 1970 and 1985, rapid declines in **stroke mortality** among persons 55–74 years of age occurred in all States. Average annual declines in stroke mortality varied among the States from 4 to 8 percent. In 1983–85, southern States had the highest stroke death rates for persons 55–74 years of age in all four race-sex groups (figures 11–18).

■ Between 1970 and 1985, all States experienced increases in **lung cancer** death rates for women 55–74 years of age. Lung cancer was the leading cause of cancer deaths for women 55–74 years of age in only one State in 1970–72. In contrast, by 1983–85 lung cancer was the leading cause of cancer deaths for women in this age group in 41 States. There was a strong positive correlation between State rankings on lung cancer death rates for women in 1983–85 and the 1985 percent of women 55–74 years old who ever smoked (figures 19 and 20).

■ In 1979–85, **breast cancer** death rates for premenopausal women (25–44 years of age) were highest in States on the east coast, and lowest in western States. Among postmeno-

pausal women (55–74 years of age) breast cancer death rates were highest in northeastern States and lowest in southern States (figures 21 and 22).

■ **Suicide** death rates for males 15–24 years of age vary substantially among the States. In 1979–85, the highest suicide death rates for young males occurred primarily in western States whereas the lowest suicide death rates occurred primarily in the South and Northeast (figure 23).

■ Four diseases that may result from **occupational exposures** to toxic substances are mesothelioma, coal workers' pneumoconiosis, acute leukemia, and bladder cancer. Virtually all cases of mesothelioma and coal workers' pneumoconiosis are associated with occupational exposures, and a substantial proportion of acute leukemia and bladder cancer cases are associated with occupational exposures. (figures 24, 25, 27, and 28).

■ In 1979–85, age-adjusted death rates for **mesothelioma** among men 25 years of age and over were highest in Washington and New Jersey. The elevated rate in New Jersey may be due to the large number of manufacturing sites that use asbestiform fibers and the shipbuilding and repair industry in that State. Washington had a number of shipbuilding companies during World War II that may account for the elevated rate many years later (figure 24).

■ Nearly 67 percent of men who died from **coal workers' pneumoconiosis** during 1979–85 resided in Pennsylvania where the age-adjusted death rate for this disease (16.7 per 100,000 men) was 11 times the national average. States with elevated death rates for coal workers' pneumoconiosis closely correspond to those with a relatively high percentage of the male labor force in mining and are concentrated in the Appalachian and Rocky Mountain areas (figures 25 and 26).

■ In 1979–85, age-adjusted death rates for **acute leukemia** among men were elevated in a group of 10 States in the central United States. The elevated death rates for acute leukemia may be due to occupational exposures of farmers or others employed in agricultural industries in many of these States (figure 27).

■ Age-adjusted death rates for **bladder cancer** among men are elevated in the heavily industrialized parts of the United States. Seven of the 10 States with the highest age-adjusted bladder

cancer death rates for men during 1979–85 are located in the Northeast. Six of the 10 States with the highest percentages of men employed in the printing, rubber, or leather industries also rank highest for bladder cancer mortality (figures 28 and 29).

## Detailed Tables

### Health Status and Determinants

■ In 1986, the **fertility rate** was 65.4 live births per 1,000 women 15–44 years of age. After a decline of 44 percent between 1955 and 1975, the fertility rate has remained stable. However, the birth rate among women 30–39 years of age has been increasing steadily since the late 1970's (tables 2 and 3).

■ The proportion of live births to **unmarried mothers** more than doubled between 1970 and 1986, from 11 to 23 percent. Increases have occurred among all race/ethnicity groups, but the proportion of births to unmarried mothers varies substantially by race and ethnicity. In 1986, the proportion ranged from 11 percent for births among Asians and Pacific Islanders to 61 percent for births of black infants. Among Hispanic mothers, the proportion unmarried varied from 16 percent for Cuban births to 53 percent for Puerto Rican births (tables 6 and 7).

■ Between 1980 and 1986, the percent of mothers who received **prenatal care** during the first trimester of pregnancy was essentially unchanged. In 1986, the use of early prenatal care remained substantially greater for white (79 percent) and Asian and Pacific Islander births (76 percent) than for black (62 percent) or American Indian births (61 percent) (table 7). Among Hispanic mothers, use of prenatal care during the first trimester was highest for Cuban mothers (82 percent) and about the same for Puerto Rican and Mexican mothers (57–59 percent) (table 6).

■ In 1986, the percentage of live-born **infants weighing less than 2,500 grams** was more than twice as high for black infants (12.5) as for white infants (5.6). These percentages are essentially unchanged since 1980. However, the percentage of live-born infants weighing less than 1,500 grams (those at greatest risk of death and disability) has increased over this period, by 9 percent for black infants and 3 percent for white infants (table 7).

■ Between 1985 and 1986, overall **life expectancy** at birth increased from 74.7 to 74.8 years; more than a full year's increase in life expectancy has occurred since 1980. Provisional data show no change in overall life expectancy between 1986 and 1987. White females continue to have the longest life expectancy (78.8 years) followed by black females (73.8 years), white males (72.1 years), and black males (65.4 years) (table 13).

■ The **infant mortality** rate declined by 2 percent between 1985 and 1986, reaching 10.4 deaths per 1,000 live births. Although the mortality rates for both black and white infants have improved each year, the 1985 and 1986 declines were the smallest since 1965. Furthermore, the black infant mortality rate (18.0) remains twice as high as the rate for white infants (8.9) (table 14).

■ **Years of potential life lost** before age 65 is a measure of premature mortality. In 1986, 12.1 million years of potential life were lost before age 65 in the United States. The leading causes of premature mortality were accidents among males and cancer among females. Among black males the years of potential life lost from homicides was almost as large as from accidents (table 23).

■ Between 1970 and 1986, the age-adjusted death rate for **heart disease**, the leading cause of death, declined by 31 percent. Declines were greater among white males (32 percent), white females (29 percent), and black females (26 percent) than among black males (22 percent) (table 24).

■ The age-adjusted death rate for **stroke**, the third leading cause of death in the United States, declined by 53 percent between 1970 and 1986. Sharp declines have occurred for both sexes and both major race groups, ranging from 52 percent for white females to 56 percent for black females. However, in 1986 the age-adjusted death rate for stroke was 89 percent higher for black males than white males and 76 percent higher for black females than white females (table 25).

■ In contrast to the declines in heart disease and stroke mortality, the age-adjusted death rate for **lung cancer** increased between 1970 and 1986. Among males, the rate rose slowly between 1970 and 1980 but has been fairly stable since 1980. Among females, however, the lung cancer death

rate almost doubled between 1970 and 1980 and continued to increase through 1986 (table 27).

■ Between 1986 and 1987, cases of early infectious **syphilis** (primary and secondary stages) reported by State health departments increased 26 percent to 35 thousand. During the same period **gonorrhea** cases declined by 13 percent to 781 thousand (table 39).

■ Of the 77,883 **AIDS** cases reported in the United States as of November 30, 1988, 90 percent occurred among adult or adolescent men, 8 percent among adult or adolescent women, and 2 percent among children under 13 years of age. Among men, the largest proportion of cases involve non-Hispanic white men (62 percent). In contrast, AIDS cases among women and children are predominately among black persons (54 percent and 55 percent, respectively) (table 40).

■ Among adult and adolescent men, homosexual and bisexual men comprise the largest **human immunodeficiency virus (HIV)** transmission category, accounting for 69 percent of cases reported as of June 30, 1988. Intravenous drug users account for 16 percent of cases among men, and men who are both homosexual and intravenous drug users account for an additional 8 percent of cases. Among women, the largest HIV transmission categories involve intravenous drug use (52 percent) and heterosexual contact (25 percent) (table 42).

■ Almost half of the **AIDS** cases reported in the United States as of November 30, 1988, occurred among residents of New York (25 percent) or California (21 percent). Other States with large numbers of AIDS cases are Florida (7 percent), Texas (7 percent), New Jersey (7 percent), Illinois (3 percent), and Pennsylvania (3 percent) (table 44).

■ Between 1983 and 1987, **cigarette smoking** continued to decline steadily. The age-adjusted percent of men 20 years of age and over who smoke cigarettes declined from 35 percent in 1983 to 32 percent in 1987; smoking among women decreased from 30 percent in 1983 to 27 percent in 1987 (table 51).

■ In 1985, **cocaine use** during the previous month was reported by 7.6 percent of young adults 18–25 years and 1.7 percent of youths 12–17 years. Young male adults were more likely

than their female counterparts to report cocaine use (9 percent versus 6 percent). Between 1982 and 1985, the percentage of youths and young adults who reported using cocaine remained about the same (table 52).

■ Between 1985 and 1986, **lead emissions** declined by almost 60 percent from 21 thousand to 9 thousand metric tons per year in large part because of Environmental Protection Agency rules requiring petroleum refineries to lower the lead content of gasoline (table 58).

## Utilization of Health Resources

■ Between 1983 and 1987, the average number of ambulatory **physician contacts** for persons 65 years of age and over increased by 17 percent from 7.6 to 8.9 contacts per person per year. During this period the average number of visits increased 10 percent among persons 45–64 years of age while remaining fairly stable for younger persons (table 61).

■ Non-Federal short-stay **hospital use** as measured by days of care per 1,000 population declined by 8 percent between 1985 and 1987. In contrast, days of care per 1,000 population declined by 18 percent between 1983 and 1985, the time period immediately after implementation of the diagnostic-related groups (DRG) prospective payment system. The decline in short-stay hospital use between 1983 and 1985 was due to both shorter hospital stays as well as a decline in the hospital discharge rate, whereas the decline in hospital use between 1985 and 1987 primarily reflected a decline in the hospital discharge rate (table 67).

■ **Average length of stay** in non-Federal short-stay hospitals has been declining since 1980, with a period of more rapid decline associated with DRG implementation. Between 1983 and 1985, age-adjusted average length of stay declined by 6 percent from 6.8 to 6.4 days compared with a 2-percent decline between 1985 and 1987. Average length of stay among persons 65 years of age and over declined by a full day between 1983 and 1985. Since 1985, the declines in average length of stay have been minimal for all persons including those 65 years and over (table 67).

■ Between 1984 and 1987, the total number of persons discharged from non-Federal short-stay hospitals with

the diagnosis of **AIDS** increased five-fold from 10 thousand to 50 thousand. During the same time period, the number of days of care for AIDS patients increased more than sixfold from 123 thousand to 782 thousand. In 1987, the average length of stay for persons with a diagnosis of AIDS was almost 16 days compared to about 6 days for all discharges (table 68).

■ Between 1980 and 1987, inpatient **cardiac catheterization** more than doubled among men and women 45–64 years of age, tripled among men 65 years and over, and increased almost fourfold among women 65 years and over. In 1987, cardiac catheterization and coronary bypass surgery were the two most frequently performed operations among men 45–64 years of age (table 71).

■ The proportion of births delivered by **Cesarean section** has been increasing since 1980. However, the rate of increase is beginning to slow. In 1987, 24.4 percent of all deliveries were Cesarean compared to 24.1 percent in 1986, 22.7 percent in 1985, and 16.5 percent in 1980 (table 71).

■ Between 1985 and 1986, the total number of **outpatient visits** in short-stay hospitals increased by 5 percent from 273 million to 285 million. The number of outpatient visits in proprietary hospitals increased 20 percent from 12 million to almost 15 million while visits in non-Federal nonprofit hospitals increased 5 percent from 160 million to 168 million (table 73).

### Health Care Resources

■ In 1987, 8.5 million persons were employed in the **health service industry**. Throughout the period 1980–87 the health service industry accounted for about 7 percent of total employment with about half of all health service industry workers employed in hospitals, 16 percent employed in nursing homes, and 11 percent employed in physicians offices (table 80).

■ **Physician supply** continues to vary among geographic divisions of the United States. In 1986, the number of active non-Federal physicians per 10,000 population was highest in the New England and Middle Atlantic divisions (27 per 10,000), and lowest in the East and West South Central divisions (15 and 17 per 10,000) (table 81).

■ In 1986, 21 percent of professionally active doctors of medicine were

educated in schools outside the United States or Canada. The proportion of professionally active doctors with **foreign medical educations** has remained constant since 1980 (table 83).

■ In 1986, 3.1 million full-time equivalent **hospital personnel** were employed in community hospitals. Between 1984 and 1986, total full-time equivalent employment remained constant; however, the number of registered nurses employed increased 6 percent to 736 thousand, licensed practical nurses fell 15 percent to 174 thousand, and ancillary nursing personnel declined 12 percent to 227 thousand (table 85).

■ During the 1980's, **first-year enrollments** in nursing and dental schools have declined substantially. The number of first-year registered nurse enrollees increased gradually in the early 1980's and then fell 26 percent between 1984 and 1987. The number of first-year dental students declined 26 percent between 1980 and 1987 (table 86).

■ During the past decade, the proportion of **women enrolled** in schools for the health professions traditionally dominated by men increased substantially. In 1986–87, women constituted 35 percent of first-year students in medical schools, 30 percent in dental schools, and more than half of first-year students in pharmacy and veterinary schools (table 87).

■ During academic year 1986–87, **minority enrollment** accounted for 19 percent of total enrollment in medical schools compared with 11 percent during academic year 1977–78. The proportion of black students remained constant at 6 percent of total enrollment in both years, and the proportion of Asian students increased from 2 percent to 7 percent over this period (table 88).

■ The total number of short-stay **hospital beds** remained stable at 1.1 million between 1980 and 1986. However, during this period State and local government beds declined 13 percent from 212 thousand to 185 thousand while proprietary hospital beds increased 23 percent from 87 thousand to 107 thousand (table 89).

■ There were 157 thousand long-term **psychiatric hospital beds** in 1986, down 71 percent from 1970. In 1986, the occupancy rate for psychiatric beds was 87 percent (table 90).

■ Between 1980 and 1986, the number of **full-time equivalent employees** (FTE's) per 100 average daily patients in community hospitals increased 3.8 percent per year. In 1986, 492 FTE's care for 100 average daily patients in community hospitals, with the highest number of FTE's in the Pacific and New England divisions (564 and 563, respectively) and the fewest in the East South Central division (420) (table 94).

### Health Care Expenditures

■ In 1986, **national health care** expenditures in the United States totaled \$458 billion, an average of \$1,837 per person. Hospital care continues to claim the largest share of health care dollars, accounting for 39 percent of health care expenditures in 1986. Physician services have accounted for about one-fifth of expenditures since 1950. Nursing home care has increased its share of the total from 1.5 percent in 1950 to just over 8 percent in 1986 (tables 96 and 98).

■ In 1986, the United States spent 11 percent of its **gross domestic product** (GDP) on health, compared with 9 percent in Sweden, 8.5 percent in Canada and France, 8 percent in Germany, 7 percent in Japan, and 6 percent in the United Kingdom. From 1980 to 1986, the health share of GDP remained fairly stable in most industrialized countries, while increasing by about one-fifth in the United States, thereby widening the gap between the health expenditures of the United States and those of other countries (table 97).

■ In 1987, the rate of increase in the medical care component of the **Consumer Price Index** (CPI) was 6.6 percent, slightly lower than that of the previous year (7.5 percent) but higher than the 1987 overall inflation rate of 3.7 percent. The lowest rates of increase among medical care items were for nonprescription drugs (5 percent) and medical supplies (4 percent), whereas the highest rate of increase was for prescription drugs (8 percent) (tables 101 and 103).

■ Between 1985 and 1986, **hospital expenses** per inpatient day rose 8.5 percent to \$499, and hospital expenses per inpatient stay increased 9.0 percent to \$3,530. Hospital expenses per inpatient day had increased at double-digit rates every year from 1974 to 1985, and expenses per stay had double-digit increases through 1983 (table 104).

■ Since the advent of the Medicare and Medicaid programs in the mid-1960's, the **Federal Government's share** of personal health care expenditures has increased from 10 percent in 1965 to 27 percent in 1975. Its share has increased more slowly since 1975 to 30 percent in 1986 (table 106).

■ Expenditures for **HIV-related activities** by the Public Health Service (PHS) rose from \$5.6 million in 1982 to \$502.4 million in 1987. The National Institutes of Health (NIH) accounted for 52 percent of the expenditures in 1987. The National Institutes of Allergy and Infectious Disease accounted for 56 percent of NIH expenditures and the National Cancer Institute for 24 percent. Other PHS agencies with major HIV-related expenditures in 1987 included the Centers for Disease Control with 27 percent of the total and the Alcohol, Drug Abuse and Mental Health Administration with 9 percent (table 112).

■ Between 1976 and 1984, **public health** expenditures by State and territorial health agencies for the Supplemental Food Program for Women, Infants, and Children (WIC) increased an average of 32 percent per year, whereas expenditures for other public health programs increased an average of 10 percent per year. Between 1984 and 1986, average annual increases in WIC expenditures have been about the same as for other public health expenditures (9-10 percent) (table 113).

■ Between 1976 and 1987, the number of **health maintenance organizations (HMO)** increased from 174 to 647, and enrollment rose from 6 million to 29 million. HMO enrollment grew at an average annual rate of 10 percent from 1976 to 1982 compared with 25 percent from 1982 to 1985. Average annual enrollment growth slowed in the last 2 years to 18 percent. In 1987, enrollment per 1,000 population continued to be highest in the West (206 per 1,000 population) and lowest in the South (64 per 1,000 population). Individual practice associations account for an increasingly large proportion of HMO enrollees, 41 percent in 1987 compared with 7 percent in 1976 (table 119).

■ In 1986, 28.2 million people 65 years of age and over were enrolled in **Medicare**. Persons served per 1,000 enrollees nearly doubled between 1967 and 1986 to 732 per 1,000 enrollees. In 1986, the number of persons served per

1,000 enrollees was higher for white persons than other races (738 versus 683) and higher for women than men (759 versus 691) (table 121).

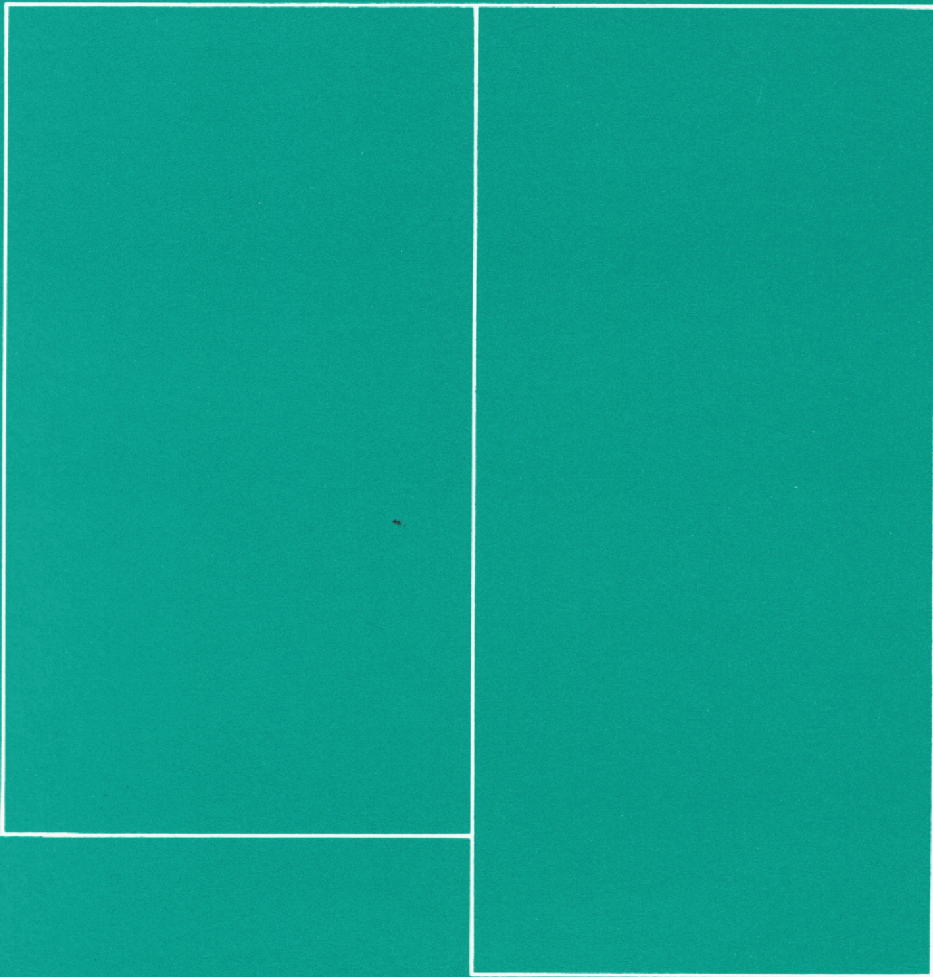
■ In 1986, **Medicare** funds reimbursed an average of \$2,870 per person served. Reimbursements per person served were lower for white persons than for persons of other races and were lower for females than for males (table 121).

■ During the period 1980-86, **Medicare** enrollees in Pacific division States had the highest supplementary medical insurance benefit payment per enrollee, \$1,144 in 1986 compared with the United States average of \$863. Medicare enrollees in New England, Middle Atlantic, East North Central and Pacific divisions had the highest hospital insurance benefit payments over the period 1980-86 compared to the other five geographic divisions. The high hospital insurance benefit payments in the Pacific division can be attributed to high hospital charges per day, whereas those in other divisions are related primarily to long hospital stays (table 122).

■ **Veterans' medical care** expenditures increased by 4 percent from 1986 to 1987. Inpatient hospital care continued to account for a smaller percent of expenditures, falling from 82 percent in 1965 to 56 percent in 1987. Outpatient care, nursing home care, and other types of care continued to show small increases in the numbers of patients treated and the proportions of expenditures for which they accounted (table 124).

■ In 1985, per capita expenditures by **State mental health agencies** for mental health services ranged from \$10.51 in Iowa to \$90.12 in New York, with about 70 percent of States having expenditures between \$20 and \$40. Higher per capita expenditures were concentrated among States in the Northeast. The relative rank of the States varied only slightly from 1981 to 1985 (table 125).

# Chartbook



# Introduction

Which areas of the United States have the highest death rates and which have the lowest? Are recent trends in mortality the same for all areas of the country? This chartbook addresses these questions through 29 maps of the United States illustrating State rankings on mortality for several leading causes of death and selected occupation-related causes of death and for selected risk factors. Text accompanying the maps provides background information on each topic and highlights States and clusters of States that rank at the top or bottom on each statistic. At the end of the chartbook technical notes describe data sources and statistical methods, and the data used to generate each map are presented in a table. Only estimates that meet reliability criteria described in the technical notes are presented in the chartbook. Thus, the number of States for which data are shown in the maps varies with the topic and population subgroup being considered, ranging from 26 to 51 (including the District of Columbia). Four categories of States are shown in each map. States ranking in the lowest and highest quintiles of States form the first and fourth categories, respectively; the remaining States are split into two middle categories. Further details are given in the technical notes.

The first two maps present the proportions of adult men and women who smoked cigarettes in 1985. Cigarette smokers are at elevated risk of death from several of the diseases presented in subsequent maps, heart disease, stroke, lung cancer, and bladder cancer.

Figures 3-10 present data on heart disease mortality among persons 45-64 years of age. Separate maps are shown for white men and women and men and women of other races (subsequently referred to as minority races). Four race-sex specific maps (figures 3, 4, 7, 8) identify those States with the most rapid and least rapid declines in heart disease mortality over the period 1970-85. The other four maps in this section (figures 5, 6, 9, 10) identify States and areas of the country with the highest and lowest heart disease

death rates during 1983-85 for each of the four race-sex groups. Because of the relatively small minority population in many States, fewer States meet the reliability criteria for the minority than the white population. In most States for which heart disease data for the minority population are presented, the minority population was more than 80-percent black in 1980. However, in 1980, Asian and Pacific Islanders constituted about 95 percent of the minority population in Hawaii, almost 40 percent in California and Washington, and 20 percent in Colorado. American Indians comprised about 60 percent of the 1980 minority population in Arizona, almost 40 percent in Oklahoma, and about 20 percent in Washington. Figures 11-18 present comparable race-sex specific data for stroke mortality among persons 55-74 years of age.

Figures 19 and 20 illustrate State variation in lung cancer mortality among women 55-74 years of age. Lung cancer has been increasing rapidly among women and has recently overtaken breast cancer as the leading cause of cancer deaths among women in this age group. Figure 19 ranks States according to how rapidly lung cancer death rates have increased over the 16-year period 1970-85, and figure 20 ranks States according to their lung cancer death rates during 1983-85.

Figures 21 and 22 present State rankings on death rates during 1979-85 for breast cancer, a leading cause of cancer deaths among women. Separate maps are shown for women who are premenopausal (25-44 years of age) and postmenopausal (55-74 years of age).

Figure 23 presents State rankings on death rates during 1979-85 for suicide among males 15-24 years of age. Suicide is the second leading cause of death in this age group and is much more common among young males than females.

Figures 24-29 present data concerning four diseases that may result from occupational exposures to toxic substances. The four diseases were selected from a list of conditions known as "sentinel health events (occupational)" (Rutstein et al., 1983). They are defined as unnecessary diseases, disabilities, and deaths that are occupation related. Some of these diseases occur only among persons with occupational exposures, whereas others

may also occur among persons without occupational exposures. Figures 24 and 25 present male death rates during 1979-85 for mesothelioma and coal workers' pneumoconiosis, diseases that are inherently occupational. Figures 27 and 28 present male death rates during 1979-85 for acute lymphoid and myeloid leukemias and bladder cancer, diseases for which substantial proportions of cases may result from occupational exposures. This section also includes two maps that illustrate State variation in the percent of men employed in selected occupations where toxic exposures are likely to occur. Figure 26 displays the percent of men employed in mining, and figure 29 displays the percent employed in the printing, rubber, and leather industries.

## Reference

Rutstein, D. D., R. J. Mullan, T. M. Frazier, W. E. Halperin, J. M. Melius, and J. P. Sestito. 1983. Sentinel health events (occupational): A basis for physician recognition and public health surveillance. *Am J Public Health* 73:1054-1062.



# Smoking Among Adults

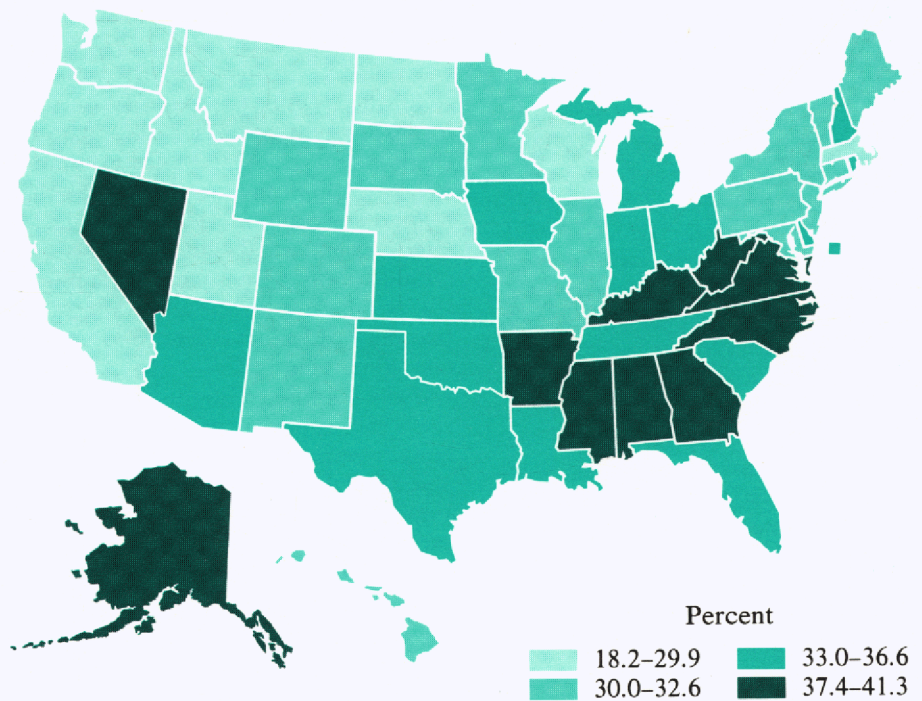
## Background

Cigarette smoking is the single factor responsible for the most preventable deaths in our society. The largest numbers of excess deaths among cigarette smokers are due to coronary heart disease, lung cancer, and chronic obstructive lung disease. Cigarette smoking also increases the risk of death from other cardiovascular diseases and cancers of the larynx, the upper digestive system, bladder, pancreas, and kidney (U.S. DHEW, 1979).

The risk of death among smokers increases with the amount smoked, the duration of cigarette smoking, and the tar and nicotine content of the cigarette. The risk of death is also greater among smokers who began smoking at younger ages compared with those who began later and among smokers who inhale compared to those who do not. Cessation of cigarette smoking reduces the risk of mortality associated with smoking (U.S. DHEW, 1979).

Since the release in 1964 of the first *Surgeon General's Report on the Health Consequences of Smoking*, the smoking behavior of the U.S. population has changed dramatically. Between 1965 and 1985 the age-adjusted percent of men who were current smokers dropped from 52 to 33 percent. During the same period, the percent of women who were current smokers dropped from 34 to 28 percent (NCHS, 1988). In 1985, black men were more likely to be current smokers than white men (41 versus 32 percent), and black women were slightly more likely than white women to smoke (32 versus 28 percent) (NCHS, 1988).

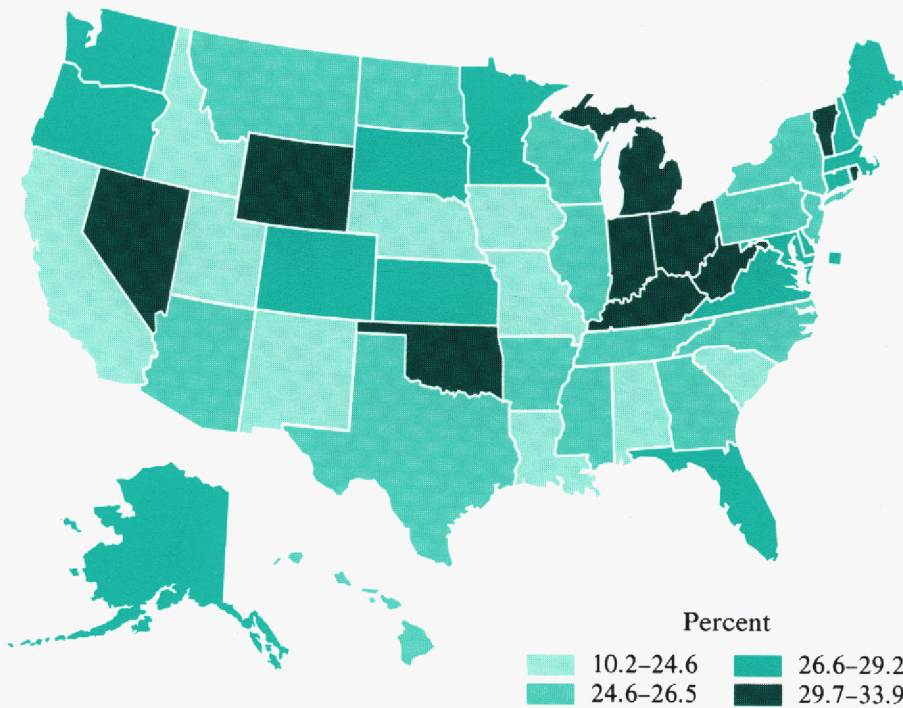
## 1. Current smokers among males 20 years of age and over: 1985



NOTE: Percents are age adjusted.

SOURCE: U.S. Bureau of the Census: 1985 Current Population Survey.

## 2. Current smokers among females 20 years of age and over: 1985



NOTE: Percents are age adjusted.

SOURCE: U.S. Bureau of the Census: 1985 Current Population Survey.

## Geographic Variation

■ The percent of adults who smoke varies substantially among the States. In 1985, the age-adjusted percent of men 20 years of age and over who were current smokers ranged from 18 percent in Utah to 41 percent in Alaska (figure 1). The percent of women who were current smokers ranged from 10 percent in Utah to 34 percent in Nevada (figure 2). The percent of adults who smoke in Utah was substantially lower than in any other State. The next lowest percent for men was in Montana where 26 percent of men smoke cigarettes; and the next lowest percent for women was in South Carolina where 22 percent of women smoke cigarettes.

■ Of the 10 States with the highest percentages of men who smoke, 8 are in the South; 6 of the 10 States with the lowest percentages of male smokers are in the West (Utah, Montana, Idaho, Oregon, California, Washington) and 3 are in the Midwest (Nebraska, Wisconsin, North Dakota).

■ There was little correlation between State rankings on smoking for men and women ( $r = .32$ ). The States with the highest percentages of women who smoke are found in all four regions of the United States, and the States with the lowest percentages of female smokers are split among three regions of the country (West, Midwest, South). Nevertheless, three States with among the highest proportions of male smokers also had high proportions of female smokers (Nevada, Kentucky, West Virginia); and four States with among the lowest proportions of male smokers (Utah, Idaho, California, Nebraska) were also among the States with the lowest percentages of female smokers.

## References

National Center for Health Statistics. 1988. *Health, United States, 1987*. DHHS Pub. No. (PHS) 88-1232. Public Health Service. Washington. U.S. Government Printing Office.

U.S. Department of Health, Education, and Welfare. 1979. *A Report of the Surgeon General. Smoking and Health*. DHEW Pub. No. (PHS) 79-50066. Washington. U.S. Government Printing Office.

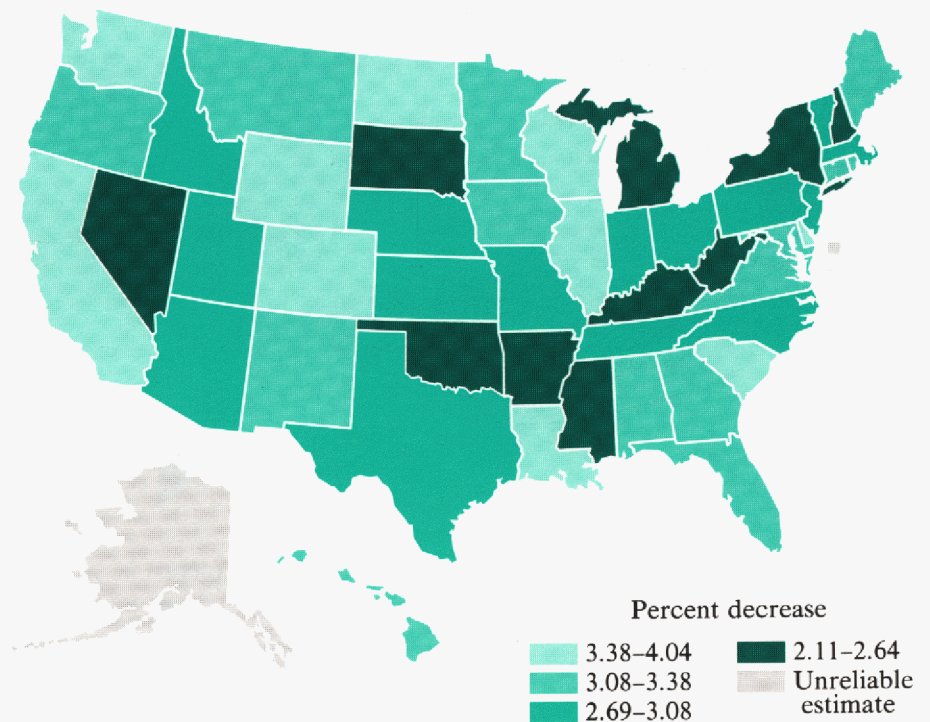
# Heart Disease Mortality Among Persons 45-64 Years of Age

## Background

Heart disease is the second leading cause of death among middle-aged persons (45-64 years of age) in the United States with a death rate of 269 per 100,000 in 1985, just below that for all cancers (283 per 100,000). Heart disease accounted for one-third of all deaths in this age group in 1985. Between 1970 and 1985, heart disease death rates among middle-aged persons have declined by about 3 percent per year for white men and minority women. The decline has been less rapid for white women and minority men (2 percent per year). Possible reasons for the decline in heart disease mortality include increased control of elevated blood pressure, smoking cessation, dietary changes, reduced serum cholesterol levels, and improvements in medical care (Stamler, 1985). Substantial geographic variation in the trends for heart disease mortality has been noted by several researchers (Davis et al., 1985; Wing et al., 1986; Ragland et al., 1988).

Throughout the period 1970-85 heart disease death rates have been lower for women than men and lower for white than minority persons. In 1983-85, among middle-aged persons the heart disease death rate was 29 percent higher for minority men than white men (523 versus 404 deaths per 100,000) and was twice as high for minority women as for white women (268 versus 132 deaths per 100,000). Among the white population, the heart disease death rate for men was three times as large as for women, and among persons of minority races, the rate for men was twice as large as for women.

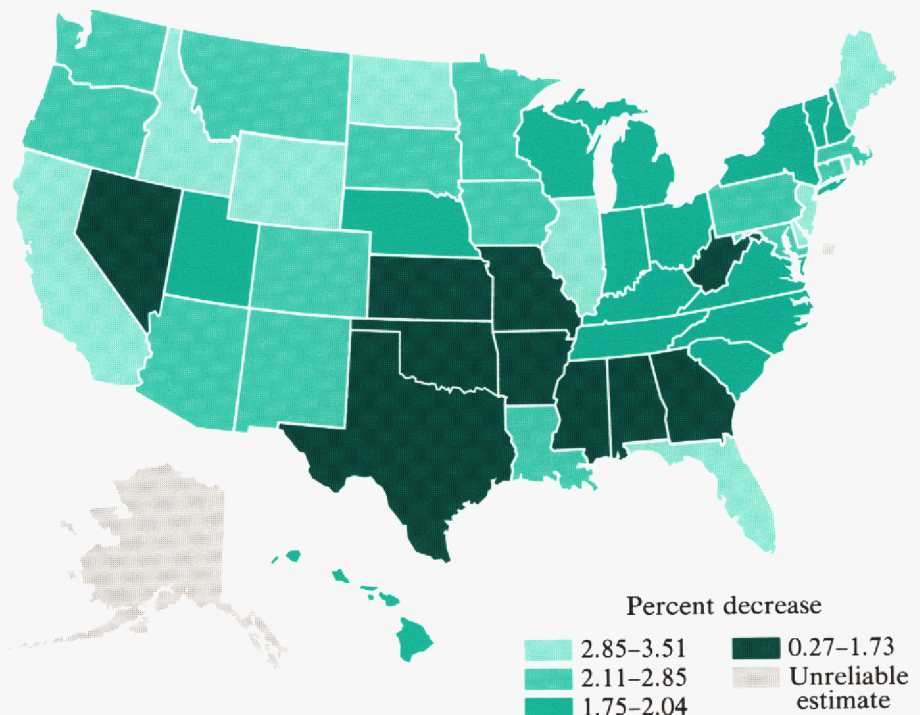
### 3. Change in heart disease death rates among white males 45-64 years of age: 1970-85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

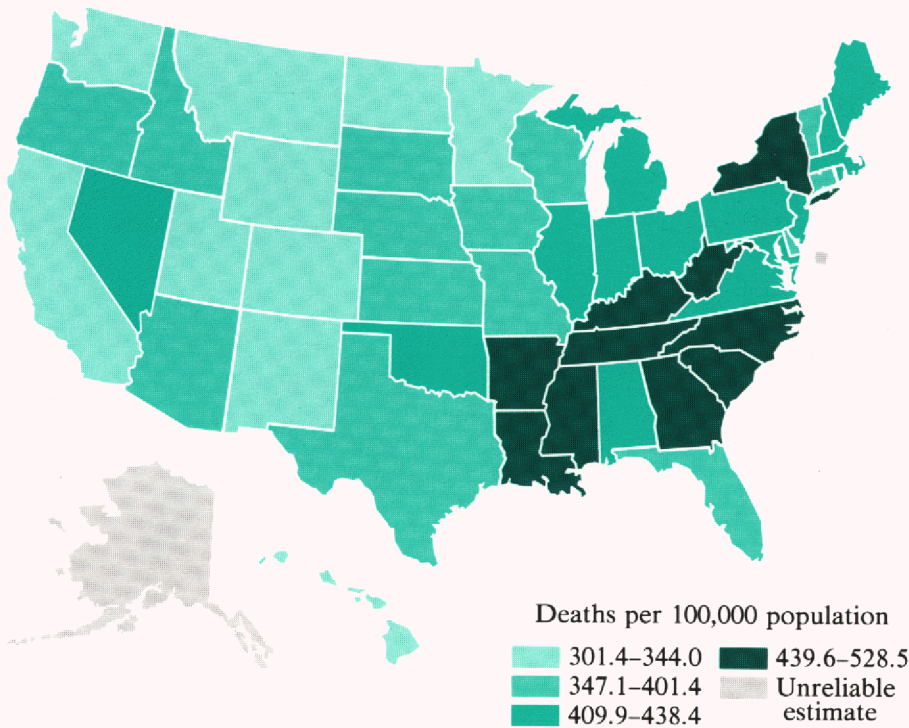
### 4. Change in heart disease death rates among white females 45-64 years of age: 1970-85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

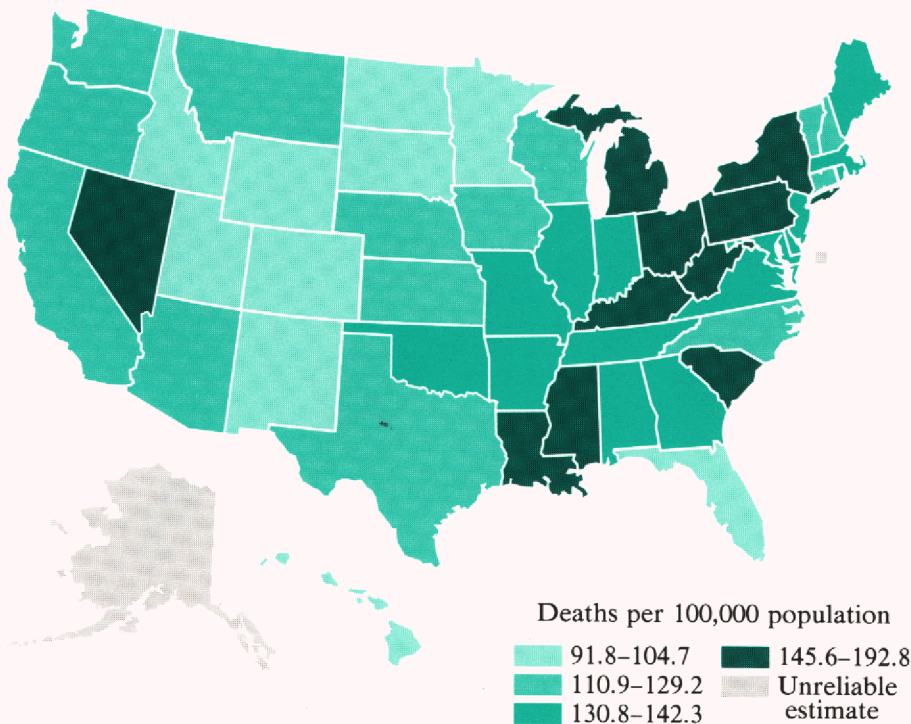
**5. Heart disease death rates among white males 45–64 years of age: 1983–85**



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

**6. Heart disease death rates among white females 45–64 years of age: 1983–85**



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

**Geographic Variation**

■ Between 1970 and 1985, average annual percent declines in heart disease death rates varied among the States from 2.1 to 4.0 percent for white men (figure 3) and from 0.3 to 3.5 percent for white women (figure 4). South Dakota and Nevada experienced the least rapid annual declines for white men; Mississippi and Arkansas had the slowest annual declines for white women. Five of the 10 States with the least rapid declines for white men are in the South, as are 7 of the 10 States with the slowest declines for white women. Wyoming and Delaware experienced the most rapid annual declines in heart disease mortality for white men; Maine and Wyoming had the most rapid declines for white women. Other States with the most rapid declines were split among three regions of the country (West, Midwest, South) for white men and all four regions of the country for white women.

■ In 1983–85, among middle-aged white persons heart disease death rates per 100,000 population varied among the States from 301 to 528 for men and from 92 to 193 for women. Nine of the 10 States with the highest heart disease death rates for white men are in the South (figure 5). Four of these States also have among the least rapid annual declines during 1970–85 (West Virginia, Kentucky, Mississippi, Arkansas), and two of these States have among the most rapid annual declines (South Carolina, Louisiana). The highest heart disease death rates for white women were concentrated in four States bordering the Great Lakes and five southern States (figure 6). Most of the States with the lowest heart disease death rates for both middle-aged white men and women are in the West.

■ Heart disease death rates vary considerably among different racial groups. In 1979–81, among middle-aged men heart disease death rates were estimated at 656 deaths per 100,000 for the black population, 466 for whites, 327 for American Indians, and 207 for Asian and Pacific Islanders. Among middle-aged women the comparable heart disease death rates were 332 for blacks, 145 for whites, 121 for American Indians, and 62 for Asian and Pacific Islanders. Thus, heart disease death rates for minority

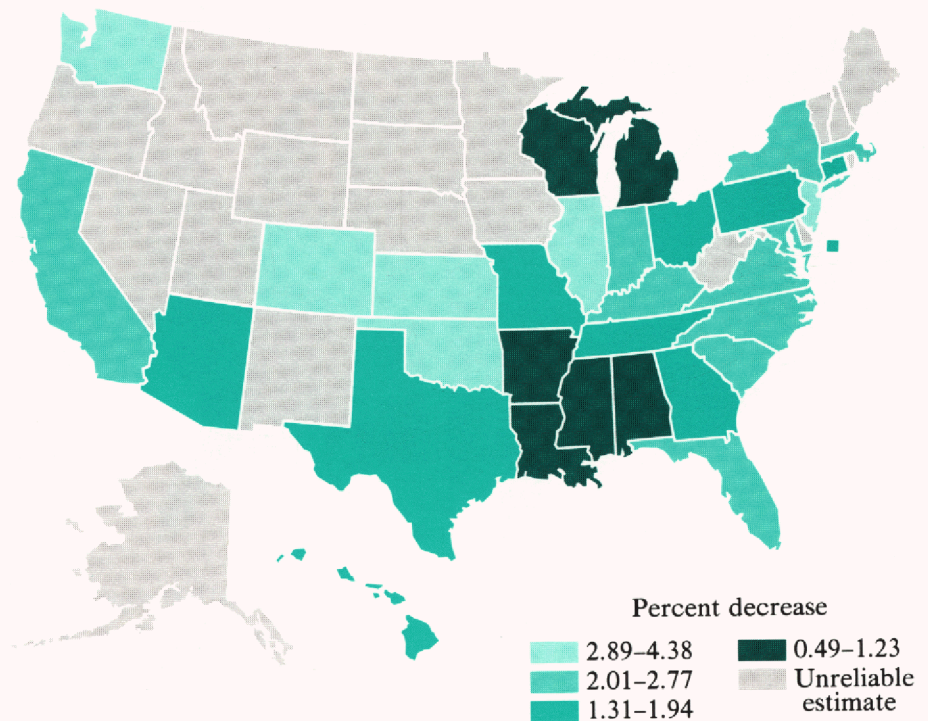
men and women within each State depend upon the State's racial distribution. Although the minority population is predominately black in most States, Asian and Pacific Islanders constitute a substantial proportion of the minority population in Hawaii, California, Washington, and Colorado. American Indians comprise a substantial percent of the minority population in Arizona, Oklahoma, and Washington.

■ Among the 32 States with data shown for the middle-aged minority population, the average declines in heart disease death rates between 1970 and 1985 ranged from 0.5 to 4.4 percent per year for men and from 1.2 to 4.6 percent per year for women. Alabama and Mississippi experienced the slowest annual declines for minority men; Mississippi and Arizona had the slowest annual declines for minority women. Four of the six States with the slowest declines for minority men are in the South (figure 7). The six States with the slowest declines for middle-aged minority women are not concentrated in any particular region of the country (figure 8). Kansas and Illinois experienced the most rapid declines for minority men, whereas New Jersey and Illinois had the fastest declines for minority women.

■ In 1983-85, among middle-aged minority persons heart disease death rates ranged from 267 to 669 deaths per 100,000 for men and from 130 to 387 deaths per 100,000 for women. The six States with the highest heart disease death rates for minority men are in the South (figure 9), as are five of the six States with the highest rates for minority women (figure 10). The lowest heart disease death rates for minority men and women are found in the West (Hawaii, Arizona, Colorado, Washington, California). The relatively large proportions of minorities other than black among the minority populations in these States probably account at least partially for their low heart disease death rates. Hawaii, where 95 percent of the minority population is Asian and Pacific Islander, has the lowest heart disease death rate for minority men and minority women. In fact, the rate for minority men in Hawaii is lower than any State rate for white men.

■ State rankings on 1983-85 heart disease death rates for minority men are highly correlated with those for minority women ( $r = .91$ ), as are

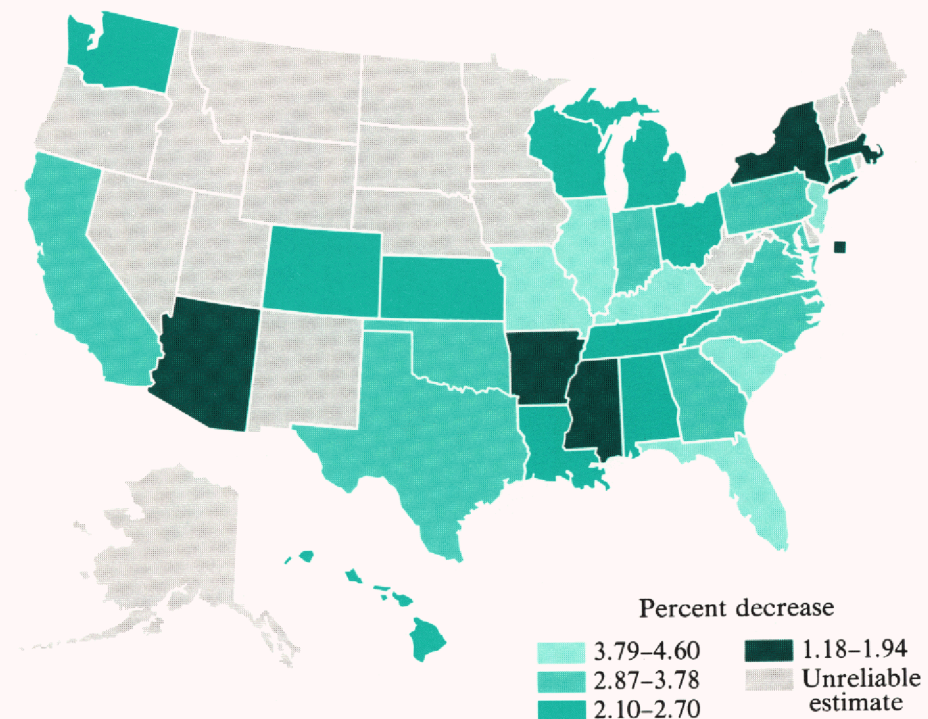
### 7. Change in heart disease death rates among minority males 45-64 years of age: 1970-85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

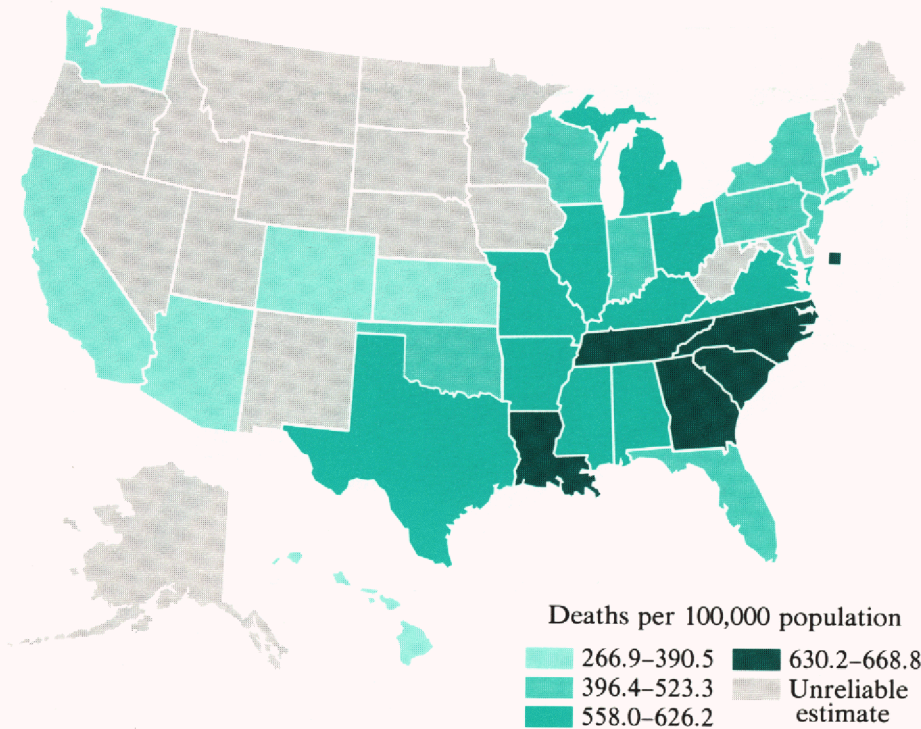
### 8. Change in heart disease death rates among minority females 45-64 years of age: 1970-85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

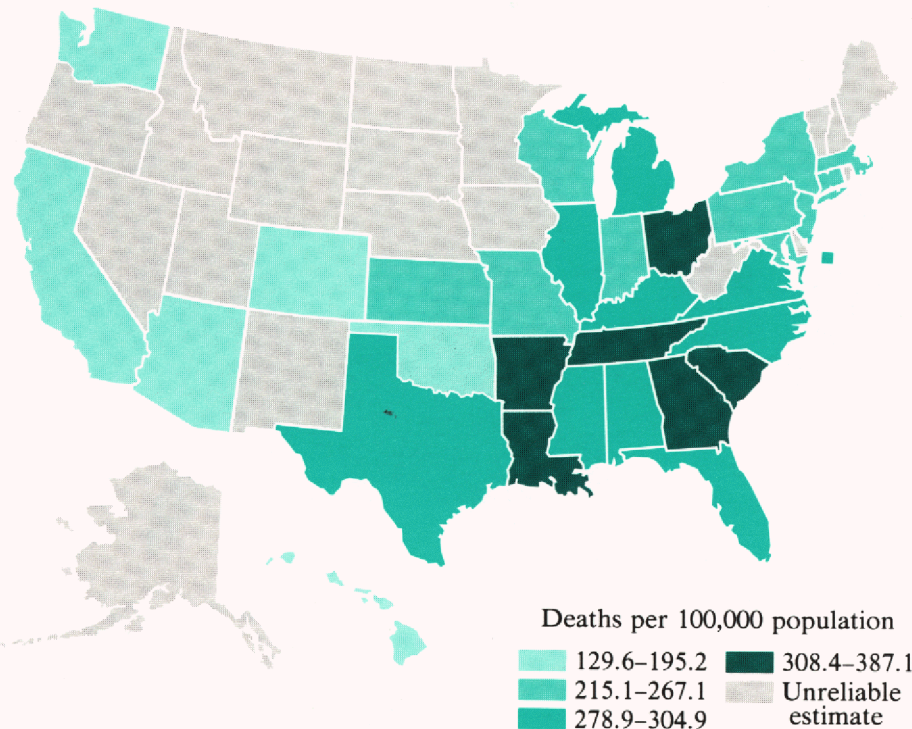
**9. Heart disease death rates among minority males 45-64 years of age: 1983-85**



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

**10. Heart disease death rates among minority females 45-64 years of age: 1983-85**



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

rankings on heart disease death rates for white men and women ( $r = .89$ ). State rankings on average annual declines in heart disease mortality for men and women of each racial group are less correlated ( $r = .45$  and  $r = .51$ , respectively).

■ There is a moderate tendency for States that ranked high on heart disease death rates for minority women during 1970-72 also to have the most rapid declines in heart disease death rates for minority women during 1970-85 ( $r = .62$ ). No correlation exists between State rankings on heart disease death rates in 1970-72 and rankings on subsequent changes in the death rates for minority men or white persons of either sex ( $r = .02-.26$ ).

■ State variation in heart disease risk factors, medical care, and socioeconomic factors may explain some of the State variation in heart disease mortality. Additional research is needed to understand more fully the reasons for the large State differentials in heart disease mortality.

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Davis, W. B., C. G. Hayes, M. Knowles, W. B. Riggan, J. Van Bruggen, and H. A. Tyroler. 1985. Geographic variation in declining ischemic heart disease mortality in the United States, 1968-1978. *Am J Epidemiol* 122:657-672.

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Stamler, J. 1985. The marked decline in coronary heart disease mortality rates in the United States, 1968-1981; a summary of findings and possible explanations. *Cardiology* 72:11-22.

Wing S., C. Hayes, G. Heiss, E. John, M. Knowles, W. B. Riggan, and H. A. Tyroler. 1986. Geographic variation in the onset of ischemic heart disease mortality in the United States. *Am J Public Health* 76:1404-1408.

# Stroke Mortality Among Persons 55-74 Years of Age

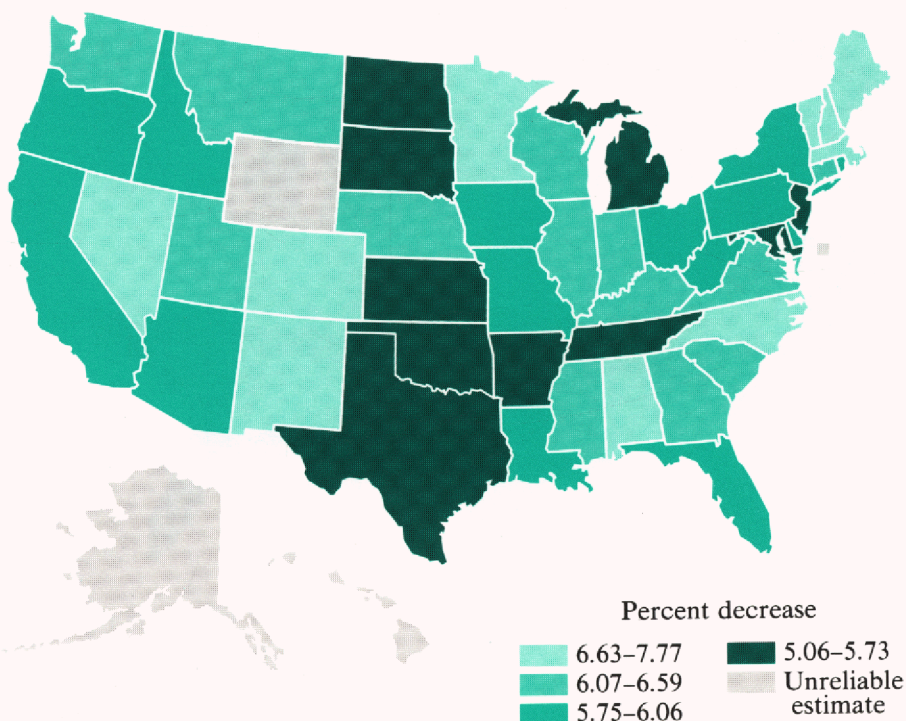
## Background

Cerebrovascular disease (stroke) is the third leading cause of death (following heart disease and cancer) among Americans 55-74 years of age, accounting for 5 percent of all deaths in this age group in 1985. Since 1970 stroke mortality has declined by more than 50 percent. Improvements in hypertension detection and control during the 1970's have probably contributed to this decline (NCHS, 1986). In addition to hypertension, other known risk factors for stroke include diabetes, cardiac impairment, elevated blood lipids, obesity, and cigarette smoking. (Kuller, 1978; Wolf et al., 1983).

Declines in stroke mortality between 1970 and 1985 have been rapid for men and women of white and minority races. Among persons 55-74 years of age the average annual declines in stroke death rates between 1970 and 1985 were 5.4 percent for white women, 5.7 percent for minority men, 6.0 percent for white men, and 6.6 percent for minority women.

In 1983-85, the stroke death rates among 55-74-year-olds were lowest for white women (79 per 100,000) and highest among minority men (216 per 100,000). Stroke death rates among men were about one-third higher than for women, and stroke death rates for minority men and women were more than twice as high as for their white counterparts. This large racial differential is at least partially explained by the higher prevalence of hypertension and diabetes among the black-population (NCHS, 1986, 1987).

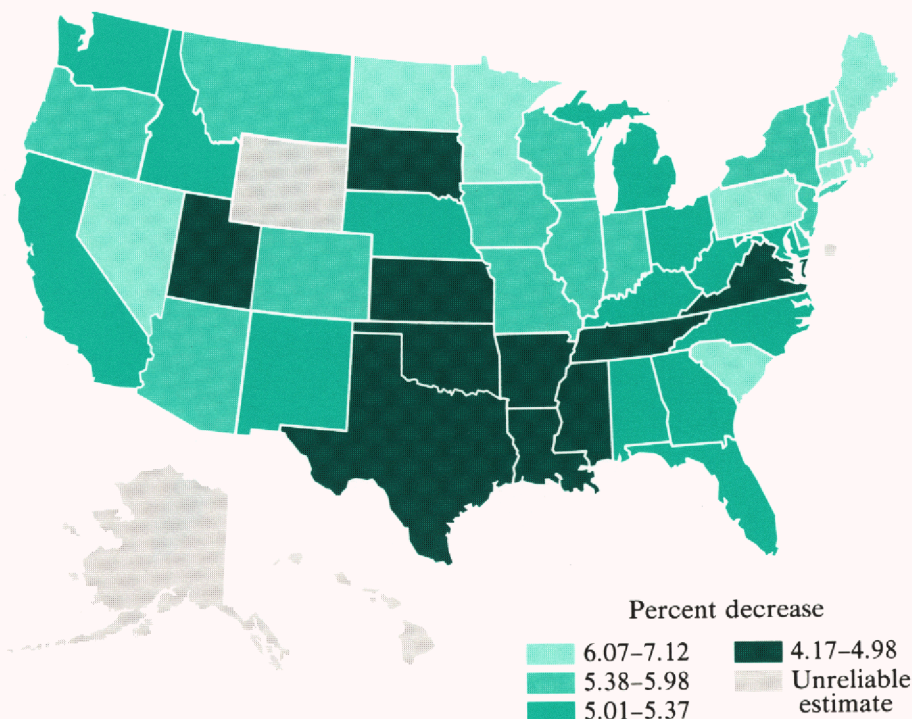
## 11. Change in stroke death rates among white males 55-74 years of age: 1970-85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

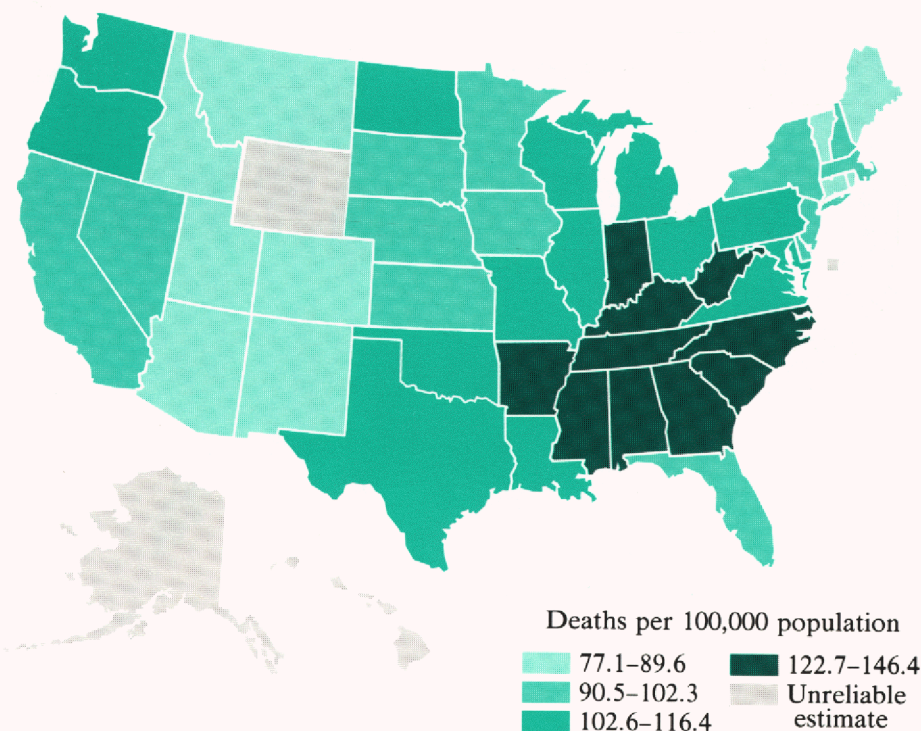
## 12. Change in stroke death rates among white females 55-74 years of age: 1970-85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

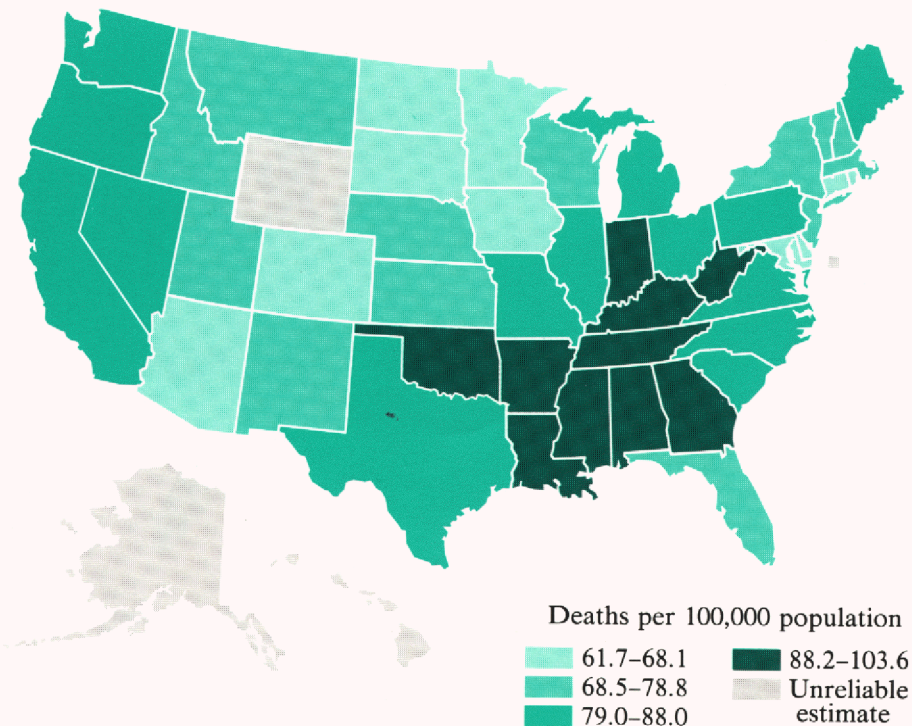
**13. Stroke death rates among white males 55–74 years of age: 1983–85**



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

**14. Stroke death rates among white females 55–74 years of age: 1983–85**



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

**Geographic Variation**

Between 1970 and 1985, rapid declines in stroke mortality among persons 55–74 years of age occurred in all States. Average annual declines in stroke mortality varied among the States from 5.1 to 7.8 percent for white men (figure 11) and from 4.2 to 7.1 percent for white women (figure 12). Five of the 10 States with the least rapid declines for white men are in the South, as are 7 of the 10 States with the least rapid declines for white women. However, declines in stroke mortality were quite rapid, even in these States. Four of the 10 States with the most rapid declines in stroke death rates for white men are in New England as are 5 of the 10 States with the most rapid declines for white women.

In 1983–85, State stroke death rates among white persons 55–74 years of age ranged from 77 to 146 deaths per 100,000 population for men (figure 13) and from 62 to 104 deaths per 100,000 for women (figure 14). Nine of the 10 States with the highest stroke death rates for both white men and white women are in the South. The lowest stroke death rates for white men were found in six Mountain States and four New England States. Rhode Island, Colorado, and Connecticut had the lowest stroke death rates for white women. Other States with among the lowest stroke death rates for white women include a group of four States in the West North Central division.

Death rates for stroke vary considerably among different racial groups. In 1979–81, the stroke death rates among men 55–74 years of age were estimated as 282 per 100,000 for the black population, 132 for whites, 118 per 100,000 for American Indians, and 112 per 100,000 for Asian and Pacific Islanders. Among women 55–74 years of age, the comparable stroke death rates were 220 per 100,000 for blacks, 96 for whites, 78 for American Indians, and 75 for Asian and Pacific Islanders. Thus, as for heart disease, stroke death rates for the minority population within each State depend upon the State's racial distribution. In most of the 26 States with data shown in figures 15–18, the minority population is predominately black. However, substantial proportions of the minority population in Hawaii and California



are Asian and Pacific Islander; in Oklahoma a substantial proportion are American Indian.

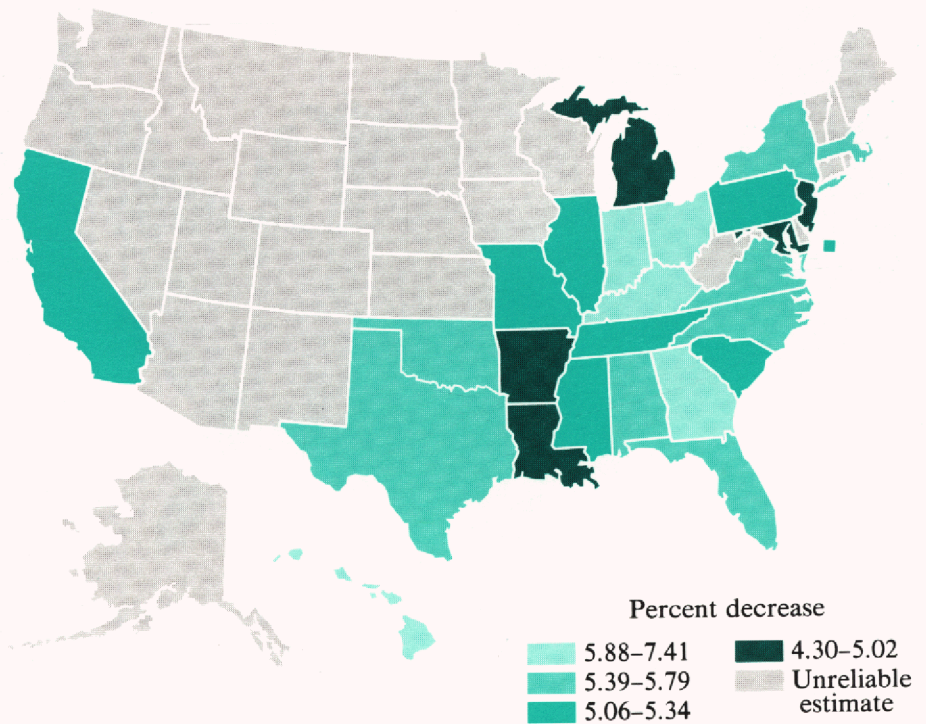
■ Among the 26 States with data shown for the 55–74-year-old minority population, average annual declines in stroke mortality between 1970 and 1985 ranged from 4.3 to 7.4 percent for minority men (figure 15) and from 4.4 to 8.2 percent for minority women (figure 16). Maryland, Michigan, and Louisiana had the least rapid declines in stroke mortality for minority men; Maryland, Hawaii, and California had the least rapid declines for minority women. Indiana, Hawaii, and Georgia experienced the most rapid declines in stroke mortality for minority men, whereas Indiana, Texas, and North Carolina experienced the fastest declines for minority women.

■ In 1983–85, stroke death rates varied substantially among States for both 55–74-year-old minority men and women. The stroke death rate per 100,000 population ranged from 108 to 401 for minority men (figure 17), and from 77 to 270 for minority women (figure 18). The five States with the highest stroke death rates for both minority men and women are in the South. Hawaii and Massachusetts had the lowest stroke death rates for both minority men and minority women. The minority population is predominately Asian and Pacific Islander in Hawaii and predominately black in Massachusetts.

■ For the population 55–74 years of age State rankings on stroke death rates for men and women are highly correlated ( $r = .97$  for the minority population and  $r = .81$  for the white population). State rankings on stroke death rates for white men and minority men are also positively correlated ( $r = .74$ ), but State rankings for white women and minority women are less correlated ( $r = .49$ ). In addition, there is little correlation between State rankings on declines in stroke death rates for the different race-sex groups.

■ States that ranked high on stroke death rates for minority women during 1970–72 also tended to have the most rapid declines in stroke death rates for minority women during 1970–85 ( $r = .61$ ). State rankings on stroke death rates in 1970–72 are weakly correlated with rankings on declines in stroke death rates during 1970–85 for the other three race-sex subgroups ( $r = .23-.27$ ).

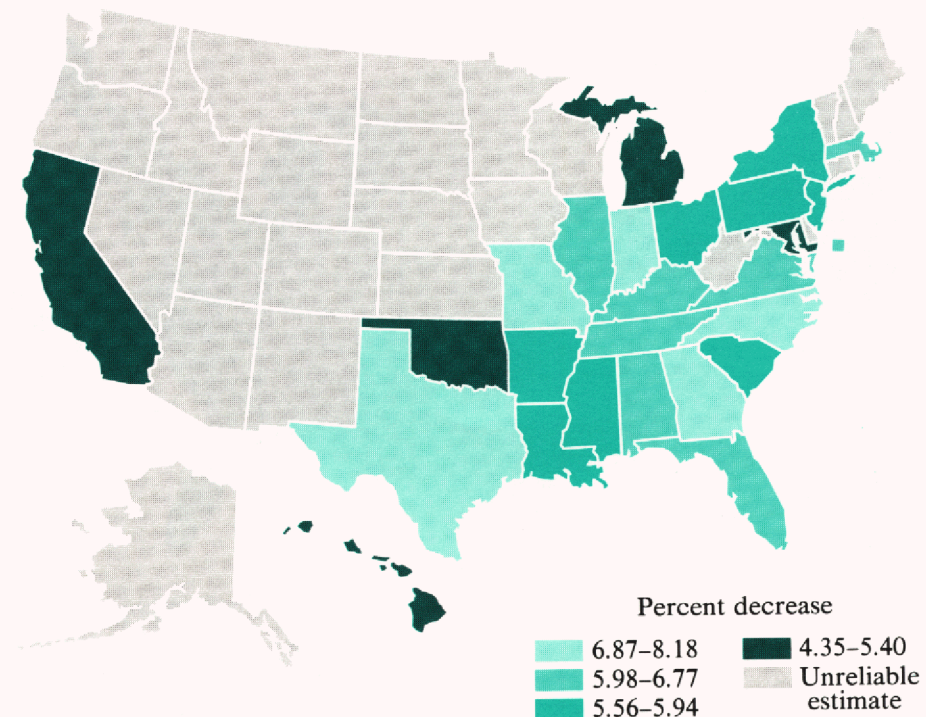
### 15. Change in stroke death rates among minority males 55–74 years of age: 1970–85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

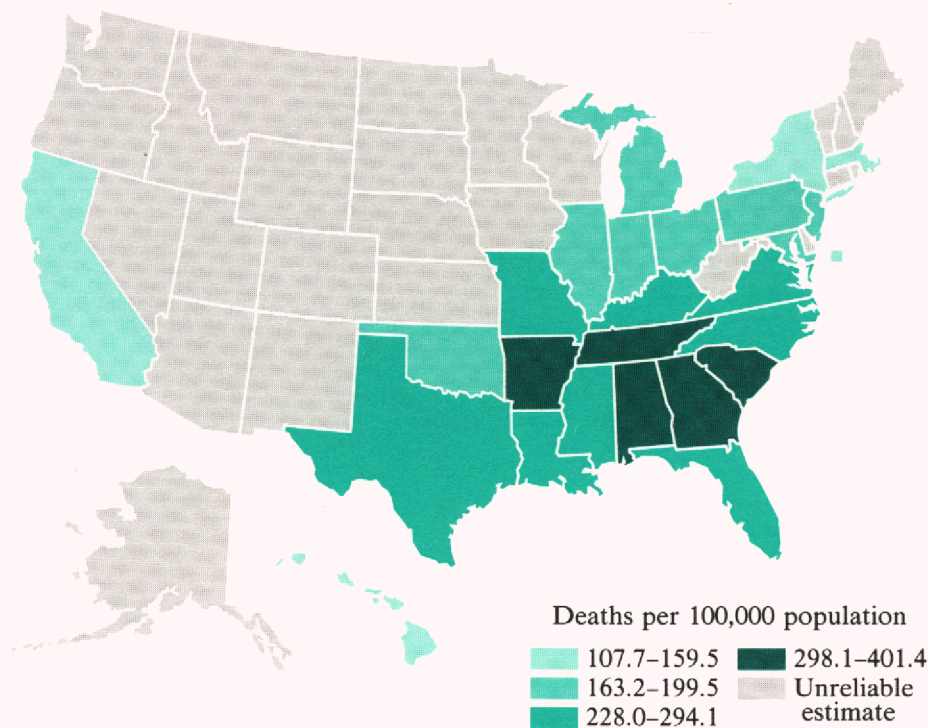
### 16. Change in stroke death rates among minority females 55–74 years of age: 1970–85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

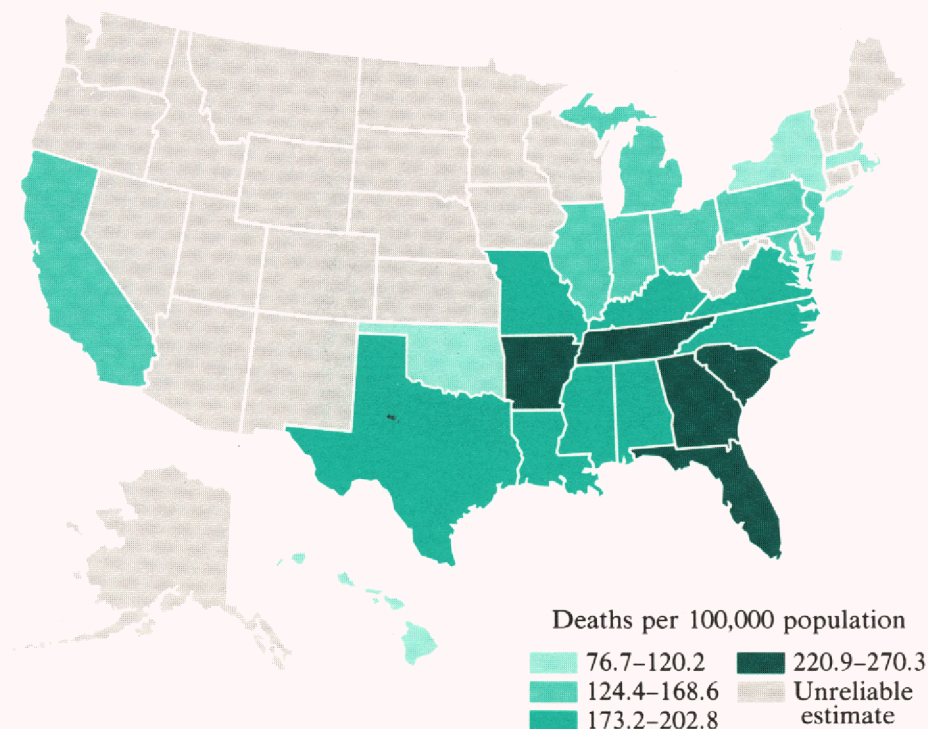
**17. Stroke death rates among minority males 55-74 years of age: 1983-85**



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

**18. Stroke death rates among minority females 55-74 years of age: 1983-85**



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

■ Differences across the country in hypertension levels, medical care, and socioeconomic factors may contribute to the variation in stroke death rates. Additional research is needed to understand further the reasons for State variation in stroke mortality declines and the larger State variation in stroke death rates.

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# Lung Cancer Mortality Among Women 55-74 Years of Age

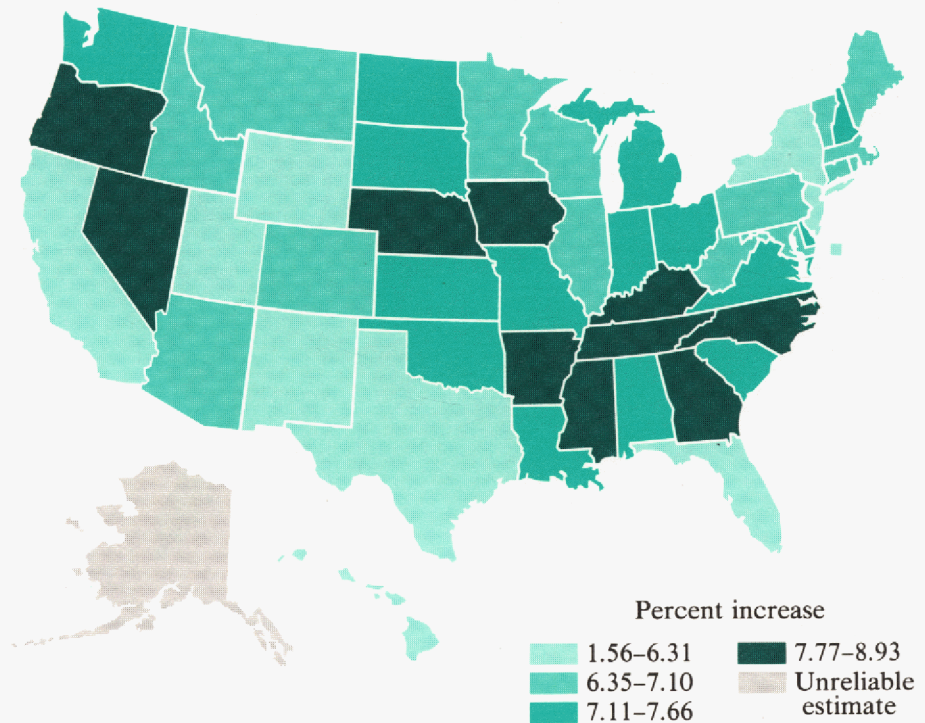
## Background

Lung cancer, the leading cause of cancer deaths among women 55-74 years of age, is one of the most preventable causes of death in the United States (U.S. DHHS, 1982). Cigarette smoking has been estimated to be responsible for at least 75 percent of lung cancer deaths among women (Centers for Disease Control, 1987). For 1985, this percentage represents approximately 30,000 preventable smoking-related lung cancer deaths among all women in the United States.

Between 1970 and 1985, age-adjusted lung cancer death rates among women 55-74 years of age increased about 7 percent per year, the largest increase in cancer death rates for any site. The increases primarily are due to the aging of cohorts of women with higher proportions of smokers. In contrast, among men 55-74 years of age the lung cancer death rate increased about 1 percent each year between 1970 and 1982 and remained stable between 1982 and 1985.

White women have slightly higher death rates for lung cancer than minority women. In 1970, the lung cancer death rate for white women 55-74 years of age was 5 percent higher than for minority women (42 versus 40 deaths per 100,000 population), and in 1985, the differential was 16 percent (115 versus 99 deaths per 100,000).

19. Change in lung cancer death rates among females 55-74 years of age: 1970-85



NOTE: Rates are age adjusted. Includes deaths from all cancers of the respiratory system, of which 94-96 percent were attributable to lung cancer during 1970-85.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

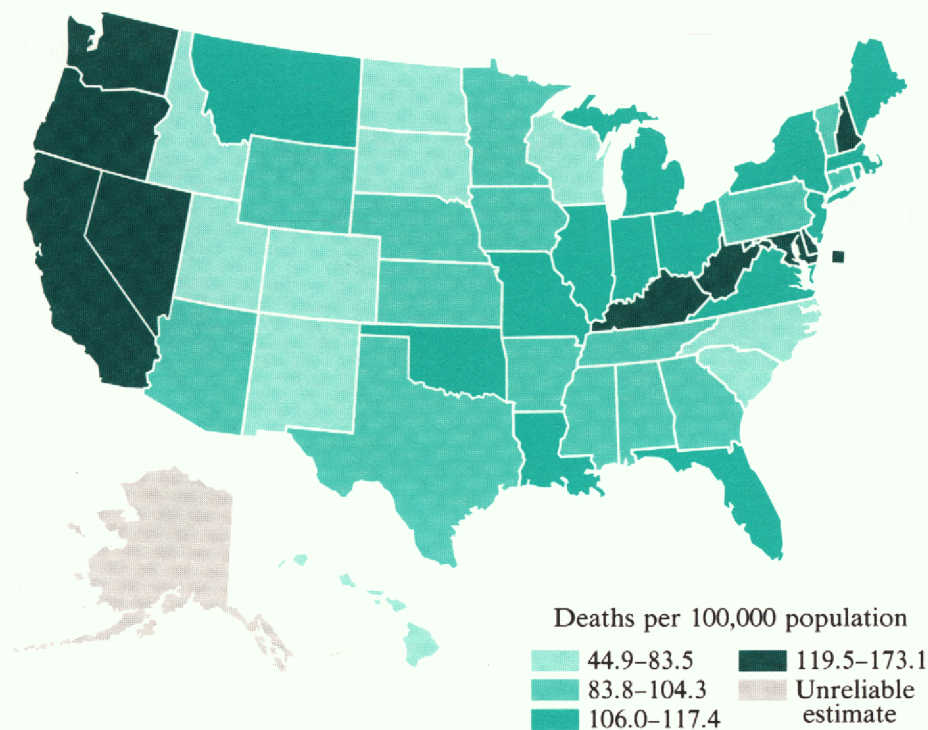
## Geographic Variation

■ Between 1970 and 1985, all States experienced increases in lung cancer death rates for women 55-74 years of age. However, there was considerable variation among States in the average annual increases, ranging from 1.6 to 8.9 percent per year (figure 19). Hawaii has had by far the slowest annual increase in lung cancer death rates (1.6 percent per year). Other States with the least rapid annual increases during 1970-85 were New Mexico (4.2 percent), Utah (4.4 percent), and the District of Columbia (5.3 percent). Six of

the 10 States with the most rapid increases are in the South (Tennessee, North Carolina, Kentucky, Georgia, Mississippi, Arkansas). Average annual increases in these States range from 7.8 to 8.9 percent per year. Other States with average annual increases greater than 8 percent per year were Iowa, Nebraska, and Oregon.

■ In 1983-85, lung cancer was the leading cause of cancer deaths for women 55-74 years of age in 41 of the 50 States shown in figure 20. In contrast, lung cancer was the leading cause of cancer deaths for women 55-74 years of age in only one State in 1970-72.

## 20. Lung cancer death rates among females 55-74 years of age: 1970-85



NOTE: Rates are age adjusted. Includes deaths from all cancers of the respiratory system, of which 94-96 percent were attributable to lung cancer during 1970-85.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

■ Between 1970-72 and 1983-85, the variation among States in lung cancer death rates for women 55-74 years of age widened. For the 50 States shown in figure 20, the lung cancer death rates for women 55-74 years old ranged from 25 to 61 deaths per 100,000 in 1970-72 compared with a range from 45 to 173 deaths per 100,000 in 1983-85. In 1983-85, Nevada had by far the highest lung cancer death rate for women of these ages (173), and Utah had by far the lowest death rate (45). Four of the 6 States with the highest 1983-85 lung cancer death rates for women 55-74 years old

are in the West (Nevada, Oregon, Washington, California), as are 5 of the 10 States with the lowest rates (Utah, Hawaii, Idaho, Colorado, New Mexico). Hawaii had the sixth highest lung cancer death rate for 55-74-year-old women in 1970-72, but because of a relatively slow annual increase Hawaii had the second lowest lung cancer death rate in 1983-85.

■ In 1985, among the 50 States shown in figure 20, the variation in the percent of women 55-74 years of age who ever smoked ranged from 10 to 53 percent (U.S. Bureau of the Census, 1985). There was a strong positive

correlation ( $r = .62$ ) between State rankings on age-adjusted lung cancer death rates in 1983-85 and the 1985 percent of women 55-74 years old who ever smoked.

■ Factors other than cigarette smoking that are associated with lung cancer include environmental exposures, such as radon gas; high doses of ionizing radiation, such as x rays; and diets low in vitamin A especially among heavy smokers (Page and Asire, 1985). Geographic variation in these factors may also contribute to the variation in lung cancer mortality.

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# Breast Cancer Mortality Among Women

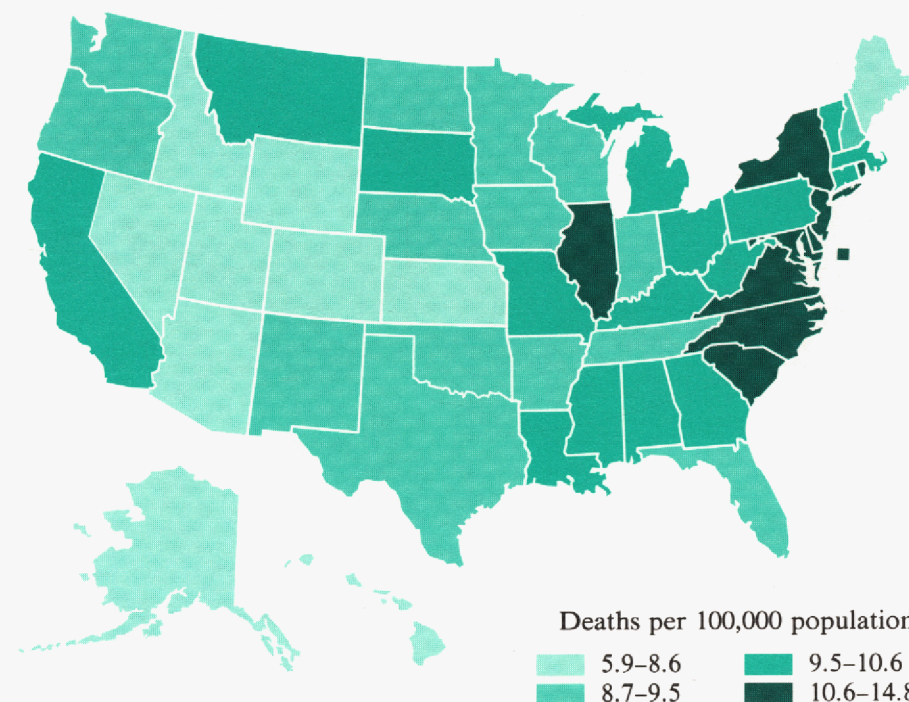
21. Breast cancer death rates among females 25-44 years of age: 1979-85

## Background

Breast cancer is a leading cause of cancer deaths among women, accounting for 40,093 deaths in 1985. Risk factors that increase the likelihood of developing breast cancer include age, family history of the disease, late child-bearing, having no children, early menarche, and late menopause (Miller and Bulbrook, 1980).

Early diagnosis of breast cancer is a major determinant of survival. Among women who are diagnosed with localized disease, 90 percent survive for at least 5 years compared with 68 percent for those with regional disease and only 18 percent for those with distant disease. During 1979-84 about 50 percent of women with breast cancer were diagnosed with localized disease (National Cancer Institute, 1988). Public health efforts have focused on increasing the detection of localized breast cancer through breast self-examination, periodic clinical examination, and mammography. Although screening for breast cancer has been increasing, further efforts are needed. In 1985, the proportion of women who did not have clinical breast exams within the previous 2 years was 30 percent for women 25-44 years of age and 41 percent for women 55-74 years of age.

Between 1970 and 1985, national death rates for breast cancer among premenopausal women (25-44 years of age) have declined an average of nearly 1 percent per year, from 12 to 10 deaths per 100,000. In contrast, death rates for breast cancer among



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

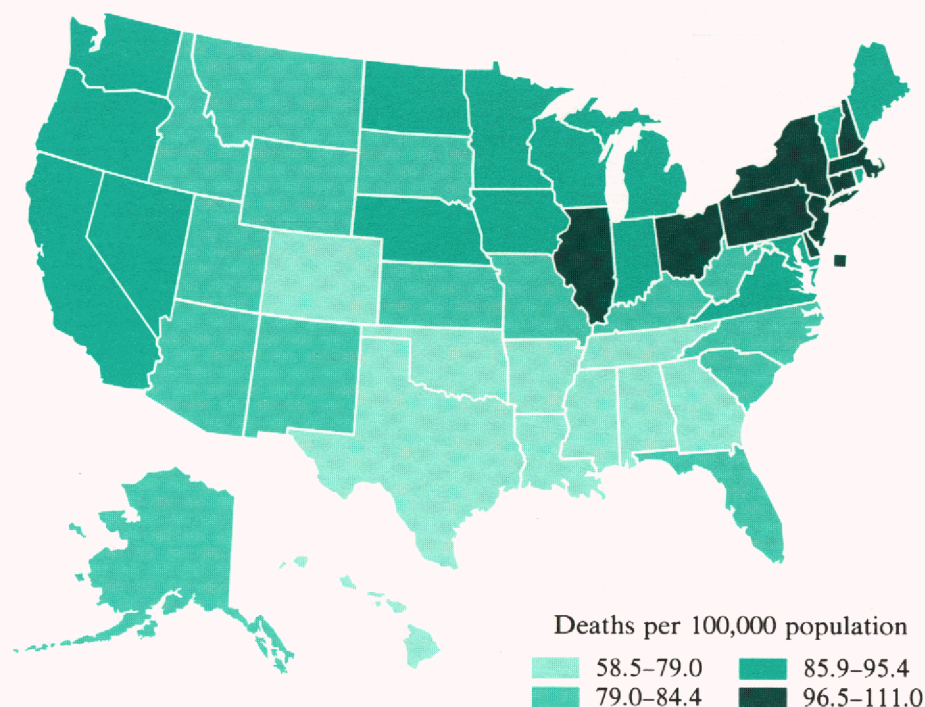
postmenopausal women (55-74 years of age) increased by 0.6 percent per year during this period, from 84 to 93 deaths per 100,000 population.

In 1985, national breast cancer death rates among premenopausal women were 25 percent lower for white women than for minority women (9 versus 12 deaths per 100,000). In contrast, among postmenopausal women, breast cancer death rates were 13 percent higher for white women than for minority women (94 versus 83 deaths per 100,000).

## Geographic Variation

Among premenopausal women (25-44 years), the 1979-85 breast cancer death rates varied among the States from 6 to 15 deaths per 100,000 (figure 21). Nine of the 10 States with the highest rates are on the east coast, stretching from Rhode Island to South Carolina. Eight of the 10 States with the lowest breast cancer death rates for premenopausal women are in the West.

## 22. Breast cancer death rates among females 55–74 years of age: 1979–85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

■ In 1979–85, breast cancer death rates for postmenopausal women (55–74 years) varied from 59 deaths per 100,000 in Hawaii to 111 in the District of Columbia (figure 22). Mortality from breast cancer in 1979–85 was highest in the northeastern part of the United States. Six of the 10 States with the highest breast cancer death rates for postmenopausal women are in the Northeast region, and two other States with among the highest rates, Ohio and Delaware, border the Northeast. Eight of 10 States with the lowest breast cancer death rates for postmenopausal women are in the South.

■ There was a moderate tendency for States to rank high or low on breast cancer mortality for both premenopausal and postmenopausal women ( $r = .38$ ). Five States with among the highest breast cancer death

rates for premenopausal women also had among the highest death rates for postmenopausal women (District of Columbia, New Jersey, New York, Delaware, Illinois). Conversely, three States with among the lowest breast cancer death rates for premenopausal women also had among the lowest death rates for postmenopausal women (Hawaii, Colorado, Utah). Louisiana and Alabama, on the other hand, had among the lowest breast cancer death rates for postmenopausal women but had among the highest death rates for premenopausal women.

■ Reasons for the State variation in breast cancer mortality are unclear. It has been suggested that geographic variation in dietary habits may contribute to the variation in breast cancer death rates among postmenopausal women (Blot et al., 1977).

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# Suicide Among Males 15-24 Years of Age

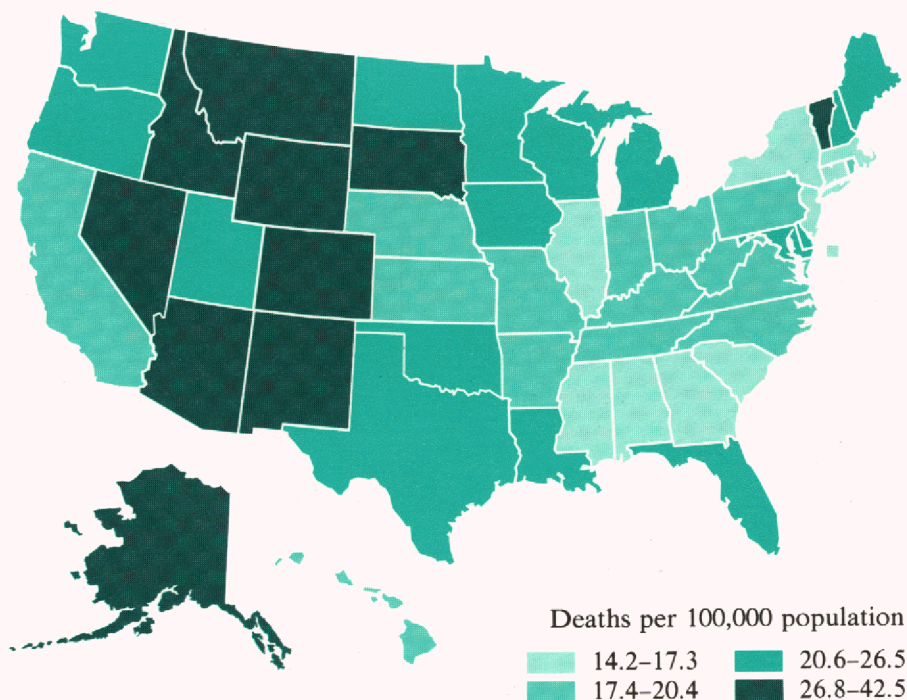
## Background

Suicide is the eighth leading cause of death in the United States but the second leading cause of death among young persons 15-24 years of age. The youth suicide death rate more than tripled between 1950 and 1980 (CDC, 1986) and has remained fairly stable since that time. Suicide death rates vary considerably by race and sex with the majority of suicides in all age groups committed by white males. In 1985, the male-to-female suicide ratio in the 15-24 years age group was nearly 5 to 1; the white-to-black suicide ratio was almost 2 to 1.

Factors that have been shown to be associated with suicide include psychiatric disorders, family history of completed suicide, biochemical risk factors, substance abuse, media influences, and firearms in the home (Monk, 1987). Firearms are the most frequently used method of suicide for both males and females 15-24 years of age, accounting for about 60 percent of all youth suicides (Boyd and Moscicki, 1986). The 30-year climb in suicide mortality in this age group is paralleled by a 30-year increase in firearm suicides (Moscicki and Boyd, 1983).

The suicide death rate for males 15-24 years of age increased from 6.5 deaths per 100,000 in 1950 to 20.2 deaths per 100,000 in 1980. From 1980 to 1984, the suicide death rate for young males remained essentially unchanged. In 1985, the rate rose slightly to 21.4 per 100,000, primarily from increases in suicide among males 15-19 years of age.

## 23. Suicide death rates among males 15-24 years of age: 1979-85



SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

## Geographic Variation

■ Suicide death rates for young males vary substantially among the States. During 1979-85, the average annual suicide death rate ranged from 14 deaths per 100,000 in New York to 43 deaths per 100,000 in New Mexico (figure 23).

■ Eight western States, South Dakota, and Vermont have the 10 highest suicide death rates for young males. In contrast, the 10 States with the lowest suicide rates are mostly in the South and Northeast.

■ In general, suicide death rates for young males have increased over time throughout the United States. The geographic distribution with few exceptions was the same during the early 1970's as during 1979-85. Of note are two States showing substantial changes in their rankings since 1970. In 1979-85, the suicide death rate for California was about the same as the national average, whereas during the

early 1970's California had one of the highest suicide death rates for young males. On the other hand, South Dakota had a suicide death rate around the national average during the early 1970's but had one of the highest suicide death rates during 1979-85.

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# Mesothelioma Mortality Among Men

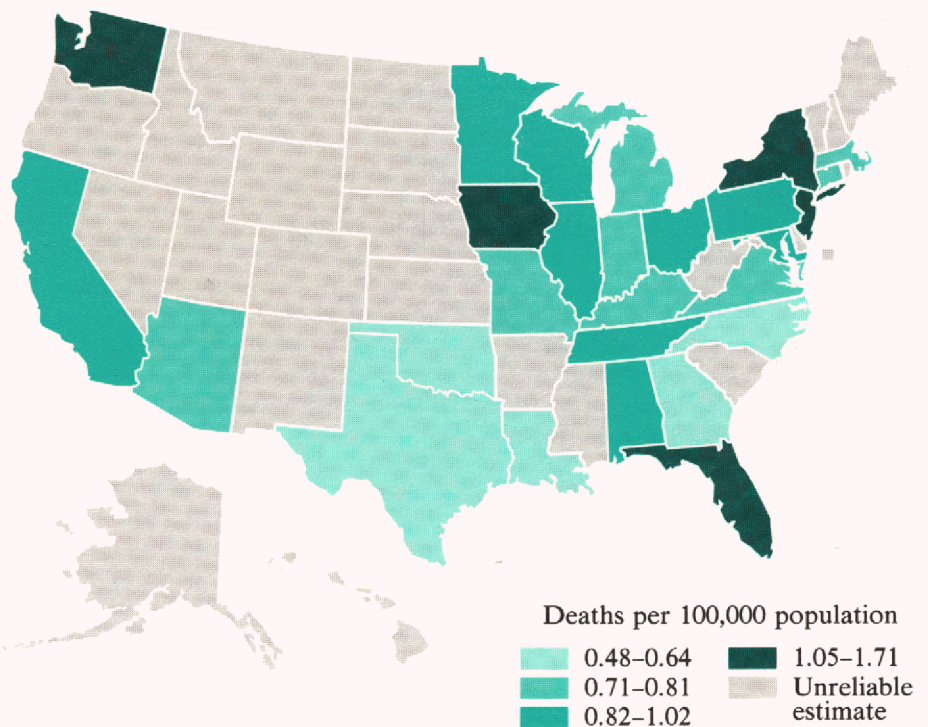
## Background

Mesothelioma is a relatively rare cancer of the pleura or peritoneum, the membranes that surround the lungs and line the chest cavity. Asbestiform fibers are widely accepted as the causative agent in the vast majority of cases (Lilis, 1986). Asbestiform fibers include asbestos and similar materials with a broad range of chemical compositions and crystal structures, sizes, shapes, and physical properties. Asbestos has been widely used because it resists heat and chemical attack, has strength and flexibility, and has defect-free surfaces (National Research Council, 1984). In the United States, asbestiform fibers have been used for building materials (including insulation, vinyl tile, roofing tile, and cement sheet and pipe), for friction products (including brake linings, gasket components, and industrial friction materials), and for insulation purposes (including electrical wire and pipe insulation, hoods and vents for corrosive compounds, electrical motor components, and roof coatings and patching compounds).

The use of asbestiform fibers increased greatly during this century, rising from about 20,000 metric tons in 1900 to a peak consumption of 800,000 metric tons in 1973 and 1974 (U.S. Bureau of Mines, 1983). Primarily because of concern over health effects, by 1982 the consumption had dropped to about 250,000 metric tons. Workers can be exposed to asbestiform fibers in a wide variety of industries and occupations, including mining and mineral processing, the asbestos products industry, secondary manufacturing (such as heating equipment, electrical housewares, and industrial process furnaces), shipbuilding, and construction. The Occupational Safety and Health Administration (OSHA) has standards for maximum allowable worker exposures to asbestiform fibers of six minerals.

Many asbestiform materials contain fibers small enough to enter the respiratory system. Most of these

## 24. Mesothelioma death rates among males 25 years of age and over: 1979-85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

fibers are cleared from the lung. However, fibers remaining in the lung cause small areas of fibrosis (scar tissue) in the lung and in the surrounding membranes. These areas can become larger and more serious with greater exposure. Diseases associated with asbestiform fiber exposures include mesothelioma, lung cancer, and asbestosis (a chronic disorder resulting in breathing difficulty, nonproductive cough, abnormal lung sounds known as rales, and measurable decrements in lung function).

Asbestos-related health effects are generally restricted to people who have had occupational exposures, but health effects have also been noted among family members of workers and in populations living near natural sources of the fiber. Because asbestiform fibers are ubiquitous, virtually everybody is exposed to some extent. However, there is little information about the health effects of nonoccupational exposures to these fibers.

The following discussion focuses on deaths from mesothelioma. Although asbestos exposure may cause lung cancer, the fraction of lung

cancer deaths that might be attributed to asbestos exposure is small. The effect of smoking on lung cancer is much greater than that of asbestos. Unlike lung cancer, the occurrence of mesothelioma is not associated with smoking (Hammond et al., 1979). Asbestosis is not discussed here because asbestosis deaths are very rare (only 130 deaths among men in 1985). Mesothelioma generally occurs 20 years after onset of exposure. Some cases have occurred in individuals who had only short-term occupational exposures (Selikoff and Lee, 1978). Therefore, the deaths occurring in the 1980's may be due to conditions many years ago.

In 1985, there were 571 deaths with an underlying cause of mesothelioma among men 25 years and over (see table 33). For an additional 102 deaths, mesothelioma was listed as a nonunderlying cause. Of these additional 102 deaths, the underlying cause of death was lung cancer for 33 percent, other malignant neoplasms for 20 percent, and heart disease for 24 percent. Of the deaths with mesothelioma as an underlying cause, 63 percent occurred among men 65 years and over.



## Geographic Variation

■ The national age-adjusted death rate for mesothelioma was 0.87 per 100,000 men 25 years and over in 1979–85. The death rates in the 27 States with more than 50 expected deaths from this disease during 1979–85 ranged from 0.48 per 100,000 men in Oklahoma to 1.71 per 100,000 men in Washington (figure 24).

■ Washington and New Jersey had the highest mesothelioma death rates (1.71 and 1.69 per 100,000 men, respectively). The next highest rate was 1.22 per 100,000 men in Iowa. The elevated rate in New Jersey may be due to the large number of manufacturing sites that use asbestiform fibers and the shipbuilding and repair industry in that State. Washington had a number of shipbuilding companies during World War II that may account for the relatively high rate of mortality from mesothelioma many years later (Milham, 1983).

■ Other States with relatively high mesothelioma death rates were Florida (1.08) and New York (1.05). The high rate in Florida may reflect the large population that moves to that State as retirees from the Northeast and Middle Atlantic States that also have relatively high rates.

■ All five States with the lowest mesothelioma death rates are in the South (Oklahoma, Georgia, Louisiana, Texas, North Carolina).

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# Coal Workers' Pneumoconiosis Mortality Among Men

## Background

Coal workers' pneumoconiosis is a lung disease that can result from exposure to coal dust. Exposures to coal dust occur in underground coal mines, surface coal mines, in plants that prepare the coal, and in occupations related to the distribution of coal. Other occupations with potential exposure to dust from coal derivatives include rubber workers, ceramics workers, ink workers, printers, paper workers, and plastics workers (NIOSH, 1986).

Exposure to coal dust can be a health hazard when the dust is inhaled and deposited in the lung. When the dust remains in the lung, the surrounding tissues form small areas of scar tissue. With continued exposure larger areas of scar tissue are found. Eventually, difficulty in breathing, persistent cough and phlegm production, and emphysema may result.

Coal workers' pneumoconiosis takes 10–20 years to develop. The severity of the disease reflects the person's dust exposure over his entire working life. Therefore, deaths during 1979–85 reflect industrial exposures occurring in the 1940's through the 1970's. The probability of developing severe coal workers' pneumoconiosis when exposed for 35 years to the maximum levels currently allowed (2 mg/m<sup>3</sup>) is about 1 percent. However, at levels representative of exposures before 1972 (4–6 mg/m<sup>3</sup>), the probabilities were 4–10 percent (Merchant, 1986). Smoking appears to increase the risk of complications, but smoking does not appear to increase the risk of getting coal workers' pneumoconiosis (U.S. DHHS, 1985).

Historical accounts of "miners' black lung" date to 1936. Many clinical and epidemiologic studies have demonstrated the association between exposure to coal dust and increased risk of coal workers' pneumoconiosis. In 1946, the first Federal Mine Safety Code was enacted. However, strong

regulatory powers were not given to the Bureau of Mines until the 1960's. The Federal Coal Mine Health and Safety Act established a coal mine dust standard of 2 mg/m<sup>3</sup> effective in 1972. This act also mandated other safety and health standards, health surveillance, and Federal compensation and guaranteed right of entry to the National Institute for Occupational Safety and Health. The health hazards, referred to in the Act as "black lung," include any chronic dust diseases of the lung arising out of employment in an underground coal mine.

In 1985, 947 deaths among men 25 years and over were recorded with coal workers' pneumoconiosis as the underlying cause of death (see table 33). Almost 91 percent of these deaths occurred in men 65 years and over. An additional 1,652 deaths among men recorded a mention of coal workers' pneumoconiosis as a contributing cause of death. Among these other deaths, 45 percent had heart disease as the underlying cause of death, and 26 percent had malignant neoplasms as the underlying cause of death.

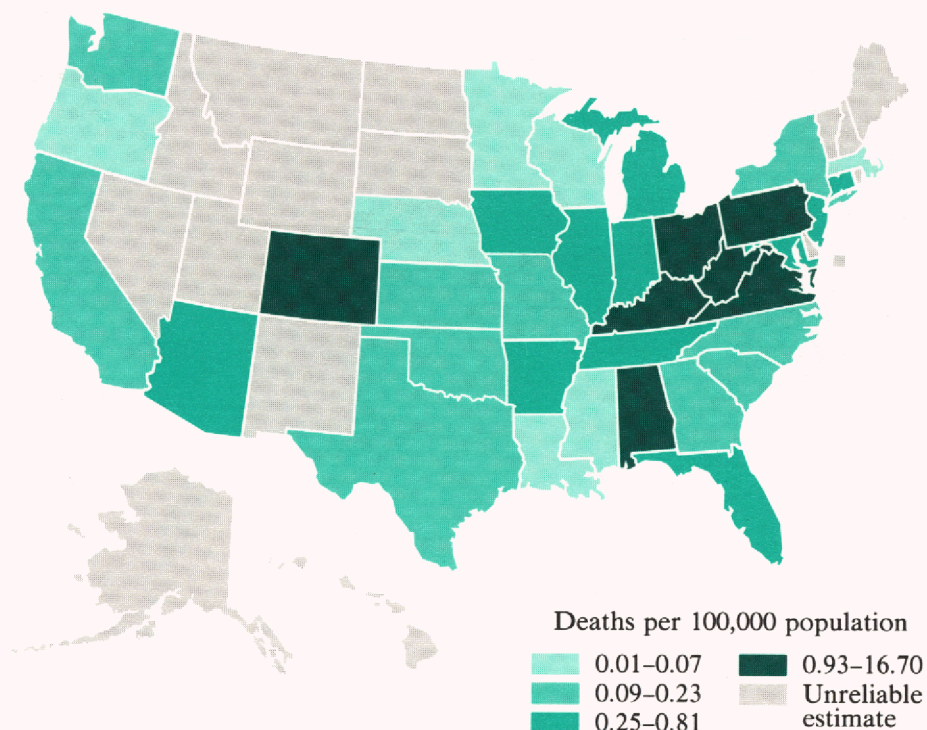
## Geographic Variation

■ The national age-adjusted death rate for coal workers' pneumoconiosis was 1.46 deaths per 100,000 men 25 years and over in 1979–85. Death rates for coal workers' pneumoconiosis were quite variable among the 35 States shown in figure 25. Nearly 67 percent of the total 6,698 deaths from coal workers' pneumoconiosis during 1979–85 occurred in Pennsylvania where the age-adjusted death rate was 16.7 per 100,000 men, a rate 11 times the national average. Other States with the highest death rates were West Virginia (11.4), Kentucky (4.9), Virginia (2.1), Ohio (1.1), Alabama (1.0), and Colorado (0.9).

■ The States with elevated rates closely correspond to the areas with a relatively high percentage of the male labor force in mining (figure 26). These States are concentrated in the Appalachian Mountain and Rocky Mountain areas.

■ The remainder of the States had very low death rates from coal workers' pneumoconiosis ranging from 0.01 to 0.8 deaths per 100,000 men.

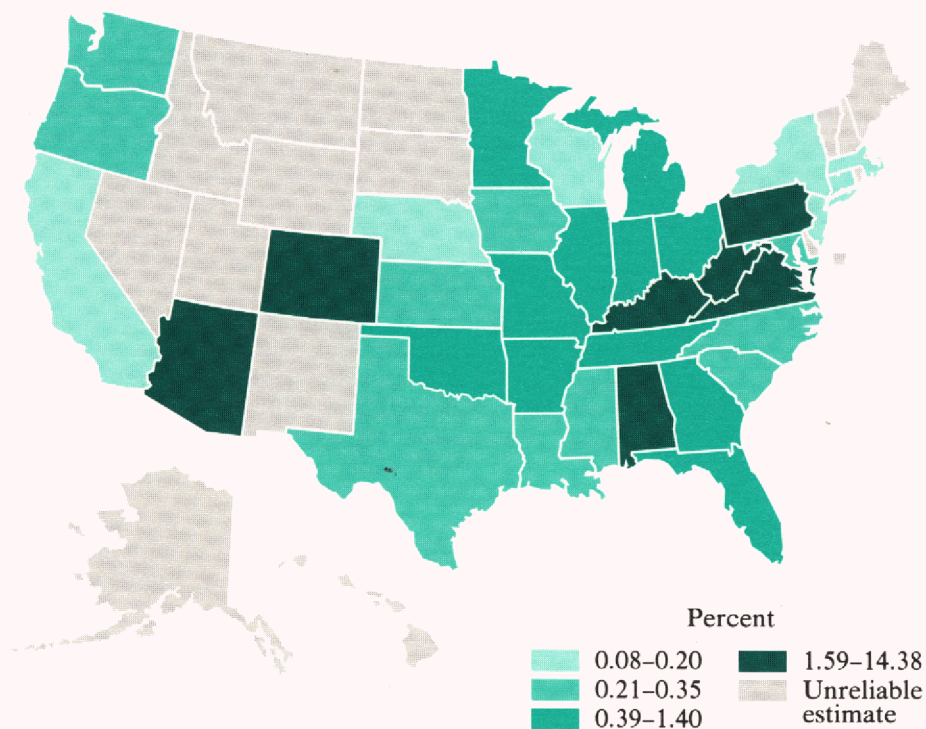
**25. Coal workers' pneumoconiosis death rates among males 25 years of age and over: 1979-85**



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

**26. Males 17 years of age and over employed in mining: 1980**



SOURCE: U.S. Bureau of the Census: 1980 Census of Population.

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# Acute Leukemia Mortality Among Men

## Background

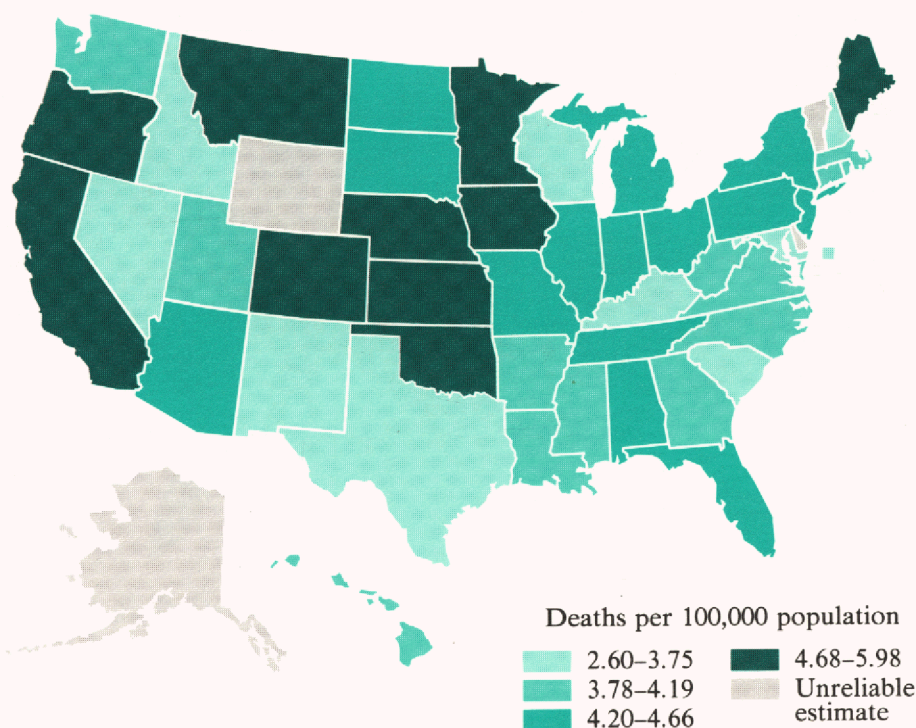
Leukemia is a family of cancers that arise in blood cells or in blood-forming cells of the bone marrow. Leukemias are classified as acute or chronic depending on the maturity of the cancerous cells and expected duration of the disease. The various leukemias differ in terms of cause, therapy, and prognosis.

In 1985, acute leukemias accounted for approximately 1 percent of new cancer cases and 1.4 percent of cancer deaths in the United States (NCI, 1988). The incidence of acute leukemias has remained steady during 1975-85. The prognosis among adults with acute leukemia remains poor (40 percent of the adults with acute lymphocytic leukemia and 5 percent of adults with acute myeloid leukemia survive 7 years after diagnosis). Hence, the mortality rates for acute leukemias among adults have not changed over the past decade. Among adults 25 years of age and over the age-adjusted acute leukemia death rate was about 50 percent higher for men than women in 1985.

Toxic physical and chemical exposures have been shown to cause increased risk of acute leukemia. Because exposures to these toxicants often occur in occupational settings, the risk of acute leukemia is elevated among workers in certain occupations. The most conclusive research has concerned the following exposures: ionizing radiation, benzene, ethylene oxide, and the agricultural environment (OTA, 1985).

The link between exposure to ionizing radiation and increased risk of leukemia was first described in the 1890's in case studies of radiation workers (Linet, 1985). The chief sources of ionizing radiation are x-ray therapy and diagnostic x rays. In the 1940's, an increased risk was described among medical radiologists when compared to other physicians. The risk to radiologists has decreased with improved safety techniques, such as better shielding, lower doses, and more concentrated fields of exposure. Other

## 27. Acute leukemia death rates among males 25 years of age and over: 1979-85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

occupations with exposure to low levels of radiation include nuclear power workers and nuclear shipyard workers. The risks to workers at the lower exposures are not well established. The nonoccupational, high-dose exposures of the atomic bomb blasts in Japan and therapeutic medical radiation have also been associated with high risk of leukemia.

The association between occupational exposure to benzene and increased risk of leukemia was also noted in case studies reported in the 1890's. Subsequent epidemiologic studies in the 1970's have supported this association for acute leukemias (Linet, 1985; OTA, 1985). Benzene is widely used as a solvent in the chemical, plastic, rubber, and pharmaceutical industries. It also comprises up to 5 percent by weight of unleaded gasoline. Occupations at risk of exposure include rubber workers, petroleum production or product workers, gas station attendants, and shoelather workers. Workers are exposed to benzene by breathing fumes or having the liquid splashed on clothes or skin. Studies of workers employed in rubber-manufacturing plants revealed that a

strong dose-response relationship exists such that those individuals with high doses of benzene may have several hundredfold increased risk of developing acute leukemia. In general, however, the benzene-associated relative risks have been 1.5-3.0 times that of the general population. The U.S. Occupational Safety and Health Administration (OSHA) has established workplace exposure limits for benzene (NIOSH, 1985).

Nonoccupational exposures to benzene are often associated with hobby or home activities. Benzene is a component of furniture-refinishing products, paint strippers, dry cleaning and spot removers, and paints and waxes.

Exposure to ethylene oxide (EtO) has also been associated with increased risk of acute leukemia. EtO is a colorless liquid or gas used widely in hospitals and health care industries for gas sterilization of medical products. Other industrial uses include the production of antifreeze and polyesters and use as solvents. Workers are exposed to EtO primarily by breathing fumes. Studies in the 1970's of EtO production workers and other chemical workers indicated excess risk of

acute leukemia. OSHA has set standards for workplace exposure to EtO (Federal Register, 1988).

Increased risks of leukemias have been reported in the 1970's among farmers and others employed in agricultural industries (Blair et al., 1980). These reports did not distinguish between acute and chronic leukemias. The specific toxic agent is not known. Exposures to pesticides, insecticides, and herbicides are suspected to cause increased risk. These agents contain chemicals known to increase risk in laboratory animals (IARC, 1983). However, the complex nature of each mixture and the uses of multiple mixtures make the identification of specific toxic chemicals difficult. The Environmental Protection Agency recommends use of combinations of protective clothing, gloves, goggles, or respirators, depending on the toxicity of the pesticide.

### Geographic Variation

This section focuses on acute lymphoid and myeloid leukemias.

■ During the period 1979-85, 19,834 men 25 years of age and over died of acute leukemia in the United States. Of these deaths, the majority (86 percent) were from the myeloid form of the disease which is generally less responsive to chemotherapy. The age-adjusted death rate for acute leukemia among men 25 years and over in the United States during 1979-85 was 4.3 deaths per 100,000. The death rate increases sharply with age from 1.0 death per 100,000 men aged 25-34 years to 11.6 per 100,000 men aged 65-74 years and 27.7 per 100,000 men 85 years of age and over.

■ During 1979-85 the age-adjusted death rates for acute leukemia ranged from 2.6 deaths per 100,000 men (District of Columbia) to 6.0 deaths per 100,000 men (Nebraska) among the 47 States with data shown in figure 27.

■ Elevated death rates for acute leukemia were found in a group of 10 States in the central United States. Nebraska, Minnesota, Oklahoma, Colorado, Montana, Kansas, and Iowa were among the 10 States with the highest death rates for acute leukemia. Three other central States (North Dakota, Missouri, South Dakota) also had acute leukemia death rates greater than the national average. Seven of the 10 States in the central United States with elevated acute leukemia death rates are also among the 10 States with highest percents of men employed in agriculture. In 1980, the percents of men employed in agriculture in these States ranged from 23 percent in South Dakota to 5.5 percent in Oklahoma (U.S. Bureau of the Census, 1983). (The national average was 4 percent.) The elevated death rates in these States may be due to occupational exposures of farmers or others employed in agricultural industries.

■ The other States with relatively high death rates among men for acute leukemia are Maine, Oregon, and California. The high death rates in these States may be due to several factors. The relatively high percentage of workers potentially exposed to benzene in the leather industry in Maine (3.3 versus 1.7 percent nationally) (U.S. Bureau of the Census, 1983) may account for some of the increased death rate in that State.

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# Bladder Cancer Mortality Among Men

## Background

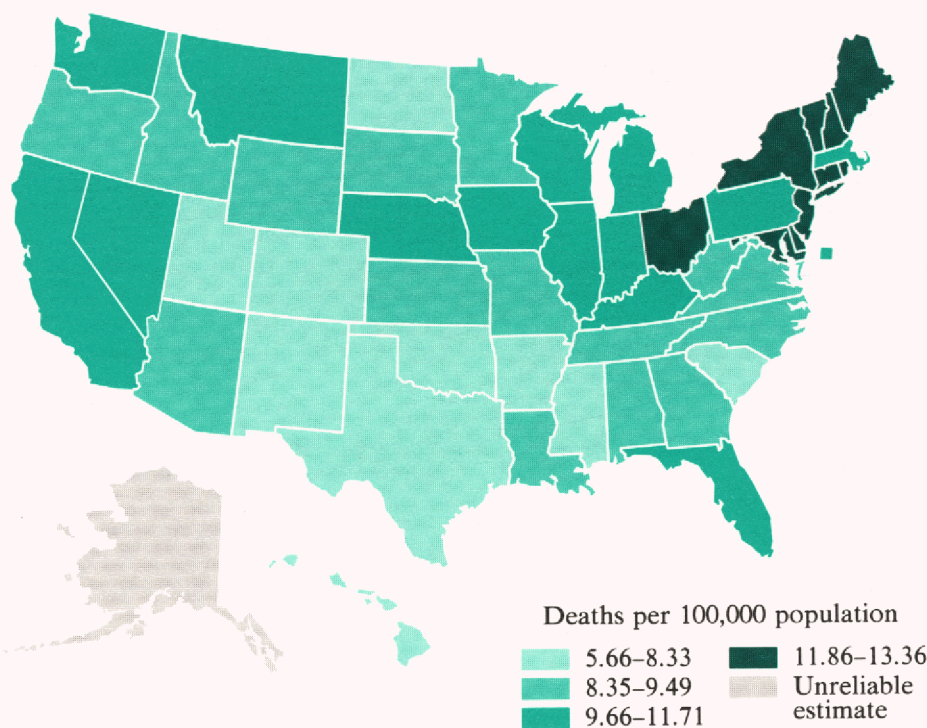
Cancer of the urinary bladder is the fourth most frequently occurring cancer among men. The disease is  $2\frac{1}{2}$  times more common in men than in women (National Cancer Institute, 1988). Bladder cancer is also more common in the white population; the age-adjusted incidence rates among white persons are 75 percent greater than the rates among black persons. About half of the new cases each year occur in persons 70 years of age and over. Therefore, treatment of bladder cancer is often complicated by other medical conditions. The 10-year trend from 1975-85 shows an 8-percent increase in the incidence of the disease. However, the death rate has decreased by 17 percent during this period, reflecting improved diagnostic and treatment protocols.

The prognosis of the disease depends on the stage of the cancer at the time of diagnosis. In 1979-84, only a 45-percent chance for 5-year survival was reported if the cancer had extended beyond the boundaries of the urinary bladder wall (National Cancer Institute, 1988). However, the prognosis was considerably better if the tumor was confined to the bladder, an 89-percent chance of 5-year survival.

Two factors that increase the risk of developing bladder cancer are smoking and occupational exposure. Smoking is estimated to be responsible for about 40 percent of bladder cancers among men in the United States (U.S. DHHS, 1982; Morrison and Cole, 1982). The increased risk-among smokers is probably from aromatic amines produced by incomplete combustion of the tobacco product. An estimated 18-34 percent of all bladder cancers in men may occur from occupational exposures (Morrison and Cole, 1982).

The primary bladder carcinogens to which people are exposed on the job are aromatic amines, a class of chemicals used to make dyes. Two of these chemicals, 2-naphthylamine and benzidine, are known to be potent

## 28. Bladder cancer death rates among males 25 years of age and over: 1979-85



NOTE: Rates are age adjusted.

SOURCE: National Center for Health Statistics: Data from the Compressed Mortality File.

bladder carcinogens. In the 1930's, the association of increased bladder cancer risk with benzidine or naphthylamine exposure was described using case reports of the 1890's. Since then, numerous studies have noted the increased risk of exposure to bladder carcinogens among rubber industry workers, dye workers, chemical workers, textile dyers, paint-manufacturing workers, nickle refinery workers, copper smelter workers, and printing press operators (OTA, 1985). The workers are exposed by breathing air contaminated with these chemicals, ingestion, or splashes on skin. The 1972-74 National Occupational Hazard Survey found relatively higher risks of potential exposure to benzidine among workers in medical and other health services, chemical manufacturing, and business services (NIOSH, 1978). The same survey found potential exposures to beta-naphthylamine among workers in leather tanning and finishing industries. Studies of rubber workers have found that as a group these workers have about a 50-percent increased risk of bladder cancer (Nutt, 1983). However, those workers who receive very

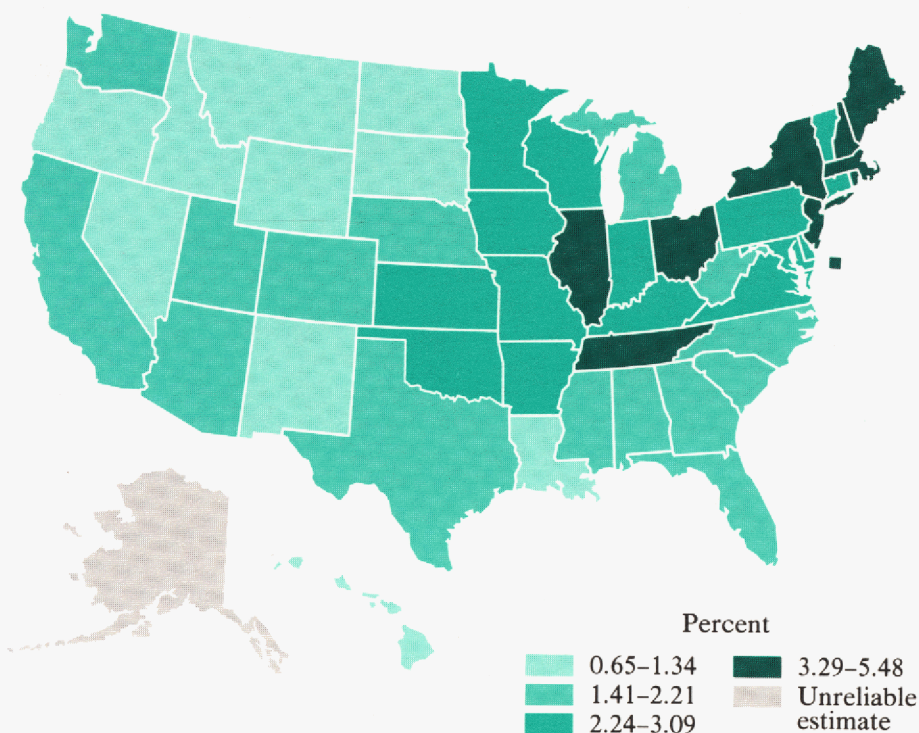
high doses of naphthylamine can have much higher risks of developing bladder cancer.

The Occupational Safety and Health Administration recognizes a number of the aromatic amines as occupational carcinogens (NIOSH, 1985). Although permissible exposure limits have not been established, workers' exposures to these chemicals are controlled through required use of engineering controls, work practices, and personal protective equipment such as respirators.

## Geographic Variation

■ During the period 1979-85, 46,914 men 25 years of age and over died of bladder cancer. This number represents 4.5 percent of all cancer deaths to men during this period. The national age-adjusted death rate for bladder cancer among men 25 years and over during the period 1979-85 was 10.3 deaths per 100,000. The death rate for bladder cancer rises sharply with age from 30.6 deaths per 100,000 among men 65-74 years to 74.6 among men

## 29. Males 17 years of age and over employed in the printing, rubber, and leather industries: 1980



SOURCE: U.S. Bureau of the Census: 1980 Census of Population.

75-84 years and 141.8 among men 85 years and over.

■ The age-adjusted death rates for bladder cancer during 1979-85 vary among the States, ranging from 5.7 deaths per 100,000 men in Hawaii to 13.4 in Vermont (figure 27).

■ The death rate for bladder cancer is elevated in the heavily industrialized part of the United States. Seven of the 10 States with the highest age-adjusted death rates are located in the Northeast region (Vermont, Rhode Island, Maine, New Jersey, New York, New Hampshire, Connecticut). The only other State in this region, Pennsylvania, also has a risk of bladder cancer greater than the national average. Other heavily industrialized States with rates above the national

average include Delaware, Maryland, Ohio, Michigan, Indiana, Wisconsin, and Illinois.

■ States with the lowest age-adjusted bladder cancer death rates among men are found primarily in the Mountain and South Central States.

■ The geographic distribution of male employment in three of the industries that use the aromatic amine chemicals shows a pattern similar to that for bladder cancer mortality (figure 29). Six of the 10 States with the highest percentages of men employed in the printing, rubber, or leather industries also rank highest for bladder cancer mortality. The relationship between smoking among these men, actual exposures to bladder carcinogens, and bladder cancer needs to be studied.

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# Technical Notes

## Data Sources

The data on cigarette smoking shown in figures 1 and 2 are from the 1985 Current Population Survey (CPS). This survey is described in appendix I. In September 1985, a supplement to the CPS included questions on tobacco usage for all household members 16 years of age and over. For the first time data on smoking were available for all States in the same year.

The mortality data shown in figures 3–25, 27, and 28 are from the Compressed Mortality File (CMF), a county-level national mortality and population data base (NCHS, 1988). The mortality data base of the CMF is derived from death records compiled through the National Vital Statistics System. The population data base of the CMF is derived from annual estimates for each U.S. county. The population estimates were prepared by the Bureau of the Census with modifications by the National Center for Health Statistics.

The data on employment among males 17 years of age and over, shown in figures 26 and 29, are from the 1980 census. These data are for the “experienced labor force,” which includes currently employed men as well as those with past work experience who are looking for work. The industry classification of those men who are looking for work is determined by their most recent jobs.

## Age Adjustment

All percents and death rates have been age adjusted to eliminate differences among the States because of differences in their age distributions. Age adjustment by the direct method applies age-specific death rates in each State to a standardized age distribution. However, this method is subject to large error for rare causes of death because age-specific death rates for rare causes of death are highly unstable for many States. In age adjustment by the indirect method, a standardized mortality ratio (SMR) is calculated for each State. The SMR is the ratio of the number of observed deaths in the State to the number of expected deaths in the State, where the expected deaths

are determined by applying age-specific death rates for the entire United States to the age distribution in the State. The indirectly age-adjusted death rate is the State’s SMR multiplied by the U.S. death rate.

The percent of persons 20 years of age and over who currently smoke cigarettes (figures 1 and 2) have been age adjusted by the direct method to the 1985 U.S. civilian noninstitutionalized population using three age groups (20–44 years, 45–64 years, 65 years and over). Death rates during 1983–85 and 1979–81 for persons in 20-year age groups (figures 5, 6, 9, 10, 13, 14, 17, 18, and 20–22) have been age adjusted by the direct method to the 1940 U.S. population using two 10-year age groups.

Death rates in 1979–85 for selected occupation-related causes of death among men 25 years of age and over (figures 24, 25, 27, and 28) have been age adjusted using the indirect method because of the relatively small numbers of deaths for these causes. Age-specific U.S. death rates during 1979–85 for seven 10-year age groups and for all men 25 years and over were used as the standard death rates.

## Average Annual Percent Change in Death Rates

Average annual percent change in death rates between 1970 and 1985 for persons 45–64 years of age (figures 3, 4, 7, and 8) and persons 55–74 years of age (figures 11, 12, 15, 16, and 19) was estimated using regression models. For each estimate in each State a regression model was fit to the logarithm of 32 age-specific death rates (i.e., death rates for two 10-year age groups for the 16 years, 1970–85). A weighted least squares algorithm was used to estimate age and time parameters for each model. The age parameter adjusts for age in 10-year age groups. Average annual percent change was calculated as  $(e^B - 1) \times 100$ , where  $B$  is the estimated regression coefficient of the time parameter.

## Selection of States for Figures

Because of the small numbers of expected deaths in the less populous States, certain States are excluded from specific figures. To include as many States as possible, death rates were calculated by combining several years of data. Death rates for heart

disease, stroke, and lung cancer combine 3 years of mortality data, 1983–85. Death rates for suicide and for occupation-related causes of death combine 7 years of mortality data, 1979–85, because they are for less common causes of death. Death rates for breast cancer also combine 7 years of data because rates are shown for women 25–44 years of age, an age group with relatively few deaths.

The expected numbers of deaths in a State were calculated based on the State population and U.S. age-race-sex and cause-specific death rates. In figures 3–20 only States with at least 100 expected deaths during 1983–85 are included. However, some States with more than 100 expected deaths are excluded so that related maps include the same States.

Figures 3–6 (heart disease mortality for white males and females) include data for the same 49 States. The District of Columbia and Alaska are excluded because they had fewer than 100 expected heart disease deaths among white females 45–64 years of age during 1983–85. Figures 7–10 (heart disease mortality for minority males and females) include data for the same 32 States.

Figures 11–14 (stroke mortality for white males and females) include data for the same 47 States. The District of Columbia, Alaska, Hawaii, and Wyoming are excluded because they had fewer than 100 expected stroke deaths among white males and females 55–74 years of age during 1983–85. Figures 15–18 (stroke mortality for minority males and females) include data for the same 26 States.

Figures 19 and 20 (lung cancer mortality for females) include data for 50 States. Alaska was excluded.

Figures 21 and 22 (breast cancer mortality), figure 23 (suicide among males 15–24 years) and figures 24, 25, 27, and 28 (occupation-related causes of death) have the less stringent inclusion criteria of 50 or more expected deaths during 1979–85 because average annual percent change during 1970–85 (based on annual death rates) was not calculated for these causes of death. The number of States included in each of these figures are as follows:

- Figures 21–23: 51 States
- Figure 24: 27 States
- Figure 25: 35 States
- Figure 27: 47 States
- Figure 28: 50 States

## Ranking of States

Four categories of States are shown in each figure based on the relative rankings of the variable of interest. States ranking in the lowest and highest quintiles form the first and fourth categories, respectively. The remaining States are divided into two middle categories, each with approximately 30 percent of the States. The number of States included in each of the four categories are shown below for each map. The numbers in each category vary with the total number of States included in the map.

Figure	1	2	3	4
1 and 2 . . . . .	10	15	16	10
3-6 . . . . .	10	14	15	10
7-10 . . . . .	6	10	10	6
11-14 . . . . .	10	13	14	10
15-18 . . . . .	5	8	8	5
19 and 20 . . . . .	10	15	15	10
21-23 . . . . .	10	15	16	10
24 . . . . .	5	8	9	5
25 and 26 . . . . .	7	10	11	7
27 . . . . .	10	13	14	10
28 and 29 . . . . .	10	15	15	10

## Reference

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# Data for Figures 1-29

[See figures 1-29 for variables and sources. Numbers in boxheads refer to figure numbers]

State	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Alabama	38.5	23.5	-3.25	-0.98	430.6	134.1	-0.49	-2.24	581.7	278.9	-6.72	-5.20	127.1	90.5
Alaska	41.3	27.9	*	*	*	*	*	*	*	*	*	*	*	*
Arizona	34.2	25.2	-2.70	-2.41	373.7	112.9	-1.46	-1.35	333.9	149.1	-5.78	-5.45	87.6	68.0
Arkansas	37.4	26.5	-2.51	-0.67	456.8	141.7	-0.78	-1.74	626.2	316.5	-5.36	-4.60	130.2	91.7
California	28.8	22.4	-3.38	-2.88	344.0	110.9	-2.08	-3.12	370.8	165.9	-5.78	-5.03	98.9	79.0
Colorado	30.6	26.9	-3.65	-2.82	304.8	96.2	-3.42	-2.37	335.7	145.8	-6.70	-5.64	77.1	62.3
Connecticut	30.9	28.4	-3.17	-2.14	355.6	112.0	-1.41	-3.49	491.6	227.8	-6.59	-6.46	85.3	62.3
Delaware	34.9	29.1	-3.96	-3.09	382.4	140.5	*	*	*	*	-5.91	-5.83	90.5	67.2
District of Columbia	34.1	29.2	*	*	*	*	-1.55	-1.94	630.2	288.0	*	*	*	*
Florida	35.6	28.4	-3.17	-2.96	376.8	102.8	-2.58	-3.79	514.3	291.2	-5.77	-5.05	92.6	68.5
Georgia	38.7	26.4	-3.37	-1.58	463.9	142.0	-1.94	-3.29	650.6	344.0	-6.50	-5.35	135.9	103.6
Hawaii	30.8	24.7	-3.25	-1.75	321.3	104.7	-1.68	-2.13	266.9	129.6	*	*	*	*
Idaho	26.6	21.7	-2.83	-2.98	362.8	100.6	*	*	*	*	-5.77	-5.26	81.8	78.8
Illinois	31.5	26.3	-3.61	-2.85	421.0	142.3	-3.70	-4.38	599.2	301.8	-6.07	-5.50	109.3	82.1
Indiana	35.7	30.0	-2.83	-1.96	426.9	141.4	-2.09	-3.71	485.3	265.9	-6.43	-5.71	125.9	94.9
Iowa	33.0	23.6	-3.08	-2.44	367.7	113.9	*	*	*	*	-5.87	-5.98	102.0	68.1
Kansas	34.6	26.6	-3.03	-1.66	361.9	112.4	-4.38	-2.10	390.5	256.1	-5.59	-4.57	102.3	74.1
Kentucky	37.7	33.4	-2.49	-1.79	497.1	162.2	-2.74	-3.94	594.3	295.9	-6.11	-5.09	127.8	92.5
Louisiana	35.4	23.8	-3.72	-2.33	441.0	146.7	-1.23	-2.70	642.6	358.8	-5.99	-4.17	116.4	89.9
Maine	31.8	29.0	-3.25	-3.51	419.2	141.6	*	*	*	*	-6.95	-6.38	86.9	79.0
Maryland	31.4	28.1	-3.18	-2.40	413.2	138.0	-2.77	-3.18	507.6	257.0	-5.06	-5.01	102.6	65.2
Massachusetts	28.4	28.0	-2.72	-2.42	429.7	132.1	-2.49	-1.47	401.1	215.1	-6.81	-6.23	92.2	69.6
Michigan	34.4	33.7	-2.48	-1.77	429.8	152.5	-1.19	-2.12	575.2	300.7	-5.56	-5.14	116.0	85.3
Minnesota	30.0	27.4	-3.38	-2.74	336.3	95.8	*	*	*	*	-6.72	-6.07	95.8	66.7
Mississippi	38.8	24.7	-2.50	-0.27	469.8	151.3	-0.58	-1.18	558.0	304.9	-6.37	-4.90	127.8	88.2
Missouri	31.0	24.6	-2.70	-1.52	393.4	131.6	-1.51	-3.85	573.8	266.8	-5.89	-5.38	114.7	81.7
Montana	26.0	25.9	-3.26	-2.47	329.1	117.8	*	*	*	*	-6.26	-5.76	85.9	69.6
Nebraska	26.6	23.6	-2.99	-2.01	347.1	112.4	*	*	*	*	-6.55	-5.37	94.3	73.5
Nevada	37.6	33.9	-2.13	-1.12	435.5	145.6	*	*	*	*	-6.67	-6.65	100.1	85.9
New Hampshire	35.1	26.6	-2.39	-1.86	409.9	125.1	*	*	*	*	-7.77	-7.12	91.0	70.5
New Jersey	31.0	25.2	-3.05	-3.02	415.5	134.0	-2.89	-4.60	500.8	237.1	-5.70	-5.47	102.1	74.0
New Mexico	32.6	24.2	-3.14	-2.85	301.4	100.1	*	*	*	*	-6.93	-5.30	77.4	73.4
New York	31.4	26.3	-2.64	-1.98	439.6	156.8	-2.01	-1.82	511.6	267.1	-5.89	-5.67	90.5	68.5
North Carolina	39.7	24.6	-3.01	-1.75	478.5	129.2	-2.31	-3.78	636.3	290.4	-6.71	-5.13	128.3	87.7
North Dakota	28.3	24.7	-3.52	-2.86	336.4	91.8	*	*	*	*	-5.64	-6.86	109.6	64.7
Ohio	34.4	30.3	-2.85	-1.75	433.4	157.5	-1.47	-2.55	588.1	308.4	-5.95	-5.25	114.7	84.7
Oklahoma	35.7	30.4	-2.43	-1.00	425.7	139.3	-3.27	-3.03	396.4	195.2	-5.68	-4.24	110.5	92.9
Oregon	26.8	27.5	-3.18	-2.13	355.8	118.6	*	*	*	*	-5.75	-5.49	110.4	83.0
Pennsylvania	32.2	26.5	-3.01	-2.73	438.4	152.8	-1.91	-3.48	488.3	235.2	-6.06	-6.07	108.8	79.4
Rhode Island	35.8	33.3	-3.19	-2.98	410.6	130.8	*	*	*	*	-6.05	-6.49	84.1	61.7
South Carolina	34.1	21.5	-3.82	-1.86	466.1	152.0	-2.54	-3.85	668.8	352.8	-6.58	-6.07	146.4	88.0
South Dakota	30.7	26.8	-2.11	-2.11	387.0	103.5	*	*	*	*	-5.73	-4.45	94.6	66.5
Tennessee	36.6	26.0	-3.08	-1.78	452.1	139.9	-1.50	-2.37	665.0	387.1	-5.63	-4.98	137.4	95.9
Texas	35.5	26.2	-3.05	-1.57	378.0	125.6	-1.31	-2.87	573.2	300.0	-5.69	-4.70	110.8	81.4
Utah	18.2	10.2	-2.77	-2.04	315.0	99.3	*	*	*	*	-6.11	-4.83	84.9	72.5
Vermont	31.7	29.7	-2.69	-1.89	401.4	120.4	*	*	*	*	-6.63	-5.88	89.6	73.4
Virginia	37.8	28.5	-3.32	-1.95	414.5	132.3	-2.57	-3.49	562.1	290.6	-6.23	-4.30	110.2	83.4
Washington	29.9	27.3	-3.82	-2.72	337.9	111.9	-3.20	-2.67	370.7	134.6	-6.08	-5.32	103.2	79.4
West Virginia	38.5	29.9	-2.18	-1.73	528.5	192.8	*	*	*	*	-5.91	-5.05	122.7	96.1
Wisconsin	27.6	25.2	-3.38	-1.89	358.6	116.1	-0.62	-2.27	523.3	258.9	-6.30	-5.67	103.4	78.3
Wyoming	31.8	31.9	-4.04	-3.47	313.6	99.9	*	*	*	*	*	*	*	*

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	State
-5.68	-6.73	298.1	202.8	7.60	93.5	10.6	75.6	15.7	0.95	1.03	1.59	4.47	8.50	2.15	Alabama
*	*	*	*	*	*	5.9	82.9	31.7	*	*	*	*	*	*	Alaska
-4.89	-5.56	340.3	239.2	7.83	104.3	8.3	80.8	30.5	0.72	0.49	3.49	4.58	9.32	1.43	Arizona
-5.10	-4.90	142.8	124.4	6.11	91.8	9.0	67.5	19.4	*	0.37	0.50	3.83	7.70	2.31	Arkansas
*	*	*	*	6.35	82.6	7.7	79.0	26.8	*	0.93	2.10	4.85	8.33	2.21	California
*	*	*	*	6.46	103.9	9.6	99.7	15.4	0.73	0.26	0.12	3.99	11.92	3.09	Colorado
*	*	*	*	7.13	138.3	12.5	98.7	22.4	*	*	*	*	13.34	2.29	Connecticut
-5.11	-5.98	143.1	120.2	5.31	119.5	14.8	111.0	15.8	*	*	*	2.60	11.32	3.48	Delaware
-5.79	-6.56	268.9	221.4	6.31	116.4	9.0	81.4	22.3	1.08	0.30	0.44	4.33	10.71	1.61	District of Columbia
-6.15	-6.87	354.3	264.7	8.03	92.5	10.3	72.8	17.3	0.56	0.09	0.52	3.97	9.29	1.88	Florida
-6.62	-4.70	107.7	84.2	1.56	69.6	8.2	58.5	20.0	*	*	*	3.86	5.66	1.06	Georgia
*	*	*	*	6.68	78.5	7.5	80.9	28.6	*	*	*	3.33	9.09	0.96	Hawaii
-5.13	-6.66	191.0	153.6	6.78	106.0	10.6	97.1	17.2	1.02	0.58	0.81	4.20	10.98	3.49	Idaho
-7.41	-8.18	185.1	168.6	7.59	106.8	9.5	89.7	19.2	0.75	0.44	0.68	4.34	10.29	2.89	Illinois
*	*	*	*	8.23	92.0	8.7	85.9	20.7	1.22	0.27	0.29	4.71	10.82	2.38	Indiana
*	*	*	*	7.66	95.7	8.6	84.2	19.5	*	0.13	0.34	4.72	9.38	2.85	Iowa
-5.95	-6.77	230.2	185.6	8.60	124.8	10.4	80.7	18.8	0.78	4.90	6.41	3.72	9.81	2.32	Kansas
-4.83	-5.88	261.1	187.0	7.43	116.9	10.6	75.3	21.3	0.56	0.04	0.35	4.12	9.38	0.92	Kentucky
*	*	*	*	6.55	106.3	7.9	92.9	25.3	*	*	*	4.89	12.98	4.98	Louisiana
-4.30	-4.35	184.8	153.1	6.82	127.7	11.3	95.4	20.6	0.83	0.42	0.21	3.59	11.99	2.82	Maine
-5.39	-6.59	136.9	76.7	7.05	110.8	9.7	107.1	16.5	0.81	0.01	0.08	4.19	11.45	3.92	Maryland
-4.75	-5.01	184.4	163.3	7.48	113.6	10.2	93.7	22.0	0.71	0.25	0.39	4.42	11.17	2.05	Massachusetts
*	*	*	*	6.92	83.8	8.7	88.4	21.1	0.82	0.05	1.40	4.99	8.98	2.60	Michigan
-5.28	-5.73	249.0	185.3	7.99	92.6	9.7	67.9	16.2	*	0.06	0.23	3.92	7.69	1.54	Minnesota
-5.21	-7.02	228.0	178.8	7.57	107.3	10.5	83.7	20.4	0.73	0.23	0.68	4.62	9.15	2.87	Mississippi
*	*	*	*	6.74	107.6	10.3	84.4	28.7	*	*	*	4.81	11.04	0.88	Missouri
*	*	*	*	8.25	87.6	9.0	86.9	19.7	*	0.03	0.20	5.98	9.66	1.87	Montana
*	*	*	*	7.77	173.1	8.0	86.8	40.2	*	*	*	3.46	11.71	0.99	Nebraska
*	*	*	*	7.49	123.1	9.2	96.8	22.9	*	*	*	3.36	11.96	5.48	Nevada
-5.02	-5.68	190.0	157.7	6.23	115.5	11.0	107.0	14.5	1.69	0.34	0.12	4.56	12.70	3.30	New Hampshire
*	*	*	*	4.19	83.5	9.3	79.1	42.5	*	*	*	3.36	6.62	0.96	New Jersey
-5.39	-5.80	159.5	119.5	5.95	108.3	10.9	104.1	14.2	1.05	0.12	0.11	4.66	12.46	3.29	New Mexico
-5.71	-7.03	294.1	199.9	8.79	83.4	11.1	79.7	17.4	0.64	0.19	0.28	3.78	8.35	2.04	New York
*	*	*	*	7.50	71.7	9.0	86.7	26.5	*	*	*	4.63	8.19	0.85	North Carolina
-5.88	-5.86	173.8	149.7	7.11	117.4	10.4	98.2	20.2	0.86	1.05	0.80	4.51	11.86	4.14	North Dakota
-5.49	-5.40	163.2	111.6	7.11	110.6	8.7	76.3	24.3	0.48	0.11	0.50	4.94	7.70	2.32	Ohio
*	*	*	*	8.02	134.4	9.3	86.7	22.6	*	0.07	0.33	4.86	9.30	1.34	Oklahoma
-5.17	-5.94	199.5	156.3	6.65	102.2	10.3	96.5	20.0	0.86	16.70	1.64	4.56	11.40	2.87	Oregon
*	*	*	*	6.65	114.0	11.2	95.3	20.3	*	*	*	3.82	13.25	3.35	Pennsylvania
-5.06	-5.92	401.4	270.3	7.12	82.6	10.7	81.4	15.8	*	0.12	0.21	3.65	8.27	2.17	Rhode Island
*	*	*	*	7.36	71.5	10.0	82.0	27.4	*	*	*	4.37	8.43	1.10	South Carolina
-5.34	-6.25	308.8	220.9	8.93	101.6	9.2	76.9	17.7	0.89	0.81	0.88	4.48	9.13	3.56	South Dakota
-5.48	-7.45	233.0	173.2	6.03	99.4	8.9	72.6	22.5	0.58	0.09	0.34	3.75	7.63	1.78	Tennessee
*	*	*	*	4.39	44.9	7.4	79.0	23.3	*	*	*	3.98	6.08	1.49	Texas
*	*	*	*	7.10	103.7	10.2	89.5	28.6	*	*	*	*	13.36	2.75	Utah
-5.77	-6.44	246.5	198.0	7.37	116.5	10.6	86.2	19.7	0.73	2.05	1.85	3.95	9.49	2.24	Vermont
*	*	*	*	7.31	127.4	9.5	91.8	22.7	1.71	0.23	0.27	4.08	10.49	1.52	Virginia
*	*	*	*	7.08	120.4	9.9	80.7	18.2	*	11.37	14.38	3.99	8.68	1.41	Washington
*	*	*	*	7.05	81.9	9.1	93.5	25.7	0.83	0.03	0.18	3.69	10.71	2.97	West Virginia
*	*	*	*	5.88	87.5	6.8	82.6	37.8	*	*	*	*	8.74	0.65	Wisconsin
															Wyoming



# Detailed Tables

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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 standards of reliability or precision

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**Table 1. Resident population, according to age, sex, and race: United States, selected years 1950-86**

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

Sex, race, and year	Total resident population	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
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
<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
<b>Black male</b>												
1950	7,300	944		1,442	1,162	1,105	1,003	772	460	299	113	
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
<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
<b>Black female</b>												
1950	7,745	941		1,446	1,300	1,260	1,112	796	443	322	125	
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

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

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 and 1022. Washington. U.S. Government Printing Office, May 1973 and Mar. 1988; 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 1950-86**

[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
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
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

<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, 1986*, Vol. I, Natality. Public Health Service, DHHS, Hyattsville, Md. To be published.

**Table 3. Birth rates for women 15-44 years of age, according to live-birth order and race of child: United States, selected years 1950-86**  
 [Data are based on the National Vital Statistics System]

Race of child and year	Total	Live-birth order					5 or higher
		1	2	3	4		
<b>All races</b>							
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	29.6	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	66.4	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	
<b>White</b>							
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	
<b>Black</b>							
1960	153.5	33.6	29.3	24.0	18.6	48.0	
1965	133.9	35.7	26.2	19.4	14.6	36.0	
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	86.1	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	

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, 1986*, Vol. I, Natality. Public Health Service, DHHS, Hyattsville, Md. To be published.

**Table 4. Completed fertility rates and parity distribution for women 50–54 years of age at the beginning of selected years 1930–87, according to race of child and birth cohort: United States, selected birth cohorts 1876–1937**

[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	2,856.9	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	107.4	222.4	212.0	147.5	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	3,199.7	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
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	3,023.6	1,000.0	92.5	108.2	235.8	224.9	153.0	83.9	46.0	55.6
1928–32 . . . . .	1982	3,058.1	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	3,101.3	1,000.0	78.5	96.8	231.1	236.4	166.0	90.5	48.2	52.5
1932–36 . . . . .	1986	3,079.9	1,000.0	77.9	97.0	232.9	239.2	166.3	89.9	47.3	49.5
1933–37 . . . . .	1987	3,042.4	1,000.0	78.6	98.5	236.2	241.6	165.5	88.1	45.5	46.0
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	3,315.9	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	71.4	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	3,805.0	1,000.0	172.4	93.2	132.3	130.1	114.4	93.1	75.1	189.4
1930–34 . . . . .	1984	3,822.3	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	3,805.7	1,000.0	119.4	99.8	150.3	150.2	129.9	102.4	80.6	167.4

<sup>1</sup>Number of children born alive to each 1,000 women who have completed their reproductive histories (women 50–54 years of age).

<sup>2</sup>Proportional distribution of each 1,000 women in the cohort by the number of children born alive to them.

NOTES: Example of use of table—For every 1,000 women 50–54 years of age in 1981, an average of 3,118.0 children were born alive (about 3 children per woman). About 10 percent of the women in this cohort reached 50–54 years of age having had no children, about 11 percent had 1 child, and about 12 percent had 6 children or more. There is a small discontinuity between 1980 and 1981 in the central birth rates, which are the basis for the 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. 1978; Data computed from *Vital Statistics of the United States, 1986*, Vol. I, Natality. Public Health Service, DHHS, Hyattsville, Md. To be published.

**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 1967-87**

[Data are based on reporting of birth expectations by currently married women of the civilian noninstitutionalized population]

<i>Race and year</i>	<i>All ages 18-34 years</i>	<i>18-19 years</i>	<i>20-21 years</i>	<i>22-24 years</i>	<i>25-29 years</i>	<i>30-34 years</i>
<b>Expected births per currently married woman</b>						
<b>All races</b>						
1967	3.1	2.7	2.9	2.9	3.0	3.3
1971	2.6	2.3	2.4	2.4	2.6	3.0
1975	2.3	2.2	2.2	2.2	2.3	2.6
1980	2.2	2.1	2.2	2.1	2.2	2.2
1985	2.2	2.1	2.2	2.2	2.2	2.2
1986	2.3	2.2	2.2	2.3	2.3	2.2
1987	2.2	2.1	2.2	2.2	2.2	2.2
<b>White</b>						
1967	3.0	2.7	3.0	2.8	3.0	3.2
1971	2.6	2.3	2.4	2.4	2.6	2.9
1975	2.3	2.2	2.1	2.1	2.2	2.6
1980	2.2	2.1	2.2	2.1	2.1	2.2
1985	2.2	2.0	2.2	2.2	2.2	2.1
1986	2.2	2.1	2.2	2.3	2.2	2.2
1987	2.2	2.0	2.2	2.2	2.2	2.2
<b>Black</b>						
1967	3.5	*	2.5	3.0	3.4	4.3
1971	3.1	*	2.4	2.8	3.1	3.7
1975	2.8	*	2.6	2.5	2.6	3.2
1980	2.4	*	2.2	2.1	2.4	2.5
1985	2.4	*	*	2.3	2.3	2.5
1986	2.4	*	*	2.4	2.3	2.6
1987	2.3	*	*	2.2	2.3	2.3
<b>Percent of expected births already born</b>						
<b>All races</b>						
1967	70.2	26.9	33.2	47.8	76.1	92.7
1971	69.4	25.3	32.5	46.7	74.4	93.7
1975	68.8	27.5	30.7	43.9	70.9	93.0
1980	67.0	29.5	32.9	44.9	64.7	89.7
1985	64.2	27.0	30.9	41.8	60.2	84.4
1986	64.7	29.0	30.4	41.8	59.5	84.8
1987	66.5	27.8	36.4	43.0	62.0	83.8
<b>White</b>						
1967	68.9	24.2	30.1	46.2	75.1	92.9
1971	68.9	23.7	31.4	45.3	74.1	93.8
1975	68.2	24.9	29.4	42.3	70.5	93.2
1980	66.3	28.6	31.8	43.5	64.0	90.0
1985	63.3	25.7	30.6	40.4	59.4	84.1
1986	63.8	28.6	28.7	40.5	58.6	84.8
1987	65.6	27.0	36.0	42.0	60.9	83.6
<b>Black</b>						
1967	82.8	*	65.7	67.9	87.9	92.3
1971	74.8	*	43.0	57.5	81.0	93.4
1975	76.4	*	43.3	61.0	78.2	91.8
1980	74.7	*	46.1	58.9	73.8	90.9
1985	77.1	*	*	62.3	72.8	91.4
1986	75.7	*	*	59.7	70.2	90.0
1987	77.8	*	*	55.4	76.6	89.7

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

**Table 6. Characteristics of live births, according to Hispanic origin of mother and race of child: Selected States, 1980-86**

[Data are based on the National Vital Statistics System]

Ethnicity of mother, race of child, and characteristic	1980	1981	1982	1983	1984	1985	1986
<b>Birth weight less than 2,500 grams</b>							
	<b>Percent of live births</b>						
All origins <sup>1</sup> .....	6.9	6.8	6.8	6.9	6.8	6.8	6.9
Hispanic .....	6.1	6.1	6.2	6.3	6.2	6.2	6.1
Mexican .....	5.6	5.6	5.7	5.8	5.7	5.8	5.6
Puerto Rican .....	8.9	9.0	9.1	8.9	8.9	8.7	9.2
Cuban .....	5.6	5.8	5.8	5.6	5.9	6.0	5.5
Non-Hispanic white .....	5.7	5.6	5.6	5.6	5.5	5.6	5.6
Non-Hispanic black .....	12.5	12.6	12.4	12.6	12.4	12.4	12.7
<b>Age of mother less than 20 years</b>							
All origins <sup>1</sup> .....	15.6	14.8	14.4	13.8	13.2	12.8	12.7
Hispanic .....	19.0	18.5	18.3	17.7	17.0	16.5	16.4
Mexican .....	19.8	19.4	19.1	18.4	18.0	17.5	17.4
Puerto Rican .....	23.3	23.1	23.0	22.4	21.3	20.9	20.9
Cuban .....	13.0	12.8	11.4	9.4	8.2	7.1	6.8
Non-Hispanic white .....	12.5	11.8	11.3	10.7	10.0	9.7	9.5
Non-Hispanic black .....	26.9	25.5	24.9	24.3	23.8	23.1	22.8
<b>Unmarried mothers</b>							
All origins <sup>1</sup> .....	19.3	19.7	20.3	21.3	21.9	22.9	24.3
Hispanic .....	23.8	24.5	25.6	27.5	28.3	29.5	31.6
Mexican .....	20.5	20.7	21.9	23.7	24.2	25.7	27.9
Puerto Rican .....	46.3	48.0	49.0	49.5	50.8	51.1	52.6
Cuban .....	10.0	14.3	15.9	16.2	16.2	16.1	15.8
Non-Hispanic white .....	9.3	9.8	10.2	10.7	11.3	12.1	13.2
Non-Hispanic black .....	56.5	57.1	58.0	59.5	60.5	61.0	62.2
<b>Prenatal care began during 1st trimester</b>							
All origins <sup>1</sup> .....	74.7	74.8	74.5	74.6	74.9	74.5	74.3
Hispanic .....	60.2	60.6	61.0	61.0	61.5	61.2	60.3
Mexican .....	59.6	60.1	60.7	60.2	60.4	60.0	58.9
Puerto Rican .....	55.1	54.2	54.5	55.1	57.4	58.3	57.2
Cuban .....	82.7	80.1	79.3	81.2	82.2	82.5	81.8
Non-Hispanic white .....	81.3	81.4	81.2	81.5	81.7	81.5	81.6
Non-Hispanic black .....	61.1	61.1	60.1	60.3	61.0	60.5	60.6

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

NOTES: Data available only for States with an Hispanic-origin item on their birth certificates. In 1980, there were 22 States; in 1982, 23 States; and since 1983, 23 States and the District of Columbia. About 90 percent of the total U.S. Hispanic population resided in these States in 1986.

SOURCES: National Center for Health Statistics: Births of Hispanic parentage, 1980. *Monthly Vital Statistics Report*. Vol. 32, No. 8 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. 38, No. 11 Supp. DHHS Pub. No. (PHS) 88-1120. Feb. 26, 1988; for 1986, Public Health Service, Hyattsville, Md. To be published.

**Table 7. Live births, according to race of child and selected characteristics: United States, selected years 1970-86**

[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
<b>All races</b>									
					Percent of live births				
Birth weight: <sup>1</sup>									
Less than 2,500 grams . . . . .	7.94	7.39	6.84	6.81	6.75	6.82	6.72	6.75	6.81
Less than 1,500 grams . . . . .	1.17	1.16	1.15	1.16	1.18	1.19	1.19	1.21	1.21
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
18-19 years . . . . .	11.3	11.3	9.8	9.4	9.0	8.7	8.3	8.0	7.8
Unmarried mothers . . . . .	10.7	14.3	18.4	18.9	19.4	20.3	21.0	22.0	23.4
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
16 years or more . . . . .	8.6	11.4	14.0	14.8	15.3	15.9	16.4	16.7	17.1
Prenatal care began:									
1st trimester . . . . .	68.0	72.4	76.3	76.3	76.1	76.2	76.5	76.2	75.9
3rd trimester or no prenatal care . . . . .	7.9	6.0	5.1	5.2	5.5	5.6	5.6	5.7	6.0
<b>White</b>									
Birth weight: <sup>1</sup>									
Less than 2,500 grams . . . . .	6.84	6.26	5.70	5.67	5.63	5.67	5.59	5.64	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
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
18-19 years . . . . .	10.4	10.3	9.0	8.6	8.2	7.9	7.4	7.1	6.9
Unmarried mothers . . . . .	5.7	7.3	11.0	11.6	12.1	12.8	13.4	14.5	15.7
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
16 years or more . . . . .	9.5	12.7	15.6	16.4	17.0	17.7	18.4	18.7	19.2
Prenatal care began:									
1st trimester . . . . .	72.4	75.9	79.3	79.4	79.3	79.4	79.6	79.4	79.2
3rd trimester or no prenatal care . . . . .	6.2	5.0	4.3	4.3	4.5	4.6	4.7	4.7	5.0
<b>Black</b>									
Birth weight: <sup>1</sup>									
Less than 2,500 grams . . . . .	13.86	13.09	12.49	12.53	12.40	12.59	12.36	12.42	12.53
Less than 1,500 grams . . . . .	2.40	2.37	2.44	2.47	2.51	2.55	2.56	2.65	2.66
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
18-19 years . . . . .	16.6	16.8	14.3	13.9	13.5	13.4	13.1	12.7	12.4
Unmarried mothers . . . . .	37.4	49.0	55.2	56.0	56.7	58.2	59.2	60.1	61.2
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
16 years or more . . . . .	2.8	4.4	6.3	6.6	6.8	6.8	7.0	7.1	7.3
Prenatal care began:									
1st trimester . . . . .	44.4	55.8	62.7	62.4	61.5	61.5	62.2	61.8	61.6
3rd trimester or no prenatal care . . . . .	16.6	10.5	8.8	9.1	9.6	9.7	9.6	10.0	10.6
<b>Asian and Pacific Islander<sup>2</sup></b>									
Birth weight: <sup>1</sup>									
Less than 2,500grams . . . . .	8.43	7.04	6.55	6.61	6.63	6.51	6.53	6.11	6.38
Less than 1,500 grams . . . . .	1.12	0.80	0.91	0.91	0.87	0.87	0.91	0.84	0.87
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
18-19 years . . . . .	7.1	5.8	4.3	4.4	4.4	3.9	3.8	3.7	3.7
Unmarried mothers . . . . .	7.8	8.5	7.8	7.5	8.4	9.0	9.6	10.1	10.6
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
16 years or more . . . . .	20.0	27.5	30.2	29.0	28.9	29.7	30.2	30.1	31.1
Prenatal care began:									
1st trimester . . . . .	67.8	73.9	74.7	74.4	74.4	74.9	75.6	75.0	75.6
3rd trimester or no prenatal care . . . . .	6.8	4.5	6.1	6.2	6.2	6.1	6.0	6.1	5.9
<b>American Indian<sup>3</sup></b>									
Birth weight: <sup>1</sup>									
Less than 2,500 grams . . . . .	7.99	6.61	6.47	6.27	6.17	6.43	6.16	5.88	6.16
Less than 1,500 grams . . . . .	0.98	1.04	0.96	0.90	1.04	1.06	1.03	0.98	1.01
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
18-19 years . . . . .	13.3	15.8	14.3	14.0	13.5	12.9	12.6	12.0	11.8
Unmarried mothers . . . . .	19.8	27.9	33.5	35.2	36.3	38.7	39.8	40.7	42.3
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
16 years or more . . . . .	3.0	2.8	4.2	4.4	4.5	4.3	4.5	4.6	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
3rd trimester or no prenatal care . . . . .	25.6	19.5	13.3	12.9	12.4	12.7	12.4	11.5	11.6

<sup>1</sup>Before 1979, data are for infants weighing 2,500 grams or less at birth.

<sup>2</sup>Includes Chinese, Japanese, Filipino, Hawaiian (includes part Hawaiian), Guamanian (1970 and 1975), and other Asian or Pacific Islander (starting in 1980).

<sup>3</sup>Includes Aleut and Eskimo.

NOTE: Data on education of mother are not available from California, Texas, and Washington. 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. 1, Natality, for data years 1970-85. Public Health Service. Washington. U.S. Government Printing Office; for 1986, Public Health Service. To be published. 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 1974-76, 1979-81, and 1984-86**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1974-76 <sup>1</sup>	1979-81	1984-86	1974-76 <sup>1</sup>	1979-81	1984-86	1974-76 <sup>1</sup>	1979-81	1984-86
Infants weighing less than 2,500 grams at birth per 100 total live births									
United States . . . . .	7.4	6.9	6.8	6.2	5.7	5.6	13.1	12.5	12.4
New England . . . . .	6.7	6.2	5.9	6.3	5.8	5.5	12.1	11.8	11.7
Maine . . . . .	6.1	5.7	5.2	6.1	5.7	5.2	*	*	*
New Hampshire . . . . .	6.5	5.4	5.1	6.5	5.4	5.0	*	*	*
Vermont . . . . .	6.4	6.1	5.7	6.4	6.1	5.7	*	*	*
Massachusetts . . . . .	6.6	6.0	5.8	6.3	5.6	5.4	10.9	11.0	10.7
Rhode Island . . . . .	6.7	6.3	6.3	6.4	5.8	5.8	*12.2	*11.4	*11.4
Connecticut . . . . .	7.1	6.9	6.6	6.3	6.0	5.6	13.4	13.1	13.1
Middle Atlantic . . . . .	7.8	7.1	6.9	6.5	5.9	5.6	13.7	12.8	12.5
New York . . . . .	8.0	7.5	7.1	6.7	6.1	5.7	13.4	12.5	12.1
New Jersey . . . . .	7.8	7.2	6.9	6.4	5.7	5.5	13.8	13.1	12.4
Pennsylvania . . . . .	7.3	6.6	6.7	6.3	5.6	5.6	14.2	13.4	13.7
East North Central . . . . .	7.2	6.8	6.7	6.0	5.5	5.4	13.5	13.3	13.2
Ohio . . . . .	7.2	6.7	6.6	6.3	5.7	5.6	13.3	13.0	12.1
Indiana . . . . .	6.5	6.4	6.4	5.9	5.6	5.7	11.8	12.2	11.8
Illinois . . . . .	7.7	7.4	7.2	6.0	5.5	5.4	13.9	13.9	13.8
Michigan . . . . .	7.4	6.9	6.9	6.2	5.7	5.4	13.6	13.2	13.9
Wisconsin . . . . .	5.9	5.4	5.3	5.5	4.8	4.6	12.4	12.7	12.3
West North Central . . . . .	6.3	5.7	5.7	5.7	5.2	5.1	13.3	12.4	12.2
Minnesota . . . . .	5.5	5.2	4.9	5.4	4.9	4.7	*12.8	*11.5	11.2
Iowa . . . . .	5.7	5.0	5.1	5.6	4.8	4.9	*12.0	*11.1	*11.0
Missouri . . . . .	7.3	6.7	6.7	6.1	5.6	5.6	13.7	12.7	12.7
North Dakota . . . . .	5.3	4.8	4.9	5.1	4.7	4.7	*	*	*
South Dakota . . . . .	6.0	5.2	5.3	5.7	4.9	5.0	*	*	*
Nebraska . . . . .	6.0	5.5	5.4	5.7	5.2	5.0	*12.1	*12.6	*11.6
Kansas . . . . .	6.4	6.1	6.1	5.9	5.6	5.5	13.0	12.1	12.1
South Atlantic . . . . .	8.3	8.0	7.8	6.4	6.1	5.9	13.0	12.5	12.4
Delaware . . . . .	7.8	7.7	7.4	6.2	5.6	5.9	13.4	14.5	12.2
Maryland . . . . .	8.0	7.9	7.6	6.2	5.9	5.4	13.1	12.4	12.4
District of Columbia . . . . .	12.7	12.9	12.7	*6.8	*6.0	5.1	13.8	14.3	14.6
Virginia . . . . .	7.6	7.4	7.1	6.2	5.9	5.6	12.5	12.0	11.6
West Virginia . . . . .	7.3	6.8	6.9	7.2	6.6	6.7	*11.4	*12.4	*12.3
North Carolina . . . . .	8.5	8.0	7.9	6.6	6.1	6.1	13.1	12.3	12.4
South Carolina . . . . .	9.0	8.8	8.6	6.4	6.1	6.1	13.1	12.7	12.7
Georgia . . . . .	8.9	8.6	8.1	6.6	6.2	6.0	13.1	12.6	12.2
Florida . . . . .	8.0	7.6	7.5	6.3	6.0	6.0	12.8	12.1	12.3
East South Central . . . . .	8.1	7.8	7.9	6.5	6.2	6.3	12.4	12.2	12.2
Kentucky . . . . .	7.2	6.9	7.0	6.7	6.4	6.5	12.2	11.9	12.3
Tennessee . . . . .	7.9	8.0	7.9	6.5	6.4	6.4	13.1	13.3	12.9
Alabama . . . . .	8.4	7.9	8.0	6.4	5.7	5.9	12.2	11.9	12.0
Mississippi . . . . .	9.1	8.7	8.7	6.3	5.7	6.0	12.3	11.9	11.9
West South Central . . . . .	7.9	7.3	7.1	6.6	6.0	5.9	13.3	12.5	12.5
Arkansas . . . . .	8.1	7.4	7.7	6.6	5.8	6.3	12.7	12.1	12.3
Louisiana . . . . .	9.1	8.6	8.6	6.5	6.0	5.8	13.0	12.7	13.1
Oklahoma . . . . .	7.6	6.6	6.4	7.0	6.1	5.9	14.1	11.8	11.6
Texas . . . . .	7.6	7.0	6.8	6.6	6.0	5.9	13.5	12.6	12.2
Mountain . . . . .	7.2	6.6	6.6	7.0	6.4	6.4	13.3	12.2	12.2
Montana . . . . .	6.9	5.6	5.8	6.7	5.5	5.7	*	*	*
Idaho . . . . .	5.8	5.2	5.3	5.8	5.2	5.2	*	*	*
Wyoming . . . . .	8.9	7.1	7.0	8.7	7.0	7.0	*	*	*
Colorado . . . . .	8.9	8.1	7.7	8.7	7.8	7.3	14.7	13.6	13.6
New Mexico . . . . .	8.5	7.7	7.2	8.5	7.7	7.4	*12.5	*11.8	*9.7
Arizona . . . . .	6.5	6.1	6.2	6.3	5.9	6.0	*11.6	11.3	11.8
Utah . . . . .	5.4	5.3	5.6	5.4	5.3	5.5	*	*	*
Nevada . . . . .	7.7	6.9	7.0	7.0	6.3	6.2	*14.0	*12.1	*12.2
Pacific . . . . .	6.2	5.8	5.8	5.5	5.1	5.1	11.5	11.1	11.6
Washington . . . . .	5.8	5.2	5.2	5.5	4.9	4.8	10.3	10.0	10.5
Oregon . . . . .	5.6	5.0	5.1	5.4	4.8	5.0	*12.1	*10.5	*10.8
California . . . . .	6.2	5.9	6.0	5.6	5.2	5.2	11.6	11.2	11.7
Alaska . . . . .	5.3	5.3	4.8	4.9	4.9	4.2	*	*6.9	*8.6
Hawaii . . . . .	7.7	7.0	6.9	5.9	5.8	5.6	*	*9.4	*8.8

<sup>1</sup>Before 1979, data are for infants weighing 2,500 grams or less at birth.

\*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. Legal abortion ratios, according to selected patient characteristics: United States, selected years 1973–85**

[Data are based on reporting by State health departments and by facilities]

<i>Characteristic</i>	<i>1973</i>	<i>1975</i>	<i>1980</i>	<i>1981</i>	<i>1982</i>	<i>1983</i>	<i>1984</i>	<i>1985</i>
	Abortions per 100 live births							
Total . . . . .	19.6	27.2	35.9	35.8	35.4	34.9	36.4	35.4
Age								
Under 15 years. . . . .	74.3	101.5	122.7	126.4	120.0	133.6	145.8	141.2
15–19 years. . . . .	31.7	46.4	66.4	66.8	66.5	67.3	71.4	71.7
20–24 years. . . . .	17.9	25.0	37.5	37.9	38.0	38.1	41.2	40.4
25–29 years. . . . .	12.3	16.6	23.0	23.2	23.5	23.0	23.9	23.2
30–34 years. . . . .	16.5	22.1	23.3	23.7	23.0	22.0	22.3	21.4
35–39 years. . . . .	26.7	37.5	40.3	40.3	37.1	35.4	35.2	33.4
40 years and over. . . . .	40.2	59.9	78.3	77.6	75.0	69.1	66.7	63.8
Race								
White . . . . .	17.5	22.7	31.3	31.2	30.4	29.5	30.8	29.6
All other . . . . .	28.9	46.5	54.7	54.4	55.6	56.0	58.2	57.6
Marital status								
Married . . . . .	6.2	8.3	10.2	9.8	9.7	9.3	9.6	8.7
Unmarried. . . . .	109.8	141.1	149.9	147.5	142.2	135.2	137.1	129.5
Number of previous live births <sup>1</sup>								
0. . . . .	23.0	30.2	48.6	48.6	48.2	46.9	49.3	47.7
1. . . . .	12.1	17.3	21.9	21.9	22.0	22.1	23.0	22.8
2. . . . .	19.6	29.7	32.8	32.6	32.4	32.5	34.0	33.0
3. . . . .	25.8	39.8	33.5	33.5	32.2	31.9	32.8	32.1
4 or more . . . . .	26.4	40.8	27.3	26.6	25.4	24.8	24.9	23.7

<sup>1</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; Unpublished data.



**Table 10. Legal abortions, according to selected characteristics: United States, selected years 1973-85**

[Data are based on reporting by State health departments and by facilities]

Characteristic	1973	1975	1980	1981	1982	1983	1984	1985
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
Alan Guttmacher Institute . . . . .	745	1,034	1,554	1,577	1,574	1,575	1,577	1,589
Percent distribution								
Total . . . . .	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	49.7	50.8
9-10 weeks . . . . .	29.4	28.4	26.2	26.8	26.7	26.8	26.8	26.2
11-12 weeks . . . . .	17.9	14.9	12.2	12.1	12.4	12.8	12.9	12.3
13-15 weeks . . . . .	6.9	5.0	5.2	5.2	5.3	5.8	5.9	5.9
16-20 weeks . . . . .	8.0	6.1	3.9	3.7	3.9	3.9	3.9	3.9
21 weeks and over . . . . .	1.7	1.0	0.9	1.0	1.1	1.0	0.8	0.8
Type of procedure								
Curettage . . . . .	88.4	90.9	95.5	96.1	96.4	96.8	96.6	97.8
Intrauterine instillation . . . . .	10.4	6.2	3.1	2.8	2.5	2.1	2.0	1.5
Hysterotomy or hysterectomy . . . . .	0.7	0.4	0.1	0.1	0.0	0.0	0.0	0.0
Other . . . . .	0.6	2.4	1.3	1.0	1.0	1.1	1.4	0.7
Location of facility								
In State of residence . . . . .	74.8	89.2	92.6	92.5	92.9	93.3	92.0	92.4
Out of State of residence . . . . .	25.2	10.8	7.4	7.5	7.1	6.7	8.0	7.6
Previous induced abortions								
0 . . . . .	---	81.9	67.6	65.3	63.7	62.4	60.5	60.1
1 . . . . .	---	14.9	23.5	24.3	24.9	25.0	25.7	25.7
2 . . . . .	---	2.5	6.6	7.5	8.2	9.0	9.4	9.8
3 or more . . . . .	---	0.7	2.3	2.9	3.2	3.7	4.3	4.4

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; Unpublished data; 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., 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., Forrest, J. D., and Van Vost, J.: Abortion services in the United States, 1984 and 1985. *Fam. Plann. Perspect.* 19(2), Mar.-Apr. 1987.

**Table 11. Legal abortions, abortion-related deaths and death rates, and relative risk of death, according to period of gestation: United States, 1974-76, 1977-79, 1980-82, and 1983-85**

[Data are based primarily on reporting by State health departments and by facilities]

Period of gestation and year	Number of legal abortions reported	Abortion-related deaths <sup>1</sup>		
		Number	Rate per 100,000 abortions	Relative risk of death <sup>2</sup>
Total				
1974-76.....	2,606,596	66	2.5	...
1977-79.....	3,489,127	44	1.3	...
1980-82.....	3,902,346	<sup>3</sup> 27	0.7	...
1983-85.....	3,931,078	<sup>4</sup> 27	0.7	...
Under 9 weeks				
1974-76.....	1,171,478	8	*0.7	*1.0
1977-79.....	1,808,655	10	*0.6	*1.0
1980-82.....	1,996,573	6	*0.3	*
1983-85.....	1,968,827	2	*	*
9-10 weeks				
1974-76.....	738,615	10	*1.4	*2.0
1977-79.....	942,467	9	*1.0	*1.7
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	*3.7
1977-79.....	439,754	7	*1.6	*2.7
1980-82.....	477,875	3	*	*
1983-85.....	497,902	3	*	*
13 weeks and over				
1974-76.....	309,295	38	12.3	*17.6
1977-79.....	298,251	18	6.0	*10.0
1980-82.....	391,356	11	2.8	*
1983-85.....	418,209	15	3.6	*

<sup>1</sup>1983 data are provisional.

<sup>2</sup>Relative risk is the ratio of the death rate in the specified category to the death rate for the gestation period under 9 weeks.

<sup>3</sup>1982 data include 2 deaths with weeks of gestation unknown.

<sup>4</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 12. Methods of contraception for ever-married women 15–44 years of age, according to race and age: United States, 1973, 1976, and 1982**

[Data are based on household interviews of samples of ever-married women in the childbearing ages]

Method of contraception and age	All races			White			Black		
	1973	1976	1982	1973	1976	1982	1973	1976	1982
All methods									
Percent of ever-married women									
15–44 years	66.4	65.7	65.6	67.8	67.0	66.8	55.8	56.7	58.2
15–24 years	66.9	68.3	66.6	67.1	69.7	68.3	65.2	59.0	52.6
25–34 years	70.4	69.4	67.9	71.6	70.8	68.6	59.2	61.1	65.6
35–44 years	61.5	59.3	62.3	63.6	60.6	63.9	46.8	50.3	51.1
Female sterilization									
Percent of ever-married contracepting women									
15–44 years	13.6	15.3	26.6	12.5	14.8	25.0	25.4	21.8	39.8
15–24 years	4.3	3.8	*5.0	4.1	3.6	*4.6	6.8	*7.1	*12.0
25–34 years	12.1	15.8	21.7	11.4	15.6	19.7	20.3	19.1	35.6
35–44 years	21.7	22.7	43.2	19.2	21.6	41.9	47.2	35.1	56.6
Male sterilization <sup>1</sup>									
15–44 years	10.4	11.9	13.1	11.2	12.9	14.2	*1.2	*2.0	*2.2
15–24 years	2.1	*1.3	*4.0	2.3	*1.4	*4.3	*0.1	*0.4	*0.4
25–34 years	10.3	10.7	11.1	11.0	11.7	12.3	*2.0	*0.4	*1.7
35–44 years	15.8	20.9	20.1	17.2	22.8	21.5	*1.1	*5.2	*3.8
Birth control pill									
15–44 years	36.6	34.5	22.4	36.1	34.2	22.3	41.8	38.1	25.1
15–24 years	65.3	63.9	56.5	64.4	64.2	56.2	72.4	61.1	58.5
25–34 years	36.2	34.8	24.5	35.8	34.2	23.9	41.6	42.7	30.2
35–44 years	18.3	13.6	*3.4	18.2	13.1	*3.3	17.2	16.9	*5.0
Intrauterine device									
15–44 years	10.2	10.0	7.9	9.8	9.7	7.7	13.8	12.6	10.6
15–24 years	10.8	9.4	*3.6	10.7	9.3	*3.3	12.6	11.0	*8.8
25–34 years	13.2	11.3	10.1	12.7	11.0	9.8	18.8	13.6	14.6
35–44 years	5.6	8.3	7.0	5.4	8.0	7.2	8.4	12.1	*5.0
Diaphragm									
15–44 years	3.4	4.0	7.0	3.6	4.2	7.3	1.8	2.8	4.4
15–24 years	*1.5	3.3	*7.5	*1.6	3.6	*7.8	*0.3	*0.5	*4.0
25–34 years	3.1	4.1	9.1	3.2	4.3	9.7	*2.2	*2.3	3.5
35–44 years	5.0	4.5	*3.9	5.3	4.5	*3.8	*2.5	*4.8	*6.0
Condom									
15–44 years	12.6	9.9	12.1	13.4	10.2	12.6	4.1	6.2	5.0
15–24 years	7.7	7.0	12.1	8.3	7.2	12.3	*1.8	*4.6	*5.6
25–34 years	12.4	9.6	12.4	13.1	9.8	13.0	3.8	7.1	5.0
35–44 years	16.1	12.3	11.7	17.2	12.8	12.2	6.4	*6.0	*4.7

<sup>1</sup>Refers only to currently married couples.

\*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 13. Life expectancy at birth and at 65 years of age, according to race and sex: United States, selected years 1900–1987**

[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
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
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
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

<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: 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; 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. 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 14. Infant mortality rates, fetal death rates, and perinatal mortality rates, according to race: United States, selected years 1950–87**  
 [Data are based on the National Vital Statistics System]

Race and year	Infant mortality rate <sup>1</sup>						Perinatal mortality rate <sup>4</sup>
	Total	Neonatal			Fetal death rate <sup>2</sup>	Late fetal death rate <sup>3</sup>	
		Under 28 days	Under 7 days	Postneonatal			
Deaths per 1,000 live births							
<b>All races</b>							
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
Provisional data:							
1985 <sup>5</sup>	10.6	6.9	---	3.6	---	---	---
1986 <sup>5</sup>	10.4	6.7	---	3.7	---	---	---
1987 <sup>5</sup>	10.0	6.5	---	3.4	---	---	---
<b>White</b>							
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
<b>Black</b>							
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

<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, 1950–83. Public Health Service, Washington, U.S. Government Printing Office. 1984–86, to be published; Annual summary of births, marriages, divorces, and deaths, United States, 1985. *Monthly Vital Statistics Report*. Vol. 34, No. 13. DHHS Pub. No. (PHS) 85-1120. 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. Public Health Service, Hyattsville, Md.; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics.

**Table 15. Infant mortality rates, according to race, geographic division, and State: United States, average annual 1974-76, 1979-81, and 1984-86**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1974-76	1979-81	1984-86	1974-76	1979-81	1984-86	1974-76	1979-81	1984-86
Infant deaths per 1,000 live births									
United States . . . . .	16.0	12.5	10.6	14.1	11.0	9.2	26.2	21.0	18.2
New England . . . . .	13.8	10.7	9.2	13.2	10.2	8.5	24.6	18.7	18.3
Maine . . . . .	13.4	9.9	8.8	13.5	10.1	8.9	*	*	*
New Hampshire . . . . .	12.9	10.0	9.5	13.0	10.1	9.5	*	*	*
Vermont . . . . .	13.4	9.0	9.1	13.4	9.0	9.0	*	*	*
Massachusetts . . . . .	13.2	10.4	8.8	12.8	10.0	8.2	20.5	16.4	17.9
Rhode Island . . . . .	14.9	12.3	9.1	14.2	11.6	8.8	*29.0	*23.1	*14.5
Connecticut . . . . .	15.1	11.8	9.8	13.4	10.5	8.5	28.7	21.0	19.5
Middle Atlantic . . . . .	16.0	12.7	10.7	13.9	11.0	9.1	26.3	20.8	17.7
New York . . . . .	16.1	12.8	10.8	13.8	11.1	9.4	25.7	20.2	16.3
New Jersey . . . . .	15.3	12.1	10.4	13.0	9.9	8.6	25.5	20.9	18.6
Pennsylvania . . . . .	16.3	12.8	10.5	14.6	11.5	9.0	28.5	22.2	20.4
East North Central . . . . .	16.2	13.0	11.1	14.2	11.1	9.3	28.0	23.8	20.7
Ohio . . . . .	15.6	12.6	10.5	14.2	11.2	9.3	25.6	21.9	17.4
Indiana . . . . .	15.3	12.2	11.1	14.2	11.1	10.1	25.1	21.8	20.0
Illinois . . . . .	18.2	14.6	12.0	14.8	11.7	9.4	31.2	25.9	21.9
Michigan . . . . .	16.3	13.1	11.5	14.1	11.0	9.2	27.3	24.0	22.9
Wisconsin . . . . .	13.3	10.5	9.4	12.9	10.0	8.7	21.1	18.3	17.8
West North Central . . . . .	15.0	11.4	9.6	14.0	10.6	9.0	26.8	21.1	16.9
Minnesota . . . . .	14.0	10.3	9.0	13.7	10.0	8.9	*23.5	*23.1	14.9
Iowa . . . . .	14.0	10.8	8.9	13.7	10.5	8.8	*30.3	*22.8	*13.7
Missouri . . . . .	16.2	12.9	10.4	14.3	11.6	9.1	27.2	20.9	17.9
North Dakota . . . . .	15.2	11.7	8.4	14.7	11.2	8.1	*	*	*
South Dakota . . . . .	17.6	11.2	11.0	15.6	9.6	9.4	*	*	*
Nebraska . . . . .	14.5	11.0	9.8	13.8	10.4	9.2	*31.4	*22.5	*17.8
Kansas . . . . .	14.6	11.0	9.4	14.0	10.2	8.9	24.0	20.3	15.9
South Atlantic . . . . .	17.7	14.4	12.0	14.5	11.5	9.4	26.0	21.6	18.8
Delaware . . . . .	14.8	14.8	12.4	12.9	10.9	9.9	21.5	27.4	20.8
Maryland . . . . .	16.6	13.7	11.8	14.2	11.2	9.5	23.7	20.0	17.7
District of Columbia . . . . .	27.0	24.1	21.0	*17.2	*13.7	10.4	28.8	26.3	24.0
Virginia . . . . .	16.9	13.5	11.6	14.2	11.7	9.4	26.4	20.0	18.9
West Virginia . . . . .	18.0	12.9	10.7	17.7	12.5	10.3	*26.5	*23.2	*20.9
North Carolina . . . . .	18.5	14.3	11.9	15.4	11.3	9.5	26.4	21.1	18.0
South Carolina . . . . .	20.0	16.3	14.0	15.4	11.9	10.3	27.6	22.9	20.2
Georgia . . . . .	17.4	14.4	12.7	13.8	10.9	9.6	24.4	20.8	18.6
Florida . . . . .	16.7	14.2	11.0	13.4	11.5	8.8	26.8	22.4	18.1
East South Central . . . . .	18.4	13.9	12.1	15.0	11.3	9.7	27.7	21.0	18.6
Kentucky . . . . .	15.7	12.2	10.9	15.1	11.5	10.3	22.0	19.7	17.2
Tennessee . . . . .	16.5	13.2	11.4	14.3	11.2	9.1	25.0	20.4	19.2
Alabama . . . . .	20.0	14.2	12.9	15.5	11.1	9.9	28.4	19.9	18.8
Mississippi . . . . .	22.3	16.7	13.5	15.2	11.1	9.4	30.2	22.7	18.2
West South Central . . . . .	17.1	12.7	10.4	15.1	11.1	9.3	25.6	19.8	16.3
Arkansas . . . . .	16.9	12.7	11.0	14.6	10.5	9.7	24.1	19.3	15.4
Louisiana . . . . .	18.3	14.5	11.9	14.1	10.9	8.7	25.0	20.6	17.2
Oklahoma . . . . .	16.8	12.3	10.7	16.1	11.8	10.7	27.0	19.6	16.9
Texas . . . . .	16.8	12.2	9.9	15.2	11.1	9.1	26.3	19.3	15.7
Mountain . . . . .	14.7	11.1	9.6	14.2	10.7	9.4	22.7	19.0	14.9
Montana . . . . .	16.1	11.3	9.6	16.1	10.8	9.1	*	*	*
Idaho . . . . .	13.8	10.0	10.5	13.8	10.0	10.5	*	*	*
Wyoming . . . . .	16.6	11.1	11.4	16.7	11.1	11.4	*	*	*
Colorado . . . . .	14.3	10.2	9.4	14.1	10.1	9.1	20.6	15.4	16.7
New Mexico . . . . .	16.9	11.7	9.9	16.3	11.3	9.7	*29.1	*18.5	*13.3
Arizona . . . . .	15.0	12.6	9.5	13.7	11.7	9.1	*21.3	21.3	14.7
Utah . . . . .	12.3	10.3	9.1	12.0	10.3	9.1	*	*	*
Nevada . . . . .	17.2	11.5	9.4	16.2	10.5	9.3	*27.8	*22.3	*14.2
Pacific . . . . .	13.5	10.9	9.5	13.1	10.6	9.2	21.1	16.9	16.0
Washington . . . . .	15.1	11.2	10.2	14.9	11.1	10.2	21.4	14.9	15.7
Oregon . . . . .	14.2	11.3	9.7	14.1	11.3	9.7	*21.9	*15.8	*16.2
California . . . . .	13.2	10.8	9.3	12.6	10.4	8.9	21.1	17.1	16.1
Alaska . . . . .	16.2	13.6	10.9	12.8	11.2	9.7	*	*20.3	*15.6
Hawaii . . . . .	13.0	10.0	9.4	13.5	10.4	8.0	*13.0	*11.4	*16.6

\*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 16. Neonatal mortality rates, according to race, geographic division, and State: United States, average annual 1974-76, 1979-81, and 1984-86**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1974-76	1979-81	1984-86	1974-76	1979-81	1984-86	1974-76	1979-81	1984-86
	Neonatal deaths per 1,000 live births								
United States . . . . .	11.6	8.5	6.9	10.4	7.5	6.0	18.3	13.9	11.9
New England . . . . .	10.5	7.8	6.4	10.1	7.4	6.0	18.6	13.9	13.2
Maine . . . . .	9.7	6.1	5.7	9.7	6.2	5.8	*	*	*
New Hampshire . . . . .	9.9	7.2	6.4	9.9	7.2	6.4	*	*	*
Vermont . . . . .	10.2	5.5	6.1	10.3	5.5	6.1	*	*	*
Massachusetts . . . . .	10.0	7.6	6.2	9.8	7.3	5.7	14.2	11.7	12.2
Rhode Island . . . . .	11.1	9.3	6.5	10.6	9.1	6.2	*22.2	*13.7	*10.5
Connecticut . . . . .	12.0	9.0	7.3	10.6	7.9	6.3	22.9	16.7	14.9
Middle Atlantic . . . . .	12.0	9.0	7.3	10.6	8.0	6.4	19.0	14.0	11.4
New York . . . . .	11.9	9.0	7.4	10.3	7.9	6.7	18.8	13.7	10.5
New Jersey . . . . .	11.4	8.4	7.1	10.0	7.2	6.2	17.6	13.3	11.5
Pennsylvania . . . . .	12.6	9.3	7.2	11.4	8.5	6.2	21.0	15.2	13.8
East North Central . . . . .	11.8	8.9	7.4	10.5	7.7	6.2	19.4	15.7	13.8
Ohio . . . . .	11.5	8.7	6.8	10.5	7.8	6.1	18.4	14.7	11.1
Indiana . . . . .	11.0	8.4	7.4	10.3	7.8	6.7	18.0	13.9	13.7
Illinois . . . . .	13.3	10.1	8.1	11.2	8.3	6.5	21.3	16.7	14.1
Michigan . . . . .	11.7	9.0	7.9	10.3	7.5	6.2	18.9	16.8	16.5
Wisconsin . . . . .	9.6	6.9	5.9	9.5	6.7	5.4	13.8	10.8	11.7
West North Central . . . . .	11.1	7.6	6.0	10.5	7.1	5.6	19.0	14.0	10.5
Minnesota . . . . .	10.2	6.7	5.5	10.2	6.5	5.5	*15.3	*15.3	9.0
Iowa . . . . .	10.8	7.2	5.8	10.6	7.1	5.7	*24.4	*14.2	*9.1
Missouri . . . . .	11.8	8.8	6.6	10.6	8.0	5.7	19.2	13.8	11.1
North Dakota . . . . .	11.7	8.0	4.7	11.7	7.7	4.7	*	*	*
South Dakota . . . . .	12.0	6.4	6.0	11.5	5.9	5.5	*	*	*
Nebraska . . . . .	10.6	7.2	6.3	10.2	6.8	6.0	*20.3	*15.2	*11.4
Kansas . . . . .	10.9	7.6	5.9	10.5	7.1	5.6	17.9	14.1	10.1
South Atlantic . . . . .	12.8	9.9	8.1	10.8	8.0	6.4	18.1	14.6	12.7
Delaware . . . . .	11.0	11.2	9.0	9.8	7.9	7.4	15.4	21.9	14.5
Maryland . . . . .	12.6	9.9	8.2	10.9	8.1	6.4	18.1	14.4	12.7
District of Columbia . . . . .	21.5	18.4	16.0	*14.8	*11.6	7.7	22.8	19.8	18.4
Virginia . . . . .	12.6	9.8	8.1	10.6	8.4	6.5	19.6	14.7	13.2
West Virginia . . . . .	13.5	8.7	7.0	13.2	8.4	6.7	*20.9	*15.7	*14.9
North Carolina . . . . .	13.4	9.7	7.8	11.6	7.8	6.4	17.8	14.1	11.8
South Carolina . . . . .	14.0	11.0	9.5	11.4	8.2	7.1	18.2	15.3	13.5
Georgia . . . . .	12.1	9.4	8.6	10.0	7.4	6.5	16.1	13.0	12.6
Florida . . . . .	11.9	9.5	7.2	9.9	7.9	5.9	18.1	14.3	11.5
East South Central . . . . .	13.1	9.2	7.9	11.0	7.5	6.4	18.8	13.6	12.0
Kentucky . . . . .	11.3	8.0	7.1	11.0	7.5	6.7	15.0	13.0	11.4
Tennessee . . . . .	12.1	9.0	7.5	10.5	7.6	5.8	18.1	14.2	13.2
Alabama . . . . .	14.2	9.2	8.7	11.6	7.5	6.9	19.2	12.5	12.2
Mississippi . . . . .	15.4	10.9	8.4	11.3	7.6	6.2	19.9	14.4	11.0
West South Central . . . . .	12.3	8.3	6.6	11.1	7.4	5.9	18.0	12.8	10.1
Arkansas . . . . .	12.0	7.5	6.5	10.9	6.6	5.9	15.5	10.5	8.9
Louisiana . . . . .	13.6	9.8	7.8	10.7	7.5	5.9	18.3	13.7	11.0
Oklahoma . . . . .	11.7	7.8	6.7	11.5	7.6	6.7	18.5	11.7	10.5
Texas . . . . .	12.1	8.1	6.2	11.1	7.4	5.8	18.4	12.6	9.7
Mountain . . . . .	10.1	7.0	5.6	10.0	6.9	5.6	16.0	12.2	8.8
Montana . . . . .	11.6	7.0	5.0	12.0	7.1	4.9	*	*	*
Idaho . . . . .	9.6	6.1	6.0	9.6	6.1	6.0	*	*	*
Wyoming . . . . .	11.6	7.6	6.4	11.9	7.7	6.5	*	*	*
Colorado . . . . .	9.9	6.5	5.5	9.8	6.4	5.3	14.3	10.3	10.0
New Mexico . . . . .	10.9	7.3	5.9	11.2	7.5	6.0	*20.4	*11.2	*6.4
Arizona . . . . .	10.0	8.2	5.7	9.7	8.1	5.6	*16.1	14.3	9.1
Utah . . . . .	8.7	6.4	5.4	8.7	6.4	5.4	*	*	*
Nevada . . . . .	11.9	6.6	5.2	11.2	6.1	5.2	*18.4	*13.2	*8.0
Pacific . . . . .	9.3	7.0	5.8	9.0	6.8	5.6	14.2	10.8	9.9
Washington . . . . .	10.3	6.8	5.7	10.2	6.9	5.6	14.8	8.0	9.7
Oregon . . . . .	9.3	6.9	4.9	9.3	6.8	4.9	*13.2	*11.0	*9.1
California . . . . .	9.1	7.0	5.9	8.7	6.8	5.7	14.1	11.0	9.9
Alaska . . . . .	10.1	8.0	5.7	8.1	7.0	5.2	*	*15.0	*7.5
Hawaii . . . . .	9.6	7.1	6.2	9.7	7.9	5.4	*8.0	*6.8	*9.3

\*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 17. Postneonatal mortality rates, according to race, geographic division, and State: United States, average annual 1974-76, 1979-81, and 1984-86**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1974-76	1979-81	1984-86	1974-76	1979-81	1984-86	1974-76	1979-81	1984-86
Postneonatal deaths per 1,000 live births									
United States . . . . .	4.4	4.1	3.7	3.7	3.5	3.2	7.9	7.1	6.3
New England . . . . .	3.3	2.9	2.7	3.1	2.8	2.5	6.0	4.8	5.1
Maine . . . . .	3.8	3.8	3.0	3.8	3.8	3.1	*	*	*
New Hampshire . . . . .	3.1	2.9	3.1	3.1	2.9	3.1	*	*	*
Vermont . . . . .	3.1	3.5	2.9	3.1	3.5	2.9	*	*	*
Massachusetts . . . . .	3.2	2.8	2.7	3.0	2.7	2.4	6.3	4.7	5.7
Rhode Island . . . . .	3.7	3.0	2.7	3.6	2.6	2.6	*	*9.4	*4.0
Connecticut . . . . .	3.1	2.8	2.4	2.8	2.6	2.2	5.7	4.3	4.6
Middle Atlantic . . . . .	4.0	3.7	3.4	3.3	3.0	2.7	7.3	6.8	6.3
New York . . . . .	4.2	3.8	3.4	3.5	3.2	2.8	6.9	6.4	5.9
New Jersey . . . . .	3.9	3.7	3.3	3.0	2.7	2.5	7.9	7.6	7.0
Pennsylvania . . . . .	3.7	3.5	3.3	3.2	3.0	2.8	7.6	7.0	6.6
East North Central . . . . .	4.4	4.1	3.7	3.7	3.4	3.1	8.5	8.0	6.9
Ohio . . . . .	4.1	3.9	3.7	3.7	3.4	3.2	7.2	7.2	6.3
Indiana . . . . .	4.2	3.8	3.7	3.9	3.3	3.4	7.1	7.9	6.4
Illinois . . . . .	4.9	4.6	3.9	3.6	3.3	2.9	9.9	9.2	7.8
Michigan . . . . .	4.6	4.1	3.6	3.8	3.5	3.0	8.4	7.1	6.4
Wisconsin . . . . .	3.7	3.6	3.6	3.4	3.3	3.3	7.3	7.5	6.1
West North Central . . . . .	3.9	3.8	3.6	3.5	3.5	3.3	7.8	7.1	6.4
Minnesota . . . . .	3.8	3.7	3.5	3.5	3.5	3.4	*8.3	*7.9	*5.9
Iowa . . . . .	3.2	3.6	3.1	3.1	3.5	3.1	*5.9	*8.6	*4.7
Missouri . . . . .	4.3	4.1	3.9	3.7	3.6	3.4	8.0	7.1	6.9
North Dakota . . . . .	3.5	3.8	3.7	3.1	3.5	3.5	*	*	*
South Dakota . . . . .	5.6	4.9	5.1	4.1	3.7	3.8	*	*	*
Nebraska . . . . .	3.9	3.8	3.5	3.6	3.6	3.2	*11.1	*7.3	*6.4
Kansas . . . . .	3.7	3.4	3.6	3.5	3.1	3.4	*6.0	6.2	5.9
South Atlantic . . . . .	4.9	4.5	3.9	3.7	3.5	3.0	7.9	7.1	6.1
Delaware . . . . .	3.7	3.6	3.4	3.1	3.0	2.5	*6.1	*5.5	*6.3
Maryland . . . . .	4.0	3.8	3.6	3.4	3.1	3.0	5.7	5.7	5.1
District of Columbia . . . . .	5.5	5.7	4.9	*2.4	*2.0	*2.7	6.1	6.5	5.6
Virginia . . . . .	4.3	3.7	3.5	3.6	3.3	2.9	6.8	5.3	5.7
West Virginia . . . . .	4.6	4.2	3.6	4.5	4.1	3.5	*5.7	*7.4	*6.0
North Carolina . . . . .	5.2	4.5	4.0	3.7	3.5	3.2	8.5	7.0	6.2
South Carolina . . . . .	6.0	5.3	4.5	4.0	3.7	3.2	9.3	7.6	6.7
Georgia . . . . .	5.4	5.0	4.1	3.8	3.5	3.1	8.3	7.7	6.0
Florida . . . . .	4.8	4.7	3.8	3.5	3.6	3.0	8.6	8.1	6.7
East South Central . . . . .	5.3	4.7	4.2	3.9	3.7	3.3	8.9	7.4	6.6
Kentucky . . . . .	4.4	4.2	3.8	4.2	4.0	3.6	7.0	6.7	5.7
Tennessee . . . . .	4.4	4.2	3.9	3.8	3.6	3.3	6.9	6.3	6.0
Alabama . . . . .	5.7	5.0	4.2	3.9	3.6	3.0	9.2	7.4	6.6
Mississippi . . . . .	6.9	5.8	5.1	3.9	3.5	3.2	10.3	8.2	7.2
West South Central . . . . .	4.7	4.3	3.8	4.0	3.7	3.4	7.6	7.0	6.2
Arkansas . . . . .	5.0	5.1	4.4	3.7	3.9	3.8	8.6	8.8	6.6
Louisiana . . . . .	4.7	4.7	4.1	3.4	3.4	2.8	6.8	6.8	6.2
Oklahoma . . . . .	5.0	4.6	4.1	4.6	4.2	4.0	8.5	7.9	6.4
Texas . . . . .	4.7	4.1	3.7	4.1	3.7	3.3	7.9	6.6	6.0
Mountain . . . . .	4.7	4.1	4.0	4.2	3.8	3.8	6.6	6.9	6.1
Montana . . . . .	4.5	4.2	4.6	4.1	3.7	4.3	*	*	*
Idaho . . . . .	4.3	3.9	4.5	4.2	4.0	4.5	*	*	*
Wyoming . . . . .	5.0	3.6	4.9	4.8	3.4	4.9	*	*	*
Colorado . . . . .	4.4	3.7	3.9	4.3	3.7	3.8	*6.3	*5.1	*6.7
New Mexico . . . . .	6.0	4.4	4.0	5.1	3.8	3.7	*	*7.3	*6.9
Arizona . . . . .	5.0	4.3	3.9	4.0	3.6	3.5	*5.1	*6.9	*5.6
Utah . . . . .	3.6	3.9	3.8	3.3	3.9	3.8	*	*	*
Nevada . . . . .	5.3	4.9	4.1	4.9	4.5	4.1	*9.4	*9.1	*6.3
Pacific . . . . .	4.3	3.9	3.7	4.1	3.8	3.6	6.9	6.1	6.2
Washington . . . . .	4.9	4.4	4.6	4.7	4.2	4.6	*6.7	*6.9	*6.0
Oregon . . . . .	4.9	4.4	4.8	4.8	4.4	4.8	*8.7	*4.8	*7.0
California . . . . .	4.1	3.8	3.4	3.9	3.7	3.3	6.9	6.1	6.1
Alaska . . . . .	6.1	5.5	5.3	4.8	4.3	4.4	*	*	*
Hawaii . . . . .	3.4	3.0	3.1	3.9	2.5	2.5	*	*	*7.3

\*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 18. Fetal death rates, according to race, geographic division, and State: United States, average annual 1974-76, 1979-81, and 1984-86**

[Data are based on the National Vital Statistics System]

Geographic division and State	All races			White			Black		
	1974-76	1979-81	1984-86	1974-76	1979-81	1984-86	1974-76	1979-81	1984-86
	Fetal deaths <sup>1</sup> per 1,000 live births plus fetal deaths								
United States . . . . .	10.8	9.1	7.9	9.6	8.1	7.0	16.8	14.3	12.6
New England . . . . .	8.9	7.2	6.7	8.7	7.0	6.4	12.9	10.1	11.3
Maine . . . . .	6.4	7.1	6.4	6.5	7.1	6.4	*	*	*
New Hampshire . . . . .	7.8	6.3	5.7	7.7	6.3	5.8	*	*	*
Vermont . . . . .	8.0	6.6	6.8	8.0	6.5	6.8	*	*	*
Massachusetts . . . . .	9.1	6.5	6.7	9.0	6.3	6.3	11.9	9.1	12.0
Rhode Island . . . . .	12.0	10.7	7.6	11.9	10.6	7.5	*16.8	*13.5	*10.7
Connecticut . . . . .	9.1	8.0	6.9	8.7	7.7	6.3	13.3	10.7	11.1
Middle Atlantic . . . . .	11.4	10.6	9.1	10.5	9.6	8.2	15.9	15.2	13.4
New York . . . . .	11.5	11.5	9.6	10.6	10.6	8.6	15.2	15.4	13.6
New Jersey . . . . .	10.2	8.5	8.0	9.4	7.3	6.9	14.1	13.1	12.6
Pennsylvania . . . . .	12.0	10.4	9.0	11.0	9.5	8.3	19.3	17.0	13.9
East North Central . . . . .	10.1	8.4	7.1	9.1	7.5	6.3	15.8	13.0	11.0
Ohio . . . . .	9.9	8.5	7.4	9.1	7.9	6.7	14.8	12.7	11.2
Indiana . . . . .	10.4	8.6	7.4	9.5	8.0	6.9	18.0	13.7	11.6
Illinois . . . . .	11.0	9.3	7.9	9.4	7.9	6.7	16.9	14.3	12.2
Michigan . . . . .	9.8	7.4	5.8	8.9	6.7	5.3	14.3	11.1	8.1
Wisconsin . . . . .	8.4	7.2	6.5	8.0	7.0	5.9	14.2	11.1	13.5
West North Central . . . . .	9.6	8.0	6.7	9.2	7.5	6.3	15.9	13.3	10.6
Minnesota . . . . .	8.7	6.8	6.5	8.6	6.7	6.4	*13.9	*11.2	9.6
Iowa . . . . .	9.1	7.3	6.6	9.0	7.3	6.5	*14.4	*9.4	*9.6
Missouri . . . . .	10.4	9.0	6.7	9.5	8.1	6.1	15.9	14.3	10.5
North Dakota . . . . .	9.9	8.5	6.3	9.6	8.4	6.1	*	*	*
South Dakota . . . . .	9.8	8.0	6.8	9.4	7.0	6.4	*	*	*
Nebraska . . . . .	9.1	8.4	7.2	8.8	8.2	6.9	*15.1	*12.4	*12.0
Kansas . . . . .	10.4	8.1	6.7	9.9	7.6	6.3	18.3	12.5	11.4
South Atlantic . . . . .	12.7	11.3	9.6	10.6	9.4	7.9	18.2	16.0	14.2
Delaware . . . . .	10.6	8.9	7.6	9.5	7.5	6.6	14.4	13.6	10.9
Maryland . . . . .	10.1	8.9	8.4	8.7	7.3	6.8	14.2	13.0	12.5
District of Columbia . . . . .	15.7	14.1	13.1	*10.6	*10.8	7.6	16.5	14.9	14.7
Virginia . . . . .	14.2	13.0	10.5	11.9	11.3	8.9	22.3	18.5	16.3
West Virginia . . . . .	11.2	9.5	8.1	10.9	9.3	8.1	*20.1	*14.3	*10.2
North Carolina . . . . .	12.8	10.4	8.6	10.4	8.4	7.3	18.3	15.0	12.0
South Carolina . . . . .	14.2	12.4	10.9	10.6	9.1	8.1	19.9	17.2	15.3
Georgia . . . . .	14.4	14.5	11.5	12.0	11.9	9.4	18.9	18.9	15.5
Florida . . . . .	11.4	9.8	8.8	9.7	8.4	7.1	16.5	13.9	13.9
East South Central . . . . .	13.4	10.7	9.2	10.8	8.7	7.5	20.4	16.0	13.9
Kentucky . . . . .	10.9	9.5	8.1	10.3	9.0	7.5	18.2	14.4	13.6
Tennessee . . . . .	12.1	9.4	7.3	10.7	8.2	6.6	17.4	13.5	9.7
Alabama . . . . .	13.7	11.2	10.6	10.5	8.8	8.2	19.8	15.5	15.0
Mississippi . . . . .	17.9	13.7	11.8	12.7	9.1	7.9	23.5	18.5	16.1
West South Central . . . . .	10.8	8.6	7.7	9.7	7.7	7.0	15.4	12.7	11.3
Arkansas . . . . .	11.7	9.6	7.8	9.7	7.8	6.7	17.7	15.2	11.1
Louisiana . . . . .	11.3	10.0	8.8	8.6	7.6	6.7	15.6	14.0	12.4
Oklahoma . . . . .	9.8	9.1	7.9	9.1	8.4	7.6	15.1	14.9	10.9
Texas . . . . .	10.7	8.0	7.4	10.0	7.6	6.9	14.7	10.7	10.7
Mountain . . . . .	9.5	8.0	7.0	9.2	7.9	6.9	15.8	12.4	10.5
Montana . . . . .	9.5	7.1	7.4	9.2	6.9	7.1	*	*	*
Idaho . . . . .	8.6	7.4	7.2	8.2	7.4	7.0	*	*	*
Wyoming . . . . .	10.8	7.8	6.9	10.7	8.0	6.9	*	*	*
Colorado . . . . .	11.5	9.7	8.6	11.4	9.5	8.4	16.9	14.5	12.1
New Mexico . . . . .	9.1	7.5	5.7	8.7	7.3	5.8	*16.4	*12.0	*5.4
Arizona . . . . .	8.9	7.6	6.4	8.3	7.3	6.2	*14.3	11.8	8.8
Utah . . . . .	8.4	7.5	6.6	8.2	7.4	6.6	*	*	*
Nevada . . . . .	8.5	8.1	7.0	7.9	7.6	6.5	*13.4	*11.8	*13.2
Pacific . . . . .	9.3	7.9	6.7	8.7	7.5	6.4	14.4	12.2	10.7
Washington . . . . .	8.6	7.4	6.2	8.4	7.2	6.0	15.1	12.6	8.5
Oregon . . . . .	8.7	7.1	6.5	8.5	7.0	6.5	*14.8	*10.9	*8.0
California . . . . .	9.2	7.9	6.7	8.7	7.5	6.4	14.3	12.2	10.9
Alaska . . . . .	9.2	7.8	6.7	9.7	7.3	6.3	*	*11.9	*8.6
Hawaii . . . . .	13.8	11.1	8.8	15.8	14.2	8.1	*20.6	*12.9	*11.8

<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 19. Infant mortality rates, perinatal mortality ratios, and average annual percent change: Selected countries, 1980 and 1985**

[Data are based on National Vital Statistics Systems]

Country	Infant mortality rate			Perinatal mortality ratio		
	1980	1985 <sup>1</sup>	Average annual percent change	1980	1985 <sup>2</sup>	Average annual percent change
	Infant deaths per 1,000 live births			Perinatal deaths per 1,000 live births		
Japan . . . . .	7.5	5.5	-6.0	11.7	8.0	-7.3
Iceland . . . . .	7.7	6.1	-4.6	8.8	6.1	-8.8
Finland . . . . .	7.6	6.3	-3.7	8.4	7.3	-2.8
Sweden . . . . .	6.9	6.8	-0.3	8.7	7.3	-3.4
Switzerland . . . . .	8.5	6.9	-4.1	9.5	8.3	-2.7
Hong Kong . . . . .	11.2	7.5	-7.7	11.6	7.7	-7.9
Canada . . . . .	11.9	7.9	-7.9	10.9	8.7	-4.4
Denmark . . . . .	8.4	7.9	-1.2	9.0	8.1	-2.1
Netherlands . . . . .	8.6	8.0	-1.4	11.1	9.9	-2.3
France . . . . .	10.0	8.3	-3.7	13.0	10.8	-3.6
Norway . . . . .	8.1	8.5	1.0	11.1	8.5	-5.2
Spain . . . . .	14.3	8.5	-9.9	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Ireland . . . . .	11.1	8.8	-4.5	15.0	12.4	-3.7
Federal Republic of Germany . . . . .	12.6	9.0	-6.5	11.6	7.9	-7.4
Luxembourg . . . . .	11.5	9.0	-4.8	9.4	7.8	-3.7
Singapore . . . . .	11.7	9.3	-4.5	13.5	10.9	-4.2
Belgium . . . . .	11.0	9.4	-3.1	14.1	11.3	-4.3
United Kingdom . . . . .	12.1	9.4	-4.9	13.5	9.9	-6.0
German Democratic Republic . . . . .	12.1	9.6	-4.5	13.6	9.9	-6.2
Australia . . . . .	11.0	9.9	-2.1	13.5	11.1	-3.8
Italy . . . . .	14.6	10.3	-6.7	18.0	15.3	-5.3
United States . . . . .	12.6	10.6	-3.4	13.3	10.8	-4.1
New Zealand . . . . .	12.6	10.9	-2.9	12.0	8.9	-5.8
Austria . . . . .	14.3	11.2	-4.8	14.2	10.1	-6.6
Israel . . . . .	15.1	11.9	-4.7	13.0	12.1	-1.4
Malta . . . . .	14.6	13.2	-2.0	---	---	---
Czechoslovakia . . . . .	16.6	14.0	-3.3	16.3	12.7	-4.9
Greece . . . . .	17.9	14.1	-4.7	18.9	14.9	-4.6
Bulgaria . . . . .	20.2	15.4	-5.3	15.2	12.4	-4.0
Cuba . . . . .	19.1	16.5	-2.9	23.8	19.4	-4.0
Portugal . . . . .	23.9	17.8	-5.7	23.8	20.0	-3.4
Costa Rica . . . . .	20.2	18.3	-2.4	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Kuwait . . . . .	27.7	18.4	-7.9	21.3	21.7	0.4
Poland . . . . .	21.3	19.2	-2.1	16.9	16.6	-0.4
Chile . . . . .	33.0	19.5	-10.0	22.0	13.6	-9.2
Hungary . . . . .	23.2	20.4	-2.5	23.1	19.0	-3.8

<sup>1</sup>Data for Costa Rica are for 1984. Data for all other countries refer to 1985; of these, Belgium and Spain are provisional and all others are final.

<sup>2</sup>Data for Italy are for 1983. Data for Iceland and Costa Rica are for 1984. Data for all other countries refer to 1985.

<sup>3</sup>Registration coverage is incomplete or of unknown completeness.

NOTE: Rankings are from lowest to highest infant mortality rates based on the latest data available for countries or geographic areas with at least 200,000 population and with "complete" counts of live births and infant deaths as indicated in the United Nations *Demographic Yearbook, 1985*.

SOURCES: United Nations: *Demographic Yearbook, 1980, 1985, and 1986*. Pub. Nos. ST/ESA/STAT/SER.R/10, ST/ESA/STAT/SER.R/15, in press. New York: United Nations, 1982, 1987, and 1988; National Center for Health Statistics: *Vital Statistics of the United States, 1980*, Vol. II, Mortality, Part A. DHHS Pub. No. (PHS) 85-1101. Public Health Service, Washington, U.S. Government Printing Office, 1985; *Vital Statistics of the United States, 1985*, Vol. II, Mortality, Part A. DHHS Pub. No. (PHS) 88-1101. Public Health Service, Washington, U.S. Government Printing Office, 1988. Australian Bureau of Statistics, Canberra, Australia. *Perinatal Deaths, Australia, 1985 and Deaths, Australia, 1985, 1988*; Statistics Canada, Health Division, Ottawa, Canada. *Births and Deaths, Vital Statistics, Volume 1, 1985, 1986*; Federal Statistics Office, Prague, Czechoslovakia. *Statistical Yearbook of the Czechoslovak Socialist Republic 1986, 1986*; Statistisches Bundesamt, Wiesbaden, Federal Republic of Germany. *Gesundheitswesen Fach Serie 12, Reihe 4, Todesursachen, 1985, 1986*; Central Bureau of Statistics, Jerusalem, Israel. Unpublished data, 1988; Statistics and Information Department, Minister's Secretariat, Ministry of Health and Welfare, Tokyo, Japan. *Vital Statistics 1985*, Vol. 3; Statistisk Sentralbyrå, Oslo, Norway. *Dødsårsaker 1985* and unpublished data. Statistiska Centralbyran, Stockholm, Sweden. *Befolkningsförändringar 1985*, Part 3, 1986; Bundesamt für Statistik, Bern, Switzerland. *Bevölkerungsbewegung in der Schweiz, 1985, 1987*.

**Table 20. Life expectancy at birth, according to sex: Selected countries, selected periods**

[Data are based on reporting by countries]

Country	Period	Life expectancy in years	Period	Life expectancy in years
<b>Male</b>				
Japan . . . . .	1979	73.5	1984	74.5
Sweden . . . . .	1979	72.5	1984	73.8
Israel . . . . .	1978	71.5	1984	73.1
Netherlands . . . . .	1979	72.4	1983-84	73.0
Switzerland . . . . .	1968-73	70.3	1981-82	72.7
Norway . . . . .	1978-79	72.3	1982-83	72.7
Australia . . . . .	1979	70.8	1984	72.6
Greece . . . . .	1970	70.1	1980-85	72.1
Canada . . . . .	1975-77	70.2	1980-82	71.9
England and Wales . . . . .	1976-78	70.0	1982-84	71.6
Denmark . . . . .	1978-79	71.3	1983-84	71.5
New Zealand . . . . .	1975-77	69.0	1984	71.2
Cuba . . . . .	1970	68.5	1977-78	71.2
United States . . . . .	1980	70.0	1985	71.2
Federal Republic of Germany . . . . .	1976-78	69.0	1982-84	70.8
Italy . . . . .	1974-77	69.7	1977-79	70.6
Costa Rica . . . . .	1972-74	66.3	1980-85	70.5
Finland . . . . .	1979	68.9	1984	70.4
France . . . . .	1977-79	69.9	1980-82	70.4
Spain . . . . .	1970	69.7	1975	70.4
Jamaica . . . . .	1959-61	62.7	1980-85	70.3
Ireland . . . . .	1970-72	68.8	1980-82	70.1
Austria . . . . .	1979	68.5	1984	70.1
Belgium . . . . .	1972-76	68.6	1979-82	70.0
Scotland . . . . .	1976-78	68.1	1982-84	69.9
<b>Female</b>				
Japan . . . . .	1979	78.9	1984	80.2
Sweden . . . . .	1979	78.7	1984	79.9
Switzerland . . . . .	1968-73	76.2	1981-82	79.6
Netherlands . . . . .	1979	78.9	1983-84	79.5
Norway . . . . .	1978-79	78.7	1982-83	79.5
Australia . . . . .	1979	77.8	1984	79.1
Canada . . . . .	1975-77	77.5	1980-82	79.0
Finland . . . . .	1979	77.2	1984	78.8
France . . . . .	1977-79	78.0	1980-82	78.4
United States . . . . .	1980	77.4	1985	78.2
New Zealand . . . . .	1975-77	75.5	1984	77.7
England and Wales . . . . .	1976-78	76.2	1982-84	77.6
Denmark . . . . .	1978-79	77.4	1983-84	77.5
Federal Republic of Germany . . . . .	1976-78	75.6	1982-84	77.5
Austria . . . . .	1979	75.8	1984	77.3
Italy . . . . .	1974-77	75.9	1977-79	77.2
Belgium . . . . .	1972-76	75.1	1979-82	76.8
Israel . . . . .	1978	75.0	1984	76.6
Spain . . . . .	1970	75.0	1975	76.2
Greece . . . . .	1970	73.6	1980-85	76.0
Scotland . . . . .	1976-78	74.4	1982-84	75.9
Costa Rica . . . . .	1972-74	70.5	1980-85	75.7
Jamaica . . . . .	1959-61	66.6	1980-85	75.7
Northern Ireland . . . . .	1976-78	74.1	1983	<sup>1</sup> 75.7
Ireland . . . . .	1970-72	73.5	1980-82	75.6

<sup>1</sup>Provisional.

NOTE: 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 and most recent data for 1970 or later. This table is based only on data from the official life tables of the country concerned, consistent with the data presented in the United Nations *Demographic Yearbook, 1985*.

SOURCES: United Nations: *Demographic Yearbook, 1980 and 1985*. Pub. Nos. ST/ESA/STAT/SER.R/10 and ST/ESA/STAT/SER.R/15. New York. United Nations, 1982 and 1987; National Center for Health Statistics: *Vital Statistics of the United States, 1980*, Vol. II, Mortality, Part A. DHHS Pub. No. (PHS) 85-1101. Public Health Service, Washington. U.S. Government Printing Office, 1985; Advance report of final mortality statistics, 1985. *Monthly Vital Statistics Report*, Vol. 36, No. 5, Supp. DHHS Pub. No. (PHS) 87-1120. Public Health Service, Hyattsville, Md., Aug. 28, 1987.

**Table 21. Death rates for all causes, according to sex, race, and age: United States, selected years 1950-86**

[Data are based on the National Vital Statistics System]

Sex, race, and age	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1983	1984	1985	1986
Deaths per 100,000 resident population								
<b>All races</b>								
All ages, age adjusted . . . . .	841.5	760.9	714.3	585.8	550.5	545.9	546.1	541.7
All ages, crude . . . . .	963.8	954.7	945.3	878.3	862.8	862.3	873.9	873.2
Under 1 year . . . . .	3,299.2	2,696.4	2,142.4	1,288.3	1,107.3	1,085.6	1,067.8	1,032.1
1-4 years . . . . .	139.4	109.1	84.5	63.9	55.9	51.9	51.4	52.0
5-14 years . . . . .	60.1	46.6	41.3	30.6	26.9	26.7	26.3	26.0
15-24 years . . . . .	128.1	106.3	127.7	115.4	96.0	96.8	95.9	102.3
25-34 years . . . . .	178.7	146.4	157.4	135.5	121.4	121.1	123.4	132.1
35-44 years . . . . .	358.7	299.4	314.5	227.9	201.9	204.8	207.2	212.9
45-54 years . . . . .	853.9	756.0	730.0	584.0	535.7	521.1	516.3	504.8
55-64 years . . . . .	1,911.7	1,735.1	1,658.8	1,346.3	1,299.5	1,287.8	1,282.7	1,255.1
65-74 years . . . . .	4,067.7	3,822.1	3,582.7	2,994.9	2,874.3	2,848.1	2,838.6	2,801.4
75-84 years . . . . .	9,331.1	8,745.2	8,004.4	6,692.6	6,441.5	6,399.3	6,445.1	6,348.2
85 years and over . . . . .	20,196.9	19,857.5	17,539.4	15,980.3	15,168.0	15,223.6	15,480.3	15,398.9
<b>White male</b>								
All ages, age adjusted . . . . .	963.1	917.7	893.4	745.3	698.4	689.9	688.7	679.8
All ages, crude . . . . .	1,089.5	1,098.5	1,086.7	983.3	957.4	951.1	960.0	954.4
Under 1 year . . . . .	3,400.5	2,694.1	2,113.2	1,230.3	1,052.9	1,038.4	1,033.9	976.6
1-4 years . . . . .	135.5	104.9	83.6	66.1	57.3	51.8	52.4	52.2
5-14 years . . . . .	67.2	52.7	48.0	35.0	31.1	30.5	29.9	29.9
15-24 years . . . . .	152.4	143.7	170.8	167.0	137.0	138.8	136.3	145.9
25-34 years . . . . .	185.3	163.2	176.6	171.3	154.8	154.3	157.1	168.8
35-44 years . . . . .	380.9	332.6	343.5	257.4	232.9	235.1	241.4	248.4
45-54 years . . . . .	984.5	932.2	882.9	698.9	636.5	617.9	608.8	592.2
55-64 years . . . . .	2,304.4	2,225.2	2,202.6	1,728.5	1,642.9	1,625.5	1,614.3	1,573.1
65-74 years . . . . .	4,864.9	4,848.4	4,810.1	4,035.7	3,816.1	3,745.3	3,716.8	3,634.8
75-84 years . . . . .	10,526.3	10,299.6	10,098.8	8,829.8	8,556.9	8,459.1	8,500.4	8,341.7
85 years and over . . . . .	22,116.3	21,750.0	20,392.6	19,097.3	18,443.3	18,552.7	18,788.9	18,576.1
<b>Black male</b>								
All ages, age adjusted . . . . .	1,373.1	1,246.1	1,318.6	1,112.8	1,019.6	1,011.7	1,024.0	1,026.9
All ages, crude . . . . .	1,260.3	1,181.7	1,186.6	1,034.1	963.3	958.1	976.8	987.7
Under 1 year . . . . .	1,412.6	5,306.8	4,298.9	2,586.7	2,243.4	2,136.6	2,134.8	2,181.7
1-4 years . . . . .	208.5	150.5	110.5	96.8	85.2	89.0	89.0	90.9
5-14 years . . . . .	95.1	75.1	67.1	47.4	40.9	42.4	41.3	42.0
15-24 years . . . . .	289.7	212.0	320.6	209.1	165.0	163.9	174.1	190.5
25-34 years . . . . .	503.5	402.5	559.5	407.3	335.8	335.6	374.4	385.6
35-44 years . . . . .	878.1	762.0	956.6	689.8	586.5	616.0	641.8	675.9
45-54 years . . . . .	1,905.0	1,624.8	1,777.5	1,479.9	1,287.3	1,273.5	1,283.3	1,266.5
55-64 years . . . . .	3,773.2	3,316.4	3,256.9	2,873.0	2,713.1	2,658.3	2,623.1	2,545.5
65-74 years . . . . .	5,310.3	5,798.7	5,803.2	5,131.1	4,949.3	4,874.5	4,888.7	4,789.9
75-84 years . . . . .	10,101.9	8,605.1	9,454.9	9,231.6	9,100.0	9,023.1	9,298.4	9,290.8
85 years and over . . . . .	14,844.8	14,415.4	14,415.4	16,098.8	14,155.6	14,642.9	15,046.2	15,488.1
<b>White female</b>								
All ages, age adjusted . . . . .	645.0	555.0	501.7	411.1	392.7	391.3	390.6	387.7
All ages, crude . . . . .	803.3	800.9	812.6	806.1	815.3	822.3	837.1	840.7
Under 1 year . . . . .	2,566.8	2,007.7	1,614.6	962.5	837.6	818.5	786.9	759.1
1-4 years . . . . .	112.2	85.2	66.1	49.3	43.9	41.6	39.7	40.7
5-14 years . . . . .	45.1	34.7	29.9	22.9	19.7	20.0	19.4	18.6
15-24 years . . . . .	71.5	54.9	61.6	55.5	48.3	49.6	48.4	50.4
25-34 years . . . . .	112.8	85.0	84.1	65.4	60.1	59.5	58.9	60.4
35-44 years . . . . .	235.8	191.1	193.3	138.2	123.4	123.9	121.2	121.3
45-54 years . . . . .	546.4	458.8	462.9	372.7	351.0	341.9	339.5	330.3
55-64 years . . . . .	1,293.8	1,078.9	1,014.9	876.2	867.8	864.9	864.1	853.3
65-74 years . . . . .	3,242.8	2,779.3	2,470.7	2,066.6	2,024.7	2,032.5	2,028.3	2,031.8
75-84 years . . . . .	8,481.5	7,696.6	6,698.7	5,401.7	5,162.2	5,140.0	5,171.4	5,108.7
85 years and over . . . . .	19,679.5	19,477.7	16,729.5	14,979.6	14,278.3	14,319.6	14,579.4	14,502.9
<b>Black female</b>								
All ages, age adjusted . . . . .	1,106.7	916.9	814.4	631.1	590.4	585.3	589.1	588.2
All ages, crude . . . . .	1,002.0	905.0	829.2	733.3	711.2	712.0	727.7	733.9
Under 1 year . . . . .	1,139.3	4,162.2	3,368.8	2,123.7	1,818.6	1,789.1	1,756.6	1,731.1
1-4 years . . . . .	173.3	129.4	84.4	73.6	72.2	70.3	76.5	
5-14 years . . . . .	72.8	53.8	43.8	30.5	28.0	27.8	26.9	
15-24 years . . . . .	213.1	107.5	111.9	70.5	65.6	61.6	59.5	64.3
25-34 years . . . . .	393.3	273.2	231.0	150.0	130.0	130.6	136.3	146.5
35-44 years . . . . .	758.1	568.5	533.0	323.9	276.1	285.7	278.4	290.2
45-54 years . . . . .	1,576.4	1,177.0	1,043.9	768.2	685.8	655.0	654.0	654.6
55-64 years . . . . .	3,089.4	2,510.9	1,986.2	1,561.0	1,526.3	1,489.7	1,501.7	1,469.8
65-74 years . . . . .	4,000.2	4,064.2	3,860.9	3,057.4	2,930.6	2,907.4	2,925.7	2,892.3
75-84 years . . . . .	6,730.0	6,691.5	6,691.5	6,212.1	6,064.6	6,184.1	6,252.0	6,148.8
85 years and over . . . . .	8,347.0	13,052.6	12,131.7	12,367.2	11,329.5	11,439.1	12,154.7	12,510.3

<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, 1950-86. 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 22 (page 1 of 2). Age-adjusted death rates for selected causes of death, according to sex and race: United States, selected years 1950–86**

[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	1983	1984	1985	1986
All races								
Deaths per 100,000 resident population								
All causes . . . . .	841.5	760.9	714.3	585.8	550.5	545.9	546.1	541.7
Diseases of heart . . . . .	307.6	286.2	253.6	202.0	188.8	183.6	180.5	175.0
Cerebrovascular diseases . . . . .	88.8	79.7	66.3	40.8	34.4	33.4	32.3	31.0
Malignant neoplasms . . . . .	125.4	125.8	129.9	132.8	132.6	133.5	133.6	133.2
Respiratory system . . . . .	12.8	19.2	28.4	36.4	37.9	38.4	38.8	39.0
Colorectal . . . . .	19.0	17.7	16.8	15.5	14.9	15.0	14.8	14.4
Prostate <sup>2</sup> . . . . .	13.4	13.1	13.3	14.4	14.6	14.5	14.6	15.0
Breast <sup>3</sup> . . . . .	22.2	22.3	23.1	22.7	22.7	23.2	23.2	23.1
Chronic obstructive pulmonary diseases . . . . .	4.4	8.2	13.2	15.9	17.4	17.7	18.7	18.8
Pneumonia and influenza . . . . .	26.2	28.0	22.1	12.9	11.8	12.2	13.4	13.5
Chronic liver disease and cirrhosis . . . . .	8.5	10.5	14.7	12.2	10.2	10.0	9.6	9.2
Diabetes mellitus . . . . .	14.3	13.6	14.1	10.1	9.9	9.5	9.6	9.6
Accidents and adverse effects . . . . .	57.5	49.9	53.7	42.3	35.3	35.0	34.7	35.2
Motor vehicle accidents . . . . .	23.3	22.5	27.4	22.9	18.5	19.1	18.8	19.4
Suicide . . . . .	11.0	10.6	11.8	11.4	11.4	11.6	11.5	11.9
Homicide and legal intervention . . . . .	5.4	5.2	9.1	10.8	8.6	8.4	8.3	9.0
White male								
All causes . . . . .	963.1	917.7	893.4	745.3	698.4	689.9	688.7	679.8
Diseases of heart . . . . .	381.1	375.4	347.6	277.5	257.8	249.5	244.5	234.8
Cerebrovascular diseases . . . . .	87.0	80.3	68.8	41.9	35.2	33.9	32.8	31.1
Malignant neoplasms . . . . .	130.9	141.6	154.3	160.5	158.9	159.0	159.2	158.8
Respiratory system . . . . .	21.6	34.6	49.9	58.0	58.0	58.4	58.2	58.0
Colorectal . . . . .	19.8	18.9	18.9	18.3	17.8	17.8	17.6	17.2
Prostate . . . . .	13.1	12.4	12.3	13.2	13.4	13.3	13.3	13.8
Chronic obstructive pulmonary diseases . . . . .	6.0	13.8	24.0	26.7	27.6	27.6	28.5	28.1
Pneumonia and influenza . . . . .	27.1	31.0	26.0	16.2	15.3	15.8	17.4	17.5
Chronic liver disease and cirrhosis . . . . .	11.6	14.4	18.8	15.7	13.4	13.2	12.6	12.2
Diabetes mellitus . . . . .	11.3	11.6	12.7	9.5	9.2	9.0	9.2	9.1
Accidents and adverse effects . . . . .	80.9	70.5	76.2	62.3	51.8	51.3	50.4	51.1
Motor vehicle accidents . . . . .	35.9	34.0	40.1	34.8	27.8	28.4	27.6	28.7
Suicide . . . . .	18.1	17.5	18.2	18.9	19.3	19.7	19.9	20.5
Homicide and legal intervention . . . . .	3.9	3.9	7.3	10.9	8.4	8.2	8.1	8.4
Black male								
All causes . . . . .	1,373.1	1,246.1	1,318.6	1,112.8	1,019.6	1,011.7	1,024.0	1,026.9
Diseases of heart . . . . .	415.5	381.2	375.9	327.3	308.2	300.1	301.0	294.3
Cerebrovascular diseases . . . . .	146.2	141.2	124.2	77.5	64.2	62.8	60.8	58.9
Malignant neoplasms . . . . .	126.1	158.5	198.0	229.9	232.2	234.9	231.6	229.0
Respiratory system . . . . .	16.9	36.6	60.8	82.0	83.3	85.9	84.4	83.9
Colorectal . . . . .	13.8	15.0	17.3	19.2	19.0	19.9	19.5	19.3
Prostate . . . . .	16.9	22.2	25.4	29.1	29.9	29.7	30.3	30.3
Chronic obstructive pulmonary diseases . . . . .	- - -	- - -	- - -	20.9	22.2	22.8	23.9	24.6
Pneumonia and influenza . . . . .	63.8	70.2	53.8	28.0	24.3	25.2	26.8	27.2
Chronic liver disease and cirrhosis . . . . .	8.8	14.8	33.1	30.6	22.8	22.5	23.4	20.8
Diabetes mellitus . . . . .	11.5	16.2	21.2	17.7	17.7	17.6	17.7	17.9
Accidents and adverse effects . . . . .	105.7	100.0	119.5	82.0	66.2	64.7	66.7	66.9
Motor vehicle accidents . . . . .	39.8	38.2	50.1	32.9	26.4	27.2	27.7	29.2
Suicide . . . . .	7.0	7.8	9.9	11.1	10.5	11.2	11.3	11.5
Homicide and legal intervention . . . . .	51.1	44.9	82.1	71.9	53.8	50.8	49.9	55.9
White female								
All causes . . . . .	645.0	555.0	501.7	411.1	392.7	391.3	390.6	387.7
Diseases of heart . . . . .	223.6	197.1	167.8	134.6	126.7	124.0	121.7	119.0
Cerebrovascular diseases . . . . .	79.7	68.7	56.2	35.2	29.6	28.9	27.9	27.1
Malignant neoplasms . . . . .	119.4	109.5	107.6	107.7	108.5	109.9	110.3	110.1
Respiratory system . . . . .	4.6	5.1	10.1	18.2	21.0	21.6	22.6	23.1
Colorectal . . . . .	19.0	17.0	15.3	13.3	12.5	12.8	12.3	12.0
Breast . . . . .	22.5	22.4	23.4	22.8	22.7	23.1	23.3	23.0
Chronic obstructive pulmonary diseases . . . . .	2.8	3.3	5.3	9.2	11.3	11.8	12.9	13.3
Pneumonia and influenza . . . . .	18.9	19.0	15.0	9.4	8.6	8.8	9.8	9.9
Chronic liver disease and cirrhosis . . . . .	5.8	6.6	8.7	7.0	6.0	5.9	5.6	5.4
Diabetes mellitus . . . . .	16.4	13.7	12.8	8.7	8.6	8.0	8.1	8.1
Accidents and adverse effects . . . . .	30.6	25.5	27.2	21.4	18.3	18.5	18.4	18.4
Motor vehicle accidents . . . . .	10.6	11.1	14.4	12.3	10.3	10.9	10.8	11.0
Suicide . . . . .	5.3	5.3	7.2	5.7	5.6	5.6	5.3	5.4
Homicide and legal intervention . . . . .	1.4	1.5	2.2	3.2	2.8	2.9	2.9	2.9

See footnotes at end of table.

**Table 22 (page 2 of 2). Age-adjusted death rates for selected causes of death, according to sex and race: United States, selected years 1950-86**

[Data are based on the National Vital Statistics System]

Sex, race, and cause of death	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1983	1984	1985	1986
Black female	Deaths per 100,000 resident population							
All causes. . . . .	1,106.7	916.9	814.4	631.1	590.4	585.3	589.1	588.2
Diseases of heart . . . . .	349.5	292.6	251.7	201.1	191.5	186.6	186.8	185.1
Cerebrovascular diseases . . . . .	155.6	139.5	107.9	61.7	53.8	51.8	50.3	47.6
Malignant neoplasms. . . . .	131.9	127.8	123.5	129.7	129.8	131.0	130.4	132.1
Respiratory system. . . . .	4.1	5.5	10.9	19.5	22.0	21.4	22.5	23.3
Colorectal . . . . .	15.0	15.4	16.1	15.3	15.1	15.3	16.1	15.2
Breast. . . . .	19.3	21.3	21.5	23.3	24.4	26.1	25.3	25.8
Chronic obstructive pulmonary diseases. . . . .	- - -	- - -	- - -	6.3	7.6	8.1	8.7	8.9
Pneumonia and influenza . . . . .	50.4	43.9	29.2	12.7	10.2	11.3	12.4	13.1
Chronic liver disease and cirrhosis . . . . .	5.7	8.9	17.8	14.4	10.8	10.3	10.1	9.3
Diabetes mellitus . . . . .	22.7	27.3	30.9	22.1	21.1	20.5	21.1	21.4
Accidents and adverse effects . . . . .	38.5	35.9	35.3	25.1	21.9	20.1	20.7	21.0
Motor vehicle accidents. . . . .	10.3	10.0	13.8	8.4	7.5	7.6	8.2	8.5
Suicide . . . . .	1.7	1.9	2.9	2.4	2.1	2.3	2.1	2.4
Homicide and legal intervention . . . . .	11.7	11.8	15.0	13.7	11.2	11.0	10.8	11.8

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

<sup>2</sup>Male only.

<sup>3</sup>Female only.

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 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, 1950-86. 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 23 (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, 1985, and 1986**

[Data are based on the National Vital Statistics System]

Sex, race, and cause of death	Years lost in thousands			Years lost per 1,000 population under 65 years of age		
	1980	1985	1986	1980	1985	1986
<b>All races</b>						
All causes . . . . .	12,896	11,859	12,093	64.2	56.4	57.1
Diseases of heart . . . . .	1,691	1,577	1,557	8.4	7.5	7.3
Cerebrovascular diseases . . . . .	283	251	246	1.4	1.2	1.2
Malignant neoplasms . . . . .	1,824	1,834	1,832	9.1	8.7	8.6
Respiratory system . . . . .	426	435	431	2.1	2.1	2.0
Colorectal . . . . .	138	136	133	0.7	0.6	0.6
Prostate <sup>1</sup> . . . . .	17	18	18	0.1	0.1	0.1
Breast <sup>2</sup> . . . . .	212	224	228	1.1	1.1	1.1
Chronic obstructive pulmonary diseases . . . . .	115	128	129	0.6	0.6	0.6
Pneumonia and influenza . . . . .	196	170	175	1.0	0.8	0.8
Chronic liver disease and cirrhosis . . . . .	292	238	232	1.5	1.1	1.1
Diabetes mellitus . . . . .	113	115	121	0.6	0.5	0.6
Accidents and adverse effects . . . . .	2,760	2,279	2,358	13.7	10.8	11.1
Motor vehicle accidents . . . . .	1,690	1,385	1,456	8.4	6.6	6.9
Suicide . . . . .	621	657	680	3.1	3.1	3.2
Homicide and legal intervention . . . . .	751	611	680	3.7	2.9	3.2
<b>White male</b>						
All causes . . . . .	6,520	5,916	6,016	76.1	66.8	67.5
Diseases of heart . . . . .	1,010	914	892	11.8	10.3	10.0
Cerebrovascular diseases . . . . .	105	92	89	1.2	1.0	1.0
Malignant neoplasms . . . . .	801	784	783	9.4	8.8	8.8
Respiratory system . . . . .	245	236	233	2.9	2.7	2.6
Colorectal . . . . .	63	63	61	0.7	0.7	0.7
Prostate . . . . .	13	13	14	0.2	0.1	0.2
Chronic obstructive pulmonary diseases . . . . .	55	56	57	0.6	0.6	0.6
Pneumonia and influenza . . . . .	76	69	72	0.9	0.8	0.8
Chronic liver disease and cirrhosis . . . . .	143	121	119	1.7	1.4	1.3
Diabetes mellitus . . . . .	45	48	50	0.5	0.5	0.6
Accidents and adverse effects . . . . .	1,774	1,420	1,464	20.7	16.0	16.4
Motor vehicle accidents . . . . .	1,115	870	918	13.0	9.8	10.3
Suicide . . . . .	436	468	487	5.1	5.3	5.5
Homicide and legal intervention . . . . .	313	243	260	3.7	2.7	2.9
<b>Black male</b>						
All causes . . . . .	1,688	1,597	1,697	143.8	125.4	131.2
Diseases of heart . . . . .	195	197	199	16.6	15.4	15.4
Cerebrovascular diseases . . . . .	41	37	38	3.5	2.9	2.9
Malignant neoplasms . . . . .	138	144	143	11.7	11.3	11.1
Respiratory system . . . . .	47	49	48	4.0	3.8	3.7
Colorectal . . . . .	9	10	10	0.8	0.8	0.8
Prostate . . . . .	4	4	4	0.3	0.3	0.3
Chronic obstructive pulmonary diseases . . . . .	13	14	15	1.1	1.1	1.2
Pneumonia and influenza . . . . .	37	32	32	3.2	2.5	2.5
Chronic liver disease and cirrhosis . . . . .	46	39	36	3.9	3.0	2.8
Diabetes mellitus . . . . .	12	13	14	1.0	1.0	1.1
Accidents and adverse effects . . . . .	271	238	253	23.1	18.7	19.6
Motor vehicle accidents . . . . .	120	113	124	10.2	8.8	9.6
Suicide . . . . .	38	42	43	3.3	3.3	3.4
Homicide and legal intervention . . . . .	267	213	250	22.8	16.7	19.3
<b>White female</b>						
All causes . . . . .	3,425	3,117	3,109	39.8	35.3	35.0
Diseases of heart . . . . .	345	325	321	4.0	3.7	3.6
Cerebrovascular diseases . . . . .	96	82	80	1.1	0.9	0.9
Malignant neoplasms . . . . .	738	745	737	8.6	8.4	8.3
Respiratory system . . . . .	114	128	126	1.3	1.4	1.4
Colorectal . . . . .	55	51	50	0.6	0.6	0.6
Breast . . . . .	182	189	189	2.1	2.1	2.1
Chronic obstructive pulmonary diseases . . . . .	37	46	45	0.4	0.5	0.5
Pneumonia and influenza . . . . .	55	46	46	0.6	0.5	0.5
Chronic liver disease and cirrhosis . . . . .	68	52	50	0.8	0.6	0.6
Diabetes mellitus . . . . .	39	38	41	0.5	0.4	0.5
Accidents and adverse effects . . . . .	557	469	479	6.5	5.3	5.4
Motor vehicle accidents . . . . .	376	320	329	4.4	3.6	3.7
Suicide . . . . .	125	121	124	1.5	1.4	1.4
Homicide and legal intervention . . . . .	94	86	91	1.1	1.0	1.0

See footnotes at end of table.

**Table 23 (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, 1985, and 1986**

[Data are based on the National Vital Statistics System]

Sex, race, and cause of death	Years lost in thousands			Years lost per 1,000 population under 65 years of age		
	1980	1985	1986	1980	1985	1986
<b>Black female</b>						
All causes . . . . .	1,015	951	983	79.3	69.0	70.3
Diseases of heart. . . . .	120	117	120	9.4	8.5	8.6
Cerebrovascular diseases . . . . .	37	34	33	2.9	2.5	2.4
Malignant neoplasms . . . . .	124	128	135	9.7	9.3	9.7
Respiratory system . . . . .	17	19	19	1.3	1.4	1.4
Colorectal. . . . .	9	10	10	0.7	0.7	0.7
Breast . . . . .	27	32	36	2.1	2.3	2.6
Chronic obstructive pulmonary diseases . . . . .	8	10	10	0.7	0.7	0.7
Pneumonia and influenza . . . . .	24	19	21	1.8	1.4	1.5
Chronic liver disease and cirrhosis . . . . .	27	20	19	2.1	1.5	1.4
Diabetes mellitus. . . . .	14	14	15	1.1	1.0	1.0
Accidents and adverse effects. . . . .	92	84	90	7.2	6.1	6.4
Motor vehicle accidents . . . . .	38	39	41	3.0	2.8	2.9
Suicide . . . . .	9	8	9	0.7	0.6	0.7
Homicide and legal intervention . . . . .	63	55	62	4.9	4.0	4.4

<sup>1</sup>Male only.

<sup>2</sup>Female only.

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, 1980-86. 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. Death rates for diseases of heart, according to sex, race, and age: United States, selected years 1950-86**

[Data are based on the National Vital Statistics System]

Sex, race, and age	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1983	1984	1985	1986
Deaths per 100,000 resident population								
All races								
All ages, age adjusted . . . . .	307.6	286.2	253.6	202.0	188.8	183.6	180.5	175.0
All ages, crude . . . . .	355.5	369.0	362.0	336.0	329.2	323.5	323.0	317.5
Under 1 year . . . . .	3.5	6.6	13.1	22.8	26.0	26.1	24.5	26.1
1-4 years . . . . .	1.3	1.3	1.7	2.6	2.5	2.4	2.1	2.5
5-14 years . . . . .	2.1	1.3	0.8	0.9	0.9	1.0	0.9	0.9
15-24 years . . . . .	6.8	4.0	3.0	2.9	2.6	2.7	2.8	2.8
25-34 years . . . . .	19.4	15.6	11.4	8.3	8.3	8.0	8.2	8.6
35-44 years . . . . .	86.4	74.6	66.7	44.6	39.3	38.7	38.0	37.5
45-54 years . . . . .	308.6	271.8	238.4	180.2	164.7	156.7	152.9	144.6
55-64 years . . . . .	808.1	737.9	652.3	494.1	463.0	450.3	439.1	424.2
65-74 years . . . . .	1,839.8	1,740.5	1,558.2	1,218.6	1,139.2	1,102.7	1,080.6	1,043.0
75-84 years . . . . .	4,310.1	4,089.4	3,683.8	2,993.1	2,816.3	2,748.6	2,712.6	2,637.5
85 years and over . . . . .	9,150.6	9,317.8	8,468.0	7,777.1	7,335.5	7,251.0	7,275.0	7,178.7
White male								
All ages, age adjusted . . . . .	381.1	375.4	347.6	277.5	257.8	249.5	244.5	234.8
All ages, crude . . . . .	433.0	454.6	438.3	384.0	370.9	361.8	358.9	348.6
Under 1 year . . . . .	4.1	6.9	12.0	22.5	24.1	24.6	23.8	26.0
1-4 years . . . . .	1.1	1.0	1.5	2.1	2.2	2.2	1.7	2.1
5-14 years . . . . .	1.7	1.1	0.8	0.9	0.9	0.9	0.8	0.9
15-24 years . . . . .	5.8	3.6	3.0	2.9	2.7	2.8	3.0	3.0
25-34 years . . . . .	20.1	17.6	12.3	9.1	9.6	9.2	9.2	9.5
35-44 years . . . . .	110.6	107.5	94.6	61.8	55.3	54.0	52.4	51.7
45-54 years . . . . .	423.6	413.2	365.7	269.8	243.0	231.2	224.4	208.8
55-64 years . . . . .	1,081.7	1,056.0	979.3	730.6	674.1	655.5	635.6	610.3
65-74 years . . . . .	2,308.3	2,297.9	2,177.2	1,729.7	1,603.6	1,533.0	1,501.0	1,440.9
75-84 years . . . . .	4,907.3	4,839.9	4,617.6	3,883.2	3,664.3	3,579.3	3,532.9	3,405.2
85 years and over . . . . .	9,950.5	10,135.8	9,693.0	8,958.0	8,503.4	8,416.4	8,396.3	8,138.4
Black male								
All ages, age adjusted . . . . .	415.5	381.2	375.9	327.3	308.2	300.1	301.0	294.3
All ages, crude . . . . .	348.4	330.6	330.3	301.0	288.5	282.2	285.0	281.3
Under 1 year . . . . .	4.8	13.9	33.5	42.8	54.5	48.4	46.7	49.8
1-4 years . . . . .	3.8	3.8	3.9	6.3	5.1	4.4	4.4	5.3
5-14 years . . . . .	6.4	3.0	1.4	1.3	1.5	1.5	1.5	1.4
15-24 years . . . . .	18.0	8.7	8.3	8.3	6.6	6.7	7.2	6.7
25-34 years . . . . .	51.9	43.1	41.6	30.3	27.5	27.5	29.1	29.3
35-44 years . . . . .	198.1	168.1	189.2	136.6	115.9	121.1	122.0	123.6
45-54 years . . . . .	624.1	514.0	512.8	433.4	398.2	384.6	382.4	365.1
55-64 years . . . . .	1,434.0	1,236.8	1,135.4	987.2	928.0	895.9	882.6	864.9
65-74 years . . . . .	2,140.1	2,281.4	2,237.8	1,847.2	1,804.5	1,734.7	1,738.4	1,673.1
75-84 years . . . . .	4,107.9	3,533.6	3,783.4	3,578.8	3,457.5	3,375.7	3,450.0	3,407.3
85 years and over . . . . .	6,307.9	6,037.9	6,330.8	6,819.5	5,907.9	6,015.9	6,098.5	6,268.7
White female								
All ages, age adjusted . . . . .	223.6	197.1	167.8	134.6	126.7	124.0	121.7	119.0
All ages, crude . . . . .	289.4	306.5	313.8	319.2	321.5	319.3	320.7	319.0
Under 1 year . . . . .	2.7	4.3	7.0	15.7	19.3	20.3	18.3	19.1
1-4 years . . . . .	1.1	0.9	1.2	2.1	2.1	2.0	1.6	2.1
5-14 years . . . . .	1.9	0.9	0.7	0.8	0.8	0.9	0.9	0.7
15-24 years . . . . .	5.3	2.8	1.7	1.7	1.6	1.8	1.7	1.6
25-34 years . . . . .	12.2	8.2	5.5	3.9	3.8	3.7	3.8	4.1
35-44 years . . . . .	40.5	28.6	23.9	16.4	14.5	14.1	14.3	13.8
45-54 years . . . . .	141.9	103.4	91.4	71.2	67.4	63.1	62.1	59.8
55-64 years . . . . .	460.2	383.0	317.7	248.1	237.5	231.6	225.8	221.4
65-74 years . . . . .	1,400.9	1,229.8	1,044.0	796.7	745.6	735.3	713.7	693.9
75-84 years . . . . .	3,925.2	3,629.7	3,143.5	2,493.6	2,332.4	2,273.1	2,233.3	2,180.2
85 years and over . . . . .	9,084.7	9,280.8	8,207.5	7,501.6	7,133.7	7,044.7	7,089.3	7,021.3
Black female								
All ages, age adjusted . . . . .	349.5	292.6	251.7	201.1	191.5	186.6	186.8	185.1
All ages, crude . . . . .	289.9	268.5	261.0	249.7	248.1	244.6	248.1	250.8
Under 1 year . . . . .	3.9	12.0	31.3	43.6	45.6	45.1	39.5	42.8
1-4 years . . . . .	2.8	2.8	4.2	4.4	3.6	4.3	5.2	4.8
5-14 years . . . . .	8.8	3.0	1.8	1.7	1.1	1.4	1.7	1.5
15-24 years . . . . .	19.8	10.0	6.0	4.6	4.4	4.3	4.6	4.6
25-34 years . . . . .	52.0	35.9	24.7	15.7	13.6	12.5	13.1	15.3
35-44 years . . . . .	185.0	125.3	99.8	61.7	53.0	52.8	50.4	50.1
45-54 years . . . . .	526.8	360.7	290.9	202.4	182.8	174.1	172.6	172.5
55-64 years . . . . .	1,210.7	952.3	710.5	530.1	517.7	499.6	500.4	479.0
65-74 years . . . . .	1,659.4	1,680.5	1,553.2	1,210.3	1,159.8	1,127.1	1,133.6	1,108.3
75-84 years . . . . .	3,499.3	2,926.9	2,964.1	2,707.2	2,660.1	2,618.9	2,606.0	2,623.5
85 years and over . . . . .	5,650.0	5,669.8	5,669.8	5,796.5	5,298.4	5,315.0	5,441.0	5,698.6

<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, 1950-86. 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. Death rates for cerebrovascular diseases, according to sex, race, and age: United States, selected years 1950-86**

[Data are based on the National Vital Statistics System]

Sex, race, and age	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1983	1984	1985	1986
Deaths per 100,000 resident population								
All races								
All ages, age adjusted . . . . .	88.8	79.7	66.3	40.8	34.4	33.4	32.3	31.0
All ages, crude . . . . .	104.0	108.0	101.9	75.1	66.5	65.3	64.1	62.1
Under 1 year . . . . .	5.1	4.1	5.0	4.4	3.9	3.0	3.6	2.9
1-4 years . . . . .	0.9	0.8	1.0	0.5	0.4	0.4	0.3	0.3
5-14 years . . . . .	0.5	0.7	0.7	0.3	0.3	0.3	0.2	0.2
15-24 years . . . . .	1.6	1.8	1.6	1.0	0.8	0.8	0.8	0.7
25-34 years . . . . .	4.2	4.7	4.5	2.6	2.2	2.2	2.1	2.2
35-44 years . . . . .	18.7	14.7	15.6	8.5	7.3	7.5	7.2	7.1
45-54 years . . . . .	70.4	49.2	41.6	25.2	22.8	22.6	21.1	20.4
55-64 years . . . . .	195.3	147.3	115.8	65.2	57.6	55.8	54.3	53.0
65-74 years . . . . .	549.7	469.2	384.1	219.5	182.2	177.0	171.3	164.1
75-84 years . . . . .	1,499.6	1,491.3	1,254.2	788.6	652.7	626.2	605.8	573.8
85 years and over . . . . .	2,990.1	3,680.5	3,234.6	2,288.9	1,912.5	1,883.8	1,837.5	1,762.6
White male								
All ages, age adjusted . . . . .	87.0	80.3	68.8	41.9	35.2	33.9	32.8	31.1
All ages, crude . . . . .	100.5	102.7	93.5	63.3	55.5	53.8	52.5	50.5
Under 1 year . . . . .	5.9	4.3	4.5	3.8	4.0	2.6	3.7	2.5
1-4 years . . . . .	1.1	0.8	1.2	0.4	0.5	0.3	0.3	0.2
5-14 years . . . . .	0.5	0.7	0.8	0.2	0.2	0.2	0.2	0.2
15-24 years . . . . .	1.6	1.7	1.6	1.0	0.8	0.8	0.7	0.7
25-34 years . . . . .	3.4	3.5	3.2	2.0	1.9	1.8	1.8	1.8
35-44 years . . . . .	13.1	11.3	11.8	6.5	5.5	5.9	5.4	5.7
45-54 years . . . . .	53.7	40.9	35.6	21.7	19.1	19.3	18.0	16.5
55-64 years . . . . .	182.2	139.0	119.9	64.2	56.5	54.3	54.2	51.4
65-74 years . . . . .	569.7	501.0	420.0	240.4	197.1	190.4	183.7	171.4
75-84 years . . . . .	1,556.3	1,564.8	1,361.6	854.8	714.8	671.1	651.1	617.3
85 years and over . . . . .	3,127.1	3,734.8	3,317.6	2,236.9	1,862.9	1,846.4	1,747.8	1,697.0
Black male								
All ages, age adjusted . . . . .	146.2	141.2	124.2	77.5	64.2	62.8	60.8	58.9
All ages, crude . . . . .	122.0	122.9	108.7	73.1	61.3	60.0	58.5	57.1
Under 1 year . . . . .	2.5	8.5	12.2	11.2	7.5	8.2	9.8	8.0
1-4 years . . . . .	0.7	1.9	1.4	0.6	0.2	0.8	0.8	0.5
5-14 years . . . . .	0.7	0.9	0.8	0.5	0.4	0.6	0.1	0.2
15-24 years . . . . .	3.3	3.7	3.0	2.1	1.4	1.2	1.3	1.1
25-34 years . . . . .	12.0	12.8	14.6	7.7	5.9	5.7	5.7	6.1
35-44 years . . . . .	59.3	47.4	52.7	29.2	24.3	26.0	25.9	27.2
45-54 years . . . . .	211.9	166.1	136.2	82.1	74.1	72.9	70.6	68.2
55-64 years . . . . .	522.8	439.9	343.4	189.8	163.8	159.0	151.6	144.3
65-74 years . . . . .	783.6	899.2	780.0	472.8	388.0	379.8	358.9	337.8
75-84 years . . . . .	1,504.9	1,475.2	1,442.6	1,067.6	844.1	819.5	817.6	809.9
85 years and over . . . . .	2,700.0	2,700.0	2,315.4	1,873.2	1,479.4	1,395.2	1,363.1	1,350.7
White female								
All ages, age adjusted . . . . .	79.7	68.7	56.2	35.2	29.6	28.9	27.9	27.1
All ages, crude . . . . .	103.3	110.1	109.8	88.8	79.8	79.2	78.1	76.2
Under 1 year . . . . .	2.9	2.6	3.2	3.3	2.5	2.6	2.2	1.8
1-4 years . . . . .	0.6	0.5	0.6	0.4	0.2	0.3	0.3	0.2
5-14 years . . . . .	0.4	0.6	0.6	0.3	0.3	0.3	0.3	0.2
15-24 years . . . . .	1.2	1.4	1.1	0.7	0.7	0.6	0.7	0.6
25-34 years . . . . .	2.9	3.4	3.4	2.0	1.6	1.6	1.6	1.6
35-44 years . . . . .	13.6	10.1	11.5	6.7	5.6	5.6	5.3	5.0
45-54 years . . . . .	55.0	33.8	30.5	18.7	16.9	17.0	15.4	15.5
55-64 years . . . . .	156.9	103.0	78.1	48.7	42.6	42.0	39.7	40.1
65-74 years . . . . .	498.1	383.3	303.2	172.8	144.6	140.9	138.0	136.3
75-84 years . . . . .	1,471.3	1,444.7	1,176.8	730.3	602.0	580.9	559.4	530.7
85 years and over . . . . .	3,017.9	3,795.7	3,316.1	2,367.8	1,986.5	1,962.5	1,923.0	1,837.3
Black female								
All ages, age adjusted . . . . .	155.6	139.5	107.9	61.7	53.8	51.8	50.3	47.6
All ages, crude . . . . .	128.3	127.7	112.1	77.9	70.5	68.5	68.0	65.0
Under 1 year . . . . .	2.8	6.7	9.1	6.4	7.3	3.3	5.3	5.3
1-4 years . . . . .	0.6	1.3	1.4	0.5	0.5	0.5	0.5	0.4
5-14 years . . . . .	0.6	1.0	0.8	0.3	0.4	0.4	0.3	0.3
15-24 years . . . . .	4.2	3.4	3.0	1.7	1.6	1.7	1.5	1.0
25-34 years . . . . .	15.9	17.4	14.3	7.0	5.1	6.1	5.6	6.0
35-44 years . . . . .	75.0	57.4	49.1	21.6	20.1	19.2	19.3	18.5
45-54 years . . . . .	248.9	166.2	119.4	61.9	55.7	50.3	49.8	46.4
55-64 years . . . . .	567.7	452.0	272.5	138.7	126.0	112.6	111.3	109.4
65-74 years . . . . .	754.4	830.5	673.4	362.2	308.4	304.6	281.5	268.5
75-84 years . . . . .	1,496.7	1,413.1	1,337.8	918.6	786.7	803.4	775.4	710.7
85 years and over . . . . .	2,578.9	2,578.9	2,504.8	1,896.3	1,603.1	1,470.7	1,585.6	1,504.1

<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, 1950-86. 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 26. Death rates for malignant neoplasms, according to sex, race, and age: United States, selected years 1950-86**

[Data are based on the National Vital Statistics System]

Sex, race, and age	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1983	1984	1985	1986
Deaths per 100,000 resident population								
<b>All races</b>								
All ages, age adjusted . . . . .	125.4	125.8	129.9	132.8	132.6	133.5	133.6	133.2
All ages, crude . . . . .	139.8	149.2	162.8	183.9	189.3	191.8	193.3	194.7
Under 1 year . . . . .	8.7	7.2	4.7	3.2	3.6	3.1	3.0	2.6
1-4 years . . . . .	11.7	10.9	7.5	4.5	4.7	4.0	3.8	4.0
5-14 years . . . . .	6.7	6.8	6.0	4.3	3.9	3.6	3.5	3.4
15-24 years . . . . .	8.6	8.3	8.3	6.3	5.6	5.5	5.4	5.4
25-34 years . . . . .	20.0	19.5	16.5	13.7	12.8	13.0	13.1	13.1
35-44 years . . . . .	62.7	59.7	59.5	48.6	45.6	46.6	45.7	45.3
45-54 years . . . . .	175.1	177.0	182.5	180.0	172.2	170.5	169.1	165.7
55-64 years . . . . .	392.9	396.8	423.0	436.1	443.0	448.4	450.5	444.4
65-74 years . . . . .	692.5	713.9	754.2	817.9	829.3	835.1	838.3	847.0
75-84 years . . . . .	1,153.3	1,127.4	1,168.0	1,232.3	1,254.7	1,272.3	1,281.0	1,287.3
85 years and over . . . . .	1,451.0	1,450.0	1,417.3	1,594.6	1,583.4	1,604.0	1,591.5	1,612.0
<b>White male</b>								
All ages, age adjusted . . . . .	130.9	141.6	154.3	160.5	158.9	159.0	159.2	158.8
All ages, crude . . . . .	147.2	166.1	185.1	208.7	213.8	215.1	217.2	218.8
Under 1 year . . . . .	9.6	7.9	4.3	3.5	3.5	2.7	3.1	3.0
1-4 years . . . . .	13.1	13.1	8.5	5.4	5.3	4.4	4.4	4.7
5-14 years . . . . .	7.6	8.0	7.0	5.2	4.4	4.1	4.0	3.9
15-24 years . . . . .	9.9	10.3	10.6	7.8	6.7	6.8	6.5	6.8
25-34 years . . . . .	17.7	18.8	16.2	13.6	12.6	12.5	13.0	13.5
35-44 years . . . . .	44.5	46.3	50.1	41.1	38.3	38.5	39.5	37.7
45-54 years . . . . .	150.8	164.1	172.0	175.4	166.7	164.0	161.2	158.5
55-64 years . . . . .	409.4	450.9	498.1	497.4	499.5	504.5	508.4	504.3
65-74 years . . . . .	798.7	887.3	997.0	1,070.7	1,063.7	1,064.1	1,061.2	1,063.3
75-84 years . . . . .	1,367.6	1,413.7	1,592.7	1,779.7	1,805.3	1,806.9	1,820.1	1,827.0
85 years and over . . . . .	1,732.7	1,791.4	1,948.1	2,375.6	2,416.3	2,438.6	2,424.5	2,462.3
<b>Black male</b>								
All ages, age adjusted . . . . .	126.1	158.5	198.0	229.9	232.2	234.9	231.6	229.0
All ages, crude . . . . .	106.6	136.7	171.6	205.5	210.5	214.0	212.2	211.4
Under 1 year . . . . .	8.2	6.8	5.3	4.5	3.9	3.2	2.4	1.7
1-4 years . . . . .	7.9	7.9	7.6	5.1	4.7	3.5	3.3	3.1
5-14 years . . . . .	5.8	4.4	4.8	3.7	4.1	3.6	3.6	3.8
15-24 years . . . . .	7.9	9.7	9.4	8.1	5.6	6.4	6.4	6.3
25-34 years . . . . .	18.0	18.4	18.8	14.1	14.7	15.8	14.7	14.2
35-44 years . . . . .	55.7	72.9	81.3	73.8	70.7	74.4	71.2	71.4
45-54 years . . . . .	211.7	244.7	311.2	333.0	315.5	314.1	313.6	303.6
55-64 years . . . . .	490.8	579.7	689.2	812.5	821.6	841.7	803.3	776.0
65-74 years . . . . .	636.4	938.5	1,168.9	1,417.2	1,457.4	1,444.9	1,448.7	1,455.1
75-84 years . . . . .	853.5	1,053.3	1,624.8	2,029.6	2,196.8	2,226.3	2,238.3	2,249.2
85 years and over . . . . .	1,155.2	1,635.9	2,393.9	2,219.0	2,471.4	2,507.7	2,620.9	
<b>White female</b>								
All ages, age adjusted . . . . .	119.4	109.5	107.6	107.7	108.5	109.9	110.3	110.1
All ages, crude . . . . .	139.9	139.8	149.4	170.3	177.9	181.7	183.7	185.6
Under 1 year . . . . .	7.8	6.8	5.4	2.7	3.5	2.9	3.0	2.4
1-4 years . . . . .	11.3	9.7	6.9	3.6	4.4	3.8	3.5	3.4
5-14 years . . . . .	6.3	6.2	5.4	3.7	3.4	3.0	3.1	3.1
15-24 years . . . . .	7.5	6.5	6.2	4.7	4.6	4.3	4.3	4.2
25-34 years . . . . .	20.9	18.8	16.3	13.5	12.3	12.8	12.6	12.1
35-44 years . . . . .	74.5	66.6	62.4	50.9	48.0	49.0	47.0	47.4
45-54 years . . . . .	185.8	175.7	177.3	166.4	160.0	160.0	160.6	155.6
55-64 years . . . . .	362.5	329.0	338.6	355.5	366.8	370.0	374.1	369.4
65-74 years . . . . .	616.5	562.1	554.7	605.2	627.4	638.6	645.3	658.7
75-84 years . . . . .	1,026.6	939.3	903.5	905.4	919.5	944.2	949.2	956.4
85 years and over . . . . .	1,348.3	1,304.9	1,179.4	1,266.8	1,265.7	1,284.3	1,270.9	1,283.6
<b>Black female</b>								
All ages, age adjusted . . . . .	131.9	127.8	123.5	129.7	129.8	131.0	130.4	132.1
All ages, crude . . . . .	111.8	113.8	117.3	136.5	140.7	142.9	143.9	146.7
Under 1 year . . . . .	7.0	6.7	3.3	3.0	3.3	2.5	4.3	2.8
1-4 years . . . . .	6.9	6.9	5.7	3.9	3.1	3.1	2.5	4.3
5-14 years . . . . .	3.9	4.8	4.0	3.4	3.6	3.3	3.0	2.9
15-24 years . . . . .	8.8	6.9	6.4	5.7	5.0	4.3	4.3	4.7
25-34 years . . . . .	34.3	31.0	20.9	18.3	17.3	16.5	17.0	17.8
35-44 years . . . . .	119.8	102.4	94.6	73.5	68.9	74.3	69.5	72.2
45-54 years . . . . .	277.0	254.8	228.6	230.2	217.8	215.1	208.1	215.3
55-64 years . . . . .	484.6	442.7	404.8	450.4	452.9	462.2	465.4	451.6
65-74 years . . . . .	477.3	541.6	615.8	662.4	694.2	685.8	694.2	717.5
75-84 years . . . . .	605.3	696.3	763.3	923.9	972.4	1,013.7	1,014.6	1,017.9
85 years and over . . . . .	728.9	896.8	1,159.9	1,132.6	1,154.9	1,228.8	1,254.5	

<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, 1950-86. 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. Death rates for malignant neoplasms of respiratory system, according to sex, race, and age: United States, selected years 1950-86**

[Data are based on the National Vital Statistics System]

Sex, race, and age	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1983	1984	1985	1986
Deaths per 100,000 resident population								
<b>All races</b>								
All ages, age adjusted . . . . .	12.8	19.2	28.4	36.4	37.9	38.4	38.8	39.0
All ages, crude. . . . .	14.1	22.2	34.2	47.9	51.3	52.3	53.3	54.1
Under 1 year. . . . .	0.1	0.2	0.1	0.2	0.2	0.3	0.1	0.1
1-4 years . . . . .	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
5-14 years . . . . .	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0
15-24 years . . . . .	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1
25-34 years . . . . .	0.9	1.1	1.0	0.8	0.7	0.7	0.8	0.7
35-44 years . . . . .	5.1	7.3	11.6	9.6	8.9	8.2	8.1	7.9
45-54 years . . . . .	22.9	32.0	46.2	56.5	54.6	53.9	52.8	51.7
55-64 years . . . . .	55.2	81.5	116.2	144.3	151.8	156.1	158.4	157.8
65-74 years . . . . .	69.3	117.2	174.6	243.1	258.7	262.7	268.0	271.7
75-84 years . . . . .	69.3	102.9	175.1	251.4	278.3	286.4	294.5	303.9
85 years and over. . . . .	64.0	79.1	121.8	184.5	191.6	199.3	202.0	214.9
<b>White male</b>								
All ages, age adjusted . . . . .	21.6	34.6	49.9	58.0	58.0	58.4	58.2	58.0
All ages, crude. . . . .	24.1	39.6	58.3	73.4	75.9	76.8	77.3	77.8
Under 1 year. . . . .	0.2	0.1	0.2	0.2	0.3	0.3	-	0.1
1-4 years . . . . .	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0
5-14 years . . . . .	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0
15-24 years . . . . .	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25-34 years . . . . .	1.2	1.6	1.4	0.9	0.7	0.8	0.7	0.9
35-44 years . . . . .	7.9	10.4	15.4	11.2	10.0	9.1	9.4	8.5
45-54 years . . . . .	39.1	53.0	67.6	74.3	68.7	67.8	65.2	63.7
55-64 years . . . . .	95.9	149.8	199.3	215.0	215.2	220.0	221.7	221.3
65-74 years . . . . .	119.4	225.1	344.8	418.4	420.7	421.3	419.1	417.0
75-84 years . . . . .	109.1	191.9	360.7	516.1	550.1	556.5	562.6	570.7
85 years and over. . . . .	102.7	133.9	243.8	391.5	435.9	446.8	459.1	477.5
<b>Black male</b>								
All ages, age adjusted . . . . .	16.9	36.6	60.8	82.0	83.3	85.9	84.4	83.9
All ages, crude. . . . .	14.3	31.1	51.2	70.8	72.6	75.5	74.5	74.6
Under 1 year. . . . .	-	0.4	0.4	0.4	0.4	1.1	0.3	-
1-4 years . . . . .	-	0.1	0.1	0.2	0.2	-	-	-
5-14 years . . . . .	0.1	0.0	0.1	0.0	0.0	0.0	0.0	-
15-24 years . . . . .	0.4	0.2	0.3	0.3	0.2	0.2	0.3	0.2
25-34 years . . . . .	2.1	2.6	2.9	1.9	1.5	1.6	1.9	1.4
35-44 years . . . . .	9.4	20.7	32.6	26.9	23.0	23.6	22.8	22.3
45-54 years . . . . .	41.1	75.0	123.5	142.8	137.7	131.8	132.1	131.3
55-64 years . . . . .	78.8	161.8	250.3	340.3	346.2	373.0	352.1	337.3
65-74 years . . . . .	65.2	184.6	322.2	499.4	530.3	529.3	534.8	542.3
75-84 years . . . . .	42.4	126.3	290.6	499.6	536.8	576.5	581.3	606.5
85 years and over. . . . .	42.4	110.3	182.1	337.7	309.5	423.8	390.8	456.7
<b>White female</b>								
All ages, age adjusted . . . . .	4.6	5.1	10.1	18.2	21.0	21.6	22.6	23.1
All ages, crude. . . . .	5.4	6.4	13.1	26.5	31.5	32.8	34.6	35.9
Under 1 year. . . . .	-	0.2	0.1	0.1	0.1	0.1	0.2	0.2
1-4 years . . . . .	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-
5-14 years . . . . .	0.1	0.0	0.1	0.1	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
25-34 years . . . . .	0.5	0.6	0.6	0.5	0.5	0.6	0.6	0.5
35-44 years . . . . .	2.2	3.4	6.0	6.8	6.6	5.9	5.6	5.8
45-54 years . . . . .	6.5	9.8	22.1	33.9	35.3	35.6	36.0	34.9
55-64 years . . . . .	15.5	16.7	39.3	74.2	87.8	89.9	94.2	94.9
65-74 years . . . . .	27.2	26.5	45.4	108.1	132.3	139.2	149.1	156.0
75-84 years . . . . .	40.0	36.5	56.8	99.3	122.2	129.9	140.3	149.0
85 years and over. . . . .	44.0	45.2	60.1	96.8	96.7	102.5	102.1	113.8
<b>Black female</b>								
All ages, age adjusted . . . . .	4.1	5.5	10.9	19.5	22.0	21.4	22.5	23.3
All ages, crude. . . . .	3.4	4.9	10.1	19.3	22.3	21.9	23.3	24.3
Under 1 year. . . . .	-	-	-	0.4	-	-	0.4	-
1-4 years . . . . .	-	0.1	0.1	-	0.1	0.1	-	-
5-14 years . . . . .	-	0.1	-	0.0	0.0	0.0	0.0	-
15-24 years . . . . .	0.3	-	0.1	0.1	-	0.1	0.1	0.1
25-34 years . . . . .	1.2	0.8	0.5	0.8	0.7	0.6	1.0	0.6
35-44 years . . . . .	2.7	3.4	10.5	7.9	8.7	7.7	7.7	8.6
45-54 years . . . . .	8.8	12.8	25.3	46.4	45.4	42.4	40.7	42.8
55-64 years . . . . .	15.3	20.7	36.4	83.8	97.2	98.4	105.6	102.4
65-74 years . . . . .	16.4	20.7	49.3	91.7	110.6	106.1	118.9	130.9
75-84 years . . . . .	19.2	33.1	52.6	81.1	108.5	112.3	108.6	123.5
85 years and over. . . . .	19.2	44.7	54.0	90.5	96.9	86.5	112.2	102.1

<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, 1950-86. Public Health Service, Washington, U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.

**Table 28. Death rates for malignant neoplasm of breast for females, according to race and age: United States, selected years 1950–86**

[Data are based on the National Vital Statistics System]

<i>Race and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1983	1984	1985	1986
All races								
Deaths per 100,000 resident population								
All ages, age adjusted . . . . .	22.2	22.3	23.1	22.7	22.7	23.2	23.2	23.1
All ages, crude . . . . .	24.7	26.1	28.4	30.6	31.6	32.5	32.7	32.8
Under 25 years . . . . .	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0
25–34 years . . . . .	3.8	3.8	3.9	3.3	3.2	3.3	3.0	3.1
35–44 years . . . . .	20.8	20.2	20.4	17.9	16.6	18.5	17.5	18.3
45–54 years . . . . .	46.9	51.4	52.6	48.1	45.9	45.8	46.7	45.4
55–64 years . . . . .	70.4	70.8	77.6	80.5	81.9	82.0	83.6	80.9
65–74 years . . . . .	94.0	90.0	93.8	101.1	104.9	108.0	107.7	109.9
75–84 years . . . . .	139.8	129.9	127.4	126.4	130.9	136.2	137.7	136.2
85 years and over . . . . .	195.5	191.9	157.1	169.3	175.1	180.0	175.9	180.0
White								
All ages, age adjusted . . . . .	22.5	22.4	23.4	22.8	22.7	23.1	23.3	23.0
All ages, crude . . . . .	25.7	27.2	29.9	32.3	33.3	34.2	34.6	34.6
Under 25 years . . . . .	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
25–34 years . . . . .	3.7	3.6	3.7	3.0	3.0	3.1	2.8	2.7
35–44 years . . . . .	20.8	19.7	20.2	17.3	16.0	17.4	16.7	17.3
45–54 years . . . . .	47.1	51.2	53.0	48.1	45.3	45.3	46.5	44.4
55–64 years . . . . .	70.9	71.8	79.3	81.3	82.8	82.2	84.2	81.8
65–74 years . . . . .	96.3	91.6	95.9	103.7	106.9	110.1	110.0	112.4
75–84 years . . . . .	143.6	132.8	129.6	128.4	133.1	138.3	140.4	139.7
85 years and over . . . . .	204.2	199.7	161.9	171.7	178.6	183.7	178.9	182.7
Black								
All ages, age adjusted . . . . .	19.3	21.3	21.5	23.3	24.4	26.1	25.3	25.8
All ages, crude . . . . .	16.4	18.7	19.7	22.9	24.4	26.3	25.6	26.2
Under 25 years . . . . .	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.1
25–34 years . . . . .	4.9	6.1	5.9	5.3	4.6	5.0	4.4	5.6
35–44 years . . . . .	21.0	24.8	24.4	24.1	23.8	28.9	26.3	28.3
45–54 years . . . . .	46.5	54.4	52.0	52.7	55.3	55.5	54.4	59.1
55–64 years . . . . .	64.3	63.2	64.7	79.9	82.9	90.5	88.5	83.6
65–74 years . . . . .	67.0	72.3	77.3	84.3	95.0	100.1	99.3	100.5
75–84 years . . . . .	81.0	87.5	101.8	114.1	120.6	128.2	121.0	112.1
85 years and over . . . . .		92.1	112.1	149.9	143.4	149.6	152.5	162.1

<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, 1950–86. 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. Maternal mortality rates for complications of pregnancy, childbirth, and the puerperium, according to race and age: United States, selected years 1950-86**

[Data are based on the National Vital Statistics System]

<i>Race and age</i>	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1983	1984	1985	1986
Deaths per 100,000 live births								
All races								
All ages, age adjusted . . . . .	73.8	32.2	21.5	9.6	8.0	7.4	7.9	7.0
All ages, crude . . . . .	83.3	37.1	21.5	9.2	8.0	7.8	7.8	7.2
Under 20 years . . . . .	70.7	22.7	18.9	7.6	5.4	6.3	6.9	5.9
20-24 years . . . . .	47.6	20.7	13.0	5.8	7.5	4.3	5.4	5.7
25-29 years . . . . .	63.5	29.8	17.0	7.7	6.6	6.9	6.4	5.8
30-34 years . . . . .	107.7	50.3	31.6	13.6	9.1	11.5	8.9	7.8
35 years and over <sup>2</sup> . . . . .	222.0	104.3	81.9	36.3	20.7	21.9	25.0	21.4
White								
All ages, age adjusted . . . . .	53.2	22.4	14.5	7.0	5.9	5.0	5.1	4.7
All ages, crude . . . . .	61.1	26.0	14.4	6.7	5.9	5.4	5.2	4.9
Under 20 years . . . . .	44.9	14.8	13.9	5.9	*4.4	*4.3	*4.3	*4.1
20-24 years . . . . .	35.7	15.3	8.4	4.3	4.9	*2.0	3.4	3.7
25-29 years . . . . .	45.0	20.3	11.2	5.5	5.2	5.7	4.7	3.6
30-34 years . . . . .	75.9	34.3	18.8	9.4	6.0	7.8	5.2	5.2
35 years and over <sup>2</sup> . . . . .	174.1	73.9	59.6	25.8	17.3	16.0	17.8	16.1
Black								
All ages, age adjusted . . . . .	---	92.1	64.2	24.0	19.3	20.9	22.2	19.3
All ages, crude . . . . .	---	103.6	59.8	21.5	18.3	19.7	20.4	18.8
Under 20 years . . . . .	---	54.8	31.8	12.8	*7.0	*11.4	*12.1	*10.6
20-24 years . . . . .	---	56.9	41.0	13.4	20.2	15.2	14.0	13.9
25-29 years . . . . .	---	92.8	63.8	21.4	16.0	15.6	18.4	19.3
30-34 years . . . . .	---	150.6	115.6	41.9	31.1	37.9	35.8	29.0
35 years and over <sup>2</sup> . . . . .	---	299.5	204.7	96.5	*41.4	*67.6	72.6	*58.6

<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, 1950-86. Public Health Service. Washington. U.S. Government Printing Office; *Vital Statistics of the United States*, Vol. I, Natality, 1950-86. 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 30. Death rates for motor vehicle accidents, according to sex, race, and age: United States, selected years 1950-86**

[Data are based on the National Vital Statistics System]

Sex, race, and age	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1983	1984	1985	1986
All races								
Deaths per 100,000 resident population								
All ages, age adjusted . . . . .	23.3	22.5	27.4	22.9	18.5	19.1	18.8	19.4
All ages, crude . . . . .	23.1	21.3	26.9	23.5	19.0	19.6	19.2	19.9
Under 1 year . . . . .	8.4	8.1	9.8	7.0	5.2	4.4	4.8	4.9
1-4 years . . . . .	11.5	10.0	11.5	9.2	7.5	6.9	7.1	7.0
5-14 years . . . . .	8.8	7.9	10.2	7.9	6.6	6.7	6.8	6.9
15-24 years . . . . .	34.4	38.0	47.2	44.8	35.1	36.7	36.1	39.0
25-34 years . . . . .	24.6	24.3	30.9	29.1	23.4	23.8	22.8	24.2
35-44 years . . . . .	20.3	19.3	24.9	20.9	16.8	17.1	17.1	16.6
45-54 years . . . . .	22.2	21.4	25.5	18.6	15.3	15.4	15.2	15.1
55-64 years . . . . .	29.2	25.1	27.9	17.4	14.7	15.7	15.5	15.1
65-74 years . . . . .	38.8	31.4	32.8	19.2	17.1	18.0	17.7	17.9
75-84 years . . . . .	52.7	41.8	43.5	28.1	26.0	28.2	27.6	28.8
85 years and over . . . . .	45.1	37.9	36.6	27.6	25.0	25.0	26.1	25.3
White male								
All ages, age adjusted . . . . .	35.9	34.0	40.1	34.8	27.8	28.4	27.6	28.7
All ages, crude . . . . .	35.1	31.5	39.1	35.9	28.5	29.1	28.2	29.2
Under 1 year . . . . .	9.1	8.8	9.1	7.0	5.7	3.9	4.5	4.1
1-4 years . . . . .	13.2	11.3	12.2	9.5	8.3	7.5	7.6	7.0
5-14 years . . . . .	12.0	10.3	12.6	9.8	8.4	8.4	8.5	8.7
15-24 years . . . . .	58.3	62.7	75.2	73.8	57.0	59.1	57.4	62.6
25-34 years . . . . .	39.1	38.6	47.0	46.6	37.0	37.3	35.5	37.3
35-44 years . . . . .	30.9	28.4	35.2	30.7	24.3	24.3	24.1	23.7
45-54 years . . . . .	31.6	29.7	34.6	26.3	21.2	21.7	20.9	20.8
55-64 years . . . . .	41.9	34.4	39.0	23.9	19.9	20.9	20.6	19.9
65-74 years . . . . .	59.1	45.5	46.2	25.8	22.5	24.0	21.7	22.4
75-84 years . . . . .	86.4	66.8	69.2	43.6	39.8	41.8	41.2	42.9
85 years and over . . . . .	79.3	61.9	72.0	57.3	54.7	52.6	56.4	51.6
Black male								
All ages, age adjusted . . . . .	39.8	38.2	50.1	32.9	26.4	27.2	27.7	29.2
All ages, crude . . . . .	37.2	33.1	44.2	31.1	25.2	26.4	26.7	28.6
Under 1 year . . . . .	9.0	6.8	10.6	7.8	3.6	5.7	5.9	8.0
1-4 years . . . . .	9.7	12.7	16.9	13.7	10.9	9.8	10.7	10.7
5-14 years . . . . .	41.6	46.4	58.1	40.5	33.6	33.8	35.4	35.1
15-24 years . . . . .	57.4	51.0	70.4	44.9	35.9	36.8	37.2	41.7
25-34 years . . . . .	45.9	43.6	59.5	41.2	33.6	33.8	35.4	35.1
35-44 years . . . . .	49.9	48.1	61.4	39.1	32.4	28.5	29.9	31.4
45-54 years . . . . .	58.8	47.3	62.1	40.3	31.2	31.5	34.3	31.9
55-64 years . . . . .	48.5	46.1	54.9	41.8	29.6	35.5	30.0	27.2
65-74 years . . . . .	61.8	51.8	51.5	46.5	41.7	45.0	42.2	53.1
75-84 years . . . . .	58.6	53.8	34.0	28.6	57.1	36.9	62.7	
85 years and over . . . . .								
White female								
All ages, age adjusted . . . . .	10.6	11.1	14.4	12.3	10.3	10.9	10.8	11.0
All ages, crude . . . . .	10.9	11.2	14.8	12.8	10.8	11.5	11.4	11.5
Under 1 year . . . . .	7.8	7.5	10.2	7.1	4.8	4.4	3.9	4.6
1-4 years . . . . .	10.1	8.3	9.6	7.7	6.0	5.4	5.7	6.0
5-14 years . . . . .	5.6	5.3	6.9	5.7	4.7	5.1	5.2	4.9
15-24 years . . . . .	12.6	15.6	22.7	23.0	18.8	20.1	20.1	21.5
25-34 years . . . . .	9.0	9.0	12.7	12.2	10.7	11.0	10.0	10.8
35-44 years . . . . .	8.1	8.9	12.3	10.6	8.8	9.4	9.4	8.4
45-54 years . . . . .	10.8	11.4	14.3	10.2	8.5	8.9	8.9	8.5
55-64 years . . . . .	15.0	15.3	16.1	10.5	9.3	10.3	9.9	9.6
65-74 years . . . . .	20.9	19.3	22.1	13.4	12.6	13.0	14.3	14.4
75-84 years . . . . .	25.4	23.8	28.1	19.0	17.9	20.6	19.9	20.5
85 years and over . . . . .	22.3	22.2	18.9	15.3	14.0	13.8	15.1	14.7
Black female								
All ages, age adjusted . . . . .	10.3	10.0	13.8	8.4	7.5	7.6	8.2	8.5
All ages, crude . . . . .	10.2	9.7	13.4	8.3	7.6	7.8	8.3	8.5
Under 1 year . . . . .	7.0	8.1	11.9	5.3	5.1	5.1	7.8	5.3
1-4 years . . . . .	6.2	8.8	12.6	9.5	8.0	6.9	6.8	6.9
5-14 years . . . . .	6.2	5.9	9.3	5.2	4.3	4.4	4.3	4.8
15-24 years . . . . .	11.5	9.9	13.4	8.0	8.6	8.4	9.1	9.1
25-34 years . . . . .	10.7	9.8	13.3	10.6	7.4	9.0	9.2	10.3
35-44 years . . . . .	11.1	11.0	16.1	8.3	7.3	8.6	9.1	8.7
45-54 years . . . . .	10.6	11.8	16.4	9.1	8.7	6.4	8.2	8.7
55-64 years . . . . .	14.0	14.0	17.1	9.3	8.1	8.5	9.5	10.9
65-74 years . . . . .	12.7	14.2	16.3	8.5	9.6	9.7	9.6	9.7
75-84 years . . . . .	17.6	8.8	14.3	11.1	15.1	13.7	15.0	10.0
85 years and over . . . . .	21.1	17.5	12.3	7.8	9.8	9.4	11.0	11.0

<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, 1950-86. 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 homicide and legal intervention, according to sex, race, and age: United States, selected years 1950-86**

[Data are based on the National Vital Statistics System]

Sex, race, and age	1950 <sup>1</sup>	1960 <sup>1</sup>	1970	1980	1983	1984	1985	1986
Deaths per 100,000 resident population								
All races								
All ages, age adjusted	5.4	5.2	9.1	10.8	8.6	8.4	8.3	9.0
All ages, crude	5.3	4.7	8.3	10.7	8.6	8.4	8.3	9.0
Under 1 year	4.4	4.8	4.3	5.9	5.3	6.5	5.3	7.4
1-4 years	0.6	0.7	1.9	2.5	2.3	2.4	2.4	2.7
5-14 years	0.5	0.5	0.9	1.2	1.0	1.3	1.2	1.1
15-24 years	6.3	5.9	11.7	15.6	12.4	12.0	12.1	14.2
25-34 years	9.9	9.7	16.6	19.6	15.4	14.7	14.7	16.1
35-44 years	8.8	8.1	13.7	15.1	11.8	11.3	11.3	11.4
45-54 years	6.1	6.2	10.1	11.1	8.7	8.5	8.1	8.3
55-64 years	4.0	4.2	7.1	7.0	6.1	5.8	5.7	5.4
65-74 years	3.2	2.8	5.0	5.7	4.3	4.2	4.3	4.4
75-84 years	2.6	2.4	4.0	5.2	4.9	4.4	4.3	4.6
85 years and over	2.3	2.4	4.5	5.3	5.0	4.3	4.1	4.7
White male								
All ages, age adjusted	3.9	3.9	7.3	10.9	8.4	8.2	8.1	8.4
All ages, crude	3.9	3.6	6.8	10.9	8.6	8.3	8.2	8.6
Under 1 year	4.3	3.8	2.9	4.3	3.3	4.9	3.7	5.4
1-4 years	0.4	0.6	1.4	2.0	1.7	1.9	1.9	1.9
5-14 years	0.4	0.4	0.5	0.9	0.9	0.9	1.1	0.9
15-24 years	3.7	4.4	7.9	15.5	11.5	11.1	11.2	12.5
25-34 years	5.4	6.2	13.0	18.9	14.9	14.1	13.9	14.6
35-44 years	6.4	5.5	11.0	15.5	12.4	11.8	11.5	11.6
45-54 years	5.5	5.0	9.0	11.9	9.1	9.4	8.6	8.6
55-64 years	4.4	4.3	7.7	7.8	6.4	6.3	6.3	6.0
65-74 years	4.1	3.4	5.6	6.9	4.6	4.2	4.5	4.3
75-84 years	3.5	2.7	5.1	6.3	4.6	4.2	4.5	4.6
85 years and over	1.8	2.7	7.0	6.4	5.6	5.3	3.9	4.4
Black male								
All ages, age adjusted	51.1	44.9	82.1	71.9	53.8	50.8	49.9	55.9
All ages, crude	47.3	36.6	67.5	66.6	51.4	48.7	48.4	55.0
Under 1 year	1.8	10.3	14.3	18.6	14.0	20.1	16.0	22.5
1-4 years	1.7	1.7	5.1	7.2	7.2	5.0	6.5	9.3
5-14 years	1.8	1.4	4.2	2.9	3.1	3.2	3.2	3.2
15-24 years	58.9	46.4	102.5	84.3	66.8	61.5	66.1	79.2
25-34 years	110.5	92.0	158.5	145.1	102.0	96.2	94.3	108.0
35-44 years	83.7	77.5	126.2	110.3	82.0	78.1	76.3	79.4
45-54 years	54.6	54.8	100.6	83.8	57.8	57.1	51.1	56.3
55-64 years	35.7	31.8	59.8	55.6	46.7	40.6	37.8	35.4
65-74 years	18.7	19.1	40.6	33.9	28.1	30.3	27.6	30.0
75-84 years	11.5	16.1	18.9	27.6	32.4	28.3	21.5	27.9
85 years and over	10.3	10.3	23.1	17.0	27.0	28.6	16.9	25.4
White female								
All ages, age adjusted	1.4	1.5	2.2	3.2	2.8	2.9	2.9	2.9
All ages, crude	1.4	1.4	2.1	3.2	2.8	2.9	2.9	3.0
Under 1 year	3.9	3.5	2.9	4.3	3.7	4.0	4.3	5.1
1-4 years	0.6	0.5	1.2	1.5	1.2	1.7	1.6	1.4
5-14 years	0.4	0.3	0.5	1.0	0.7	0.9	0.8	0.8
15-24 years	1.3	1.5	2.7	4.7	3.7	4.3	3.6	4.3
25-34 years	1.9	2.0	3.4	4.3	4.1	3.9	4.4	4.4
35-44 years	2.2	2.2	3.2	4.1	3.5	3.4	3.6	3.5
45-54 years	1.6	1.9	2.2	3.0	2.9	2.7	2.9	2.8
55-64 years	1.3	1.5	2.0	2.1	2.2	2.2	2.3	1.9
65-74 years	1.1	1.1	1.7	2.5	2.0	1.9	2.2	2.2
75-84 years	1.2	1.2	2.5	3.3	3.1	2.9	3.1	3.1
85 years and over	1.9	1.5	2.0	4.0	3.8	2.6	3.2	3.3
Black female								
All ages, age adjusted	11.7	11.8	15.0	13.7	11.2	11.0	10.8	11.8
All ages, crude	11.5	10.4	13.2	13.5	11.3	11.2	11.0	12.1
Under 1 year	2.6	13.8	10.7	12.8	15.3	16.4	10.3	17.0
1-4 years	1.7	1.7	6.3	6.4	6.3	6.7	6.3	6.8
5-14 years	1.2	1.0	2.0	2.2	1.4	3.1	2.0	2.3
15-24 years	16.5	11.9	17.7	18.4	15.7	14.8	14.2	16.2
25-34 years	26.6	24.9	25.6	25.8	19.9	19.3	19.8	21.9
35-44 years	17.8	20.5	25.1	17.7	14.8	14.4	14.8	14.8
45-54 years	8.5	12.7	17.5	12.5	9.5	7.5	9.0	8.5
55-64 years	3.6	6.8	8.1	8.9	6.3	6.7	6.4	6.8
65-74 years	3.4	3.3	7.7	8.6	7.0	6.8	7.2	8.7
75-84 years	4.0	2.5	5.7	6.7	11.3	9.8	7.6	8.6
85 years and over	2.6	2.6	11.1	8.5	8.5	7.5	11.5	13.1

<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, 1950-86. 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. Death rates for suicide, according to sex, race, and age: United States, selected years 1950–86**

[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	1983	1984	1985	1986
All races								
Deaths per 100,000 resident population								
All ages, age adjusted . . . . .	11.0	10.6	11.8	11.4	11.4	11.6	11.5	11.9
All ages, crude. . . . .	11.4	10.6	11.6	11.9	12.1	12.4	12.3	12.8
Under 1 year . . . . .	—	...	...	...	...	...	...	...
1–4 years . . . . .	—	...	...	...	...	...	...	...
5–14 years . . . . .	0.2	0.3	0.3	0.4	0.6	0.7	0.8	0.8
15–24 years . . . . .	4.5	5.2	8.8	12.3	11.9	12.5	12.9	13.1
25–34 years . . . . .	9.1	10.0	14.1	16.0	15.8	15.5	15.2	15.7
35–44 years . . . . .	14.3	14.2	16.9	15.4	14.6	15.1	14.6	15.2
45–54 years . . . . .	20.9	20.7	20.0	15.9	16.2	16.2	15.6	16.4
55–64 years . . . . .	27.0	23.7	21.4	15.9	16.5	17.3	16.7	17.0
65–74 years . . . . .	29.3	23.0	20.8	16.9	17.7	18.8	18.5	19.7
75–84 years . . . . .	31.1	27.9	21.2	19.1	22.3	22.0	24.1	25.2
85 years and over. . . . .	28.8	26.0	20.4	19.2	19.0	18.4	19.1	20.8
White male								
All ages, age adjusted . . . . .	18.1	17.5	18.2	18.9	19.3	19.7	19.9	20.5
All ages, crude. . . . .	19.0	17.6	18.0	19.9	20.6	21.3	21.5	22.3
Under 1 year . . . . .	—	...	...	...	...	...	...	...
1–4 years . . . . .	—	...	...	...	...	...	...	...
5–14 years . . . . .	0.3	0.5	0.5	0.7	0.9	1.1	1.3	1.2
15–24 years . . . . .	6.6	8.6	13.9	21.4	20.6	22.0	22.7	23.6
25–34 years . . . . .	13.8	14.9	19.9	25.6	26.2	25.8	25.4	26.4
35–44 years . . . . .	22.4	21.9	23.3	23.5	23.2	23.7	23.5	23.9
45–54 years . . . . .	34.1	33.7	29.5	24.2	25.5	25.3	25.1	26.3
55–64 years . . . . .	45.9	40.2	35.0	25.8	27.4	28.8	28.6	28.7
65–74 years . . . . .	53.2	42.0	38.7	32.5	33.2	35.6	35.3	37.6
75–84 years . . . . .	61.9	55.7	45.5	45.5	52.5	52.0	57.1	58.9
85 years and over. . . . .	61.9	61.3	50.3	52.8	56.8	55.8	60.3	66.3
Black male								
All ages, age adjusted . . . . .	7.0	7.8	9.9	11.1	10.5	11.2	11.3	11.5
All ages, crude. . . . .	6.3	6.4	8.0	10.3	9.9	10.6	10.8	11.1
Under 1 year . . . . .	—	...	...	...	...	...	...	...
1–4 years . . . . .	—	...	...	...	...	...	...	...
5–14 years . . . . .	—	0.1	0.1	0.3	0.5	0.5	0.6	0.8
15–24 years . . . . .	4.9	4.1	10.5	12.3	11.5	11.2	13.3	11.5
25–34 years . . . . .	9.3	12.4	19.2	21.8	19.1	20.7	19.6	21.3
35–44 years . . . . .	10.4	12.8	12.6	15.6	14.0	16.5	14.9	17.5
45–54 years . . . . .	10.4	10.8	13.8	12.0	12.1	11.6	13.5	12.8
55–64 years . . . . .	16.5	16.2	10.6	11.7	11.6	13.4	11.5	9.9
65–74 years . . . . .	10.0	11.3	8.7	11.1	13.6	13.8	15.8	16.1
75–84 years . . . . .	6.2	6.6	8.9	10.5	15.8	15.1	15.6	16.0
85 years and over. . . . .	6.2	6.9	10.3	18.9	12.7	11.1	7.7	17.9
White female								
All ages, age adjusted . . . . .	5.3	5.3	7.2	5.7	5.6	5.6	5.3	5.4
All ages, crude. . . . .	5.5	5.3	7.1	5.9	5.9	5.9	5.6	5.9
Under 1 year . . . . .	—	...	...	...	...	...	...	...
1–4 years . . . . .	—	...	...	...	...	...	...	...
5–14 years . . . . .	0.1	0.1	0.1	0.2	0.3	0.3	0.5	0.3
15–24 years . . . . .	2.7	2.3	4.2	4.6	4.6	4.7	4.7	4.7
25–34 years . . . . .	5.2	5.8	9.0	7.5	7.2	6.6	6.4	6.2
35–44 years . . . . .	8.2	8.1	13.0	9.1	8.2	8.4	7.7	8.3
45–54 years . . . . .	10.5	10.9	13.5	10.2	9.9	10.0	9.0	9.6
55–64 years . . . . .	10.7	10.9	12.3	9.1	9.1	9.1	8.4	9.0
65–74 years . . . . .	10.6	8.8	9.6	7.0	7.9	7.8	7.3	7.7
75–84 years . . . . .	8.4	9.2	7.2	5.7	6.6	6.8	7.0	8.0
85 years and over. . . . .	8.9	6.1	6.1	5.8	5.3	5.1	4.7	5.0
Black female								
All ages, age adjusted . . . . .	1.7	1.9	2.9	2.4	2.1	2.3	2.1	2.4
All ages, crude. . . . .	1.5	1.6	2.6	2.2	2.0	2.2	2.1	2.3
Under 1 year . . . . .	—	...	...	...	...	...	...	...
1–4 years . . . . .	—	...	...	...	...	...	...	...
5–14 years . . . . .	—	0.0	0.2	0.1	0.6	0.2	0.2	0.2
15–24 years . . . . .	1.8	1.3	3.8	2.3	2.7	2.4	2.0	2.3
25–34 years . . . . .	2.6	3.0	5.7	4.1	2.9	3.5	3.0	3.8
35–44 years . . . . .	2.0	3.0	3.7	4.6	3.5	3.2	3.6	2.8
45–54 years . . . . .	3.5	3.1	3.7	2.8	3.0	3.5	3.2	3.2
55–64 years . . . . .	1.1	3.0	2.0	2.3	1.7	3.1	2.2	4.2
65–74 years . . . . .	1.9	2.3	2.9	1.7	1.3	2.5	2.0	2.8
75–84 years . . . . .	2.4	1.3	1.7	1.4	1.3	0.5	4.5	2.6
85 years and over. . . . .	2.4	—	3.2	—	2.3	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, 1950–86. Public Health Service. Washington. U.S. Government Printing Office; Data computed by the Division of Analysis from data compiled by the Division of Vital Statistics and from table 1.

**Table 33. Deaths for selected occupational diseases for males, according to age: United States, selected years 1970-86**

[Data are based on the National Vital Statistics System]

Age and cause of death	1970	1975	1978	1979	1980	1981	1982	1983	1984	1985	1986
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
Coalworkers' pneumoconiosis . . . . .	1,155	973	840	918	977	1,053	954	926	923	947	882
Asbestosis . . . . .	25	43	64	86	96	98	99	128	131	130	180
Silicosis . . . . .	351	243	162	220	202	165	176	149	160	138	135
25-64 years											
Malignant neoplasm of peritoneum and pleura (mesothelioma) . . . . .	308	280	254	246	241	229	234	211	211	210	200
Coalworkers' pneumoconiosis . . . . .	294	188	116	130	136	116	116	88	97	89	71
Asbestosis . . . . .	17	22	31	29	30	21	26	30	25	29	37
Silicosis . . . . .	90	64	50	51	49	44	42	37	34	30	22
65 years and over											
Malignant neoplasm of peritoneum and pleura (mesothelioma) . . . . .	294	311	303	313	311	327	342	373	373	361	364
Coalworkers' pneumoconiosis . . . . .	861	785	724	788	841	937	838	838	826	858	811
Asbestosis . . . . .	8	21	33	57	66	77	73	98	106	101	143
Silicosis . . . . .	261	179	112	169	153	121	134	112	126	108	113

<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 1985, among men 25 years and over, there were an additional 102 deaths with mesothelioma as a nonunderlying cause. Of these, 24 had heart disease and 54 had malignant neoplasms as the underlying cause of death. In 1985, there were an additional 1,652 deaths with coalworkers' pneumoconiosis as a nonunderlying cause, of which 751 had heart disease and 424 had malignant neoplasms as the underlying cause of death. In 1985, for an additional 382 deaths, asbestosis was listed as a nonunderlying cause, of which 99 had heart disease and 181 had malignant neoplasms as the underlying cause of death. In 1985, an additional 187 deaths mentioned silicosis as a nonunderlying cause, of which 59 had heart disease and 34 had malignant neoplasms as the underlying cause of death.

NOTE: 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 Analysis from data compiled by the Division of Vital Statistics.

**Table 34. Provisional death rates for all causes, according to race, sex, and age: United States, 1985-87**

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

Sex and age	All races			White			Black		
	1985	1986	1987	1985	1986	1987	1985	1986	1987
Deaths per 100,000 resident population									
Both sexes									
All ages, age adjusted . . . . .	545.9	540.2	536.2	523.2	518.2	514.0	779.0	768.7	767.1
All ages, crude . . . . .	874.8	870.8	874.0	897.2	895.4	900.2	841.4	842.1	843.6
Under 1 year . . . . .	1,055.2	1,036.7	1,006.5	930.0	877.3	836.9	1,817.1	1,952.1	2,001.7
1-4 years . . . . .	51.1	50.8	51.6	46.1	45.7	49.1	79.3	80.2	68.1
5-14 years . . . . .	27.9	26.4	25.6	26.1	24.5	24.2	37.3	36.9	35.7
15-24 years . . . . .	94.8	102.6	101.6	91.2	99.6	98.3	118.1	124.0	128.6
25-34 years . . . . .	122.3	130.2	131.4	107.5	114.5	116.0	232.3	252.4	248.7
35-44 years . . . . .	210.5	212.5	211.8	184.0	187.0	183.2	452.4	440.7	467.2
45-54 years . . . . .	516.3	504.6	498.9	469.6	460.2	454.2	953.0	923.7	913.3
55-64 years . . . . .	1,284.7	1,259.0	1,246.8	1,219.1	1,201.9	1,187.9	2,029.8	1,934.9	1,922.3
65-74 years . . . . .	2,839.1	2,787.8	2,763.6	2,776.5	2,734.8	2,711.3	3,730.0	3,634.5	3,609.4
75-84 years . . . . .	6,411.3	6,316.4	6,266.1	6,385.2	6,287.0	6,243.7	7,284.4	7,209.8	7,209.9
85 years and over . . . . .	15,486.3	15,291.1	15,405.7	15,787.0	15,503.3	15,698.5	12,843.9	13,563.4	12,868.8
Male									
All ages, age adjusted . . . . .	717.4	707.1	698.6	689.5	680.7	671.0	1,028.9	1,003.4	1,005.4
All ages, crude . . . . .	945.1	937.8	935.1	960.1	955.3	951.6	979.0	964.0	973.1
Under 1 year . . . . .	1,178.0	1,156.7	1,122.7	1,046.7	989.7	938.7	2,000.0	2,140.4	2,218.0
1-4 years . . . . .	56.7	56.1	58.4	52.6	51.0	54.2	80.0	84.0	85.1
5-14 years . . . . .	33.3	32.0	31.8	31.6	29.9	30.1	43.2	44.2	45.6
15-24 years . . . . .	141.2	151.5	150.5	135.0	146.3	145.3	184.8	189.9	194.9
25-34 years . . . . .	178.7	189.9	189.1	157.5	167.3	166.7	348.5	379.0	370.3
35-44 years . . . . .	285.5	286.7	290.4	247.2	250.8	251.1	662.7	635.9	673.5
45-54 years . . . . .	670.3	666.8	638.0	608.0	607.4	577.7	1,315.7	1,282.1	1,244.4
55-64 years . . . . .	1,686.9	1,647.9	1,625.8	1,609.8	1,579.8	1,554.7	2,619.8	2,499.5	2,473.5
65-74 years . . . . .	3,788.4	3,660.4	3,635.7	3,723.1	3,615.5	3,585.7	4,846.5	4,561.7	4,592.0
75-84 years . . . . .	8,514.3	8,296.8	8,206.1	8,517.0	8,304.9	8,200.1	9,289.1	9,103.4	9,238.8
85 years and over . . . . .	18,210.6	18,167.9	18,037.2	18,637.4	18,536.5	18,456.4	15,353.8	15,507.5	14,956.5
Female									
All ages, age adjusted . . . . .	408.3	405.4	404.5	390.0	387.0	386.9	584.6	585.0	579.9
All ages, crude . . . . .	804.9	807.2	815.9	837.1	838.3	851.0	717.6	732.3	726.7
Under 1 year . . . . .	927.1	911.5	883.8	806.8	758.2	729.7	1,643.9	1,759.9	1,780.9
1-4 years . . . . .	45.1	45.2	44.4	39.1	40.2	43.7	78.5	76.2	50.5
5-14 years . . . . .	22.2	20.6	19.1	20.3	18.8	18.1	31.3	29.3	25.6
15-24 years . . . . .	47.5	52.7	51.7	46.3	51.6	50.0	53.7	59.9	64.0
25-34 years . . . . .	65.9	70.4	73.6	56.6	60.6	64.2	129.4	139.7	140.1
35-44 years . . . . .	137.7	140.4	135.4	121.5	123.7	115.7	277.0	277.5	295.0
45-54 years . . . . .	371.2	351.5	367.3	336.7	318.6	335.0	658.4	633.7	644.4
55-64 years . . . . .	927.8	913.7	909.6	868.8	862.8	857.8	1,545.5	1,471.4	1,465.6
65-74 years . . . . .	2,095.1	2,098.3	2,070.4	2,030.7	2,035.6	2,012.4	2,907.7	2,955.7	2,879.4
75-84 years . . . . .	5,162.2	5,132.7	5,102.4	5,128.0	5,087.4	5,075.9	6,059.7	6,060.5	5,979.6
85 years and over . . . . .	14,389.8	14,154.2	14,376.5	14,681.7	14,327.7	14,641.8	11,678.6	12,671.2	11,921.1

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, 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, 1987. *Monthly Vital Statistics Report*. Vol. 36, No. 13. DHHS Pub. No. (PHS) 88-1120.

**Table 35. Provisional age-adjusted death rates for selected causes of death: United States, 1985-87**

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

<i>Cause of death</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>
	Deaths per 100,000 resident population		
All causes . . . . .	545.9	540.2	536.2
Diseases of heart . . . . .	181.7	175.4	169.9
Cerebrovascular diseases . . . . .	32.3	30.4	30.1
Malignant neoplasms . . . . .	132.5	132.5	133.1
Respiratory system . . . . .	38.3	38.3	39.3
Breast <sup>1</sup> . . . . .	23.2	23.4	23.0
Chronic obstructive pulmonary diseases . . . . .	18.6	18.5	18.7
Pneumonia and influenza . . . . .	13.2	13.6	13.2
Chronic liver disease and cirrhosis . . . . .	9.6	9.2	9.0
Diabetes mellitus . . . . .	10.1	9.4	9.6
Accidents and adverse effects . . . . .	34.3	35.5	34.6
Motor vehicle accidents . . . . .	18.3	19.8	19.7
Suicide . . . . .	11.2	12.0	11.7
Homicide and legal Intervention . . . . .	8.1	8.8	8.4

<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.

SOURCES: National Center for Health Statistics: 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. Public Health Service. Hyattsville, Md.

**Table 36. Provisional death rates for the 3 leading causes of death, according to age: United States, 1985-87**

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

Cause of death and age	1985	1986	1987
<b>Diseases of heart</b>			
Deaths per 100,000 resident population			
All ages . . . . .	325.0	318.7	313.4
Under 1 year . . . . .	28.1	29.2	23.9
1-14 years . . . . .	1.3	1.3	1.3
15-24 years . . . . .	2.5	2.4	2.9
25-34 years . . . . .	8.0	7.6	7.5
35-44 years . . . . .	40.2	36.9	34.4
45-54 years . . . . .	155.5	142.8	140.7
55-64 years . . . . .	437.4	430.9	408.9
65-74 years . . . . .	1,087.4	1,047.6	1,019.5
75-84 years . . . . .	2,727.0	2,649.2	2,556.3
85 years and over . . . . .	7,333.6	7,169.2	7,122.1
<b>Malignant neoplasms</b>			
All ages . . . . .	191.7	193.3	196.1
Under 1 year . . . . .	4.3	1.6	3.7
1-14 years . . . . .	3.8	3.6	3.7
15-24 years . . . . .	4.8	5.4	5.1
25-34 years . . . . .	12.7	12.2	12.5
35-44 years . . . . .	46.0	46.3	44.4
45-54 years . . . . .	165.4	164.1	164.5
55-64 years . . . . .	448.2	447.1	448.5
65-74 years . . . . .	837.8	841.0	845.8
75-84 years . . . . .	1,261.9	1,261.4	1,282.8
85 years and over . . . . .	1,569.4	1,602.3	1,631.7
<b>Cerebrovascular diseases</b>			
All ages . . . . .	64.0	61.3	61.3
Under 1 year . . . . .	2.9	1.3	2.4
1-14 years . . . . .	0.2	0.2	0.2
15-24 years . . . . .	0.7	0.6	0.9
25-34 years . . . . .	2.4	2.1	2.2
35-44 years . . . . .	7.2	7.0	6.6
45-54 years . . . . .	21.8	19.7	20.8
55-64 years . . . . .	55.3	51.0	51.8
65-74 years . . . . .	171.7	162.4	153.4
75-84 years . . . . .	592.4	566.2	563.0
85 years and over . . . . .	1,849.8	1,750.0	1,734.2

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, 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. Public Health Service. Hyattsville, Md.

**Table 37. Progress toward 1990 health promotion goals: 1977-86**

1990 goals	1977	1978	1979	1980	1982	1983	1984	1985	1986	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	13.8	13.1	12.6	11.5	11.2	10.8	10.6	10.4	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	42.1	40.1	38.5	36.7	35.3	34.1	33.8	33.7	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 93 per 100,000. . . . .	114.8	115.0	114.8	115.4	101.0	96.0	96.8	95.9	102.3	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	520.3	500.2	498.0	462.3	452.8	443.5	438.7	431.0	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	40.3	41.9	39.2	31.6	32.1	31.8	33.1	32.1	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	14.5	13.7	13.8	14.7	16.7	15.1	13.7	14.9	12

<sup>1</sup>Levels of estimates for 1982-86 may not be comparable to estimates for previous years because the 1982-86 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, 1977-85. Public Health Service. Washington. U.S. Government Printing Office, 1986. To be published; 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, 1986. *Vital and Health Statistics*. Series 10, No. 164. DHHS Pub. No. (PHS) 87-1592. Public Health Service. Washington. U.S. Government Printing Office, Oct. 1987.

**Table 38. 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: 1,2</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: 2</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>3 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 39. Selected notifiable disease rates, according to disease: United States, selected years 1950-87**

[Data are based on reporting by State health departments]

Disease	1950	1960	1970	1980	1984	1985	1986	1987
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>	---	23.15	27.87	12.84	9.33	10.03	10.02	10.39
Hepatitis B <sup>1</sup>	---	---	4.08	8.39	11.06	11.50	11.17	10.65
Mumps	---	---	55.55	3.86	1.32	1.30	3.37	5.43
Pertussis (whooping cough)	79.82	8.23	2.08	0.76	0.96	1.50	1.74	1.16
Poliomyelitis, total	---	1.77	0.02	0.00	0.00	0.00	0.00	0.00
Paralytic <sup>2</sup>	22.02	1.40	0.02	0.00	0.00	0.00	0.00	0.00
Rubella (German measles)	---	---	27.75	1.72	0.32	0.26	0.23	0.13
Rubeola (measles)	211.01	245.42	23.23	5.96	1.10	1.18	2.61	1.50
Salmonellosis, excluding typhoid fever	---	3.85	10.84	14.88	17.30	27.37	20.73	20.92
Shigellosis	15.45	6.94	6.79	8.41	7.36	7.14	7.11	9.80
Tuberculosis <sup>3</sup>	80.50	30.83	18.22	12.25	9.42	9.30	9.44	9.25
Varicella (chickenpox)	---	---	---	96.69	138.44	123.23	122.42	136.68
Sexually transmitted diseases: <sup>4</sup>								
Syphilis <sup>5</sup>	146.02	68.78	45.26	30.51	29.81	28.50	28.53	35.81
Primary and secondary	16.73	9.06	10.89	12.06	12.20	11.45	11.67	14.54
Early latent	39.71	10.11	8.08	9.00	9.87	9.15	9.12	11.55
Late and late latent	70.22	45.91	24.94	9.30	7.60	7.77	7.58	9.44
Congenital	8.97	2.48	0.97	0.12	0.14	0.14	0.17	0.28
Gonorrhea	192.45	145.33	297.22	444.99	374.74	384.28	376.37	323.14
Chancroid	3.34	0.94	0.70	0.35	0.28	0.87	1.30	2.07
Granuloma inguinale	1.19	0.17	0.06	0.02	0.01	0.02	0.02	0.01
Lymphogranuloma venereum	0.95	0.47	0.30	0.09	0.07	0.10	0.14	0.13
Number of cases								
Diphtheria	5,796	918	435	3	1	3	---	3
Hepatitis A <sup>1</sup>	---	41,666	56,797	29,087	22,040	23,210	23,430	25,280
Hepatitis B <sup>1</sup>	---	---	8,310	19,015	26,115	26,611	26,107	25,916
Mumps	---	---	104,953	8,576	3,021	2,982	7,790	12,848
Pertussis (whooping cough)	120,718	14,809	4,249	1,730	2,276	3,589	4,195	2,823
Poliomyelitis, total	---	3,190	33	9	8	7	8	---
Paralytic <sup>2</sup>	33,300	2,525	31	8	8	7	8	---
Rubella (German measles)	---	---	56,552	3,904	752	630	551	306
Rubeola (measles)	319,124	441,703	47,351	13,506	2,587	2,822	6,282	3,655
Salmonellosis, excluding typhoid fever	---	6,929	22,096	33,715	40,861	65,347	49,984	50,916
Shigellosis	23,367	12,487	13,845	19,041	17,371	17,057	17,138	23,860
Tuberculosis <sup>3</sup>	121,742	55,494	37,137	27,749	22,255	22,201	22,768	22,517
Varicella (chickenpox)	---	---	---	190,894	221,983	178,162	183,243	213,196
Sexually transmitted diseases: <sup>4</sup>								
Syphilis <sup>5</sup>	217,558	122,538	91,382	68,832	69,888	67,563	68,291	86,545
Primary and secondary	23,939	16,145	21,982	27,204	28,607	27,131	27,921	35,145
Early latent	59,256	18,017	16,311	20,297	23,132	21,689	21,819	27,914
Late and late latent	113,569	81,798	50,348	20,979	17,827	18,414	18,149	22,811
Congenital	13,377	4,416	1,953	277	322	329	410	681
Gonorrhea	286,746	258,933	600,072	1,004,029	878,556	911,419	900,856	780,905
Chancroid	4,977	1,680	1,416	788	665	2,067	3,102	4,998
Granuloma inguinale	1,783	296	124	51	30	44	56	22
Lymphogranuloma venereum	1,427	835	612	199	170	226	335	303

<sup>1</sup>Reports from New York City are not available for 1985 and 1986.

<sup>2</sup>Data for 1988 updated due to late reports; data for 1987 may also be updated.

<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.

SOURCES: Centers for Disease Control: Final 1986 reports of notifiable diseases, *Morbidity and Mortality Weekly Report* 35(55). Public Health Service, Atlanta, Ga., Sept. 1987; Final 1987 reports of notifiable diseases, *Morbidity and Mortality Weekly Report* 36(54). Public Health Service, Atlanta, Ga., Sept. 1988, in press; Division of Sexually Transmitted Diseases, Center for Prevention Services, Centers for Disease Control: Selected data.



**Table 40. Acquired immunodeficiency syndrome (AIDS) cases, according to age, sex, and race/ethnicity: United States, 1982-88**

[Data are based on reporting by State health departments]

Age, sex, and race/ethnicity	All years <sup>1,2</sup>	1982	1983	1984	1985	1986	1987	1988 <sup>2</sup>	All years <sup>1,2</sup>	12 months ending
										November 30, 1988
Number, by year of report										
										Cases per 100,000 population <sup>3</sup>
Total <sup>4</sup> . . . . .	77,883	664	2,073	4,449	8,233	13,174	21,123	27,975	...	12.61
<b>Male</b>										
All males, 13 years and over <sup>4</sup> . . . . .	70,239	603	1,898	4,122	7,581	12,025	19,136	24,688	100.0	28.56
White, not Hispanic . . . . .	43,696	345	1,141	2,610	4,846	7,577	12,377	14,680	62.2	21.42
Black, not Hispanic . . . . .	16,950	173	475	945	1,722	2,757	4,316	6,521	24.1	67.85
Hispanic . . . . .	8,944	83	268	536	961	1,584	2,242	3,246	12.7	52.34
13-19 years . . . . .	245	2	5	17	29	42	71	79	0.3	0.70
20-29 years . . . . .	14,231	145	394	847	1,493	2,496	3,843	4,979	20.3	26.09
30-39 years . . . . .	32,963	279	886	1,988	3,636	5,681	8,885	11,512	46.9	63.18
40-49 years . . . . .	15,518	128	437	898	1,661	2,558	4,290	5,504	22.1	42.33
50-59 years . . . . .	5,366	44	150	307	602	924	1,467	1,858	7.6	19.98
60 years and over . . . . .	1,916	5	26	65	160	324	580	756	2.7	4.85
<b>Female</b>										
All females, 13 years and over <sup>4</sup> . . . . .	6,423	48	141	277	523	963	1,668	2,797	100.0	3.00
White, not Hispanic . . . . .	1,856	9	34	79	141	271	545	776	28.9	1.07
Black, not Hispanic . . . . .	3,467	32	66	141	283	520	883	1,540	54.0	14.00
Hispanic . . . . .	1,034	7	37	57	94	160	228	449	16.1	7.03
13-19 years . . . . .	54	-	3	4	4	11	10	22	0.8	0.20
20-29 years . . . . .	1,825	19	58	94	175	275	476	725	28.4	3.90
30-39 years . . . . .	3,022	19	50	130	233	448	745	1,394	47.0	7.57
40-49 years . . . . .	813	7	14	25	49	129	227	362	12.7	2.70
50-59 years . . . . .	313	3	11	7	26	46	89	131	4.9	1.25
60 years and over . . . . .	396	-	5	17	36	54	121	163	6.2	0.78
<b>Children</b>										
All children, under 13 years <sup>4</sup> . . . . .	1,221	13	34	50	129	186	319	490	100.0	1.17
White, not Hispanic . . . . .	294	5	6	10	25	42	81	125	24.1	0.43
Black, not Hispanic . . . . .	675	5	22	29	86	106	162	265	55.3	4.08
Hispanic . . . . .	242	3	6	11	18	37	73	94	19.8	2.19
Under 5 years . . . . .	1,063	12	33	47	119	166	278	408	87.1	2.41
5-12 years . . . . .	158	1	1	3	10	20	41	82	12.9	0.31

<sup>1</sup>Includes cases prior to 1982.

<sup>2</sup>Data are as of November 30, 1988, and reflect reporting delays.

<sup>3</sup>Resident population as of mid-1988, based on extrapolation from 1980-85 data from the U.S. Bureau of the Census.

<sup>4</sup>Includes all other races not shown separately.

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 41. Acquired immunodeficiency syndrome (AIDS) deaths, according to age, sex, and race/ethnicity: United States, 1982–88**

[Data are based on reporting by State health departments]

Age, sex, and race/ethnicity	All years <sup>1,2</sup>	Number, by year of death							Percent distribution
		1982	1983	1984	1985	1986	1987	1988 <sup>2</sup>	
Total <sup>3</sup> . . . . .	43,790	431	1,402	3,122	6,010	10,010	12,843	9,657	...
<b>Male</b>									
All males, 13 years and over <sup>3</sup> . . . . .	39,551	384	1,271	2,849	5,510	9,107	11,514	8,651	100.0
White, not Hispanic . . . . .	24,408	197	716	1,751	3,456	5,765	7,031	5,354	61.7
Black, not Hispanic . . . . .	9,957	121	368	691	1,331	2,123	2,936	2,294	25.2
Hispanic . . . . .	4,861	65	177	380	686	1,154	1,448	920	12.3
13–19 years . . . . .	129	–	3	12	23	30	35	25	0.3
20–29 years . . . . .	7,712	73	266	563	1,067	1,769	2,222	1,700	19.5
30–39 years . . . . .	18,001	187	579	1,300	2,518	4,167	5,247	3,874	45.5
40–49 years . . . . .	8,915	79	297	646	1,224	2,053	2,584	1,974	22.5
50–59 years . . . . .	3,409	38	112	257	510	763	958	749	8.6
60 years and over . . . . .	1,385	7	14	71	168	325	468	329	3.5
<b>Female</b>									
All females, 13 years and over <sup>3</sup> . . . . .	3,542	36	102	228	404	767	1,099	870	100.0
White, not Hispanic . . . . .	1,072	9	23	53	130	230	356	263	30.3
Black, not Hispanic . . . . .	1,932	20	54	129	194	408	608	496	54.5
Hispanic . . . . .	505	6	25	44	76	120	127	103	14.3
13–19 years . . . . .	34	1	2	1	5	9	10	6	1.0
20–29 years . . . . .	992	12	39	88	122	213	290	217	28.0
30–39 years . . . . .	1,579	16	35	98	181	352	477	404	44.6
40–49 years . . . . .	437	4	12	21	43	84	149	121	12.3
50–59 years . . . . .	194	2	9	6	15	33	74	52	5.5
60 years and over . . . . .	306	1	5	14	38	76	99	70	8.6
<b>Children</b>									
All children, under 13 years <sup>3</sup> . . . . .	697	11	29	45	96	136	230	136	100.0
White, not Hispanic . . . . .	183	4	6	8	26	30	63	42	26.3
Black, not Hispanic . . . . .	368	6	19	26	56	73	111	71	52.8
Hispanic . . . . .	137	1	4	11	13	31	52	21	19.7
Under 5 years . . . . .	618	10	28	43	87	117	202	117	88.7
5–12 years . . . . .	79	1	1	2	9	19	28	19	11.3

<sup>1</sup>Includes deaths prior to 1982.

<sup>2</sup>Data are as of November 30, 1988, and reflect reporting delays.

<sup>3</sup>Includes all other races not shown separately.

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 42 (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, 1982-88**

[Data are based on reporting by State health departments]

Race/ethnicity, sex, and transmission category	All years <sup>1,2</sup>	Number, by year of report							Percent distribution			
		1982	1983	1984	1985	1986	1987	1988 <sup>2</sup>	1984	1986	1988 <sup>2</sup>	
Total <sup>3</sup>	76,662	651	2,039	4,399	8,104	12,988	20,804	27,485	100.0	100.0	100.0	100.0
Male homosexual/bisexual	48,198	394	1,267	2,869	5,443	8,541	13,501	16,033	62.9	65.2	65.8	58.3
Intravenous drug use	14,542	121	368	773	1,392	2,222	3,502	6,142	19.0	17.6	17.1	22.4
Male homosexual/bisexual and intravenous drug use	5,421	56	199	408	589	972	1,505	1,680	7.1	9.3	7.5	6.1
Hemophilia/coagulation disorder	744	7	12	35	74	125	218	273	1.0	0.8	1.0	1.0
Born in Caribbean/African countries	1,226	45	84	110	143	217	266	356	1.6	2.5	1.7	1.3
Heterosexual <sup>4</sup>	2,123	7	23	57	129	333	594	979	2.8	1.3	2.6	3.6
Sexual contact with intravenous drug user	1,505	6	15	43	97	224	398	721	2.0	1.0	1.7	2.6
Transfusion	1,937	6	26	53	165	300	621	766	2.5	1.2	2.3	2.8
Undetermined <sup>5</sup>	2,471	15	60	94	169	278	597	1,256	3.2	2.1	2.1	4.6
Race/ethnicity												
White, not Hispanic	45,552	354	1,175	2,689	4,987	7,848	12,922	15,456	100.0	100.0	100.0	100.0
Male homosexual/bisexual	35,451	279	929	2,162	4,083	6,253	10,033	11,603	77.8	80.4	79.7	75.1
Intravenous drug use	3,041	31	71	145	251	406	816	1,317	6.7	5.4	5.2	8.5
Male homosexual/bisexual and intravenous drug use	3,388	25	124	265	376	646	971	974	7.4	9.9	8.2	6.3
Hemophilia/coagulation disorder	631	7	11	25	63	113	187	225	1.4	0.9	1.4	1.5
Born in Caribbean/African countries	5	-	-	1	1	1	1	1	0.0	0.0	0.0	0.0
Heterosexual <sup>4</sup>	647	1	2	16	31	93	196	308	1.4	0.6	1.2	2.0
Sexual contact with intravenous drug user	349	1	-	9	16	39	99	185	0.8	0.3	0.5	1.2
Transfusion	1,446	5	21	40	127	232	469	552	3.2	1.5	3.0	3.6
Undetermined <sup>5</sup>	943	6	17	35	55	104	249	476	2.1	1.3	1.3	3.1
Black, not Hispanic	20,417	205	541	1,086	2,005	3,277	5,199	8,061	100.0	100.0	100.0	100.0
Male homosexual/bisexual	7,616	77	192	399	794	1,321	2,083	2,727	37.3	36.7	40.3	33.8
Intravenous drug use	7,796	55	180	404	747	1,191	1,853	3,355	38.2	37.2	36.3	41.6
Male homosexual/bisexual and intravenous drug use	1,416	17	44	94	142	228	380	507	6.9	8.7	7.0	6.3
Hemophilia/coagulation disorder	50	-	-	5	4	5	12	24	0.2	0.5	0.2	0.3
Born in Caribbean/African countries	1,210	44	83	109	142	214	262	351	5.9	10.0	6.5	4.4
Heterosexual <sup>4</sup>	1,038	4	11	23	73	160	293	474	5.1	2.1	4.9	5.9
Sexual contact with intravenous drug user	799	4	6	18	59	116	223	373	3.9	1.7	3.5	4.6
Transfusion	313	-	2	10	27	44	92	138	1.5	0.9	1.3	1.7
Undetermined <sup>5</sup>	978	8	29	42	76	114	224	485	4.8	3.9	3.5	6.0
Hispanic	9,978	90	305	593	1,055	1,744	2,470	3,695	100.0	100.0	100.0	100.0
Male homosexual/bisexual	4,643	37	137	286	526	882	1,235	1,523	46.5	48.2	50.6	41.2
Intravenous drug use	3,639	34	113	222	386	613	822	1,443	36.5	37.4	35.2	39.1
Male homosexual/bisexual and intravenous drug use	589	14	29	47	69	95	140	194	5.9	7.9	5.5	5.3
Hemophilia/coagulation disorder	49	-	1	4	7	5	12	20	0.5	0.7	0.3	0.5
Born in Caribbean/African countries	8	1	1	-	-	1	3	2	0.1	-	0.1	0.1
Heterosexual <sup>4</sup>	419	2	10	18	25	77	102	184	4.2	3.0	4.4	5.0
Sexual contact with intravenous drug user	349	1	9	16	22	69	75	156	3.5	2.7	4.0	4.2
Transfusion	132	1	2	2	7	19	42	59	1.3	0.3	1.1	1.6
Undetermined <sup>5</sup>	499	1	12	14	35	52	114	270	5.0	2.4	3.0	7.3
Sex												
Male	70,239	603	1,898	4,122	7,581	12,025	19,136	24,688	100.0	100.0	100.0	100.0
Homosexual/bisexual	48,198	394	1,267	2,869	5,443	8,541	13,501	16,033	68.6	69.6	71.0	64.9
Intravenous drug use	11,228	98	288	606	1,113	1,748	2,678	4,680	16.0	14.7	14.5	19.0
Homosexual/bisexual and intravenous drug use	5,421	56	199	408	589	972	1,505	1,680	7.7	9.9	8.1	6.8
Hemophilia/coagulation disorder	724	7	12	33	71	120	214	267	1.0	0.8	1.0	1.1
Born in Caribbean/African countries	925	36	72	93	113	162	193	251	1.3	2.3	1.4	1.0
Heterosexual <sup>4</sup>	516	-	2	12	22	61	146	273	0.7	0.3	0.5	1.1
Sexual contact with intravenous drug user	375	-	1	11	21	41	105	196	0.5	0.3	0.3	0.8
Transfusion	1,236	2	16	30	107	200	410	471	1.8	0.7	1.7	1.9
Undetermined <sup>5</sup>	1,991	10	42	71	123	221	489	1,033	2.8	1.7	1.8	4.2

See footnotes at end of table.

**Table 42 (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, 1982-88**

[Data are based on reporting by State health departments]

Race/ethnicity, sex, and transmission category	All years <sup>1,2</sup>	Number, by year of report							Percent distribution			
		1982	1983	1984	1985	1986	1987	1988 <sup>2</sup>	1984	1986	1988 <sup>2</sup>	
Female . . . . .	6,423	48	141	277	523	963	1,668	2,797	100.0	100.0	100.0	100.0
Intravenous drug use . . . . .	3,314	23	80	167	279	474	824	1,462	51.6	60.3	49.2	52.3
Hemophilia/coagulation disorder . . . . .	20	-	-	2	3	5	4	6	0.3	0.7	0.5	0.2
Born in Caribbean/African countries . . . . .	301	9	12	17	30	55	73	105	4.7	6.1	5.7	3.8
Heterosexual <sup>4</sup> . . . . .	1,607	7	21	45	107	272	448	706	25.0	16.2	28.2	25.2
Sexual contact with intravenous drug user . . . . .	1,130	6	14	32	76	183	293	525	17.6	11.6	19.0	18.8
Transfusion . . . . .	701	4	10	23	58	100	211	295	10.9	8.3	10.4	10.6
Undetermined <sup>5</sup> . . . . .	480	5	18	23	46	57	108	223	7.5	8.3	5.9	8.0

<sup>1</sup>Includes cases prior to 1982.

<sup>2</sup>Data are as of November 30, 1988 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 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 43 (page 1 of 2). Acquired immunodeficiency syndrome (AIDS) deaths, according to race/ethnicity, sex, and transmission category for persons 13 years of age and over: United States, 1982-88**

[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>			
	1982	1983	1984	1985	1986	1987	1988 <sup>2</sup>	1984	1986	1988 <sup>2</sup>		
	Number, by year of death								Percent distribution			
Total <sup>3</sup>	43,093	420	1,373	3,077	5,914	9,874	12,613	9,521	100.0	100.0	100.0	100.0
Male homosexual/bisexual	27,053	244	816	1,915	3,821	6,409	7,774	5,917	62.8	62.2	64.9	62.2
Intravenous drug use	7,947	82	275	588	1,067	1,684	2,419	1,759	18.4	19.1	17.1	18.5
Male homosexual/bisexual and												
intravenous drug use	3,254	38	129	294	444	744	921	660	7.6	9.6	7.5	6.9
Hemophilia/coagulation disorder	452	6	6	24	70	96	140	109	1.1	0.8	1.0	1.1
Born in Caribbean/African countries	676	29	72	74	99	123	160	98	1.6	2.4	1.3	1.0
Heterosexual <sup>4</sup>	1,061	3	15	42	104	221	353	319	2.5	1.4	2.2	3.4
Sexual contact with intravenous												
drug user	728	3	9	35	71	151	243	214	1.7	1.1	1.5	2.3
Transfusion	1,349	3	19	64	169	320	446	324	3.1	2.1	3.2	3.4
Undetermined <sup>5</sup>	1,301	15	41	76	140	277	400	335	3.0	2.5	2.8	3.5
	Race/ethnicity											
White, not Hispanic	25,480	206	739	1,804	3,586	5,995	7,387	5,617	100.0	100.0	100.0	100.0
Male homosexual/bisexual	19,676	159	573	1,409	2,840	4,709	5,594	4,288	77.2	78.1	78.6	76.3
Intravenous drug use	1,587	14	63	101	206	306	513	365	6.2	5.6	5.1	6.5
Male homosexual/bisexual and												
intravenous drug use	1,986	14	73	184	278	480	569	376	7.8	10.2	8.0	6.7
Hemophilia/coagulation disorder	392	6	5	21	57	85	120	97	1.5	1.2	1.4	1.7
Born in Caribbean/African countries	1	-	-	1	-	-	-	-	0.0	0.1	-	-
Heterosexual <sup>4</sup>	312	1	2	5	27	70	98	109	1.2	0.3	1.2	1.9
Sexual contact with intravenous												
drug user	152	1	-	4	9	34	52	52	0.6	0.2	0.6	0.9
Transfusion	1,035	3	15	51	126	250	338	249	4.1	2.8	4.2	4.4
Undetermined <sup>5</sup>	491	9	8	32	52	95	155	133	1.9	1.8	1.6	2.4
Black, not Hispanic	11,889	141	422	820	1,525	2,531	3,544	2,790	100.0	100.0	100.0	100.0
Male homosexual/bisexual	4,551	54	148	287	585	1,013	1,352	1,074	38.3	35.0	40.0	38.5
Intravenous drug use	4,459	41	133	321	584	950	1,338	1,052	37.5	39.2	37.5	37.7
Male homosexual/bisexual and												
intravenous drug use	889	11	38	72	115	182	252	211	7.5	8.8	7.2	7.6
Hemophilia/coagulation disorder	29	-	-	1	6	3	12	7	0.2	0.1	0.1	0.3
Born in Caribbean/African countries	671	29	72	73	98	122	158	98	5.6	8.9	4.8	3.5
Heterosexual <sup>4</sup>	558	1	8	24	53	97	206	165	4.7	2.9	3.8	5.9
Sexual contact with intravenous												
drug user	419	1	5	19	42	72	153	125	3.5	2.3	2.8	4.5
Transfusion	195	-	1	10	27	39	70	48	1.6	1.2	1.5	1.7
Undetermined <sup>5</sup>	537	5	22	32	57	125	156	135	4.5	3.9	4.9	4.8
Hispanic	5,366	71	202	424	762	1,274	1,575	1,023	100.0	100.0	100.0	100.0
Male homosexual/bisexual	2,580	30	89	198	372	641	752	485	48.1	46.7	50.3	47.4
Intravenous drug use	1,875	26	77	163	272	422	563	338	34.9	38.4	33.1	33.0
Male homosexual/bisexual and												
intravenous drug use	361	13	17	37	49	77	95	69	6.7	8.7	6.0	6.7
Hemophilia/coagulation disorder	27	-	1	2	5	8	6	5	0.5	0.5	0.6	0.5
Born in Caribbean/African countries	4	-	-	-	1	1	2	-	0.1	-	0.1	-
Heterosexual <sup>4</sup>	186	1	5	13	24	52	48	43	3.5	3.1	4.1	4.2
Sexual contact with intravenous												
drug user	156	1	4	12	20	45	38	36	2.9	2.8	3.5	3.5
Transfusion	85	-	2	2	10	23	25	23	1.6	0.5	1.8	2.3
Undetermined <sup>5</sup>	248	1	11	9	29	50	84	60	4.6	2.1	3.9	5.9
	Sex											
Male	39,551	384	1,271	2,849	5,510	9,107	11,514	8,651	100.0	100.0	100.0	100.0
Homosexual/bisexual	27,053	244	816	1,915	3,821	6,409	7,774	5,917	68.4	67.2	70.4	68.4
Intravenous drug use	6,152	62	219	451	854	1,306	1,877	1,330	15.6	15.8	14.3	15.4
Homosexual/bisexual and intravenous												
drug use	3,254	38	129	294	444	744	921	660	8.2	10.3	8.2	7.6
Hemophilia/coagulation disorder	440	6	6	23	66	93	139	106	1.1	0.8	1.0	1.2
Born in Caribbean/African countries	509	23	64	57	83	83	115	69	1.3	2.0	0.9	0.8
Heterosexual <sup>4</sup>	250	-	1	7	22	41	84	93	0.6	0.2	0.5	1.1
Sexual contact with intravenous												
drug user	184	-	-	7	19	30	58	69	0.5	0.3	0.3	0.8
Transfusion	859	1	8	43	110	222	272	202	2.2	1.5	2.4	2.3
Undetermined <sup>5</sup>	1,034	10	28	59	110	209	332	274	2.6	2.1	2.3	3.2

See footnotes at end of table.

**Table 43 (page 2 of 2). Acquired immunodeficiency syndrome (AIDS) deaths, according to race/ethnicity, sex, and transmission category for persons 13 years of age and over: United States, 1982-88**

[Data are based on reporting by State health departments]

Race/ethnicity, sex, and transmission category	All years <sup>1,2</sup>	Number, by year of death							Percent distribution			
		1982	1983	1984	1985	1986	1987	1988 <sup>2</sup>	1984	1986	1988 <sup>2</sup>	
Female . . . . .	3,542	36	102	228	404	767	1,099	870	100.0	100.0	100.0	100.0
Intravenous drug use . . . . .	1,795	20	56	137	213	378	542	429	50.7	60.1	49.3	49.3
Hemophilia/coagulation disorder . . . . .	12	-	-	1	4	3	1	3	0.3	0.4	0.4	0.3
Born in Caribbean/African countries . . . . .	167	6	8	17	16	40	45	29	4.7	7.5	5.2	3.3
Heterosexual <sup>4</sup> . . . . .	811	3	14	35	82	180	269	226	22.9	15.4	23.5	26.0
Sexual contact with Intravenous drug user . . . . .	544	3	9	28	52	121	185	145	15.4	12.3	15.8	16.7
Transfusion . . . . .	490	2	11	21	59	98	174	122	13.8	9.2	12.8	14.0
Undetermined <sup>5</sup> . . . . .	267	5	13	17	30	68	68	61	7.5	7.5	8.9	7.0

<sup>1</sup>Includes deaths prior to 1982.

<sup>2</sup>Data are as of November 30, 1988, 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 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 44 (page 1 of 2). Acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1982-88**

[Data are based on reporting by State health departments]

Geographic division and State	All years <sup>1,2</sup>	1982	1983	1984	1985	1986	1987	1988 <sup>2</sup>	All years <sup>1,2</sup>	12 months ending	
										November 30, 1988	
Number, by year of report											
										Percent distribution	Cases per 100,000 population <sup>3</sup>
United States . . . . .	77,883	664	2,073	4,449	8,233	13,174	21,123	27,975	100.0	12.61	
New England . . . . .	3,079	19	57	154	283	529	849	1,181	4.0	9.87	
Maine . . . . .	88	-	-	-	11	21	29	27	0.1	2.45	
New Hampshire . . . . .	90	1	1	3	4	13	32	36	0.1	3.92	
Vermont . . . . .	35	1	-	1	2	6	15	10	0.0	2.38	
Massachusetts . . . . .	1,688	10	33	87	167	282	456	650	2.2	11.77	
Rhode Island . . . . .	203	-	4	6	12	31	69	81	0.3	9.88	
Connecticut . . . . .	975	7	19	57	87	176	248	377	1.3	12.33	
Middle Atlantic . . . . .	26,993	421	1,040	1,959	3,163	4,867	6,132	9,289	34.7	27.68	
New York . . . . .	19,423	352	867	1,588	2,492	3,795	3,966	6,254	24.9	38.52	
New Jersey . . . . .	5,500	54	136	281	469	770	1,516	2,264	7.1	33.88	
Pennsylvania . . . . .	2,070	15	37	90	202	302	650	771	2.7	7.21	
East North Central . . . . .	4,852	25	60	198	358	833	1,403	1,969	6.2	5.26	
Ohio . . . . .	1,078	7	7	29	54	210	328	442	1.4	4.82	
Indiana . . . . .	339	-	3	26	27	71	132	80	0.4	1.93	
Illinois . . . . .	2,272	15	39	101	192	361	635	925	2.9	8.85	
Michigan . . . . .	883	3	9	32	61	149	211	417	1.1	4.64	
Wisconsin . . . . .	280	-	2	10	24	42	97	105	0.4	2.45	
West North Central . . . . .	1,613	5	14	45	130	241	467	711	2.1	4.36	
Minnesota . . . . .	433	3	4	11	41	98	130	146	0.6	3.89	
Iowa . . . . .	101	-	-	3	12	20	27	39	0.1	1.44	
Missouri . . . . .	786	1	7	27	51	73	236	391	1.0	8.28	
North Dakota . . . . .	10	-	-	-	2	3	1	4	0.0	0.58	
South Dakota . . . . .	12	-	-	-	1	2	2	7	0.0	0.97	
Nebraska . . . . .	79	-	1	2	7	10	24	35	0.1	2.48	
Kansas . . . . .	192	1	2	2	16	35	47	89	0.3	3.73	
South Atlantic . . . . .	12,901	74	272	585	1,306	2,051	3,662	4,937	16.6	12.79	
Delaware . . . . .	140	-	2	4	12	22	38	62	0.2	10.92	
Maryland . . . . .	1,382	3	27	53	150	189	461	497	1.8	12.24	
District of Columbia . . . . .	1,423	2	19	90	177	226	467	441	1.8	78.91	
Virginia . . . . .	919	-	28	40	109	159	243	340	1.2	6.06	
West Virginia . . . . .	57	-	-	6	7	8	20	16	0.1	0.84	
North Carolina . . . . .	648	2	8	15	65	81	205	272	0.8	4.92	
South Carolina . . . . .	364	-	11	7	38	58	84	166	0.5	4.97	
Georgia . . . . .	1,764	8	24	56	193	300	509	671	2.3	11.66	
Florida . . . . .	6,204	59	153	314	555	1,008	1,635	2,472	8.0	21.83	
East South Central . . . . .	1,314	2	10	24	72	164	323	719	1.7	5.07	
Kentucky . . . . .	198	-	4	10	17	32	47	88	0.3	2.45	
Tennessee . . . . .	500	-	2	5	18	72	73	330	0.6	7.19	
Alabama . . . . .	420	2	3	6	29	32	153	195	0.5	5.18	
Mississippi . . . . .	196	-	1	3	8	28	50	106	0.3	4.71	
West South Central . . . . .	6,776	17	111	315	619	1,186	2,171	2,354	8.7	9.37	
Arkansas . . . . .	165	-	-	1	10	30	48	76	0.2	3.38	
Louisiana . . . . .	1,023	-	18	55	103	164	338	345	1.3	8.28	
Oklahoma . . . . .	318	-	5	9	20	50	107	127	0.4	4.11	
Texas . . . . .	5,270	17	88	250	486	942	1,678	1,806	6.8	11.50	
Mountain . . . . .	2,080	7	32	75	164	338	641	822	2.7	6.91	
Montana . . . . .	29	-	-	-	1	5	7	16	0.0	2.01	
Idaho . . . . .	26	-	-	-	3	3	10	10	0.0	0.97	
Wyoming . . . . .	13	-	-	1	-	4	2	6	0.0	1.16	
Colorado . . . . .	820	5	21	38	63	167	227	299	1.1	9.48	
New Mexico . . . . .	135	-	-	3	14	21	47	49	0.2	3.40	
Arizona . . . . .	639	1	7	20	51	80	219	261	0.8	8.92	
Utah . . . . .	152	-	2	8	19	22	39	62	0.2	3.65	
Nevada . . . . .	266	1	2	5	13	36	90	119	0.3	15.34	

See footnotes at end of table.

**Table 44 (page 2 of 2). Acquired immunodeficiency syndrome (AIDS) cases, according to geographic division and State: United States, 1982-88**

[Data are based on reporting by State health departments]

Geographic division and State	All years <sup>1,2</sup>	Number, by year of report							All years <sup>1,2</sup>	Percent distribution	12 months ending November 30, 1988	Cases per 100,000 population <sup>3</sup>
		1982	1983	1984	1985	1986	1987	1988 <sup>2</sup>				
Pacific .....	18,275	94	477	1,094	2,138	2,965	5,475	5,993	23.5	18.00		
Washington .....	1,030	1	7	59	114	171	337	341	1.3	8.41		
Oregon .....	452	-	6	13	34	65	160	173	0.6	6.85		
California .....	16,457	93	455	1,008	1,958	2,659	4,883	5,363	21.1	21.31		
Alaska .....	53	-	1	1	5	15	12	19	0.1	3.25		
Hawaii .....	283	-	8	13	27	55	83	97	0.4	9.34		

<sup>1</sup>Includes cases prior to 1982.

<sup>2</sup>Data are as of November 30, 1988, and reflect reporting delays.

<sup>3</sup>Resident population as of mid-1988, 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 45. Acquired immunodeficiency syndrome (AIDS) deaths, according to geographic division and State: United States, 1982-88**

[Data are based on reporting by State health departments]

Geographic division and State	All years <sup>1,2</sup>	1982	1983	1984	1985	1986	1987	1988 <sup>2</sup>	All years <sup>1,2</sup>	Percent distribution
United States . . . . .	43,790	431	1,402	3,122	6,010	10,010	12,843	9,657		100.0
New England . . . . .	1,552	14	46	100	217	357	463	337		3.5
Maine . . . . .	41	-	-	-	7	13	9	12		0.1
New Hampshire . . . . .	46	1	2	-	6	12	12	12		0.1
Vermont . . . . .	18	-	1	1	1	6	5	4		0.0
Massachusetts . . . . .	791	4	30	54	111	170	242	173		1.8
Rhode Island . . . . .	79	-	2	5	7	19	38	8		0.2
Connecticut . . . . .	577	9	11	40	85	137	157	128		1.3
Middle Atlantic . . . . .	14,712	249	739	1,389	2,316	3,460	4,097	2,278		33.6
New York . . . . .	10,284	200	610	1,074	1,769	2,474	2,767	1,278		23.5
New Jersey . . . . .	3,170	41	102	231	398	701	920	712		7.2
Pennsylvania . . . . .	1,258	8	27	84	149	285	410	288		2.9
East North Central . . . . .	2,694	19	42	132	309	569	815	792		6.2
Ohio . . . . .	608	5	9	31	61	124	185	191		1.4
Indiana . . . . .	187	2	5	13	21	57	71	17		0.4
Illinois . . . . .	1,241	12	21	64	151	262	341	381		2.8
Michigan . . . . .	504	-	5	16	59	93	167	162		1.2
Wisconsin . . . . .	154	-	2	8	17	33	51	41		0.4
West North Central . . . . .	861	4	5	31	96	191	271	260		2.0
Minnesota . . . . .	238	2	2	7	27	61	76	63		0.5
Iowa . . . . .	38	1	-	1	6	11	10	7		0.1
Missouri . . . . .	410	1	2	18	44	83	123	138		0.9
North Dakota . . . . .	7	-	-	-	2	1	2	2		0.0
South Dakota . . . . .	8	-	-	-	1	3	1	3		0.0
Nebraska . . . . .	50	-	1	2	4	9	14	20		0.1
Kansas . . . . .	110	-	-	3	12	23	45	27		0.3
South Atlantic . . . . .	7,498	48	185	430	931	1,560	2,254	2,050		17.1
Delaware . . . . .	64	-	-	2	7	18	22	13		0.2
Maryland . . . . .	820	4	13	51	106	165	257	221		1.9
District of Columbia . . . . .	845	4	13	40	127	193	229	233		1.9
Virginia . . . . .	572	1	20	24	76	130	174	146		1.3
West Virginia . . . . .	31	-	-	5	7	5	10	4		0.1
North Carolina . . . . .	300	-	4	23	39	72	98	64		0.7
South Carolina . . . . .	205	3	-	11	29	34	63	65		0.5
Georgia . . . . .	1,055	6	17	53	126	205	316	328		2.4
Florida . . . . .	3,606	30	118	221	414	738	1,085	976		8.2
East South Central . . . . .	709	3	11	24	72	141	227	229		1.6
Kentucky . . . . .	120	2	5	10	13	22	33	35		0.3
Tennessee . . . . .	274	-	3	6	25	64	85	90		0.6
Alabama . . . . .	226	1	3	6	27	33	78	78		0.5
Mississippi . . . . .	89	-	-	2	7	22	31	26		0.2
West South Central . . . . .	4,008	17	77	211	501	948	1,375	866		9.2
Arkansas . . . . .	87	-	1	-	8	20	30	28		0.2
Louisiana . . . . .	651	4	13	28	92	134	204	169		1.5
Oklahoma . . . . .	164	-	1	10	12	36	62	42		0.4
Texas . . . . .	3,106	13	62	173	389	758	1,079	627		7.1
Mountain . . . . .	1,164	5	17	61	128	269	357	323		2.7
Montana . . . . .	12	-	-	-	1	3	5	3		0.0
Idaho . . . . .	18	-	-	-	1	3	6	8		0.0
Wyoming . . . . .	7	-	-	1	2	1	2	1		0.0
Colorado . . . . .	481	3	10	40	56	107	141	124		1.1
New Mexico . . . . .	73	-	-	1	6	22	22	20		0.2
Arizona . . . . .	330	2	4	11	39	85	96	92		0.8
Utah . . . . .	101	-	1	3	12	24	29	32		0.2
Nevada . . . . .	142	-	2	5	11	24	56	43		0.3
Pacific . . . . .	10,592	72	280	744	1,440	2,515	2,984	2,522		24.2
Washington . . . . .	582	-	8	31	81	126	174	162		1.3
Oregon . . . . .	266	-	3	9	22	69	73	90		0.6
California . . . . .	9,548	71	267	696	1,306	2,285	2,686	2,204		21.8
Alaska . . . . .	20	-	1	-	4	6	2	6		0.1
Hawaii . . . . .	176	1	1	8	27	29	49	60		0.4

<sup>1</sup>Includes deaths prior to 1982.

<sup>2</sup>Data are as of November 30, 1988, 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 46. Age-adjusted cancer incidence rates for selected cancer sites, according to sex and race: Selected years 1973-86**

[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]

Race, sex, and site	1973	1975	1977	1979	1981	1983	1985	1986	Average annual percent change <sup>1</sup>
Number of new cases per 100,000 population <sup>2</sup>									
<b>White male</b>									
All sites . . . . .	363.7	377.5	391.6	398.7	408.8	415.8	422.4	423.4	1.1
Prostate gland . . . . .	62.4	68.4	73.9	76.3	80.1	82.8	85.0	87.7	2.3
Lung and bronchus . . . . .	72.5	75.8	79.9	80.6	83.3	82.2	81.7	80.3	0.9
Oral cavity and pharynx . . . . .	17.4	18.2	17.0	18.1	17.3	17.9	16.3	15.9	-0.6
Colon and rectum . . . . .	54.2	54.9	58.4	58.8	60.0	59.9	63.1	61.4	1.0
Colon . . . . .	34.7	35.9	39.0	39.4	40.2	41.2	43.0	42.3	1.5
Rectum . . . . .	19.5	19.0	19.4	19.5	19.8	18.7	20.1	19.1	-0.1
Urinary bladder . . . . .	27.2	28.5	28.0	29.9	30.7	30.4	30.8	31.5	1.0
Stomach . . . . .	14.0	12.5	11.9	12.1	11.6	10.8	10.5	10.7	-1.9
Leukemia . . . . .	14.4	14.1	13.6	13.7	13.2	13.8	13.3	12.9	-0.8
Esophagus . . . . .	4.8	4.8	4.4	5.0	4.3	5.1	5.3	5.1	0.4
Non-Hodgkin's lymphoma . . . . .	10.3	11.4	11.3	12.0	13.3	14.3	15.5	16.1	3.5
Pancreas . . . . .	12.7	12.4	11.6	11.0	10.7	11.3	10.7	10.7	-1.0
<b>Black male</b>									
All sites . . . . .	437.9	435.4	466.2	481.9	524.8	523.2	512.2	502.0	1.6
Prostate gland . . . . .	105.1	110.8	120.9	122.7	125.8	130.4	127.9	123.4	1.8
Lung and bronchus . . . . .	104.4	100.8	108.6	110.9	125.0	129.0	127.6	128.1	2.2
Oral cavity and pharynx . . . . .	16.5	17.2	20.8	24.5	24.6	23.3	21.6	23.7	2.9
Colon and rectum . . . . .	42.4	46.7	58.2	49.7	58.4	60.4	57.8	55.8	1.9
Colon . . . . .	31.3	33.8	43.8	36.3	40.9	45.8	44.6	41.2	2.2
Rectum . . . . .	11.0	12.9	14.4	13.4	17.6	14.5	13.2	14.6	1.1
Urinary bladder . . . . .	10.7	13.6	17.6	12.9	16.0	15.0	15.6	16.2	2.0
Stomach . . . . .	25.9	19.8	19.8	22.5	22.5	21.8	18.1	17.9	-1.1
Leukemia . . . . .	12.0	12.4	10.6	11.0	12.3	11.8	11.9	9.6	-1.0
Esophagus . . . . .	12.9	17.3	17.6	20.2	19.2	20.0	18.8	20.9	1.7
Non-Hodgkin's lymphoma . . . . .	9.0	7.1	5.7	9.7	9.3	9.1	9.5	10.9	2.9
Pancreas . . . . .	15.7	15.4	16.1	15.9	17.5	18.4	19.3	15.1	0.1
<b>White female</b>									
All sites . . . . .	293.7	308.7	305.8	305.4	316.2	320.8	337.4	332.3	0.8
Breast . . . . .	83.8	89.0	85.2	86.2	90.6	94.9	105.2	107.3	1.4
Corpus uteri . . . . .	29.4	33.5	29.6	26.0	24.8	24.5	23.1	22.3	-3.0
Colon and rectum . . . . .	41.6	42.8	43.9	43.0	44.6	43.8	45.5	42.4	0.3
Colon . . . . .	30.2	30.9	32.3	30.9	32.5	32.4	33.6	31.6	0.5
Rectum . . . . .	11.4	12.0	11.6	12.1	12.1	11.4	11.9	10.8	0.0
Lung and bronchus . . . . .	17.9	21.9	24.6	28.0	31.2	34.4	35.6	37.0	5.2
Ovary . . . . .	14.6	14.4	14.1	13.4	13.7	13.9	14.9	13.2	-0.4
Cervix uteri . . . . .	12.7	11.1	9.7	9.1	8.0	8.0	7.4	7.8	-4.0
Pancreas . . . . .	7.5	7.1	7.6	7.5	7.8	8.1	8.1	7.8	0.7
Non-Hodgkin's lymphoma . . . . .	7.5	8.4	8.5	9.6	9.9	10.0	10.9	10.8	2.7
Melanoma of skin . . . . .	5.8	6.8	7.6	7.9	9.4	8.7	9.3	9.1	3.3
<b>Black female</b>									
All sites . . . . .	279.3	292.4	287.1	297.4	299.7	316.5	320.8	325.5	1.2
Breast . . . . .	67.9	77.2	70.8	72.4	77.4	85.3	92.2	93.3	2.0
Corpus uteri . . . . .	14.8	16.8	17.1	14.1	14.3	15.9	14.8	13.8	-0.2
Colon and rectum . . . . .	40.6	42.7	40.6	43.6	44.9	49.2	45.1	46.9	1.5
Colon . . . . .	29.2	32.2	29.4	33.8	35.7	36.2	35.6	36.3	2.0
Rectum . . . . .	11.5	10.5	11.2	9.8	9.2	12.9	9.5	10.5	-0.3
Lung and bronchus . . . . .	20.7	20.4	28.6	29.4	32.8	34.5	40.5	43.0	5.6
Ovary . . . . .	10.3	10.1	9.5	10.4	9.8	11.6	10.3	8.8	0.0
Cervix uteri . . . . .	29.5	27.7	22.9	23.6	18.8	15.0	15.8	15.5	-4.9
Pancreas . . . . .	11.5	11.7	12.0	11.2	11.0	12.4	11.6	13.2	0.8
Non-Hodgkin's lymphoma . . . . .	5.4	4.0	4.9	5.3	4.6	7.9	6.6	6.2	3.9

<sup>1</sup>The average annual percent change has been calculated by fitting a linear regression model to the yearly rates from 1973-86.

<sup>2</sup>Age adjusted by the direct method to the 1970 U.S. population.

SOURCE: National Cancer Institute, National Institutes of Health, *1988 Annual Cancer Statistics Review, Including A Report on the Status of Cancer Control*. NIH Pub. No. 89-2789. U.S. Department of Health and Human Services. Public Health Service. Bethesda, Md., 1988.

**Table 47. Five-year relative cancer survival rates for selected sites, according to race: 1974-76, 1977-79, and 1980-85**

[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]

Site	All races			White			Black		
	1974-76	1977-79	1980-85	1974-76	1977-79	1980-85	1974-76	1977-79	1980-85
Male									
	Percent of patients								
All sites . . . . .	40.5	42.5	44.2	41.6	43.8	45.6	31.0	31.8	32.7
Prostate gland . . . . .	66.4	70.3	72.1	67.4	71.3	73.4	57.6	61.9	62.8
Lung and bronchus . . . . .	10.9	11.6	11.6	10.9	11.9	11.7	10.8	8.8	10.4
Colon . . . . .	49.2	51.1	54.7	49.6	51.4	55.0	43.4	45.2	46.9
Rectum . . . . .	47.2	48.5	50.3	47.5	49.6	51.4	34.2	38.5	35.9
Urinary bladder . . . . .	73.4	75.9	78.1	74.3	76.3	78.7	53.5	61.2	59.6
Oral cavity and pharynx . . . . .	51.8	50.3	49.7	54.0	52.6	52.9	30.8	30.6	25.5
Stomach . . . . .	13.6	15.0	15.5	12.8	14.2	14.2	15.6	14.3	18.1
Esophagus . . . . .	3.6	4.5	6.6	4.3	5.3	7.4	2.2	2.3	4.7
Leukemia . . . . .	32.4	34.4	33.2	32.9	35.1	34.5	31.1	29.9	25.2
Non-Hodgkin's lymphoma . . . . .	46.8	45.0	48.4	47.5	45.6	49.5	43.5	41.1	38.7
Pancreas . . . . .	3.0	2.1	2.8	3.2	2.0	2.7	1.1	2.8	3.6
Female									
All sites . . . . .	56.3	55.4	55.2	57.1	56.2	56.1	46.5	45.7	44.3
Breast . . . . .	74.0	74.0	75.4	74.6	74.7	76.3	62.6	62.2	63.5
Colon . . . . .	50.2	53.2	54.8	50.4	53.3	55.3	46.4	49.0	48.6
Rectum . . . . .	49.1	50.4	53.9	49.4	51.0	54.6	48.2	37.9	42.9
Lung and bronchus . . . . .	15.4	16.7	15.5	15.6	16.8	15.7	12.9	16.6	14.7
Corpus uteri . . . . .	88.1	85.1	81.9	89.0	86.5	83.4	62.2	57.1	52.0
Ovary . . . . .	36.4	37.7	38.6	36.1	37.2	38.4	40.8	39.1	38.3
Cervix uteri . . . . .	68.2	67.3	66.0	69.0	68.4	66.9	63.0	61.4	59.3
Pancreas . . . . .	2.4	2.4	3.1	2.3	2.2	2.6	3.4	4.6	6.2
Non-Hodgkin's lymphoma . . . . .	47.0	50.0	52.1	47.1	49.9	52.4	52.7	58.4	50.9
Melanoma of skin . . . . .	84.0	84.9	86.5	84.1	85.3	86.6	---	---	*77.6

\*Standard error is greater than 10 percentage points.

NOTES: Rates are based on follow up 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.

SOURCE: National Cancer Institute, National Institutes of Health, *1988 Annual Cancer Statistics Review, Including a Report on the Status of Cancer Control*. NIH Pub. No. 89-2789. U.S. Department of Health and Human Services. Public Health Service. Bethesda, Md., 1989; National Cancer Institute, Division of Cancer Prevention and Control: Unpublished data.

**Table 48. Limitation of activity caused by chronic conditions, according to selected characteristics: United States, 1983 and 1987**

[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	
	1983	1987	1983	1987	1983	1987	1983	1987
	Percent of population							
Total <sup>1,2</sup> . . . . .	13.8	12.9	4.1	4.0	6.0	5.2	3.6	3.7
Age								
Under 15 years . . . . .	4.8	4.7	1.3	1.3	3.1	3.0	0.4	0.4
Under 5 years . . . . .	2.1	2.1	0.5	0.7	1.1	1.0	0.5	0.5
5-14 years . . . . .	6.2	6.2	1.8	1.7	4.1	4.1	0.3	0.4
15-44 years . . . . .	8.5	8.1	2.7	2.6	3.9	3.4	1.9	2.0
45-64 years . . . . .	24.3	22.3	5.9	5.6	10.2	8.2	8.2	8.5
65 years and over . . . . .	40.2	37.5	14.8	14.7	15.0	12.9	10.4	10.0
65-74 years . . . . .	37.6	34.7	13.5	12.8	13.3	11.3	10.7	10.7
75 years and over . . . . .	44.4	41.9	16.8	17.7	17.7	15.4	9.9	8.9
Sex <sup>1</sup>								
Male . . . . .	13.9	12.9	3.8	3.8	5.6	4.8	4.6	4.3
Female . . . . .	13.6	12.8	4.5	4.2	6.4	5.5	2.7	3.1
Race <sup>1</sup>								
White . . . . .	13.4	12.7	4.2	4.1	5.9	5.2	3.3	3.4
Black . . . . .	17.5	16.0	3.8	3.5	7.5	6.2	6.2	6.2
Family income <sup>1</sup>								
Less than \$10,000 . . . . .	23.0	23.9	5.4	5.2	9.6	9.2	8.0	9.4
\$10,000-\$14,999 . . . . .	16.6	17.4	4.5	4.5	6.8	6.9	5.2	6.0
\$15,000-\$19,999 . . . . .	14.4	13.9	4.3	4.0	6.6	5.6	3.5	4.3
\$20,000-\$34,999 . . . . .	11.0	11.2	3.7	3.7	5.1	4.8	2.1	2.7
\$35,000 or more . . . . .	9.4	8.9	3.7	3.6	4.1	3.7	1.6	1.6
Geographic region <sup>1</sup>								
Northeast . . . . .	13.0	11.4	4.0	3.8	5.4	4.3	3.6	3.3
Midwest . . . . .	13.1	12.8	3.9	3.9	5.9	5.5	3.2	3.5
South . . . . .	14.7	14.0	4.1	4.1	6.7	5.8	3.9	4.0
West . . . . .	14.2	12.7	4.7	4.2	5.8	4.8	3.7	3.7
Location of residence <sup>1</sup>								
Within MSA . . . . .	13.5	12.4	4.1	3.9	5.9	5.0	3.5	3.6
Outside MSA . . . . .	14.4	14.4	4.2	4.5	6.4	5.9	3.8	4.0

<sup>1</sup>Age adjusted.

<sup>2</sup>Includes all other races not shown separately and unknown family income.

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

**Table 49. Disability days associated with acute conditions and incidence of acute conditions, according to age: United States, 1982-87**

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

Age	1982	1983	1984	1985	1986	1987
Restricted-activity days			Number per person			
All ages <sup>1</sup>	6.5	7.2	7.4	6.8	7.7	6.8
Under 15 years	7.0	8.2	7.9	6.9	8.2	7.5
Under 5 years	7.2	9.5	8.8	7.5	9.0	9.4
5-14 years	6.8	7.5	7.4	6.7	7.8	6.6
15-44 years	6.2	6.6	7.1	6.5	7.0	6.5
45-64 years	5.9	6.3	6.6	6.0	7.0	6.1
65 years and over	7.4	9.2	9.1	9.6	10.2	8.0
65-74 years	7.0	8.7	8.3	8.9	10.2	8.2
75 years and over	7.9	10.1	10.2	10.9	10.1	7.7
Bed-disability days <sup>2</sup>						
All ages <sup>1</sup>	3.0	3.4	3.3	3.1	3.4	3.0
Under 15 years	3.3	4.0	3.6	3.4	3.8	3.4
Under 5 years	3.7	4.7	3.8	3.5	3.9	4.4
5-14 years	3.1	3.6	3.5	3.3	3.8	2.8
15-44 years	2.9	3.0	3.2	2.8	3.1	2.8
45-64 years	2.5	2.8	2.6	2.7	3.1	2.6
65 years and over	3.3	4.5	3.9	3.9	4.6	3.4
65-74 years	3.1	4.4	3.7	2.8	3.9	3.7
75 years and over	3.6	4.7	4.3	5.7	5.5	3.0
Incidence of acute conditions <sup>3</sup>			Number per 100 persons			
All ages <sup>1</sup>	174.6	182.9	184.9	183.1	189.5	180.8
Under 15 years	271.1	288.1	289.3	280.0	302.7	281.7
Under 5 years	326.3	354.5	345.1	334.6	360.4	358.9
5-14 years	242.9	252.8	259.2	250.9	271.7	240.4
15-44 years	160.1	165.1	172.2	170.1	180.5	168.7
45-64 years	106.7	109.3	104.4	112.9	125.1	101.4
65 years and over	92.1	100.9	98.8	98.4	119.5	100.4
65-74 years	97.3	103.1	97.4	98.9	118.2	94.8
75 years and over	83.4	97.3	101.0	97.7	121.5	109.4

<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 50. Self-assessment of health, according to selected characteristics: United States, 1983 and 1987**

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

Characteristic	Total	Excellent		Very good		Good		Fair or poor	
		1983	1987	1983	1987	1983	1987	1983	1987
Percent distribution									
Total <sup>1,2</sup>	100.0	40.7	40.3	25.4	27.8	23.2	22.4	10.7	9.5
Age									
Under 15 years	100.0	53.3	53.9	24.9	27.2	18.8	16.5	3.0	2.4
Under 5 years	100.0	54.0	54.0	25.1	27.4	18.0	16.1	2.9	2.6
5-14 years	100.0	52.9	53.9	24.8	27.1	19.3	16.8	3.1	2.3
15-44 years	100.0	44.7	43.2	27.9	30.5	21.5	20.9	6.0	5.4
45-64 years	100.0	26.6	27.3	24.0	26.5	29.3	28.8	20.1	17.4
65 years and over	100.0	16.6	15.4	19.2	20.9	30.8	32.9	33.3	30.8
65-74 years	100.0	16.9	16.7	19.1	21.6	31.7	33.5	32.3	28.2
75 years and over	100.0	16.2	13.4	19.4	19.9	29.4	31.9	34.9	34.9
Sex <sup>1</sup>									
Male	100.0	43.0	42.6	25.0	27.4	21.8	21.0	10.2	9.0
Female	100.0	38.6	38.2	25.7	28.2	24.6	23.7	11.1	9.9
Race <sup>1</sup>									
White	100.0	42.6	42.1	25.8	28.2	22.1	21.1	9.6	8.5
Black	100.0	28.5	29.5	21.8	24.4	30.0	29.4	19.7	16.7
Family income <sup>1</sup>									
Less than \$10,000	100.0	29.1	26.4	22.1	24.1	27.6	28.9	21.2	20.5
\$10,000-\$14,999	100.0	34.2	31.9	24.8	26.9	27.2	27.1	13.9	14.1
\$15,000-\$19,999	100.0	37.0	34.7	26.9	28.1	25.7	26.3	10.5	11.0
\$20,000-\$34,999	100.0	43.7	41.1	27.4	29.2	22.0	22.7	6.9	7.1
\$35,000 or more	100.0	53.1	50.9	26.2	28.0	16.1	16.3	4.7	4.7
Geographic region <sup>1</sup>									
Northeast	100.0	41.7	40.3	26.5	30.9	22.7	21.0	9.1	7.9
Midwest	100.0	40.9	41.8	26.5	27.4	22.9	22.1	9.7	8.8
South	100.0	38.3	37.3	24.0	26.8	24.7	24.3	13.1	11.7
West	100.0	43.5	43.8	25.0	26.9	22.0	21.2	9.5	8.2
Location of residence <sup>1</sup>									
Within MSA	100.0	41.5	41.5	25.8	27.6	22.7	21.8	10.0	9.0
Outside MSA	100.0	39.1	36.5	24.4	28.2	24.6	24.5	12.0	10.8

<sup>1</sup>Age adjusted.

<sup>2</sup>Includes all other races not shown separately and unknown family income.

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

**Table 51. Cigarette smoking by persons 20 years of age and over, according to sex, race, and age: United States, 1965, 1976, 1983, and 1987**

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

Sex, race, and age	Current smoker <sup>1</sup>				Former smoker			
	1965	1976	1983	1987	1965	1976	1983	1987
Male								
Percent of persons								
20 years and over, age adjusted . . . . .	52.1	41.6	35.4	31.5	20.3	29.6	31.1	31.4
20 years and over, crude . . . . .	52.4	41.9	35.7	31.7	20.5	28.9	29.5	30.1
20-24 years . . . . .	59.2	45.9	36.9	31.1	9.0	12.2	9.1	7.8
25-34 years . . . . .	60.7	48.5	38.8	34.8	14.7	18.3	19.8	17.4
35-44 years . . . . .	58.2	47.6	41.0	36.6	20.6	27.3	27.5	28.1
45-64 years . . . . .	51.9	41.3	35.9	33.5	24.1	37.1	40.1	40.1
65 years and over . . . . .	28.5	23.0	22.0	17.2	28.1	44.4	48.1	53.4
White:								
20 years and over, age adjusted . . . . .	51.3	41.0	34.7	30.7	21.2	30.7	32.0	32.6
20-44 years . . . . .	58.5	46.8	38.8	34.3	16.9	20.5	20.5	20.4
20-24 years . . . . .	58.1	45.3	36.1	31.6	9.6	13.3	9.7	8.3
25-34 years . . . . .	60.1	47.7	38.6	33.8	15.5	18.9	20.5	18.1
35-44 years . . . . .	57.3	46.8	40.8	36.2	21.5	28.9	27.8	29.3
45 years and over . . . . .	44.4	35.0	30.1	26.3	26.1	40.5	44.1	46.6
45-64 years . . . . .	51.3	40.6	35.0	32.4	25.1	38.1	41.2	41.6
65 years and over . . . . .	27.7	22.8	20.6	16.0	28.7	45.6	49.9	55.1
Black:								
20 years and over, age adjusted . . . . .	59.6	50.1	42.6	40.3	12.6	20.2	23.2	22.2
20-44 years . . . . .	67.7	57.4	41.8	41.3	8.3	10.2	15.4	12.9
45 years and over . . . . .	52.3	42.3	42.9	39.5	17.0	30.0	30.6	32.0
Female								
20 years and over, age adjusted . . . . .	34.2	32.5	29.9	27.0	8.2	13.9	16.4	18.0
20 years and over, crude . . . . .	34.1	32.0	29.4	26.8	8.2	13.8	16.2	17.9
20-24 years . . . . .	41.9	34.2	37.5	28.1	7.3	10.4	10.8	10.5
25-34 years . . . . .	43.7	37.5	32.6	31.8	9.9	12.9	13.8	15.6
35-44 years . . . . .	43.7	38.2	33.8	29.6	9.6	15.8	17.1	19.4
45-64 years . . . . .	32.0	34.8	31.0	28.6	8.6	15.9	18.6	20.7
65 years and over . . . . .	9.6	12.8	13.1	13.7	4.5	11.7	18.7	19.8
White:								
20 years and over, age adjusted . . . . .	34.5	32.4	29.8	27.3	8.5	14.6	17.2	18.9
20-44 years . . . . .	43.3	36.8	34.3	30.5	9.6	14.2	15.2	17.2
20-24 years . . . . .	41.9	34.4	37.5	29.4	8.0	11.4	11.6	11.5
25-34 years . . . . .	43.4	37.1	32.2	31.9	10.3	13.7	15.1	16.9
35-44 years . . . . .	43.9	38.1	34.8	29.2	9.9	17.0	18.0	20.6
45 years and over . . . . .	25.1	26.7	23.6	22.7	7.4	14.6	19.2	20.9
45-64 years . . . . .	32.7	34.7	30.6	29.0	8.8	16.4	19.0	21.4
65 years and over . . . . .	9.8	13.2	13.2	14.0	4.5	11.5	19.5	20.2
Black:								
20 years and over, age adjusted . . . . .	32.7	34.7	32.5	27.9	5.9	10.2	10.7	13.2
20-44 years . . . . .	45.0	40.1	36.2	32.7	5.9	8.1	7.7	8.9
45 years and over . . . . .	20.6	28.3	28.1	22.7	6.0	12.4	13.4	17.4

<sup>1</sup>A current smoker is a person who has smoked at least 100 cigarettes and who now smokes; includes occasional smokers.

NOTE: 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 52. 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 1972–85**

[Data are based on household interviews of a sample of the population 12 years of age and over in the coterminous United States]

Substance, age, and sex	1972	1974	1976	1977	1979	1982	1985
<b>Cigarettes</b>							
Percent of population							
<b>Both sexes:</b>							
12–17 years . . . . .	( <sup>1</sup> )	25	23	22	( <sup>1</sup> )	15	15
12–13 years . . . . .	( <sup>1</sup> )	13	11	10	( <sup>1</sup> )	*3	6
14–15 years . . . . .	( <sup>1</sup> )	25	20	22	( <sup>1</sup> )	10	14
16–17 years . . . . .	( <sup>1</sup> )	38	39	35	( <sup>1</sup> )	30	25
18–25 years . . . . .	( <sup>1</sup> )	49	49	47	( <sup>1</sup> )	40	37
<b>Male:</b>							
12–17 years . . . . .	( <sup>1</sup> )	27	21	23	( <sup>1</sup> )	16	16
18–25 years . . . . .	( <sup>1</sup> )	50	48	50	( <sup>1</sup> )	37	38
<b>Female:</b>							
12–17 years . . . . .	( <sup>1</sup> )	24	26	22	( <sup>1</sup> )	13	15
18–25 years . . . . .	( <sup>1</sup> )	47	51	44	( <sup>1</sup> )	42	35
<b>Alcohol<sup>2</sup></b>							
<b>Both sexes:</b>							
12–17 years . . . . .	( <sup>1</sup> )	34	32	31	37	27	31
12–13 years . . . . .	( <sup>1</sup> )	19	19	13	20	10	11
14–15 years . . . . .	( <sup>1</sup> )	32	31	28	36	23	35
16–17 years . . . . .	( <sup>1</sup> )	51	47	52	55	45	46
18–25 years . . . . .	( <sup>1</sup> )	69	69	70	76	68	71
<b>Male:</b>							
12–17 years . . . . .	( <sup>1</sup> )	39	36	37	39	27	34
18–25 years . . . . .	---	---	79	82	84	75	78
<b>Female:</b>							
12–17 years . . . . .	( <sup>1</sup> )	29	29	25	36	27	28
18–25 years . . . . .	---	---	58	59	68	61	64
<b>Marijuana</b>							
<b>Both sexes:</b>							
12–17 years . . . . .	7	12	12	17	17	12	12
12–13 years . . . . .	*1	*2	*3	*4	4	*2	*4
14–15 years . . . . .	6	12	13	16	17	8	11
16–17 years . . . . .	16	20	21	30	28	23	21
18–25 years . . . . .	28	25	25	27	35	27	22
<b>Male:</b>							
12–17 years . . . . .	9	12	14	20	19	13	13
18–25 years . . . . .	---	---	31	35	45	36	27
<b>Female:</b>							
12–17 years . . . . .	6	11	11	13	14	10	11
18–25 years . . . . .	---	---	19	20	26	19	17
<b>Cocaine</b>							
<b>Both sexes:</b>							
12–17 years . . . . .	*0.6	*1.0	*1.0	*0.8	1.4	1.6	1.5
18–25 years . . . . .	---	3.1	2.0	3.7	9.3	6.8	7.6
<b>Male:</b>							
12–17 years . . . . .	---	---	---	---	---	1.8	2.0
18–25 years . . . . .	---	---	---	---	---	9.1	9.0
<b>Female:</b>							
12–17 years . . . . .	---	---	---	---	---	*1.5	*1.0
18–25 years . . . . .	---	---	---	---	---	4.7	6.3

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

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

\*Relative standard error greater than 30 percent.

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 Institute on Drug Abuse, 1988; Unpublished data.



**Table 53. 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>	<i>1971</i>	<i>1973</i>	<i>1974</i>	<i>1975</i>	<i>1976</i>	<i>1979</i>	<i>1983</i>	<i>1985</i>
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 Knuper, 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 54. Borderline or definite elevated blood pressure for persons 25–74 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									
Age adjusted, 25–74 years . . . . .	41.0	42.1	41.3	39.6	40.8	40.1	53.8	55.1	51.3
25–34 years . . . . .	15.6	19.6	20.8	14.7	18.8	20.7	22.4	28.2	22.4
35–44 years . . . . .	29.8	32.2	33.0	28.1	29.6	30.8	43.5	54.5	47.9
45–54 years . . . . .	44.4	46.9	47.1	42.4	45.8	45.9	60.6	57.4	58.9
55–64 years . . . . .	62.3	59.4	56.7	60.9	58.4	55.2	78.8	71.8	70.5
65–74 years . . . . .	73.8	70.3	63.1	73.1	69.3	61.9	85.2	80.0	71.7
Male									
Age adjusted, 25–74 years . . . . .	43.7	46.1	46.6	42.8	45.4	45.9	53.6	55.9	52.8
25–34 years . . . . .	23.3	27.5	31.2	22.3	27.2	31.5	31.9	33.6	31.5
35–44 years . . . . .	37.4	38.1	39.5	37.0	36.0	37.6	44.2	60.5	53.8
45–54 years . . . . .	47.2	52.8	52.1	46.0	53.0	52.0	56.3	53.3	50.9
55–64 years . . . . .	59.3	59.3	58.6	58.3	58.9	57.6	74.8	67.5	71.7
65–74 years . . . . .	65.9	65.4	62.0	65.0	64.0	60.6	*76.8	79.3	68.7
Female									
Age adjusted, 25–74 years . . . . .	38.4	38.4	36.2	36.5	36.4	34.6	54.7	54.6	50.1
25–34 years . . . . .	8.6	12.3	11.0	7.6	10.8	10.4	16.1	24.2	15.1
35–44 years . . . . .	22.7	26.7	27.0	19.8	23.6	24.6	43.0	49.9	43.4
45–54 years . . . . .	41.8	41.5	42.3	39.1	39.1	40.1	64.8	61.0	65.8
55–64 years . . . . .	65.0	59.5	55.0	63.3	57.9	53.1	82.8	75.3	69.4
65–74 years . . . . .	80.3	74.1	63.9	79.8	73.4	63.0	*92.1	80.6	74.0

\*Based on fewer than 45 persons.

NOTE: Borderline or definite elevated blood pressure is defined as either systolic pressure of at least 140 mmHg or diastolic pressure of at least 90 mmHg or both based on a single measurement.

SOURCE: Division of Health Examination Statistics, National Center for Health Statistics: Unpublished data.

**Table 55. Definite elevated blood pressure for persons 25–74 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									
Age adjusted, 25–74 years . . . . .	20.9	21.7	20.1	19.2	20.1	19.2	36.8	36.6	27.7
25–34 years. . . . .	5.3	6.7	7.7	4.2	6.0	7.6	14.0	12.9	9.2
35–44 years. . . . .	13.3	15.5	13.9	11.4	13.5	12.5	28.7	31.9	24.3
45–54 years. . . . .	21.4	24.3	25.3	19.2	22.2	24.2	39.5	43.7	36.6
55–64 years. . . . .	31.8	33.2	28.1	30.1	31.6	26.9	50.1	52.1	39.5
65–74 years. . . . .	48.7	40.9	34.5	46.9	39.5	34.0	71.9	55.7	36.6
Male									
Age adjusted, 25–74 years . . . . .	20.7	22.9	23.0	19.0	21.7	22.3	36.3	35.8	29.7
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	16.9	14.9	17.2	15.2	28.1	36.8	33.2
45–54 years. . . . .	21.4	26.8	28.5	19.6	25.8	28.6	34.6	37.0	29.3
55–64 years. . . . .	29.3	32.5	31.1	27.5	31.2	29.7	49.7	49.5	45.7
65–74 years. . . . .	40.5	36.4	33.3	38.6	35.1	32.7	*63.3	50.3	32.1
Female									
Age adjusted, 25–74 years . . . . .	21.0	20.4	17.4	19.2	18.5	16.3	37.7	37.4	26.2
25–34 years. . . . .	3.1	4.6	3.6	2.3	3.8	3.2	8.8	10.7	5.8
35–44 years. . . . .	10.6	12.1	11.1	8.2	9.9	9.9	29.2	28.2	17.4
45–54 years. . . . .	21.5	21.9	22.4	18.8	18.8	20.1	44.3	49.4	42.9
55–64 years. . . . .	34.1	33.9	25.3	32.5	32.0	24.4	50.5	54.2	34.2
65–74 years. . . . .	55.4	44.4	35.5	53.8	42.9	35.0	*79.0	59.8	40.0

\*Based on fewer than 45 persons.

NOTE: Definite elevated blood pressure is defined as either systolic pressure of at least 160 mmHg or diastolic pressure of at least 95 mmHg or both based on a single measurement.

SOURCE: Division of Health Examination Statistics, National Center for Health Statistics: Unpublished data.

**Table 56. High-risk serum cholesterol levels for persons 25–74 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									
Age adjusted, 25–74 years . . . . .	26.9	23.2	21.9	27.6	23.2	21.9	22.1	23.7	22.8
25–34 years . . . . .	20.4	19.9	18.7	20.9	19.8	18.5	19.0	20.6	19.7
35–44 years . . . . .	21.2	17.5	16.8	22.0	17.3	16.6	14.5	18.2	18.8
45–54 years . . . . .	26.4	24.2	22.0	26.8	24.4	21.8	25.5	24.1	25.5
55–64 years . . . . .	36.0	27.9	29.0	37.8	28.0	29.3	20.9	29.3	27.5
65–74 years . . . . .	37.3	31.3	27.2	37.4	31.5	27.7	38.0	31.1	24.0
Male									
Age adjusted, 25–74 years . . . . .	24.1	22.1	20.1	25.1	22.0	20.1	17.1	22.7	23.4
25–34 years . . . . .	23.6	22.7	19.2	24.7	22.8	18.7	16.3	22.3	24.8
35–44 years . . . . .	26.3	22.6	20.5	27.7	22.2	20.1	13.4	23.7	24.5
45–54 years . . . . .	25.3	24.1	20.1	26.1	24.6	20.8	21.1	20.4	25.3
55–64 years . . . . .	22.8	19.5	22.0	23.9	19.3	22.4	13.7	23.0	22.1
65–74 years . . . . .	20.8	19.9	18.1	20.7	19.5	18.4	*22.9	25.8	16.6
Female									
Age adjusted, 25–74 years . . . . .	29.3	24.0	23.3	29.7	23.9	23.4	26.8	24.6	22.3
25–34 years . . . . .	17.5	17.2	18.2	17.3	16.9	18.4	20.8	19.4	15.6
35–44 years . . . . .	16.5	12.9	13.4	16.7	12.7	13.3	15.5	14.1	14.3
45–54 years . . . . .	27.4	24.3	22.9	27.5	24.1	22.7	29.9	27.2	25.8
55–64 years . . . . .	48.5	35.5	35.3	50.6	35.8	35.6	*29.1	34.4	32.0
65–74 years . . . . .	50.8	40.0	34.3	51.2	40.6	34.8	*50.1	35.1	29.5

\*Based on fewer than 45 persons.

NOTES: High-risk serum cholesterol levels are defined by age-specific cut points of the cholesterol distribution: 20–29 years of age, greater than 220 milligrams/deciliter; 30–39 years of age, greater than 240 milligrams/deciliter; and 40 years of age and over, greater than 260 milligrams/deciliter. Risk levels defined by NIH Consensus Development conference statement on lowering blood cholesterol, Dec. 10, 1984.

SOURCE: Division of Health Examination Statistics, National Center for Health Statistics: Unpublished data.

**Table 57. Overweight persons 25–74 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									
Age adjusted, 25–74 years . . . . .	27.4	27.9	28.4	26.4	26.8	27.2	35.9	38.8	41.1
25–34 years . . . . .	18.9	20.5	20.2	17.6	19.7	19.4	31.6	29.1	26.3
35–44 years . . . . .	23.8	28.4	27.9	21.8	26.6	26.4	38.0	45.3	40.8
45–54 years . . . . .	29.6	30.0	31.7	28.8	29.1	30.2	33.2	39.4	52.1
55–64 years . . . . .	35.7	32.0	32.8	34.8	31.0	31.9	45.5	43.9	44.2
65–74 years . . . . .	34.6	31.5	32.7	35.0	31.0	31.9	31.5	37.3	46.0
Male									
Age adjusted, 25–74 years . . . . .	24.8	26.0	26.7	25.1	26.0	26.7	24.1	27.6	30.9
25–34 years . . . . .	22.0	23.6	20.4	21.4	23.6	20.9	34.3	26.1	17.5
35–44 years . . . . .	23.2	29.4	28.9	22.4	28.9	28.2	28.6	39.3	40.9
45–54 years . . . . .	28.1	27.6	31.0	29.3	28.2	30.5	18.5	22.4	41.4
55–64 years . . . . .	27.2	24.8	28.1	28.5	24.9	28.6	20.1	25.6	26.0
65–74 years . . . . .	23.8	23.0	25.2	24.8	23.1	25.8	*11.7	21.6	26.4
Female									
Age adjusted, 25–74 years . . . . .	29.6	29.4	29.8	27.3	27.4	27.5	47.3	47.8	49.5
25–34 years . . . . .	15.9	17.6	20.0	13.9	15.9	17.9	29.6	31.5	33.5
35–44 years . . . . .	24.4	27.3	27.0	21.2	24.5	24.8	46.1	49.9	40.8
45–54 years . . . . .	30.9	32.3	32.5	28.5	29.9	29.9	47.8	53.5	61.2
55–64 years . . . . .	43.6	38.5	37.0	40.5	36.6	34.8	71.4	58.7	59.4
65–74 years . . . . .	43.3	38.0	38.5	43.2	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.

SOURCE: Division of Health Examination Statistics, National Center for Health Statistics: Unpublished data.

**Table 58. Air pollution, according to source and type of pollutant: United States, selected years 1970-86**

[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
1983	7.1	1.3	2.0	2.4	0.3	1.1
1984	7.4	1.3	2.1	2.8	0.3	0.9
1985	7.0	1.4	1.8	2.8	0.3	0.8
1986	6.8	1.4	1.8	2.5	0.3	0.8
Sulfur oxides						
1970	28.4	0.6	21.3	6.4	( <sup>1</sup> )	0.1
1975	26.0	0.7	20.4	5.0	( <sup>1</sup> )	( <sup>1</sup> )
1980	23.9	0.9	19.3	3.8	( <sup>1</sup> )	( <sup>1</sup> )
1983	21.5	0.8	17.4	3.3	( <sup>1</sup> )	( <sup>1</sup> )
1984	22.1	0.8	17.9	3.3	( <sup>1</sup> )	( <sup>1</sup> )
1985	21.6	0.9	17.6	3.2	( <sup>1</sup> )	( <sup>1</sup> )
1986	21.2	0.9	17.2	3.1	( <sup>1</sup> )	( <sup>1</sup> )
Nitrogen oxides						
1970	18.1	7.6	9.1	0.7	0.4	0.3
1975	19.1	8.9	9.3	0.7	0.1	0.1
1980	20.3	9.2	10.1	0.7	0.1	0.2
1983	19.1	8.6	9.6	0.5	0.1	0.2
1984	19.7	8.7	10.2	0.6	0.1	0.2
1985	19.7	8.8	10.2	0.6	0.1	0.1
1986	19.3	8.5	10.0	0.6	0.1	0.1
Volatile organic compounds						
1970	27.5	12.4	1.1	8.9	1.8	3.3
1975	22.8	10.2	1.1	8.1	0.9	2.5
1980	23.0	8.2	2.2	9.2	0.6	2.9
1983	20.9	7.3	2.6	7.8	0.6	2.7
1984	21.9	7.3	2.6	8.7	0.6	2.7
1985	20.3	6.7	2.3	8.4	0.6	2.2
1986	19.5	6.5	2.3	7.9	0.6	2.2
Carbon monoxide						
1970	98.7	71.8	4.4	9.0	6.4	7.2
1975	81.0	62.0	4.2	6.9	3.1	4.8
1980	76.1	52.6	7.3	6.3	2.2	7.6
1983	70.3	48.3	7.9	4.4	1.9	7.7
1984	69.6	48.4	8.1	4.8	1.9	6.3
1985	64.3	45.2	7.5	4.6	2.0	5.3
1986	60.9	42.6	7.2	4.5	1.7	5.0
Lead						
Emissions in 10 <sup>3</sup> metric tons per year						
1970	203.8	163.6	9.6	23.9	6.7	( <sup>2</sup> )
1975	147.0	122.6	9.3	10.3	4.8	( <sup>2</sup> )
1980	70.6	59.4	3.9	3.6	3.7	( <sup>2</sup> )
1983	46.3	40.7	0.6	2.4	2.6	( <sup>2</sup> )
1984	40.1	34.7	0.5	2.3	2.6	( <sup>2</sup> )
1985	21.1	15.5	0.5	2.3	2.8	( <sup>2</sup> )
1986	8.6	3.5	0.5	1.9	2.7	( <sup>2</sup> )

<sup>1</sup>Emissions of less than 50,000 metric tons per year.

<sup>2</sup>No emissions calculated.

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, 1940-1986*. EPA-450/4-87-024. U.S. Environmental Protection Agency. Research Triangle Park, N.C., Jan. 1988.

**Table 59. 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 60. 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]

<i>Health and safety services available in facility</i>	<i>All facilities</i>		<i>8-99 employees</i>		<i>100-499 employees</i>		<i>500 or more employees</i>	
	<i>1972-74</i>	<i>1981-83</i>	<i>1972-74<sup>1</sup></i>	<i>1981-83</i>	<i>1972-74</i>	<i>1981-83</i>	<i>1972-74</i>	<i>1981-83</i>
	Number in thousands							
Employees . . . . .	38,263	33,218	15,394	11,078	10,883	9,856	11,985	12,283
	Percent of employees							
Occupational health and safety practices								
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 61. Physician contacts, according to place of contact and selected patient characteristics: United States, 1983 and 1987**

[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>	
	1983	1987		1983	1987	1983	1987	1983	1987	1983	1987	1983	1987
	Number per person			Percent distribution									
Total <sup>3,4</sup>	5.1	5.4	100.0	56.1	57.1	14.9	14.1	15.5	13.4	1.5	2.1	12.0	13.4
Age													
Under 15 years	4.6	4.5	100.0	54.7	57.9	13.3	12.8	20.5	17.1	*0.3	*0.7	11.2	11.6
Under 5 years	6.9	6.7	100.0	54.2	57.6	13.2	13.0	21.0	18.3	*0.5	*0.6	11.1	10.5
5-14 years	3.3	3.3	100.0	55.3	58.2	13.4	12.6	20.0	15.6	*0.1	*0.8	11.2	12.7
15-44 years	4.4	4.6	100.0	54.9	56.4	16.5	14.5	14.3	12.3	0.6	0.7	13.7	16.1
45-64 years	5.8	6.4	100.0	59.0	56.9	15.3	15.3	12.5	12.2	1.8	3.6	11.4	12.1
65 years and over	7.6	8.9	100.0	59.2	57.8	12.4	13.8	11.9	9.9	7.9	8.6	8.7	9.9
65-74 years	7.3	8.4	100.0	60.7	59.1	14.2	14.7	11.4	9.3	3.4	6.3	10.3	10.7
75 years and over	8.2	9.7	100.0	56.9	55.9	9.8	12.7	12.7	10.7	14.3	11.9	6.3	8.8
Sex <sup>3</sup>													
Male	4.4	4.6	100.0	54.8	57.0	17.1	15.7	13.5	11.4	1.5	1.8	13.2	14.0
Female	5.7	6.0	100.0	56.8	56.9	13.6	13.1	16.8	14.7	1.5	2.3	11.2	13.0
Race <sup>3</sup>													
White	5.2	5.5	100.0	57.6	58.6	13.4	12.8	16.3	14.1	1.5	2.0	11.1	12.5
Black	4.9	5.1	100.0	44.3	47.2	26.8	23.5	9.7	7.8	1.1	3.1	18.2	18.3
Family income <sup>3</sup>													
Less than \$10,000	5.9	6.8	100.0	49.9	43.8	18.5	19.2	12.4	12.8	1.5	3.9	17.7	20.3
\$10,000-\$14,999	5.0	5.6	100.0	52.3	51.1	17.6	17.8	13.0	13.4	2.0	1.7	15.1	16.0
\$15,000-\$19,999	4.7	5.2	100.0	54.5	54.7	16.7	16.8	16.4	12.6	1.3	1.8	11.1	14.1
\$20,000-\$34,999	5.0	5.2	100.0	59.3	59.6	13.3	12.6	16.2	14.9	0.7	1.3	10.5	11.5
\$35,000 or more	5.4	5.4	100.0	59.7	62.3	11.6	11.2	19.0	13.8	1.1	1.7	8.6	11.1
Geographic region <sup>3</sup>													
Northeast	4.9	5.2	100.0	58.3	56.5	15.6	15.8	14.1	12.5	1.8	3.5	10.2	11.6
Midwest	5.2	5.6	100.0	53.5	53.2	14.7	14.5	17.2	15.6	1.2	1.7	13.5	15.0
South	4.8	5.1	100.0	56.9	61.1	14.5	12.6	15.7	12.3	1.9	2.2	11.1	11.9
West	5.4	5.5	100.0	56.0	56.4	15.3	14.4	14.5	13.4	0.8	0.7	13.3	15.1
Location of residence <sup>3</sup>													
Within MSA	5.2	5.5	100.0	54.9	55.7	15.7	14.6	16.0	13.8	1.3	2.1	12.2	13.7
Outside MSA	4.6	4.8	100.0	59.1	62.1	13.2	12.0	14.5	12.1	1.9	1.7	11.4	12.1

<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.

\*Relative standard error greater than 30 percent.

NOTE: In previous editions of *Health, United States*, physician contacts were labeled physician visits.

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

**Table 62. Interval since last physician contact, according to selected patient characteristics: United States, 1964, 1982, and 1987**

[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	1982	1987	1964	1982	1987	1964	1982	1987
Total <sup>2,3</sup>	100.0	66.9	75.8	76.6	14.0	11.0	10.6	19.1	13.2	12.8
Percent distribution										
Age										
Under 15 years	100.0	68.4	79.7	81.6	14.8	11.8	11.2	16.7	8.5	7.3
Under 5 years	100.0	80.7	91.8	93.0	11.1	6.3	5.6	8.2	1.9	1.4
5–14 years	100.0	61.7	73.5	75.5	16.9	14.7	14.1	21.4	11.8	10.4
15–44 years	100.0	66.3	72.2	72.0	15.0	12.4	12.0	18.7	15.4	16.0
45–64 years	100.0	64.5	74.4	74.9	13.0	9.4	9.3	22.5	16.2	15.7
65 years and over	100.0	69.7	82.1	85.0	9.3	5.8	5.5	21.0	12.0	9.5
65–74 years	100.0	68.8	80.2	83.2	9.4	6.4	5.8	21.8	13.4	11.0
75 years and over	100.0	71.3	85.4	87.8	9.3	4.8	5.1	19.5	9.8	7.1
Sex <sup>2</sup>										
Male	100.0	63.5	71.2	71.9	15.0	12.1	11.5	21.5	16.7	16.6
Female	100.0	69.9	80.0	81.0	13.1	10.0	9.7	17.0	10.0	9.3
Race <sup>2</sup>										
White	100.0	68.1	76.1	77.1	13.8	10.8	10.4	18.1	13.1	12.6
Black <sup>4</sup>	100.0	58.3	74.9	75.1	15.1	12.4	11.8	26.6	12.7	13.1
Family income <sup>2,5</sup>										
Less than \$10,000	100.0	58.6	77.3	77.4	13.2	10.2	9.8	28.2	12.5	12.8
\$10,000–\$14,999	100.0	62.5	74.9	74.1	14.2	11.2	11.0	23.3	13.9	14.9
\$15,000–\$19,999	100.0	66.8	73.6	73.6	14.5	11.6	11.5	18.7	14.9	14.9
\$20,000–\$34,999	100.0	70.2	75.0	76.6	14.0	11.3	10.4	15.7	13.7	12.9
\$35,000 or more	100.0	73.6	78.0	79.4	12.9	10.3	9.8	13.5	11.8	10.8
Geographic region <sup>2</sup>										
Northeast	100.0	68.0	78.5	78.4	14.1	9.9	10.8	17.9	11.7	10.9
Midwest	100.0	66.6	75.7	78.0	14.2	11.0	9.7	19.2	13.3	12.2
South	100.0	65.2	74.4	75.0	13.9	11.9	11.3	20.9	13.7	13.7
West	100.0	69.0	75.3	75.9	13.7	10.6	10.2	17.3	14.2	13.9
Location of residence <sup>2</sup>										
Within MSA	100.0	68.2	76.9	77.3	14.0	10.6	10.3	17.8	12.5	12.3
Outside MSA	100.0	64.0	73.4	74.3	14.1	11.8	11.3	21.9	14.9	14.4

<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 1987. 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 1982 are: less than \$7,000; \$7,000–\$9,999; \$10,000–\$14,999; \$15,000–\$24,999; and \$25,000 or more.

NOTE: In previous editions of *Health, United States*, physician contacts were labeled physician visits.

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

**Table 63. 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 64. 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 65. 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>											
	Dental visits			Less than 1 year			2 years or more			Never visited dentist		
	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 66. Discharges, days of care, and average length of stay in short-stay hospitals, according to selected characteristics: United States, 1964, 1981, and 1987**

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

Characteristic	Discharges			Days of care			Average length of stay		
	1964	1981	1987	1964	1981	1987	1964	1981	1987
	Number per 1,000 population						Number of days		
Total <sup>1,2</sup>	109.1	121.7	96.5	970.9	952.1	649.7	8.9	7.8	6.7
Age									
Under 15 years	67.6	64.3	48.6	405.7	343.1	263.9	6.0	5.3	5.4
Under 5 years	94.3	109.5	84.0	731.1	651.3	489.2	7.8	5.9	5.8
5-14 years	53.1	42.0	29.7	229.1	191.1	143.8	4.3	4.6	4.8
15-44 years	100.6	97.0	69.2	760.7	626.2	407.0	7.6	6.5	5.9
45-64 years	146.2	175.1	143.3	1,559.3	1,565.5	987.9	10.7	8.9	6.9
65 years and over	190.0	283.6	255.8	2,292.7	2,843.3	2,111.1	12.1	10.0	8.3
65-74 years	181.2	258.8	227.4	2,150.4	2,407.5	1,862.8	11.9	9.3	8.2
75 years and over	206.7	325.4	301.2	2,560.4	3,578.1	2,507.8	12.4	11.0	8.3
Sex <sup>1</sup>									
Male	103.8	119.3	100.1	1,010.2	1,008.4	702.9	9.7	8.5	7.0
Female	113.7	123.8	93.9	933.4	903.1	605.7	8.2	7.3	6.5
Race <sup>1</sup>									
White	112.4	120.0	94.8	961.4	912.5	621.5	8.6	7.6	6.6
Black <sup>3</sup>	84.0	137.7	117.4	1,062.9	1,302.4	942.8	12.7	9.5	8.0
Family income <sup>1,4</sup>									
Less than \$10,000	102.4	165.1	143.7	1,051.2	1,318.5	1,086.0	10.3	8.0	7.6
\$10,000-\$14,999	116.4	137.5	132.6	1,213.9	1,158.0	956.9	10.4	8.4	7.2
\$15,000-\$19,999	110.7	124.5	102.4	939.8	1,056.0	701.1	8.5	8.5	6.8
\$20,000-\$34,999	109.2	119.8	87.9	882.6	841.7	573.1	8.1	7.0	6.5
\$35,000 or more	110.7	104.6	77.1	918.9	773.8	475.5	8.3	7.4	6.2
Geographic region <sup>1</sup>									
Northeast	98.5	106.0	84.5	993.8	944.9	620.5	10.1	8.9	7.3
Midwest	109.2	129.1	105.8	944.9	1,006.0	657.5	8.7	7.8	6.2
South	117.8	140.1	108.6	968.0	1,076.2	768.9	8.2	7.7	7.1
West	110.5	95.8	78.3	985.9	649.1	471.5	8.9	6.8	6.0
Location of residence <sup>1</sup>									
Within MSA	107.5	110.3	92.9	1,015.4	926.9	656.3	9.4	8.4	7.1
Outside MSA	113.3	144.0	109.2	871.9	997.3	634.0	7.7	6.9	5.8

<sup>1</sup>Age adjusted.

<sup>2</sup>Includes all other races not shown separately and unknown family income.

<sup>3</sup>1964 data include all other races.

<sup>4</sup>Family income categories for 1987. 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.

NOTE: Excludes deliveries.

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

**Table 67. Discharges, days of care, and average length of stay in non-Federal short-stay hospitals, according to selected characteristics: United States, 1980-87**

[Data are based on a sample of hospital records]

Characteristic	1980 <sup>1</sup>	1981	1982	1983	1984	1985	1986	1987
Discharges per 1,000 population								
Total <sup>2</sup> . . . . .	159.1	160.2	158.5	157.1	148.2	138.0	132.8	127.9
Sex <sup>2</sup>								
Male . . . . .	140.1	141.0	140.5	139.9	131.8	123.5	119.8	115.0
Female . . . . .	178.1	179.5	176.5	174.4	164.7	152.7	146.2	141.2
Age								
Under 15 years . . . . .	71.6	72.9	71.2	70.8	62.0	57.2	53.5	51.3
15-44 years . . . . .	150.2	148.7	145.0	140.3	132.2	125.1	118.9	115.1
45-64 years . . . . .	194.8	195.3	195.5	192.2	183.3	169.5	162.2	156.9
65 years and over . . . . .	383.7	396.5	398.8	412.7	400.4	368.3	367.3	350.5
65-74 years . . . . .	315.9	330.0	324.2	334.2	319.6	294.9	296.8	280.9
75 years and over . . . . .	489.1	498.4	511.4	529.3	520.1	476.5	470.5	451.6
Geographic region <sup>2</sup>								
Northeast . . . . .	148.4	146.5	145.9	144.2	135.1	129.7	124.1	118.9
Midwest . . . . .	176.4	179.9	176.0	167.9	156.7	143.5	139.8	135.3
South . . . . .	166.2	165.2	165.2	167.7	159.5	143.4	136.3	127.9
West . . . . .	138.0	141.1	138.2	139.6	132.3	131.0	127.8	128.6
Days of care per 1,000 population								
Total <sup>2</sup> . . . . .	1,136.5	1,134.0	1,101.7	1,068.8	960.1	877.1	833.1	808.7
Sex <sup>2</sup>								
Male . . . . .	1,072.6	1,075.4	1,047.6	1,025.7	917.6	841.2	803.4	789.2
Female . . . . .	1,201.7	1,196.1	1,157.7	1,115.7	1,005.8	914.7	865.0	831.1
Age								
Under 15 years . . . . .	315.8	337.1	326.4	323.4	277.7	260.8	244.7	240.6
15-44 years . . . . .	787.0	769.6	742.0	707.5	647.3	603.6	575.7	556.9
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
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
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
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
Geographic region <sup>2</sup>								
Northeast . . . . .	1,217.3	1,190.2	1,149.8	1,115.6	1,012.3	963.1	877.6	847.1
Midwest . . . . .	1,309.4	1,306.7	1,283.0	1,184.4	1,059.9	955.7	914.2	885.3
South . . . . .	1,114.5	1,112.9	1,083.3	1,087.1	962.9	851.4	817.6	781.5
West . . . . .	844.6	859.3	825.7	821.9	756.5	717.9	703.0	712.5
Average length of stay in days								
Total <sup>2</sup> . . . . .	7.1	7.1	7.0	6.8	6.5	6.4	6.3	6.3
Sex <sup>2</sup>								
Male . . . . .	7.7	7.6	7.5	7.3	7.0	6.8	6.7	6.9
Female . . . . .	6.7	6.7	6.6	6.4	6.1	6.0	5.9	5.9
Age								
Under 15 years . . . . .	4.4	4.6	4.6	4.6	4.5	4.6	4.6	4.7
15-44 years . . . . .	5.2	5.2	5.1	5.0	4.9	4.8	4.8	4.8
45-64 years . . . . .	8.2	8.0	7.9	7.6	7.2	7.0	6.8	6.8
65 years and over . . . . .	10.7	10.5	10.1	9.7	8.9	8.7	8.5	8.6
65-74 years . . . . .	10.0	9.9	9.6	9.2	8.5	8.2	8.0	8.2
75 years and over . . . . .	11.4	11.1	10.6	10.2	9.3	9.2	9.0	9.1
Geographic region <sup>2</sup>								
Northeast . . . . .	8.2	8.1	7.9	7.7	7.5	7.4	7.1	7.1
Midwest . . . . .	7.4	7.3	7.3	7.1	6.8	6.7	6.5	6.5
South . . . . .	6.7	6.7	6.6	6.5	6.0	5.9	6.0	6.1
West . . . . .	6.1	6.1	6.0	5.9	5.7	5.5	5.5	5.5

<sup>1</sup>Geographic data for 1980 are based on the civilian population as of April 1, 1980.

<sup>2</sup>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 68. 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, 1984-87**

[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
<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
<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
<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

\*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 69 (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, and 1987**

[Data are based on a sample of hospital records]

<i>Sex, age, and first-listed diagnosis</i>	<i>Discharges</i>			<i>Days of care</i>		
	<i>1980</i>	<i>1985</i>	<i>1987</i>	<i>1980</i>	<i>1985</i>	<i>1987</i>
<b>Both sexes</b>						
Number per 1,000 population						
Total <sup>1,2</sup> . . . . .	159.1	138.0	127.9	1,136.5	877.1	808.7
Females with delivery . . . . .	14.7	14.1	14.0	55.5	46.1	42.8
Diseases of heart . . . . .	13.1	13.7	13.8	123.5	98.4	94.5
Malignant neoplasms . . . . .	7.6	7.4	7.1	90.5	65.2	60.8
Fracture, all sites . . . . .	4.9	4.4	4.0	51.2	37.1	34.3
Pneumonia, all forms . . . . .	3.5	3.6	3.7	27.7	26.5	27.7
<b>Male</b>						
All ages <sup>1,2</sup> . . . . .	140.1	123.5	115.0	1,072.6	841.2	789.2
Diseases of heart . . . . .	15.9	16.8	17.2	145.0	116.9	114.0
Malignant neoplasms . . . . .	8.2	7.8	7.3	98.7	71.1	65.9
Fracture, all sites . . . . .	5.2	4.7	4.3	46.9	35.3	34.7
Pneumonia, all forms . . . . .	4.1	3.9	4.1	32.5	29.8	31.4
Cerebrovascular diseases . . . . .	3.5	3.6	3.3	41.9	36.0	31.5
Inguinal hernia . . . . .	4.3	3.0	2.3	20.0	9.3	5.8
Under 15 years <sup>2</sup> . . . . .	78.7	63.8	57.3	341.5	287.5	269.9
Acute respiratory infection . . . . .	5.9	5.2	4.2	22.0	17.2	13.6
Pneumonia, all forms . . . . .	5.2	4.3	4.2	25.2	18.1	18.6
Bronchitis, emphysema, and asthma . . . . .	4.0	4.1	3.9	16.3	13.7	12.7
Congenital anomalies . . . . .	4.0	3.8	2.9	22.2	20.5	15.9
Chronic disease of tonsils and adenoids . . . . .	5.4	3.5	2.9	9.2	5.1	3.5
Noninfectious enteritis and colitis . . . . .	4.0	2.8	2.2	16.1	8.3	6.2
Otitis media and eustachian tube disorders . . . . .	4.5	2.2	1.8	11.3	4.7	4.1
15-44 years <sup>2</sup> . . . . .	91.5	75.4	68.7	581.0	458.9	441.1
Fracture, all sites . . . . .	6.3	5.3	4.9	50.1	34.7	36.8
Psychoses . . . . .	3.0	3.7	4.1	39.2	47.4	51.4
Alcohol dependence syndrome . . . . .	3.5	3.5	2.8	33.4	38.8	30.9
Diseases of heart . . . . .	2.9	3.0	2.8	21.7	16.6	15.8
Intervertebral disc disorders . . . . .	2.3	2.9	2.8	20.7	18.7	14.8
Lacerations and open wounds . . . . .	3.4	2.6	2.5	17.9	11.0	9.4
45-64 years <sup>2</sup> . . . . .	195.4	176.2	163.1	1,590.3	1,219.9	1,099.1
Diseases of heart . . . . .	33.7	36.6	36.7	288.1	237.4	218.8
Malignant neoplasms . . . . .	14.4	13.1	12.7	167.2	119.8	114.2
Inguinal hernia . . . . .	6.9	5.1	4.0	36.5	15.3	8.8
Cerebrovascular diseases . . . . .	4.7	5.0	4.7	49.6	50.7	47.3
Intervertebral disc disorders . . . . .	3.7	4.6	4.8	34.5	32.8	29.5
Alcohol dependence syndrome . . . . .	6.4	4.5	3.2	67.8	43.4	31.8
65 years and over <sup>2</sup> . . . . .	411.8	393.2	381.9	4,244.0	3,315.0	3,163.3
Diseases of heart . . . . .	78.5	82.6	87.0	786.3	626.9	639.0
Malignant neoplasms . . . . .	46.2	44.4	40.0	587.9	418.4	374.0
Cerebrovascular diseases . . . . .	24.4	25.1	22.5	301.2	249.7	206.3
Pneumonia, all forms . . . . .	15.0	17.3	18.4	166.1	172.6	180.9
Hyperplasia of prostate . . . . .	18.1	15.5	17.0	176.7	103.5	96.4
<b>Female</b>						
All ages <sup>1,2</sup> . . . . .	178.1	152.7	141.2	1,201.7	914.7	831.1
Delivery . . . . .	29.0	27.7	27.6	109.4	91.0	84.5
Diseases of heart . . . . .	10.7	11.0	11.0	105.1	82.5	78.3
Malignant neoplasms . . . . .	7.3	7.3	7.1	85.8	61.7	57.9
Fracture, all sites . . . . .	4.4	4.0	3.7	52.1	36.6	32.1
Pneumonia, all forms . . . . .	3.0	3.2	3.4	24.0	24.3	25.1
Pregnancy with abortive outcome . . . . .	4.1	2.8	2.1	8.7	5.9	4.7
Under 15 years <sup>2</sup> . . . . .	64.2	50.2	45.0	288.9	232.9	209.9
Chronic disease of tonsils and adenoids . . . . .	6.4	3.7	2.7	11.2	6.0	3.1
Acute respiratory infection . . . . .	4.6	3.6	3.0	16.0	11.3	8.9
Pneumonia, all forms . . . . .	3.6	3.6	3.5	17.7	16.4	15.5
Bronchitis, emphysema, and asthma . . . . .	2.5	2.6	2.6	9.6	9.0	9.3
Noninfectious enteritis and colitis . . . . .	3.7	2.3	1.9	16.8	6.8	5.0
Otitis media and eustachian tube disorders . . . . .	3.2	1.7	1.4	7.1	3.9	3.6

See footnotes at end of table.

**Table 69 (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, and 1987**

[Data are based on a sample of hospital records]

Sex, age, and first-listed diagnosis	Discharges			Days of care		
	1980	1985	1987	1980	1985	1987
Female—Con. <span style="float: right;">Number per 1,000 population</span>						
15–44 years <sup>2</sup> . . . . .	206.9	173.4	160.3	986.4	744.3	669.7
Delivery . . . . .	70.7	67.8	67.4	264.5	222.4	206.6
Pregnancy with abortive outcome . . . . .	9.9	6.7	5.1	21.2	14.4	11.3
Inflammatory disease of female pelvic organs . . . . .	5.1	3.7	3.2	25.7	17.7	13.9
Benign neoplasms . . . . .	4.8	3.4	3.1	25.7	17.2	14.1
Psychoses . . . . .	2.4	3.4	3.7	36.7	52.3	52.0
Disorders of menstruation . . . . .	6.6	2.6	2.0	21.6	9.7	7.0
45–64 years <sup>2</sup> . . . . .	194.3	163.4	151.2	1,604.1	1,168.1	1,040.5
Diseases of heart . . . . .	17.8	17.9	18.7	152.9	120.5	121.8
Malignant neoplasms . . . . .	16.6	15.6	16.2	190.8	129.6	125.0
Benign neoplasms . . . . .	6.7	5.1	4.8	44.8	32.0	25.3
Cholelithiasis . . . . .	4.7	4.4	4.6	42.9	30.9	28.2
Fracture, all sites . . . . .	4.6	4.1	3.7	51.8	29.8	26.9
Diabetes . . . . .	6.3	3.8	3.8	63.5	31.4	30.0
65 years and over <sup>2</sup> . . . . .	364.7	351.4	329.1	3,999.8	3,147.1	2,938.6
Diseases of heart . . . . .	64.8	68.1	66.9	701.1	551.3	511.0
Malignant neoplasms . . . . .	28.5	28.1	26.4	383.8	280.6	250.6
Cerebrovascular diseases . . . . .	21.6	23.3	22.1	287.9	249.3	236.8
Fracture, all sites . . . . .	19.2	19.3	17.3	309.5	232.5	203.0
Pneumonia, all forms . . . . .	9.7	11.8	12.6	109.2	116.9	126.9
Eye diseases and conditions . . . . .	16.4	8.2	4.7	67.3	21.0	13.1

<sup>1</sup>Age adjusted.

<sup>2</sup>Includes discharges with first-listed diagnoses not shown in table.

NOTES: Excludes newborn infants. Rates are based on the civilian population. In each sex and age group, data are shown for diagnoses with the five highest discharge rates in 1980 and 1985. 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 70 (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, and 1987**

[Data are based on a sample of hospital records]

Sex, age, and first-listed diagnosis	Discharges			Average length of stay		
	1980	1985	1987	1980	1985	1987
<b>Both sexes</b>						
	Number in thousands			Number of days		
Total <sup>1</sup> . . . . .	37,832	35,056	33,387	7.3	6.5	6.4
Females with delivery . . . . .	3,762	3,854	3,911	3.8	3.3	3.1
Diseases of heart . . . . .	3,201	3,584	3,736	9.5	7.3	6.9
Malignant neoplasms . . . . .	1,829	1,911	1,879	12.0	8.9	8.7
Fracture, all sites . . . . .	1,163	1,129	1,062	10.8	8.7	8.9
Pneumonia, all forms . . . . .	782	854	924	7.9	7.4	8.0
<b>Male</b>						
All ages <sup>1</sup> . . . . .	15,145	14,160	13,568	7.7	6.9	6.9
Diseases of heart . . . . .	1,688	1,910	2,016	9.1	7.0	6.7
Malignant neoplasms . . . . .	875	892	868	12.0	9.1	9.0
Fracture, all sites . . . . .	582	550	519	9.0	7.7	8.3
Pneumonia, all forms . . . . .	414	433	468	8.2	7.8	7.9
Cerebrovascular diseases . . . . .	371	416	392	12.1	10.0	9.6
Inguinal hernia . . . . .	458	343	266	4.7	3.1	2.5
Under 15 years <sup>1</sup> . . . . .	2,063	1,698	1,537	4.3	4.5	4.7
Acute respiratory infection . . . . .	154	138	114	3.8	3.3	3.2
Pneumonia, all forms . . . . .	136	115	113	4.9	4.2	4.4
Bronchitis, emphysema, and asthma . . . . .	105	110	105	4.0	3.3	3.3
Congenital anomalies . . . . .	106	101	79	5.5	5.4	5.4
Chronic disease of tonsils and adenoids . . . . .	141	92	77	1.7	1.5	1.2
Noninfectious enteritis and colitis . . . . .	106	74	59	4.0	3.0	2.8
Otitis media and eustachian tube disorders . . . . .	118	59	47	2.5	2.1	2.3
15-44 years <sup>1</sup> . . . . .	4,687	4,153	3,874	6.3	6.1	6.4
Fracture, all sites . . . . .	320	290	274	8.0	6.6	7.6
Psychoses . . . . .	155	204	231	12.9	12.8	12.5
Alcohol dependence syndrome . . . . .	180	195	160	9.5	11.0	10.9
Diseases of heart . . . . .	149	165	157	7.5	5.5	5.7
Intervertebral disc disorders . . . . .	120	161	157	8.8	6.4	5.3
Lacerations and open wounds . . . . .	176	143	140	5.2	4.2	3.8
45-64 years <sup>1</sup> . . . . .	4,127	3,776	3,528	8.1	6.9	6.7
Diseases of heart . . . . .	712	784	795	8.5	6.5	6.0
Malignant neoplasms . . . . .	304	281	275	11.6	9.1	9.0
Inguinal hernia . . . . .	146	110	88	5.3	3.0	2.2
Cerebrovascular diseases . . . . .	99	107	102	10.6	10.2	10.0
Intervertebral disc disorders . . . . .	78	98	103	9.4	7.2	6.2
Alcohol dependence syndrome . . . . .	134	97	70	10.7	9.6	9.9
65 years and over <sup>1</sup> . . . . .	4,268	4,533	4,629	10.3	8.4	8.3
Diseases of heart . . . . .	814	953	1,054	10.0	7.6	7.3
Malignant neoplasms . . . . .	479	512	485	12.7	9.4	9.3
Cerebrovascular diseases . . . . .	253	289	273	12.3	9.9	9.2
Pneumonia, all forms . . . . .	156	199	222	11.1	10.0	9.9
Hyperplasia of prostate . . . . .	188	179	206	9.8	6.7	5.7
<b>Female</b>						
All ages <sup>1</sup> . . . . .	22,686	20,896	19,818	7.0	6.2	6.1
Delivery . . . . .	3,762	3,854	3,911	3.8	3.3	3.1
Diseases of heart . . . . .	1,513	1,674	1,720	10.0	7.6	7.2
Malignant neoplasms . . . . .	954	1,019	1,011	12.0	8.7	8.3
Fracture, all sites . . . . .	580	579	543	12.6	9.8	9.4
Pneumonia, all forms . . . . .	368	421	456	8.4	8.1	8.1
Pregnancy with abortive outcome . . . . .	531	382	301	2.1	2.1	2.2
Under 15 years <sup>1</sup> . . . . .	1,609	1,274	1,150	4.5	4.6	4.7
Chronic disease of tonsils and adenoids . . . . .	160	94	69	1.8	1.6	1.2
Acute respiratory infection . . . . .	115	91	76	3.5	3.2	3.0
Pneumonia, all forms . . . . .	91	91	90	4.9	4.6	4.4
Bronchitis, emphysema, and asthma . . . . .	63	65	67	3.8	3.5	3.6
Noninfectious enteritis and colitis . . . . .	92	59	48	4.6	2.9	2.7
Otitis media and eustachian tube disorders . . . . .	81	42	37	2.2	2.3	2.5

See footnotes at end of table.

**Table 70 (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, and 1987**

[Data are based on a sample of hospital records]

Sex, age, and first-listed diagnosis	Discharges			Average length of stay		
	1980	1985	1987	1980	1985	1987
Female—Con.	Number in thousands			Number of days		
15–44 years <sup>1</sup> . . . . .	10,949	9,813	9,268	4.8	4.3	4.2
Delivery . . . . .	3,741	3,838	3,897	3.7	3.3	3.1
Pregnancy with abortive outcome . . . . .	525	378	297	2.1	2.2	2.2
Inflammatory disease of female pelvic organs . . . . .	268	210	184	5.1	4.8	4.4
Benign neoplasms . . . . .	253	194	180	5.4	5.0	4.5
Psychoses . . . . .	129	192	216	15.1	15.4	13.9
Disorders of menstruation . . . . .	347	148	114	3.3	3.7	3.6
45–64 years <sup>1</sup> . . . . .	4,533	3,834	3,571	8.3	7.1	6.9
Diseases of heart . . . . .	415	420	441	8.6	6.7	6.5
Malignant neoplasms . . . . .	387	367	383	11.5	8.3	7.7
Benign neoplasms . . . . .	156	120	113	6.7	6.3	5.3
Cholelithiasis . . . . .	109	103	109	9.2	7.1	6.1
Fracture, all sites . . . . .	107	96	87	11.3	7.3	7.3
Diabetes . . . . .	148	88	89	10.0	8.3	7.9
65 years and over <sup>1</sup> . . . . .	5,596	5,975	5,830	11.0	9.0	8.9
Diseases of heart . . . . .	995	1,158	119	10.8	8.1	7.6
Malignant neoplasms . . . . .	437	478	468	13.5	10.0	9.5
Cerebrovascular diseases . . . . .	331	396	392	13.3	10.7	10.7
Fracture, all sites . . . . .	295	328	307	16.1	12.1	11.7
Pneumonia, all forms . . . . .	150	201	223	11.2	9.9	10.1
Eye diseases and conditions . . . . .	251	140	83	4.1	2.5	2.8

<sup>1</sup>Includes discharges with first-listed diagnoses not shown in table.

NOTES: Excludes newborn infants. In each sex and age group data are shown for diagnoses with the five highest discharge rates in 1980 and 1985. 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 71 (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, and 1987**

[Data are based on a sample of hospital records]

Sex, age, and surgical category	Operations in thousands			Operations per 1,000 population		
	1980	1985	1987	1980	1985	1987
<b>Male</b>						
All ages <sup>1,2</sup> . . . . .	8,505	8,805	9,073	78.1	76.3	76.4
Cardiac catheterization . . . . .	228	439	533	2.2	3.9	4.7
Repair of inguinal hernia . . . . .	483	370	290	4.6	3.3	2.5
Prostatectomy . . . . .	335	367	410	3.1	3.2	3.4
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	325	339	367	2.9	2.8	3.0
Biopsies on the digestive system . . . . .	161	220	230	1.5	1.9	1.9
Tonsillectomy, with or without adenoidectomy . . . . .	195	135	115	2.0	1.3	1.2
Under 15 years <sup>2</sup> . . . . .	1,068	831	725	40.7	31.3	27.0
Tonsillectomy, with or without adenoidectomy . . . . .	138	97	85	5.3	3.6	3.2
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	55	57	55	2.1	2.1	2.1
Myringotomy . . . . .	115	53	41	4.4	2.0	1.5
Repair of inguinal hernia . . . . .	86	46	34	3.3	1.7	1.3
Appendectomy, excluding incidental <sup>3</sup> . . . . .	43	41	38	1.6	1.5	1.4
Circumcision . . . . .	43	31	26	1.6	1.2	1.0
15-44 years <sup>2</sup> . . . . .	2,900	2,717	2,640	56.6	49.4	46.8
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	188	187	206	3.7	3.4	3.7
Excision or destruction of intervertebral disc and spinal fusion . . . . .	67	119	110	1.3	2.2	1.9
Operations on muscles, tendons, fascia, and bursa . . . . .	110	100	95	2.2	1.8	1.7
Repair of inguinal hernia . . . . .	127	91	69	2.5	1.7	1.2
Appendectomy, excluding incidental <sup>3</sup> . . . . .	85	88	101	1.7	1.6	1.8
Excision of semilunar cartilage of knee . . . . .	94	48	28	1.8	0.9	0.5
45-64 years <sup>2</sup> . . . . .	2,313	2,494	2,612	109.5	116.4	120.7
Cardiac catheterization . . . . .	129	241	289	6.1	11.3	13.4
Repair of inguinal hernia . . . . .	152	116	91	7.2	5.4	4.2
Direct heart revascularization (coronary bypass) . . . . .	72	102	131	3.4	4.8	6.1
Prostatectomy . . . . .	83	81	90	3.9	3.8	4.2
Biopsies on the digestive system . . . . .	56	67	69	2.6	3.1	3.2
Operations on muscles, tendons, fascia, and bursa . . . . .	58	50	51	2.8	2.3	2.4
65 years and over <sup>2</sup> . . . . .	2,224	2,762	3,097	214.6	239.5	255.5
Prostatectomy . . . . .	251	284	318	24.2	24.7	26.3
Cardiac catheterization . . . . .	52	126	182	5.0	10.9	15.0
Repair of inguinal hernia . . . . .	119	116	96	11.4	10.1	7.9
Biopsies on the digestive system . . . . .	61	107	113	5.9	9.3	9.3
Pacemaker insertion, replacement, removal, and repair . . . . .	75	82	95	7.3	7.1	7.9
Extraction of lens . . . . .	124	53	18	12.0	4.6	1.5
<b>Female</b>						
All ages <sup>1,2</sup> . . . . .	15,989	15,994	16,583	126.1	117.2	118.3
Procedures to assist delivery . . . . .	2,391	2,494	2,938	18.4	18.0	20.7
Cesarean section <sup>4</sup> . . . . .	619	877	953	4.8	6.3	6.7
Hysterectomy . . . . .	649	670	655	5.2	5.0	4.8
Oophorectomy and salpingo-oophorectomy . . . . .	483	525	490	3.9	4.0	3.7
Repair of current obstetrical laceration . . . . .	355	548	660	2.8	3.9	4.7
Bilateral destruction or occlusion of fallopian tubes . . . . .	641	466	415	4.9	3.3	2.9
Diagnostic dilation and curettage of uterus . . . . .	923	349	206	7.3	2.6	1.5
Under 15 years <sup>2</sup> . . . . .	771	553	471	30.8	21.8	18.4
Tonsillectomy, with or without adenoidectomy . . . . .	156	100	74	6.2	3.9	2.9
Myringotomy . . . . .	87	36	20	3.5	1.4	0.8
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	32	33	28	1.3	1.3	1.1
Appendectomy, excluding incidental <sup>3</sup> . . . . .	34	28	28	1.4	1.1	1.1
Operations on muscles, tendons, fascia, and bursa . . . . .	23	11	11	0.9	0.5	0.4
Adenoidectomy without tonsillectomy . . . . .	31	*7	*	1.2	*0.3	*
15-44 years <sup>2</sup> . . . . .	9,625	9,340	9,937	181.9	165.0	171.9
Procedures to assist delivery . . . . .	2,381	2,483	2,927	45.0	43.9	50.6
Cesarean section . . . . .	614	875	951	11.6	15.5	16.4
Repair of current obstetrical laceration . . . . .	352	546	656	6.7	9.6	11.3
Bilateral destruction or occlusion of fallopian tubes . . . . .	632	461	413	11.9	8.1	7.1
Hysterectomy . . . . .	402	421	406	7.6	7.4	7.0
Diagnostic dilation and curettage of uterus . . . . .	625	232	141	11.8	4.1	2.4

See footnotes at end of table.

**Table 71 (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, and 1987**

[Data are based on a sample of hospital records]

Sex, age, and surgical category	Operations in thousands			Operations per 1,000 population		
	1980	1985	1987	1980	1985	1987
Female—Con.						
45–64 years <sup>2</sup> . . . . .	3,113	2,893	2,847	133.4	123.3	120.5
Hysterectomy . . . . .	203	190	188	8.7	8.1	8.0
Oophorectomy and salpingo-oophorectomy. . . . .	162	165	163	7.0	7.0	6.9
Cardiac catheterization . . . . .	58	108	151	2.5	4.6	6.4
Cholecystectomy . . . . .	107	104	114	4.6	4.4	4.8
Diagnostic dilation and curettage of uterus . . . . .	241	83	48	10.3	3.5	2.0
Biopsies on the integumentary system (breast, skin, and subcutaneous tissue) . . . . .	69	48	39	2.9	2.1	1.7
65 years and over <sup>2</sup> . . . . .	2,480	3,208	3,328	161.6	188.7	187.9
Reduction of fracture (excluding skull, nose, and jaw) . . . . .	127	163	169	8.3	9.6	9.5
Biopsies on the digestive system . . . . .	72	140	152	4.7	8.2	8.6
Arthroplasty and replacement of hip . . . . .	72	108	115	4.7	6.4	6.5
Extraction of lens . . . . .	211	104	38	13.8	6.1	2.2
Cardiac catheterization . . . . .	32	101	146	2.1	6.0	8.2
Insertion of prosthetic lens (pseudophakos) . . . . .	93	92	35	6.1	5.4	2.0
Cholecystectomy . . . . .	83	89	106	5.4	5.2	6.0

<sup>1</sup>Rates are age adjusted.

<sup>2</sup>Includes operations not listed in table.

<sup>3</sup>Limited to estimated number of appendectomies, excluding those performed incidental to other abdominal surgery.

<sup>4</sup>Cesarean sections accounted for 16.5 percent of all deliveries in 1980, 22.7 percent in 1985, and 24.4 percent in 1987.

\*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. Rates are based on the civilian population. In each sex and age group, data are shown for operations with the five highest rates in 1980 and 1985. 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 72 (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, and 1987**

[Data are based on a sample of hospital records]

Sex, age, and procedure category	Procedures in thousands			Procedures per 1,000 population		
	1980	1985	1987	1980	1985	1987
<b>Male</b>						
All ages <sup>1,2</sup> . . . . .	3,386	5,889	6,643	31.3	51.1	56.2
Computerized axial tomography (CAT scan) . . . . .	152	671	814	1.4	5.8	6.8
Diagnostic ultrasound . . . . .	114	478	616	1.0	4.1	5.2
Cystoscopy . . . . .	543	461	444	5.1	4.0	3.7
Angiocardiology using contrast material . . . . .	174	431	617	1.6	3.9	5.4
Radioisotope scan . . . . .	236	375	350	2.1	3.3	2.9
Arteriography using contrast material . . . . .	180	262	251	1.7	2.3	2.1
Endoscopy of large intestine . . . . .	228	259	245	2.1	2.2	2.0
Under 15 years <sup>2</sup> . . . . .	217	297	377	8.3	11.1	14.1
Spinal tap . . . . .	39	62	76	1.5	2.3	2.8
Computerized axial tomography (CAT scan) . . . . .	17	35	54	0.7	1.3	2.0
Diagnostic ultrasound . . . . .	*6	23	34	*0.2	0.9	1.3
Electroencephalogram . . . . .	*5	19	20	*0.2	0.7	0.8
Application of cast or splint . . . . .	21	16	13	0.8	0.6	0.5
Cystoscopy . . . . .	23	11	*8	0.9	0.4	*0.3
Radioisotope scan . . . . .	*8	*9	11	*0.3	*0.4	0.4
15-44 years <sup>2</sup> . . . . .	884	1,294	1,368	17.3	23.5	24.3
Computerized axial tomography (CAT scan) . . . . .	37	174	217	0.7	3.2	3.8
Contrast myelogram . . . . .	88	130	111	1.7	2.4	2.0
Diagnostic ultrasound . . . . .	25	96	113	0.5	1.7	2.0
Arthroscopy of knee . . . . .	94	75	59	1.8	1.4	1.0
Radioisotope scan . . . . .	48	67	65	0.9	1.2	1.2
Endoscopy of large intestine . . . . .	52	54	36	1.0	1.0	0.6
Cystoscopy . . . . .	80	47	39	1.6	0.9	0.7
Application of cast or splint . . . . .	54	30	27	1.1	0.6	0.5
45-64 years <sup>2</sup> . . . . .	1,128	1,866	2,060	53.4	87.1	95.2
Angiocardiology using contrast material . . . . .	106	251	350	5.0	11.7	16.2
Computerized axial tomography (CAT scan) . . . . .	43	182	205	2.0	8.5	9.5
Diagnostic ultrasound . . . . .	41	146	178	1.9	6.8	8.2
Radioisotope scan . . . . .	75	121	106	3.5	5.7	4.9
Cystoscopy . . . . .	153	114	108	7.3	5.3	5.0
Arteriography using contrast material . . . . .	76	94	92	3.6	4.4	4.2
Endoscopy of large intestine . . . . .	86	76	70	4.0	3.5	3.2
65 years and over <sup>2</sup> . . . . .	1,158	2,432	2,838	111.8	211.0	234.2
Cystoscopy . . . . .	287	288	290	27.7	25.0	23.9
Computerized axial tomography (CAT scan) . . . . .	54	280	337	5.2	24.3	27.8
Diagnostic ultrasound . . . . .	42	213	290	4.0	18.4	24.0
Radioisotope scan . . . . .	105	177	167	10.1	15.4	13.8
Arteriography using contrast material . . . . .	72	135	121	7.0	11.7	10.0
Endoscopy of large intestine . . . . .	86	126	138	8.3	10.9	11.3
<b>Female</b>						
All ages <sup>1,2</sup> . . . . .	3,532	6,072	6,820	27.5	43.3	47.3
Diagnostic ultrasound . . . . .	204	756	981	1.6	5.4	6.7
Computerized axial tomography (CAT scan) . . . . .	154	707	833	1.2	4.9	5.6
Radioisotope scan . . . . .	289	463	409	2.1	3.2	2.8
Endoscopy of large intestine . . . . .	307	331	304	2.3	2.3	2.0
Endoscopy of small intestine . . . . .	164	281	341	1.3	2.0	2.3
Laparoscopy (excluding that for ligation and division of fallopian tubes) . . . . .	235	209	176	1.8	1.5	1.2
Cystoscopy . . . . .	324	184	149	2.6	1.3	1.0
Under 15 years <sup>2</sup> . . . . .	191	256	293	7.6	10.1	11.5
Spinal tap . . . . .	26	50	66	1.0	2.0	2.6
Computerized axial tomography (CAT scan) . . . . .	*10	33	32	*0.4	1.3	1.3
Diagnostic ultrasound . . . . .	*5	25	35	*0.2	1.0	1.4
Electroencephalogram . . . . .	*	15	15	*	0.6	0.6
Cystoscopy . . . . .	38	*8	*5	1.5	*0.3	*0.2
Radioisotope scan . . . . .	*6	*8	*7	*0.2	*0.3	*0.3
Application of cast or splint . . . . .	13	*6	*8	0.5	*0.2	*0.3

See footnotes at end of table.

**Table 72 (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, and 1987**

[Data are based on a sample of hospital records]

Sex, age, and procedure category	Procedures in thousands			Procedures per 1,000 population		
	1980	1985	1987	1980	1985	1987
Female—Con.						
15–44 years <sup>2</sup> . . . . .	1,203	1,606	1,687	22.7	28.4	29.2
Diagnostic ultrasound . . . . .	94	283	376	1.8	5.0	6.5
Laparoscopy (excluding that for ligation and division of fallopian tubes) . . . . .	214	197	162	4.1	3.5	2.8
Computerized axial tomography (CAT scan) . . . . .	36	137	149	0.7	2.4	2.6
Contrast myelogram . . . . .	66	96	80	1.2	1.7	1.4
Biliary tract X-ray . . . . .	60	90	107	1.1	1.6	1.9
Endoscopy of large intestine . . . . .	77	58	51	1.5	1.0	0.9
Cystoscopy . . . . .	97	51	37	1.8	0.9	0.6
45–64 years <sup>2</sup> . . . . .	1,030	1,584	1,734	44.2	67.5	73.4
Computerized axial tomography (CAT scan) . . . . .	42	167	191	1.8	7.1	8.1
Diagnostic ultrasound . . . . .	44	154	182	1.9	6.6	7.7
Radioisotope scan . . . . .	92	128	113	3.9	5.5	4.8
Angiocardiology using contrast material . . . . .	49	105	173	2.1	4.5	7.3
Endoscopy of large intestine . . . . .	94	89	64	4.0	3.8	2.7
Endoscopy of small intestine . . . . .	55	78	93	2.3	3.3	3.9
Cystoscopy . . . . .	93	48	44	4.0	2.1	1.9
65 years and over <sup>2</sup> . . . . .	1,107	2,626	3,106	72.1	154.4	175.3
Computerized axial tomography (CAT scan) . . . . .	66	370	461	4.3	21.8	26.0
Diagnostic ultrasound . . . . .	62	294	387	4.0	17.3	21.8
Radioisotope scan . . . . .	143	244	219	9.3	14.4	12.4
Endoscopy of large intestine . . . . .	131	181	188	8.5	10.7	10.6
Endoscopy of small intestine . . . . .	55	133	180	3.6	7.8	10.2
Cystoscopy . . . . .	96	77	62	6.2	4.5	3.5

<sup>1</sup>Rates are age adjusted.

<sup>2</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. Rates are based on the civilian population. In each sex and age group, data are shown for procedures with the five highest rates in 1980 and 1985. 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 73. Admissions, average length of stay, and outpatient visits in short-stay hospitals, according to type of ownership: United States, selected years 1960-86**

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

Type of ownership	1960	1970	1975	1980	1983	1984	1985	1986
<b>Admissions</b>				<b>Number in thousands</b>				
All ownerships . . . . .	24,324	30,706	35,270	38,140	38,135	37,143	35,478	34,399
Federal . . . . .	1,354	1,454	1,751	1,942	1,934	1,941	1,977	1,988
Non-Federal . . . . .	22,970	29,252	33,519	36,198	36,201	35,202	33,501	32,410
Nonprofit . . . . .	16,788	20,948	23,735	25,576	25,837	25,246	24,188	23,492
Proprietary . . . . .	1,550	2,031	2,646	3,165	3,299	3,314	3,242	3,231
State-local government . . . . .	4,632	6,273	7,138	7,458	7,064	6,642	6,071	5,687
<b>Average length of stay</b>				<b>Number of days</b>				
All ownerships . . . . .	8.4	8.7	8.0	7.8	7.8	7.5	7.3	7.3
Federal . . . . .	21.4	17.0	14.4	12.9	12.4	11.9	11.6	11.3
Non-Federal . . . . .	7.6	8.2	7.7	7.6	7.6	7.3	7.1	7.1
Nonprofit . . . . .	7.4	8.2	7.8	7.7	7.7	7.4	7.2	7.2
Proprietary . . . . .	5.7	6.8	6.6	6.5	6.6	6.3	6.1	6.1
State-local government . . . . .	8.8	8.7	7.6	7.4	7.6	7.3	7.2	7.4
<b>Outpatient visits<sup>1</sup></b>				<b>Number in thousands</b>				
All ownerships . . . . .	---	173,058	245,938	255,320	263,729	267,868	272,833	285,216
Federal . . . . .	---	39,514	49,627	48,568	49,734	51,394	50,059	50,946
Non-Federal . . . . .	---	133,545	196,311	206,752	213,995	216,474	222,773	234,270
Nonprofit . . . . .	---	90,992	132,368	142,864	151,444	153,928	160,002	168,284
Proprietary . . . . .	---	4,698	7,713	9,696	10,389	11,090	12,378	14,896
State-local government . . . . .	---	37,854	56,230	54,192	52,163	51,457	50,394	51,091

<sup>1</sup>Because of modifications in the collection of outpatient data for 1977 and 1982, 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, 1984-87 Editions*. Chicago, 1976, 1981, 1984-87 (Copyrights 1961, 1971, 1976, 1981, 1984-87: Used with the permission of the American Hospital Association.)

**Table 74. Nursing home and personal care home residents 65 years of age and over and rate per 1,000 population, according to 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. In press; 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 75. 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. In press.

**Table 76. Admissions to mental health organizations and rate per 100,000 civilian population, according to type of service and organization: United States, selected years 1969-86**

[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	1969	1975	1983	1986
<b>Inpatient and residential treatment</b>								
All organizations . . . . .	1,283	1,558	1,633	1,817	644.2	736.5	701.4	758.7
State and county mental hospitals . . . . .	487	434	339	330	244.4	205.1	146.0	137.7
Private psychiatric hospitals . . . . .	92	126	165	235	46.2	59.4	70.9	98.0
Non-Federal general hospital psychiatric services . . . . .	478	544	786	849	240.1	257.2	336.8	354.8
Veterans Administration psychiatric services <sup>1</sup> . . . . .	135	181	149	180	67.9	85.5	64.3	75.1
Federally funded community mental health centers . . . . .	60	236	...	...	30.0	111.7	...	...
Residential treatment centers for emotionally disturbed children . . . . .	8	12	17	25	3.8	5.7	7.1	10.2
All other <sup>2,3</sup> . . . . .	23	25	177	198	11.8	11.9	76.3	82.9
<b>Outpatient treatment</b>								
All organizations . . . . .	1,147	2,291	2,665	2,765	575.9	1,083.2	1,147.5	1,155.0
State and county mental hospitals . . . . .	164	146	84	62	82.5	69.1	36.3	26.0
Private psychiatric hospitals . . . . .	26	33	78	123	12.8	15.6	33.4	51.5
Non-Federal general hospital psychiatric services . . . . .	171	255	469	494	85.7	120.5	202.1	206.3
Veterans Administration psychiatric services <sup>1</sup> . . . . .	17	94	103	125	8.4	44.4	44.5	52.4
Federally funded community mental health centers . . . . .	177	785	...	...	88.7	371.2	...	...
Residential treatment centers for emotionally disturbed children . . . . .	8	20	33	62	4.0	9.4	14.1	25.8
Freestanding psychiatric outpatient clinics <sup>3</sup> . . . . .	538	871	538	391	270.4	411.8	231.7	163.2
All other <sup>2,3</sup> . . . . .	46	87	1,360	1,508	23.4	41.2	585.4	629.8
<b>Partial care treatment</b>								
All organizations . . . . .	55	163	177	189	27.8	77.2	76.3	79.1
State and county mental hospitals . . . . .	11	14	4	6	5.3	6.7	1.6	2.4
Private psychiatric hospitals . . . . .	3	3	6	9	1.4	1.5	2.4	3.7
Non-Federal general hospital psychiatric services . . . . .	18	14	46	39	9.1	6.7	19.8	16.4
Veterans Administration psychiatric services <sup>1</sup> . . . . .	4	8	10	7	1.8	3.7	4.4	3.1
Federally funded community mental health centers . . . . .	13	94	...	...	6.5	44.5	...	...
Residential treatment centers for emotionally disturbed children . . . . .	1	3	3	5	0.3	1.6	1.5	2.3
Freestanding psychiatric outpatient clinics <sup>3,4</sup> . . . . .	4	22	5	...	2.2	10.4	2.3	...
All other <sup>2,3,5</sup> . . . . .	2	5	103	123	1.2	2.1	44.3	51.2

<sup>1</sup>Includes Veterans Administration neuropsychiatric hospitals and Veterans Administration general hospitals with separate psychiatric services.

<sup>2</sup>Includes other multiservice mental health organizations with inpatient and residential treatment services that are not elsewhere classified.

<sup>3</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>4</sup>Beginning in 1986 outpatient psychiatric clinics providing partial care are counted as multiservice mental health organizations in the "all other" category.

<sup>5</sup>Includes freestanding psychiatric partial care organizations.

NOTE: Changes in reporting procedures in 1981 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 77. 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 1969-86**

[Data are based on inventories of mental health organizations]

Organization	1969	1975	1981 <sup>1</sup>	1983	1986
Episodes in thousands					
All organizations . . . . .	1,710	1,817	1,720	1,861	2,052
State and county mental hospitals . . . . .	767	599	499	459	442
Private psychiatric hospitals . . . . .	103	137	177	181	258
Non-Federal general hospital psychiatric services . . . . .	535	566	677	820	883
Veterans Administration psychiatric services <sup>2</sup> . . . . .	187	214	206	171	204
Federally funded community mental health centers . . . . .	65	247	...	...	...
Residential treatment centers for emotionally disturbed children . . . . .	21	28	34	33	47
All other <sup>3,4</sup> . . . . .	32	26	127	197	218
Episodes per 100,000 civilian population					
All organizations . . . . .	859.1	859.6	755.6	799.1	857.6
State and county mental hospitals . . . . .	385.3	283.3	219.3	197.7	184.6
Private psychiatric hospitals . . . . .	51.5	64.8	77.5	77.8	107.9
Non-Federal general hospital psychiatric services . . . . .	269.0	267.6	297.3	351.3	369.0
Veterans Administration psychiatric services <sup>2</sup> . . . . .	93.9	101.4	90.3	73.4	85.2
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
All other <sup>3,4</sup> . . . . .	16.1	12.3	56.1	84.9	91.2
Days in thousands					
All organizations . . . . .	168,934	104,970	77,053	81,821	83,421
State and county mental hospitals . . . . .	134,185	70,584	44,558	42,427	39,075
Private psychiatric hospitals . . . . .	4,237	4,401	5,578	6,010	8,570
Non-Federal general hospital psychiatric services . . . . .	6,500	8,349	10,727	12,529	12,570
Veterans Administration psychiatric services <sup>2</sup> . . . . .	17,206	11,725	7,591	7,425	7,754
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
All other <sup>3,4</sup> . . . . .	354	293	2,472	7,654	7,185

<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>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.

NOTE: Changes in reporting procedures in 1981 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 78. Admissions to selected inpatient psychiatric organizations and rate per 100,000 civilian population, according to sex, age, and race: United States, selected years 1970-80**

Sex, age, and race	State and county mental hospitals			Private psychiatric hospitals			Non-Federal general hospitals <sup>1</sup>		
	1970	1975	1980	1970	1975	1980	1971	1975	1980
Number in thousands									
<b>Both sexes</b>									
Total . . . . .	408	385	369	87	130	141	520	516	564
Under 18 years . . . . .	26	25	17	6	15	17	44	43	44
18-24 years . . . . .	77	72	77	12	19	23	91	93	98
25-44 years . . . . .	159	166	177	32	47	56	222	220	249
45-64 years . . . . .	111	102	78	27	35	32	127	121	123
65 years and over . . . . .	35	21	20	10	13	14	36	38	50
White . . . . .	317	296	265	84	119	123	439	451	469
All other . . . . .	90	89	104	4	10	18	81	65	95
<b>Male</b>									
Total . . . . .	241	249	239	36	56	67	240	212	255
Under 18 years . . . . .	17	16	11	3	8	9	21	20	20
18-24 years . . . . .	52	52	56	6	10	13	51	45	52
25-44 years . . . . .	93	107	119	12	20	27	100	85	115
45-64 years . . . . .	61	61	43	12	14	13	53	48	46
65 years and over . . . . .	17	13	11	4	5	5	15	14	21
White . . . . .	191	191	171	34	51	58	191	184	213
All other . . . . .	50	58	68	2	5	9	48	27	42
<b>Female</b>									
Total . . . . .	167	136	130	52	74	74	280	304	309
Under 18 years . . . . .	9	9	5	3	8	7	23	23	23
18-24 years . . . . .	25	20	22	6	9	10	40	48	45
25-44 years . . . . .	66	59	58	20	28	29	122	135	135
45-64 years . . . . .	50	41	35	15	21	18	74	74	77
65 years and over . . . . .	17	8	9	6	8	9	21	24	29
White . . . . .	127	105	94	49	69	65	247	267	256
All other . . . . .	40	31	36	2	5	9	33	37	53
Rate per 100,000 civilian population									
<b>Both sexes</b>									
Total . . . . .	201.9	182.2	163.6	43.3	61.4	62.6	257.5	243.8	250.0
Under 18 years . . . . .	37.8	38.1	26.1	9.3	23.3	26.3	63.3	64.4	68.5
18-24 years . . . . .	338.3	271.8	264.6	53.5	73.7	79.6	399.3	352.8	334.2
25-44 years . . . . .	335.4	314.1	282.9	66.6	89.3	89.1	467.6	416.8	399.0
45-64 years . . . . .	264.2	233.5	175.7	64.8	80.1	71.0	303.5	278.5	276.4
65 years and over . . . . .	172.3	91.8	78.0	50.0	57.7	54.1	179.7	170.3	195.4
White . . . . .	179.5	161.1	136.8	47.2	64.9	63.4	248.0	245.4	241.8
All other . . . . .	359.7	321.9	328.0	15.5	37.9	57.5	324.4	233.3	300.0
<b>Male</b>									
Total . . . . .	247.3	243.7	219.8	36.8	54.5	61.9	246.6	207.1	233.8
Under 18 years . . . . .	47.7	48.3	35.4	8.4	22.5	28.9	58.7	59.1	62.6
18-24 years . . . . .	499.6	409.0	387.9	54.8	78.0	92.2	486.1	350.8	365.3
25-44 years . . . . .	406.6	418.4	388.1	50.6	76.6	86.8	437.8	332.8	374.7
45-64 years . . . . .	304.9	291.5	202.3	58.7	66.8	63.2	266.9	228.6	219.1
65 years and over . . . . .	206.8	136.4	105.3	45.0	50.3	47.3	175.2	152.0	203.4
White . . . . .	223.3	214.2	182.2	39.9	57.0	61.7	224.2	206.9	226.3
All other . . . . .	419.7	444.5	457.8	14.5	38.1	62.7	408.2	209.1	281.1
<b>Female</b>									
Total . . . . .	159.7	124.7	111.1	49.3	67.8	63.3	267.6	278.1	265.1
Under 18 years . . . . .	27.5	27.5	16.4	10.2	24.1	23.6	68.1	70.0	74.6
18-24 years . . . . .	200.3	143.1	145.8	52.4	69.6	67.4	325.0	354.6	304.4
25-44 years . . . . .	269.3	215.9	182.3	81.5	101.2	91.2	495.2	495.8	422.2
45-64 years . . . . .	227.0	180.5	151.7	70.3	92.3	78.1	336.9	324.3	328.2
65 years and over . . . . .	147.5	60.8	59.6	53.6	62.8	58.8	183.0	182.9	190.0
White . . . . .	138.7	111.2	94.1	54.1	72.5	65.0	270.3	281.7	256.4
All other . . . . .	305.6	212.0	212.6	16.3	37.7	52.8	249.0	254.9	316.7

<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 79. Admissions to selected inpatient psychiatric organizations, according to selected primary diagnoses and age: United States, 1975 and 1980**

Primary diagnosis and age	State and county mental hospitals		Private psychiatric hospitals		Non-Federal general hospitals <sup>1</sup>		Veterans Administration inpatient psychiatric services	
	1975	1980	1975	1980	1975	1980	1975	1980
All diagnoses <sup>2</sup>								
Number per 100,000 civilian population								
All ages . . . . .	182.2	163.6	61.4	62.6	243.8	250.0	103.5	70.4
Under 24 years . . . . .	104.8	101.2	37.7	43.1	146.7	152.2	21.2	12.1
25-44 years . . . . .	314.1	282.9	89.3	89.1	416.8	399.0	157.6	129.9
45-64 years . . . . .	233.5	175.7	80.1	71.0	278.5	276.4	233.3	135.0
65 years and over . . . . .	91.8	78.0	57.7	54.1	170.3	195.4	64.0	25.2
Alcohol related								
All ages . . . . .	50.4	35.5	5.1	5.8	17.0	18.8	41.8	24.3
Under 24 years . . . . .	10.7	12.4	0.4	1.4	*2.4	4.4	1.5	2.1
25-44 years . . . . .	86.2	64.0	7.6	9.3	31.0	34.3	51.5	38.6
45-64 years . . . . .	110.0	57.7	12.5	10.9	34.5	30.6	128.3	59.8
65 years and over . . . . .	14.8	11.5	4.3	4.4	10.2	12.8	17.8	8.4
Drug related								
All ages . . . . .	6.8	7.8	1.5	1.8	8.4	7.4	7.1	3.6
Under 24 years . . . . .	7.2	9.4	1.5	1.8	7.7	7.8	5.3	1.2
25-44 years . . . . .	12.6	12.9	2.3	3.0	13.8	9.3	16.5	10.1
45-64 years . . . . .	*0.6	*1.4	*0.1	*1.0	*6.5	*7.1	2.9	*1.3
65 years and over . . . . .	*3.5	*0.7	*0.4	*0.6	*2.6	*2.0	*0.3	*1.1
Organic disorders <sup>3</sup>								
All ages . . . . .	9.6	6.8	2.5	2.2	9.0	7.4	5.8	1.8
Under 24 years . . . . .	2.2	1.2	0.7	0.5	*1.1	*0.8	0.2	*0.1
25-44 years . . . . .	6.4	4.7	1.1	0.9	5.4	5.6	2.2	*1.0
45-64 years . . . . .	12.2	8.1	1.7	2.7	9.3	6.9	9.7	4.0
65 years and over . . . . .	43.3	30.0	14.5	10.8	49.3	36.4	29.9	5.8
Affective disorders								
All ages . . . . .	21.3	22.0	26.0	26.8	91.9	79.2	8.5	10.2
Under 24 years . . . . .	7.5	9.1	9.5	13.5	35.3	32.2	1.2	1.1
25-44 years . . . . .	40.6	36.9	39.4	38.9	160.9	123.7	11.7	15.6
45-64 years . . . . .	29.4	32.4	43.3	36.3	135.6	113.8	22.2	24.4
65 years and over . . . . .	16.8	14.3	29.6	29.2	78.5	81.0	4.1	5.0
Schizophrenia								
All ages . . . . .	61.2	62.1	13.4	13.3	58.9	59.9	26.3	21.1
Under 24 years . . . . .	35.9	36.6	11.1	10.6	42.0	38.3	8.6	5.1
25-44 years . . . . .	125.8	125.0	23.8	22.5	118.0	114.5	52.2	45.4
45-64 years . . . . .	63.5	54.8	11.3	11.6	50.3	53.6	42.6	30.9
65 years and over . . . . .	9.3	13.9	2.7	3.6	*5.6	16.3	6.3	*2.3

<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 fewer than 20 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 80. Persons employed in health service sites: United States, selected years 1970-87**

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

Site	1970 <sup>1</sup>	1975	1980	1981	1982	1983	1984	1985	1986	1987
Number of persons in thousands										
All employed civilians . . . . .	76,805	85,846	99,303	100,397	99,526	100,834	105,005	107,150	109,597	112,440
All health service sites . . . . .	4,246	5,945	7,339	7,617	7,810	7,874	7,934	7,910	8,129	8,478
Offices of physicians . . . . .	477	618	777	811	898	888	896	894	896	950
Offices of dentists . . . . .	222	331	415	423	415	441	468	480	497	552
Offices of chiropractors <sup>2</sup> . . . . .	19	30	40	46	53	54	61	59	66	72
Hospitals . . . . .	2,690	3,441	4,036	4,186	4,341	4,348	4,288	4,269	4,368	4,444
Nursing and personal care facilities . . . . .	509	891	1,199	1,230	1,217	1,342	1,362	1,309	1,339	1,337
Other health service sites . . . . .	330	634	872	921	886	801	859	899	963	1,123
Percent of employed civilians										
All health service sites . . . . .	5.5	6.9	7.4	7.6	7.8	7.8	7.6	7.4	7.4	7.5
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
Offices of physicians . . . . .	11.2	10.4	10.6	10.6	11.5	11.3	11.3	11.3	11.0	11.2
Offices of dentists . . . . .	5.2	5.6	5.7	5.6	5.3	5.6	5.9	6.1	6.1	6.5
Offices of chiropractors <sup>2</sup> . . . . .	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.7	0.8	0.8
Hospitals . . . . .	63.4	57.9	55.0	55.0	55.6	55.2	54.0	54.0	53.7	52.4
Nursing and personal care facilities . . . . .	12.0	15.0	16.3	16.1	15.6	17.0	17.2	16.5	16.5	15.8
Other health service sites . . . . .	7.8	10.7	11.9	12.1	11.3	10.2	10.8	11.4	11.8	13.2

<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 1980-82 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. 1*. Washington. U.S. Government Printing Office, Sept. 1982; *Employment and Earnings, January 1983-88*. Vol. 30, No. 1, Vol. 31, No. 1, Vol. 32, No. 1, Vol. 33, No. 1, Vol. 34, No. 1, and Vol. 35, No. 1. Washington. U.S. Government Printing Office, Jan. 1983-88; American Chiropractic Association: Unpublished data.



**Table 81 (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 1986**

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	1986	1975	1985	1986	1975	1985	1986
	Number per 10,000 civilian population								
United States . . . . .	15.3	20.7	20.9	13.5	18.0	18.4	4.1	5.4	5.3
New England . . . . .	19.1	26.7	27.1	16.9	22.9	23.6	4.6	6.2	6.0
Maine . . . . .	12.8	18.7	18.9	10.7	15.6	15.7	3.8	5.4	5.4
New Hampshire . . . . .	14.3	18.1	18.1	13.1	16.7	16.8	4.6	5.6	5.7
Vermont . . . . .	18.2	23.8	23.9	15.5	20.3	20.9	5.2	6.5	6.6
Massachusetts . . . . .	20.8	30.2	30.6	18.3	25.4	26.4	4.7	6.4	6.1
Rhode Island . . . . .	17.8	23.3	24.1	16.1	20.2	21.0	4.4	5.5	5.3
Connecticut . . . . .	19.8	27.6	28.1	17.7	24.3	24.9	4.7	6.4	6.3
Middle Atlantic . . . . .	19.5	26.1	26.6	17.0	22.2	22.9	4.5	5.9	5.8
New York . . . . .	22.7	29.0	29.5	20.2	25.2	26.1	5.1	6.3	6.2
New Jersey . . . . .	16.2	23.4	23.8	14.0	19.8	20.4	4.1	5.5	5.5
Pennsylvania . . . . .	16.6	23.6	24.1	13.9	19.2	19.7	4.0	5.4	5.3
East North Central . . . . .	13.9	19.3	19.5	12.0	16.4	16.7	3.7	5.0	4.9
Ohio . . . . .	14.1	19.9	20.2	12.2	16.8	17.0	3.7	4.8	4.7
Indiana . . . . .	10.6	14.7	14.8	9.6	13.2	13.5	3.8	4.6	4.5
Illinois . . . . .	14.5	20.5	20.7	13.1	18.2	18.5	4.1	5.5	5.6
Michigan . . . . .	15.4	20.8	20.8	12.0	16.0	16.0	3.2	4.5	4.3
Wisconsin . . . . .	12.5	17.7	17.9	11.4	15.9	16.3	4.0	5.4	5.4
West North Central . . . . .	13.3	18.3	18.6	11.4	15.6	15.9	3.8	5.2	5.1
Minnesota . . . . .	14.9	20.5	20.5	13.7	18.5	18.8	4.6	6.5	6.3
Iowa . . . . .	11.4	15.6	16.0	9.4	12.4	12.8	3.5	4.3	4.3
Missouri . . . . .	15.0	20.5	20.9	11.6	16.3	16.6	3.3	4.7	4.5
North Dakota . . . . .	9.7	15.8	15.7	9.2	14.9	14.8	4.1	5.8	5.5
South Dakota . . . . .	8.2	13.4	13.1	7.7	12.3	12.1	3.4	5.0	5.1
Nebraska . . . . .	12.1	15.7	16.1	10.9	14.4	14.9	4.2	5.3	5.3
Kansas . . . . .	12.8	17.3	17.5	11.2	15.1	15.3	3.9	5.2	5.1
South Atlantic . . . . .	14.0	19.7	20.3	12.6	17.6	18.1	3.7	5.2	5.2
Delaware . . . . .	14.3	19.7	19.6	12.7	17.1	17.2	3.8	4.7	4.6
Maryland . . . . .	18.6	30.4	30.7	16.5	24.9	25.9	4.2	6.5	6.4
District of Columbia . . . . .	39.6	55.3	56.0	34.6	45.6	46.7	7.2	10.3	9.9
Virginia . . . . .	12.9	19.5	19.9	11.9	17.8	18.3	3.8	5.4	5.4
West Virginia . . . . .	11.0	16.3	16.8	10.0	14.6	14.9	3.3	4.4	4.5
North Carolina . . . . .	11.7	16.9	17.1	10.6	15.0	15.5	3.5	4.7	4.7
South Carolina . . . . .	10.0	14.7	15.1	9.3	13.6	14.1	3.3	4.5	4.5
Georgia . . . . .	11.5	16.2	16.3	10.6	14.7	15.0	3.3	4.3	4.3
Florida . . . . .	15.2	20.2	20.6	13.4	17.8	18.2	3.9	5.3	5.4
East South Central . . . . .	10.5	15.0	15.4	9.7	14.0	14.4	3.2	4.5	4.6
Kentucky . . . . .	10.9	15.1	15.4	10.1	13.9	14.4	3.6	4.8	4.8
Tennessee . . . . .	12.4	17.7	18.0	11.3	16.2	16.7	3.2	4.7	4.8
Alabama . . . . .	9.2	14.2	14.5	8.6	13.1	13.5	3.0	4.2	4.3
Mississippi . . . . .	8.4	11.8	12.2	8.0	11.1	11.5	3.1	4.2	4.2
West South Central . . . . .	11.9	16.4	16.7	10.5	14.5	14.8	3.5	4.5	4.4
Arkansas . . . . .	9.1	13.8	14.1	8.5	12.8	13.2	3.4	4.8	4.8
Louisiana . . . . .	11.4	17.3	17.5	10.5	16.1	16.4	3.3	4.5	4.3
Oklahoma . . . . .	11.6	16.1	16.4	9.4	12.9	13.1	3.2	4.0	4.2
Texas . . . . .	12.5	16.8	16.9	11.0	14.7	14.9	3.6	4.5	4.4
Mountain . . . . .	14.3	17.8	18.0	12.6	15.7	15.8	4.1	5.0	4.9
Montana . . . . .	10.6	14.0	14.5	10.1	13.2	13.7	4.5	5.4	5.4
Idaho . . . . .	9.5	12.1	12.0	8.9	11.4	11.4	4.0	4.8	4.7
Wyoming . . . . .	9.5	12.9	12.6	8.9	12.0	11.9	4.1	4.6	4.7
Colorado . . . . .	17.3	20.7	20.6	15.0	17.7	17.8	4.6	5.6	5.4
New Mexico . . . . .	12.2	17.0	17.1	10.1	14.7	14.9	3.4	4.8	4.8
Arizona . . . . .	16.7	20.2	20.3	14.1	17.1	17.1	4.2	5.1	4.9
Utah . . . . .	14.1	17.2	17.4	13.0	15.5	15.8	3.8	4.4	4.4
Nevada . . . . .	11.9	16.0	16.1	10.9	14.5	14.6	3.6	4.6	4.4

See footnotes at end of table.

**Table 81 (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 1986**

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	1986	1975	1985	1986	1975	1985	1986
Pacific. . . . .	17.9	22.5	22.7	16.3	20.5	20.6	5.2	6.6	6.4
Washington . . . . .	15.3	20.2	20.3	13.6	17.9	18.0	4.7	6.3	6.2
Oregon . . . . .	15.6	19.7	19.7	13.8	17.6	17.7	4.6	6.1	6.0
California. . . . .	18.8	23.7	23.5	17.3	21.5	21.4	5.5	6.7	6.5
Alaska. . . . .	8.4	13.0	13.7	7.8	12.1	12.7	3.5	5.6	5.8
Hawaii. . . . .	16.2	21.5	22.2	14.7	19.8	20.3	4.9	7.0	6.9

<sup>1</sup>Includes active non-Federal doctors of medicine and doctors of osteopathy in all other specialties not shown separately. Total physicians for 1985 include 1984 data for doctors of osteopathy.  
<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 *Physician Characteristics and Distribution in the U.S., 1987 Edition*; American Osteopathic Association: *1975-76 Yearbook and Directory of Osteopathic Physicians*, *1985-86 Yearbook and Directory of Osteopathic Physicians*, and *1986-87 Yearbook and Directory of Osteopathic Physicians*.

**Table 82. Active physicians, according to type of physician, and number per 10,000 population: United States and outlying U.S. areas, selected 1950–86 estimates and 1990 and 2000 projections**

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

Year	All active physicians	Doctors of medicine	Doctors of osteopathy	Active physicians per 10,000 population
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	466,600	448,700	18,000	19.9
1982	483,700	465,000	18,700	20.5
1983	501,200	481,500	19,700	21.1
1984	---	---	20,800	---
1985	534,800	512,900	21,900	22.0
1986	545,000	521,800	23,200	22.5
Projections				
1990	597,000	569,200	27,800	23.9
2000	708,600	667,700	40,900	26.4

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; Unpublished data.

**Table 83. Physicians, according to activity and place of medical education: United States and outlying U.S. areas, selected years 1970-86**

[Data are based on reporting by physicians]

<i>Activity and place of medical education</i>	<i>1970</i>	<i>1975</i>	<i>1980</i>	<i>1985</i>	<i>1986</i>
	Number of physicians				
Doctors of medicine . . . . .	334,028	393,742	467,679	552,716	569,160
Professionally active . . . . .	310,845	340,280	414,916	497,140	505,750
Place of medical education:					
U.S. medical graduates . . . . .	256,427	---	333,325	392,007	398,314
Foreign medical graduates <sup>1</sup> . . . . .	54,418	---	81,591	105,133	107,436
Activity:					
Non-Federal . . . . .	281,344	312,089	397,129	475,573	483,812
Patient care . . . . .	255,027	287,837	361,915	431,527	436,877
Office-based practice . . . . .	188,924	213,334	271,268	329,041	325,757
General and family practice . . . . .	50,816	46,347	47,772	53,862	53,622
Internal medicine . . . . .	22,950	28,188	40,514	52,712	52,287
Pediatrics . . . . .	10,310	12,687	17,436	22,392	22,530
General surgery . . . . .	18,068	19,710	22,409	24,708	23,542
Obstetrics and gynecology . . . . .	13,847	15,613	19,503	23,525	23,580
Other specialty . . . . .	72,933	90,789	123,634	151,842	150,196
Hospital-based practice . . . . .	66,103	74,503	90,647	102,486	111,120
Residents and interns . . . . .	45,840	53,527	59,615	72,159	77,618
Full-time hospital staff . . . . .	20,263	20,976	31,032	30,327	33,502
Other professional activity <sup>2</sup> . . . . .	26,317	24,252	35,214	44,046	46,935
Federal . . . . .	29,501	28,191	17,787	21,567	21,938
Patient care . . . . .	23,508	24,100	14,597	17,293	16,985
Office-based practice . . . . .	3,515	2,095	732	1,156	1,221
Hospital-based practice . . . . .	19,993	22,005	13,865	16,137	15,764
Residents and interns . . . . .	5,388	4,275	2,427	3,252	2,858
Full-time hospital staff . . . . .	14,605	17,730	11,438	12,885	12,906
Other professional activity <sup>2</sup> . . . . .	5,993	4,091	3,190	4,274	4,953
Inactive . . . . .	19,621	21,449	25,744	38,646	46,835
Not classified <sup>3</sup> . . . . .	358	26,145	20,629	13,950	13,661
Unknown address . . . . .	3,204	5,868	6,390	2,980	2,914

<sup>1</sup>Foreign medical graduates received their medical education in schools outside the U.S. 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.

NOTE: Numbers in this table differ from previous editions as we now include figures for the outlying U.S. areas, which include Puerto Rico, Virgin Islands, Guam, and other outlying areas.

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

**Table 84. Active health personnel and number per 100,000 population, according to occupation and geographic region: United States, 1970, 1980, and 1986**

Year and occupation	Number of active health personnel	United States	Geographic region			
			Northeast	Midwest	South	West
			Number per 100,000 population <sup>1</sup>			
<b>1970</b>						
Physicians . . . . .	---	---	---	---	---	---
Federal . . . . .	---	---	---	---	---	---
Non-Federal . . . . .	290,862	142.7	185.0	127.5	114.8	158.2
Doctors of medicine <sup>2,3</sup> . . . . .	279,212	137.0	178.7	118.2	111.5	154.8
Doctors of osteopathy . . . . .	11,650	5.7	6.3	9.3	3.3	3.4
Dentists <sup>4</sup> . . . . .	95,700	47.0	58.9	46.3	35.3	54.9
Optometrists . . . . .	18,400	9.0	9.7	10.3	6.6	10.5
Pharmacists <sup>2</sup> . . . . .	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
<b>1980</b>						
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>2,3</sup> . . . . .	393,407	174.9	216.1	153.3	152.8	195.8
Doctors of osteopathy . . . . .	16,073	7.1	8.4	11.9	4.2	4.2
Dentists <sup>4</sup> . . . . .	121,240	53.5	66.2	52.7	42.6	59.2
Optometrists . . . . .	22,330	9.8	9.9	10.9	7.7	11.6
Pharmacists <sup>2</sup> . . . . .	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
<b>1986</b>						
Physicians . . . . .	521,833	218.0	---	---	---	---
Federal . . . . .	21,596	9.0	---	---	---	---
Non-Federal . . . . .	500,237	209.0	267.5	192.4	182.4	214.1
Doctors of medicine <sup>2,3</sup> . . . . .	478,362	199.9	256.2	177.4	176.5	208.9
Doctors of osteopathy . . . . .	21,875	9.1	11.3	15.0	5.9	5.3
Dentists <sup>4</sup> . . . . .	137,900	57.3	68.5	59.9	46.5	61.2
Optometrists . . . . .	24,300	10.1	---	---	---	---
Pharmacists <sup>2</sup> . . . . .	161,500	67.1	---	---	---	---
Podiatrists . . . . .	---	---	---	---	---	---
Registered nurses . . . . .	1,592,600	660.6	838.9	719.9	547.9	597.6
Associate and diploma . . . . .	1,048,370	434.9	556.3	488.6	360.9	370.8
Baccalaureate . . . . .	444,130	184.2	223.9	191.8	154.0	185.7
Masters and doctorate . . . . .	100,100	41.5	58.9	39.4	32.7	41.3
Veterinarians . . . . .	43,500	18.1	15.2	21.5	16.3	19.4

<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 United States possessions.

<sup>3</sup>Excludes physicians not classified according to activity status.

<sup>4</sup>Excludes dentists in military service.

NOTE: Some numbers in this table have been revised and differ from previous editions of *Health, United States*.

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; *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; Unpublished data; American Medical Association: *Physician Characteristics and Distribution in the U.S.*, 1981 Edition. Chicago, 1981; *Physician Characteristics and Distribution in the U.S.*, 1987 Edition. Chicago, 1987; American Osteopathic Association: *1980-81 Yearbook and Directory of Osteopathic Physicians*. Chicago, 1980; *1986-87 Yearbook and Directory of Osteopathic Physicians*. Chicago, 1986.

**Table 85. Full-time equivalent employment in selected occupations for community hospitals: United States, 1981 and 1984-86**

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

Occupation	1981	1984	1985	1986	Average annual percent change	
					1981-84	1984-86
All hospital personnel <sup>1</sup>	3,069,955	3,050,767	3,024,929	3,055,071	-0.2	0.1
Administrators and assistant administrators	26,734	30,336	30,174	32,990	4.3	4.3
Registered nurses	629,354	697,840	709,253	736,253	3.5	2.7
Licensed practical nurses	234,226	204,559	186,780	174,154	-4.4	-7.7
Ancillary nursing personnel	280,614	259,220	235,853	226,821	-2.6	-6.5
Medical record administrators and technicians	38,186	40,526	41,199	44,057	2.0	4.3
Licensed pharmacists and pharmacy technicians	47,053	52,096	52,973	54,679	3.5	2.4
Medical technologists and other laboratory personnel	147,451	146,677	144,831	145,622	-0.2	-0.4
Dietitians and dietetic technicians	40,192	34,817	33,305	34,241	-4.7	-0.8
Radiologic service personnel	90,738	90,764	91,353	94,683	0.0	2.1
Occupational therapists and recreational therapists	8,481	9,559	10,030	11,210	4.1	8.3
Physical therapists and physical therapy assistants and aides	27,675	28,485	29,064	30,216	1.0	3.0
Speech pathologists and audiologists	2,463	2,964	3,253	3,776	6.4	12.9
Respiratory therapists and respiratory therapy technicians	47,312	51,111	51,056	52,751	2.6	1.6
Medical social workers	13,915	14,927	15,192	16,042	2.4	3.7
Total trainee personnel <sup>2</sup>	66,906	66,918	63,367	67,366	0.0	0.3

<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, 1984, 1985, and 1986 Annual Survey of Hospitals.

**Table 86. First-year enrollment and graduates of health professions schools and number of schools, according to profession: United States, selected 1950-87 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
First-year enrollment							
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	92,219	4,554	---	---	---
Graduates							
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	980	7,362	2,526
1982	15,985	1,017	74,052	5,371	1,020	6,859	2,631
1983	15,824	1,317	77,408	5,756	1,040	6,374	2,948
1984	16,327	1,415	80,312	5,337	1,089	5,964	---
1985	16,319	1,474	82,075	5,353	1,163	5,735	---
1986	16,125	1,560	77,127	4,957	1,114	5,900	---
1987	15,872	1,610	70,333	---	---	---	---
1990	16,453	1,606	71,800	4,140	1,030	5,760	2,860
2000	15,639	1,700	63,100	3,350	1,030	5,110	2,950
Schools <sup>2</sup>							
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	1,463	58	16	74	---

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

<sup>2</sup>Some nursing schools offer more than one type of program. Numbers shown for nursing are number of nursing programs.

NOTE: Some numbers in this table have been revised and differ from previous editions of *Health, United States*.

SOURCES: Bureau of Health Professions: *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; Health Resources and Services Administration: Unpublished data; National League for Nursing: *Nursing Student Census, 1987*. New York, 1988; American Dental Association Council on Dental Education: *Annual Report on Dental Education 1986-87*. Chicago, 1987; American Medical Association: *Medical education in the United States*. JAMA. Vol. 258, No. 8. August 28, 1987; American Association of Colleges of Osteopathic Medicine: *Annual Statistical Report 1987*. Rockville, Md., 1987; American Chiropractic Association: Unpublished data.

**Table 87. Total and first-year enrollment of minorities and women in schools for selected health occupations: United States, academic years 1976-77 and 1986-87**

Enrollment and health occupation	All races, both sexes		Black		Other minority		Women	
	1976-77 <sup>1</sup>	1986-87 <sup>2</sup>	1976-77 <sup>1</sup>	1986-87 <sup>2</sup>	1976-77 <sup>1</sup>	1986-87 <sup>2</sup>	1976-77 <sup>1</sup>	1986-87 <sup>2</sup>
<b>Total enrollment</b>	<b>Number of students</b>		<b>Percent of students</b>					
<b>Medicine:</b>								
Allopathic . . . . .	57,765	66,125	6.1	5.9	5.6	13.1	24.7	33.4
Osteopathic . . . . .	3,671	6,640	1.9	1.8	2.3	7.0	12.9	27.9
Podiatry . . . . .	2,295	2,832	3.2	7.6	2.7	7.4	6.8	23.7
Dentistry <sup>3</sup> . . . . .	20,790	18,403	4.6	5.6	5.5	14.4	11.2	27.1
Optometry . . . . .	4,033	4,562	2.2	2.4	5.2	12.9	13.4	33.2
Pharmacy <sup>4</sup> . . . . .	23,465	25,643	4.0	6.7	4.9	11.0	36.8	58.6
Veterinary medicine . . . . .	6,571	8,887	---	2.3	---	3.9	27.3	53.0
Registered nurses <sup>5</sup> . . . . .	239,486	193,712	5.8	6.4	2.7	3.7	93.7	95.6
<b>First-year enrollment</b>								
<b>Medicine:</b>								
Allopathic . . . . .	15,613	16,819	6.7	7.0	6.3	15.0	24.7	35.0
Osteopathic . . . . .	1,088	1,724	2.4	1.5	3.0	8.0	16.5	27.3
Podiatry . . . . .	650	815	3.8	9.6	3.2	10.3	---	---
Dentistry <sup>3</sup> . . . . .	5,869	4,494	4.9	6.4	6.1	17.0	13.5	30.1
Optometry . . . . .	1,111	1,251	---	---	---	---	15.5	39.0
Pharmacy . . . . .	8,208	6,584	4.5	6.0	4.9	10.4	33.2	54.5
Veterinary medicine . . . . .	1,866	2,273	---	---	---	---	33.7	58.5
Registered nurses <sup>5</sup> . . . . .	110,950	100,791	7.2	9.3	3.9	5.3	95.3	93.4

<sup>1</sup>Data for registered nurses are for 1977-78.

<sup>2</sup>Data for total enrollment for optometry and registered nurses and for first-year enrollment for optometry, pharmacy, and registered nurses are for 1985-86.

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

<sup>4</sup>Prior to 1986-87, pharmacy enrollments are for students in the final 3 years of pharmacy education. Beginning in 1986-87, data for all pharmacy students are shown.

<sup>5</sup>Percent distribution based only on schools reporting minority data.

SOURCES: Bureau of Health Professions: *Minorities and Women in the Health Fields, 1978*. DHEW Pub. No. (HRA) 79-22. Health Resources Administration. Washington. U.S. Government Printing Office, Oct. 1978; *Minorities and Women in the Health Fields, 1984 Edition*. DHHS Pub. No. (HRSA) HRS-DV 84-5. Health Resources and Services Administration. Washington. U.S. Government Printing Office, Sept. 1984; *Minorities and Women in the Health Fields, 1987 Edition*. DHHS Pub. No. (HRSA) HRS-P-DV 87-1. Rockville, Md., Sept. 1987; and *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; American Association of Colleges of Osteopathic Medicine: *Annual Statistical Report, 1987*. Rockville, Md., 1987; National League for Nursing: *Nursing Student Census, 1987*. New York, 1988.



**Table 88. Total and first-year enrollment and percent of women in schools of medicine, according to race and ethnicity: United States, academic years 1971-72, 1977-78, and 1986-87**

Enrollment and race/ethnicity	Both sexes			Women		
	1971-72	1977-78	1986-87	1971-72	1977-78	1986-87
Total enrollment						
	Number of students			Percent of students		
All races . . . . .	43,650	60,039	66,125	10.9	23.7	33.4
White . . . . .	---	51,974	53,136	---	22.4	32.1
Minority . . . . .	3,072	6,728	12,538	19.0	33.0	39.2
Black . . . . .	2,055	3,587	3,892	20.4	36.2	49.2
Mexican American . . . . .	252	831	1,153	9.5	22.7	34.2
Mainland Puerto Rican . . . . .	76	261	435	17.1	34.1	37.2
Other Hispanic . . . . .	---	426	1,933	---	23.2	34.0
American Indian . . . . .	42	201	242	23.8	27.4	41.7
Asian . . . . .	647	1,422	4,883	17.9	29.3	34.6
First-year enrollment						
All races . . . . .	12,361	16,136	16,819	13.7	25.6	35.0
White . . . . .	---	13,732	12,987	---	24.1	33.3
Minority . . . . .	1,280	2,002	3,703	20.8	35.2	41.0
Black . . . . .	882	1,085	1,174	22.7	40.8	51.1
Mexican American . . . . .	118	246	331	8.5	26.8	36.6
Mainland Puerto Rican . . . . .	40	68	111	15.0	33.8	40.5
Other Hispanic . . . . .	---	157	512	---	27.4	37.9
American Indian . . . . .	23	51	61	34.8	29.4	41.0
Asian . . . . .	217	395	1,514	19.4	29.1	35.3

SOURCE: Based on data reported by the Association of American Medical Colleges in Bureau of Health Professions; *Minorities and Women in the Health Fields, 1984*. DHHS Pub. No. (HRSA) HRS-DV 84-S. Health Resources and Services Administration. Washington. U.S. Government Printing Office. Sept. 1984; Unpublished data from the Association of American Medical Colleges.

**Table 89. Short-stay hospitals, beds, and occupancy rates, according to type of ownership: United States, selected years 1960–86**

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

Type of ownership	1960	1970	1975	1980	1983	1984	1985	1986
<b>Hospitals</b>								
	Number							
All ownerships . . . . .	5,768	6,193	6,310	6,229	6,148	6,118	6,091	6,035
Federal . . . . .	361	334	331	325	305	304	307	307
Non-Federal . . . . .	5,407	5,859	5,979	5,904	5,843	5,814	5,784	5,728
Nonprofit . . . . .	3,291	3,386	3,364	3,339	3,363	3,366	3,364	3,338
Proprietary . . . . .	856	769	775	730	757	786	805	834
State-local government . . . . .	1,260	1,704	1,840	1,835	1,723	1,662	1,615	1,556
<b>Beds</b>								
All ownerships . . . . .	735,451	935,724	1,036,025	1,080,164	1,105,201	1,102,166	1,087,750	1,066,611
Federal . . . . .	96,394	87,492	89,049	88,144	83,837	82,415	84,612	85,071
Non-Federal . . . . .	639,057	848,232	946,976	992,020	1,021,364	1,019,751	1,003,138	981,540
Nonprofit . . . . .	445,753	591,937	658,948	692,929	718,095	716,869	707,806	689,685
Proprietary . . . . .	37,029	52,739	73,495	87,033	94,253	99,980	103,921	106,716
State-local government . . . . .	156,275	203,556	214,533	212,058	209,016	202,902	191,411	185,139
<b>Occupancy rate</b>								
	Percent of beds occupied							
All ownerships . . . . .	75.7	77.9	75.0	75.6	73.8	69.5	65.5	64.9
Federal . . . . .	82.5	77.5	77.6	77.8	78.4	76.6	74.3	72.6
Non-Federal . . . . .	74.7	78.0	74.8	75.4	73.4	68.9	64.8	64.2
Nonprofit . . . . .	76.6	80.1	77.4	78.2	75.8	71.4	67.2	66.8
Proprietary . . . . .	65.4	72.2	65.9	65.2	63.1	57.0	52.1	50.7
State-local government . . . . .	71.6	73.2	69.7	70.7	70.0	65.9	62.8	62.6

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, 1984–87 Editions*. Chicago, 1976, 1981, 1984–87. (Copyrights 1961, 1971, 1976, 1981, 1984–87: Used with the permission of the American Hospital Association.)

**Table 90. Long-term hospitals, beds, and occupancy rates, according to type of hospital and ownership: United States, selected years 1970-86**

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

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

SOURCES: American Hospital Association: Hospitals. *JAHA* 45(15):463-467, Aug. 1971; *Hospital Statistics, 1976, 1981, 1984-87 Editions*. Chicago, 1976, 1981, 1984-87. (Copyrights 1971, 1976, 1981, 1984-87: Used with the permission of the American Hospital Association.)

**Table 91. 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 1970-86**

[Data are based on inventories of mental health organizations]

Organization	1970	1976	1980 <sup>1</sup>	1982 <sup>2</sup>	1984	1986
	Number					
All organizations . . . . .	524,878	338,963	274,713	247,312	262,673	267,638
State and county mental hospitals . . . . .	413,066	222,202	156,482	140,140	130,411	119,033
Private psychiatric hospitals . . . . .	14,295	16,091	17,157	19,011	21,474	30,204
Non-Federal general hospital psychiatric services . . . . .	22,394	28,706	29,384	36,525	46,045	45,808
Veterans Administration psychiatric services <sup>3</sup> . . . . .	50,688	35,913	33,796	24,646	23,546	26,875
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
All other <sup>4,5</sup> . . . . .	1,198	993	1,433	8,515	24,452	21,171
	Number per 100,000 civilian population					
All organizations . . . . .	263.6	160.3	124.3	108.1	112.9	111.8
State and county mental hospitals . . . . .	207.4	105.1	70.2	61.2	56.1	49.7
Private psychiatric hospitals . . . . .	7.2	7.6	7.7	8.3	9.2	12.6
Non-Federal general hospital psychiatric services . . . . .	11.2	13.6	13.7	16.0	19.8	19.1
Veterans Administration psychiatric services <sup>3</sup> . . . . .	25.5	17.0	15.7	10.8	10.1	11.2
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
All other <sup>4,5</sup> . . . . .	0.6	0.5	0.6	3.7	10.5	8.9

<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 1981.

<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 while decreasing the number of freestanding psychiatric outpatient clinics. 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 92 (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 1940–86**

[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	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–86
United States . . . . .	3.2	3.3	3.6	4.3	4.5	4.2	4.1	0.6	1.8	0.5	-1.5
New England . . . . .	4.4	4.2	3.9	4.1	4.1	4.0	3.8	-0.6	0.5	0.0	-1.3
Maine . . . . .	3.0	3.2	3.4	4.7	4.7	4.2	4.2	0.6	3.3	0.0	-1.9
New Hampshire . . . . .	4.2	4.2	4.4	4.0	3.9	3.4	3.3	0.2	-0.9	-0.3	-2.7
Vermont . . . . .	3.3	4.0	4.5	4.5	4.4	3.8	4.0	1.6	0.0	-0.2	-1.6
Massachusetts . . . . .	5.1	4.8	4.2	4.4	4.4	4.4	4.3	-1.0	0.5	0.0	-0.4
Rhode Island . . . . .	3.9	3.8	3.7	4.0	3.8	3.6	3.5	-0.3	0.8	-0.5	-1.4
Connecticut . . . . .	3.7	3.6	3.4	3.4	3.5	3.3	3.1	-0.4	0.0	0.3	-2.0
Middle Atlantic . . . . .	3.9	3.8	4.0	4.4	4.6	4.4	4.3	0.1	1.0	0.4	-1.1
New York . . . . .	4.3	4.1	4.3	4.6	4.5	4.4	4.3	0.0	0.7	-0.2	-0.8
New Jersey . . . . .	3.5	3.2	3.1	3.6	4.2	3.9	3.9	-0.6	1.5	1.6	-1.2
Pennsylvania . . . . .	3.5	3.8	4.1	4.7	4.8	4.7	4.6	0.8	1.4	0.2	-0.7
East North Central . . . . .	3.2	3.2	3.6	4.4	4.7	4.5	4.3	0.6	2.0	0.7	-1.5
Ohio . . . . .	2.7	2.9	3.4	4.2	4.7	4.6	4.4	1.2	2.1	1.1	-1.1
Indiana . . . . .	2.3	2.6	3.1	4.0	4.5	4.2	4.2	1.5	2.6	1.2	-1.1
Illinois . . . . .	3.4	3.6	4.0	4.7	5.1	4.7	4.5	0.8	1.6	0.8	-2.1
Michigan . . . . .	4.0	3.3	3.3	4.3	4.4	4.1	4.0	-1.0	2.7	0.2	-1.6
Wisconsin . . . . .	3.4	3.7	4.3	5.2	4.9	4.6	4.5	1.2	1.9	-0.6	-1.4
West North Central . . . . .	3.1	3.7	4.3	5.7	5.8	5.4	5.3	1.6	2.9	0.2	-1.5
Minnesota . . . . .	3.9	4.4	4.8	6.1	5.7	5.2	5.0	1.0	2.4	-0.7	-2.2
Iowa . . . . .	2.7	3.2	3.9	5.6	5.7	5.2	5.2	1.9	3.7	0.2	-1.5
Missouri . . . . .	2.9	3.3	3.9	5.1	5.7	5.2	5.1	1.5	2.7	1.1	-1.8
North Dakota . . . . .	3.5	4.3	5.2	6.8	7.4	7.4	7.2	2.0	2.7	0.8	-0.5
South Dakota . . . . .	2.8	4.4	4.5	5.6	5.5	6.6	6.5	2.4	2.2	-0.2	2.8
Nebraska . . . . .	3.4	4.2	4.4	6.2	6.0	6.0	5.9	1.3	3.5	-0.3	-0.3
Kansas . . . . .	2.8	3.4	4.2	5.4	5.8	5.2	5.0	2.0	2.5	0.7	-2.4
South Atlantic . . . . .	2.5	2.8	3.3	4.0	4.5	4.1	4.0	1.4	1.9	1.2	-1.9
Delaware . . . . .	4.4	3.9	3.7	3.7	3.6	3.5	3.4	-0.9	0.0	-0.3	-0.9
Maryland . . . . .	3.9	3.6	3.3	3.1	3.6	3.4	3.3	-0.8	-0.6	1.5	-1.4
District of Columbia . . . . .	5.5	5.5	5.9	7.4	7.3	7.8	7.7	0.4	2.3	-0.1	0.9
Virginia . . . . .	2.2	2.5	3.0	3.7	4.1	3.8	3.7	1.6	2.1	1.0	-1.7
West Virginia . . . . .	2.7	3.1	4.1	5.4	5.5	5.1	5.1	2.1	2.8	0.2	-1.3
North Carolina . . . . .	2.2	2.6	3.4	3.8	4.2	3.7	3.5	2.2	1.1	1.0	-3.0
South Carolina . . . . .	1.8	2.4	2.9	3.7	3.9	3.6	3.4	2.4	2.5	0.5	-2.3
Georgia . . . . .	1.7	2.0	2.8	3.8	4.6	4.3	4.3	2.5	3.1	1.9	-1.1
Florida . . . . .	2.8	2.9	3.1	4.4	5.1	4.6	4.4	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	2.9	3.9	1.5	-0.3
Kentucky . . . . .	1.8	2.2	3.0	4.0	4.5	4.4	4.4	2.6	2.9	1.2	-0.4
Tennessee . . . . .	1.9	2.3	3.4	4.7	5.5	5.3	5.3	3.0	3.3	1.6	-0.6
Alabama . . . . .	1.5	2.0	2.8	4.3	5.1	5.0	5.0	3.2	4.4	1.7	-0.3
Mississippi . . . . .	1.4	1.7	2.9	4.4	5.3	5.2	5.2	3.7	4.3	1.9	-0.3
West South Central . . . . .	2.1	2.7	3.3	4.3	4.7	4.2	4.0	2.3	2.7	0.9	-2.7
Arkansas . . . . .	1.4	1.6	2.9	4.2	5.0	4.8	4.7	3.7	3.8	1.8	-1.0
Louisiana . . . . .	3.1	3.8	3.9	4.2	4.8	4.6	4.5	1.2	0.7	1.3	-1.1
Oklahoma . . . . .	1.9	2.5	3.2	4.5	4.6	4.1	4.0	2.6	3.5	0.2	-2.3
Texas . . . . .	2.0	2.7	3.3	4.3	4.7	4.1	3.8	2.5	2.7	0.9	-3.5
Mountain . . . . .	3.6	3.8	3.5	4.3	3.8	3.5	3.4	-0.1	2.1	-1.2	-1.8
Montana . . . . .	4.9	5.3	5.1	5.8	5.9	5.5	5.7	0.2	1.3	0.2	-0.6
Idaho . . . . .	2.6	3.4	3.2	4.0	3.7	3.5	3.3	1.0	2.3	-0.8	-1.9
Wyoming . . . . .	3.5	3.9	4.6	5.5	3.6	4.3	4.4	1.4	1.8	-4.1	3.4
Colorado . . . . .	3.9	4.2	3.8	4.6	4.2	3.6	3.5	-0.1	1.9	-0.9	-3.0
New Mexico . . . . .	2.7	2.2	2.9	3.5	3.1	2.9	2.9	0.4	1.9	-1.2	-1.1
Arizona . . . . .	3.4	4.0	3.0	4.1	3.6	3.2	3.1	-0.6	3.2	-1.3	-2.5
Utah . . . . .	3.2	2.9	2.8	3.6	3.1	2.7	2.7	-0.7	2.5	-1.5	-2.3
Nevada . . . . .	5.0	4.4	3.9	4.2	4.2	3.7	3.7	-1.2	0.7	0.0	-2.1

See footnotes at end of table.

**Table 92 (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 1940–86**

[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	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–86
Pacific . . . . .	4.1	3.2	3.1	3.7	3.5	3.2	3.1	-1.4	1.8	-0.6	-2.0
Washington . . . . .	3.4	3.6	3.3	3.5	3.1	3.0	3.0	-0.1	0.6	-1.2	-0.5
Oregon . . . . .	3.5	3.1	3.5	4.0	3.5	3.2	3.1	0.0	1.3	-1.3	-2.0
California . . . . .	4.4	3.3	3.0	3.8	3.6	3.2	3.1	-1.9	2.4	-0.5	-2.5
Alaska . . . . .	...	...	2.4	2.3	2.7	2.2	2.4	...	-0.4	1.6	-1.9
Hawaii . . . . .	...	...	3.7	3.4	3.1	2.8	2.6	...	-0.8	-0.9	-2.9

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

**Table 93 (page 1 of 2). Occupancy rate in community hospitals and average annual percent change, according to geographic division and State: United States, selected years 1940–86**

[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	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–86
United States . . . . .	69.9	74.7	77.3	75.2	65.1	64.5	0.3	0.3	-0.3	-2.5
New England . . . . .	72.5	75.2	79.7	80.1	72.8	69.7	0.2	0.6	0.1	-2.3
Maine . . . . .	72.4	73.2	73.0	74.5	66.8	67.0	0.1	-0.0	0.2	-1.8
New Hampshire . . . . .	65.3	66.5	73.4	73.2	63.4	65.0	0.1	1.0	-0.0	-2.0
Vermont . . . . .	68.8	68.5	76.3	73.7	68.0	67.6	-0.0	1.1	-0.3	-1.4
Massachusetts . . . . .	71.8	75.8	80.3	81.7	74.1	68.8	0.3	0.6	0.2	-2.8
Rhode Island . . . . .	77.7	75.7	82.9	85.9	76.2	75.0	-0.1	0.9	0.4	-2.2
Connecticut . . . . .	75.9	78.2	82.6	80.4	75.4	73.4	0.1	0.5	-0.3	-1.5
Middle Atlantic . . . . .	75.5	78.1	82.4	83.2	77.1	76.8	0.2	0.5	0.1	-1.3
New York . . . . .	78.9	79.4	82.9	85.9	83.9	82.1	0.0	0.4	0.4	-0.8
New Jersey . . . . .	72.4	78.4	82.5	82.8	74.8	74.9	0.4	0.5	0.0	-1.7
Pennsylvania . . . . .	71.3	76.0	81.5	79.5	68.7	70.2	0.3	0.7	-0.2	-2.1
East North Central . . . . .	71.0	78.4	79.5	76.9	64.2	62.9	0.5	0.1	-0.3	-3.3
Ohio . . . . .	72.1	81.3	81.8	79.2	63.9	63.8	0.6	0.1	-0.3	-3.5
Indiana . . . . .	68.5	79.6	80.3	77.6	61.6	57.8	0.8	0.1	-0.3	-4.8
Illinois . . . . .	73.1	76.0	79.3	74.9	64.4	64.1	0.2	0.4	-0.6	-2.6
Michigan . . . . .	71.5	80.5	80.6	78.2	67.4	64.3	0.6	0.0	-0.3	-3.2
Wisconsin . . . . .	65.2	73.9	73.2	73.6	61.8	61.1	0.6	-0.1	0.1	-3.1
West North Central . . . . .	65.7	71.8	73.6	71.2	60.3	60.0	0.4	0.2	-0.3	-2.8
Minnesota . . . . .	71.0	72.3	73.9	73.7	63.8	63.4	0.1	0.2	-0.0	-2.5
Iowa . . . . .	63.6	72.6	71.9	68.7	57.3	58.1	0.7	-0.1	-0.5	-2.8
Missouri . . . . .	68.6	75.8	79.3	75.1	63.0	62.9	0.5	0.5	-0.5	-2.9
North Dakota . . . . .	61.9	71.3	67.1	68.6	61.1	61.2	0.7	-0.6	0.2	-1.9
South Dakota . . . . .	59.1	66.0	66.3	60.6	57.5	56.6	0.6	0.0	-0.9	-1.1
Nebraska . . . . .	59.0	65.6	69.9	67.4	58.4	56.6	0.5	0.6	-0.4	-2.9
Kansas . . . . .	60.4	69.1	71.4	68.8	54.3	54.2	0.7	0.3	-0.4	-3.9
South Atlantic . . . . .	66.7	74.8	77.9	75.5	65.5	65.7	0.6	0.4	-0.3	-2.3
Delaware . . . . .	59.2	70.2	78.8	81.8	68.0	69.1	0.9	1.2	0.4	-2.8
Maryland . . . . .	74.6	73.9	79.3	84.0	73.5	73.3	-0.0	0.7	0.6	-2.2
District of Columbia . . . . .	76.2	80.8	77.7	83.0	75.9	76.6	0.3	-0.4	0.7	-1.3
Virginia . . . . .	70.0	78.0	81.1	77.8	67.2	67.6	0.5	0.4	-0.4	-2.3
West Virginia . . . . .	62.1	74.5	79.3	75.6	60.7	60.2	0.9	0.6	-0.5	-3.7
North Carolina . . . . .	64.6	73.9	78.5	77.8	64.9	67.1	0.7	0.6	-0.1	-2.4
South Carolina . . . . .	69.1	76.9	76.4	77.0	67.7	69.3	0.5	-0.1	0.1	-1.7
Georgia . . . . .	62.7	71.7	76.5	70.4	64.4	63.9	0.7	0.7	-0.8	-1.6
Florida . . . . .	57.5	73.9	76.2	71.7	62.5	62.1	1.3	0.3	-0.6	-2.4
East South Central . . . . .	62.6	71.8	78.2	74.6	62.7	61.8	0.7	0.9	-0.5	-3.1
Kentucky . . . . .	61.6	73.4	79.6	77.4	64.0	63.3	0.9	0.8	-0.3	-3.3
Tennessee . . . . .	65.5	75.9	78.2	75.9	64.6	63.2	0.7	0.3	-0.3	-3.0
Alabama . . . . .	59.0	70.8	80.0	73.3	62.3	61.5	0.9	1.2	-0.9	-2.9
Mississippi . . . . .	63.8	62.8	73.6	70.5	58.1	57.7	-0.1	1.6	-0.4	-3.3
West South Central . . . . .	62.5	68.7	73.2	69.7	56.9	56.3	0.5	0.6	-0.5	-3.5
Arkansas . . . . .	55.6	70.0	74.4	69.6	56.0	56.9	1.2	0.6	-0.7	-3.3
Louisiana . . . . .	75.0	67.9	73.6	69.7	58.6	58.1	-0.5	0.8	-0.5	-3.0
Oklahoma . . . . .	54.5	71.0	72.5	68.1	56.2	56.3	1.3	0.2	-0.6	-3.1
Texas . . . . .	59.6	68.2	73.0	70.1	56.6	55.7	0.7	0.7	-0.4	-3.8
Mountain . . . . .	60.9	69.9	71.2	69.6	58.6	58.3	0.7	0.2	-0.2	-2.9
Montana . . . . .	62.8	60.3	65.9	66.1	59.1	58.8	-0.2	0.9	0.0	-1.9
Idaho . . . . .	65.4	55.9	66.1	65.2	56.6	56.9	-0.8	1.7	-0.1	-2.2
Wyoming . . . . .	47.5	61.1	63.1	57.2	52.0	50.7	1.3	0.3	-1.0	-2.0
Colorado . . . . .	62.1	80.6	74.0	71.6	59.0	59.3	1.3	-0.9	-0.3	-3.1
New Mexico . . . . .	47.8	65.1	69.8	66.2	60.0	59.5	1.6	0.7	-0.5	-1.8
Arizona . . . . .	61.2	74.2	73.3	74.2	61.5	62.6	1.0	-0.1	0.1	-2.8
Utah . . . . .	65.8	70.0	73.7	70.0	58.7	58.0	0.3	0.5	-0.5	-3.1
Nevada . . . . .	67.9	70.7	72.7	68.8	52.6	47.1	0.2	0.3	-0.5	-6.1

See footnotes at end of table.

**Table 93 (page 2 of 2). Occupancy rate in community hospitals and average annual percent change, according to geographic division and State: United States, selected years 1940–86**

[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	1940–60 <sup>1,2</sup>	1960–70 <sup>2</sup>	1970–80	1980–86
Pacific . . . . .	69.7	71.4	71.0	69.0	61.6	61.1	0.1	-0.1	-0.3	-2.0
Washington . . . . .	67.5	63.4	69.7	71.7	58.5	57.6	-0.3	1.0	0.3	-3.6
Oregon . . . . .	71.2	65.8	69.3	69.3	55.6	54.9	-0.4	0.5	0.0	-3.8
California . . . . .	69.9	74.3	71.3	68.5	62.3	61.9	0.3	-0.4	-0.4	-1.7
Alaska . . . . .	...	53.8	59.1	58.3	62.6	55.2	...	0.9	-0.1	-0.9
Hawaii . . . . .	...	61.5	75.7	74.7	76.4	74.4	...	2.1	-0.1	-0.1

<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 1986 annual survey.



**Table 94 (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 1960–86**

[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	1960–70 <sup>1</sup>	1970–80	1980–86
United States . . . . .	226	302	394	472	492	2.9	2.7	3.8
New England . . . . .	249	351	456	532	563	3.5	2.7	3.6
Maine . . . . .	227	289	409	494	504	2.4	3.5	3.5
New Hampshire . . . . .	240	310	400	517	519	2.6	2.6	4.4
Vermont . . . . .	227	318	348	434	436	3.4	0.9	3.8
Massachusetts . . . . .	252	365	488	547	593	3.8	2.9	3.3
Rhode Island . . . . .	270	383	454	547	566	3.6	1.7	3.7
Connecticut . . . . .	247	347	440	529	553	3.5	2.4	3.9
Middle Atlantic . . . . .	225	311	383	450	465	3.3	2.1	3.3
New York . . . . .	233	336	396	436	457	3.7	1.7	2.4
New Jersey . . . . .	225	278	332	423	423	2.1	1.8	4.1
Pennsylvania . . . . .	214	287	390	491	503	3.0	3.1	4.3
East North Central . . . . .	226	299	396	494	521	2.8	2.8	4.7
Ohio . . . . .	232	302	392	526	543	2.7	2.6	5.6
Indiana . . . . .	216	280	374	482	525	2.6	2.9	5.8
Illinois . . . . .	226	301	407	492	510	2.9	3.1	3.8
Michigan . . . . .	239	313	417	513	554	2.7	2.9	4.8
Wisconsin . . . . .	199	277	367	405	430	3.4	2.9	2.7
West North Central . . . . .	212	273	357	422	438	2.6	2.7	3.5
Minnesota . . . . .	220	273	347	384	395	2.2	2.4	2.2
Iowa . . . . .	208	258	349	427	441	2.2	3.1	4.0
Missouri . . . . .	217	289	385	471	506	2.9	2.9	4.7
North Dakota . . . . .	177	254	295	326	335	3.7	1.5	2.1
South Dakota . . . . .	188	247	352	323	339	2.8	3.6	-0.6
Nebraska . . . . .	220	276	326	397	408	2.3	1.7	3.8
Kansas . . . . .	210	270	368	478	463	2.5	3.1	3.9
South Atlantic . . . . .	217	295	379	458	478	3.1	2.5	3.9
Delaware . . . . .	243	328	405	526	556	3.0	2.1	5.4
Maryland . . . . .	237	354	403	473	508	4.1	1.3	3.9
District of Columbia . . . . .	240	363	483	599	572	4.2	2.9	2.9
Virginia . . . . .	193	289	369	435	461	4.1	2.5	3.8
West Virginia . . . . .	198	255	351	452	462	2.6	3.2	4.7
North Carolina . . . . .	196	277	363	464	507	3.5	2.7	5.7
South Carolina . . . . .	185	257	356	426	444	3.3	3.3	3.8
Georgia . . . . .	233	294	396	458	470	2.4	3.0	2.9
Florida . . . . .	245	295	375	450	462	1.9	2.4	3.5
East South Central . . . . .	227	275	348	409	420	1.9	2.4	3.2
Kentucky . . . . .	229	276	332	403	409	1.9	1.9	3.5
Tennessee . . . . .	231	284	359	420	437	2.1	2.4	3.3
Alabama . . . . .	233	266	357	410	425	1.3	3.0	2.9
Mississippi . . . . .	207	270	334	392	394	2.7	2.1	2.8
West South Central . . . . .	225	297	384	471	498	2.8	2.6	4.4
Arkansas . . . . .	209	274	355	429	440	2.7	2.6	3.6
Louisiana . . . . .	218	292	392	483	493	3.0	3.0	3.9
Oklahoma . . . . .	218	296	404	480	496	3.1	3.2	3.5
Texas . . . . .	232	304	383	473	510	2.7	2.3	4.9
Mountain . . . . .	226	299	413	486	508	2.8	3.3	3.5
Montana . . . . .	216	247	302	351	350	1.4	2.0	2.5
Idaho . . . . .	255	281	374	427	444	1.0	2.9	2.9
Wyoming . . . . .	217	251	445	417	423	1.5	5.9	-0.8
Colorado . . . . .	221	306	398	481	517	3.3	2.7	4.5
New Mexico . . . . .	228	314	430	536	531	3.3	3.2	3.6
Arizona . . . . .	222	327	455	523	547	3.9	3.4	3.1
Utah . . . . .	243	304	460	579	604	2.3	4.2	4.6
Nevada . . . . .	224	284	427	490	530	2.4	4.2	3.7

See footnotes at end of table.

**Table 94 (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 1960–86**

[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>1960–70<sup>1</sup></i>	<i>1970–80</i>	<i>1980–86</i>
Pacific . . . . .	243	327	467	545	564	3.0	3.6	3.2
Washington . . . . .	263	313	428	544	565	1.8	3.2	4.7
Oregon . . . . .	232	303	417	548	597	2.7	3.2	6.2
California . . . . .	241	334	481	550	563	3.3	3.7	2.7
Alaska . . . . .	220	301	454	515	555	3.2	4.2	3.4
Hawaii . . . . .	226	278	401	435	500	2.1	3.7	3.7

<sup>1</sup>1960 includes hospital units of institutions, but excludes students, interns, and residents.

SOURCES: American Hospital Association: Hospitals. *JAHA* 35(15): 383-430, Aug. 1, 1961 (Copyright 1961: Used with the permission of the American Hospital Association.); Data computed by the Division of Analysis, National Center for Health Statistics from data compiled by the Division of Health Care Statistics, National Master Facility Inventory and the American Hospital Association 1986 annual survey.

**Table 95 (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	56.3	54.8	55.4
New England . . . . .	1,211	1,246	1,235	91,885	105,293	108,474	66.0	66.3	63.9
Maine . . . . .	121	155	144	7,027	9,717	9,685	54.9	66.6	62.1
New Hampshire . . . . .	68	70	75	5,633	6,729	6,987	61.9	61.7	58.7
Vermont . . . . .	53	51	47	3,477	3,196	3,083	65.6	53.3	48.2
Massachusetts . . . . .	645	620	612	47,169	50,366	51,126	69.5	67.1	64.4
Rhode Island . . . . .	85	95	101	6,766	8,885	9,927	58.3	67.3	69.9
Connecticut . . . . .	239	255	256	21,813	26,400	27,666	65.9	68.2	65.4
Middle Atlantic . . . . .	1,567	1,587	1,921	187,435	210,010	243,962	44.1	44.6	48.8
New York . . . . .	708	732	777	97,489	108,898	114,192	47.3	49.5	50.0
New Jersey . . . . .	313	332	356	31,147	36,638	39,071	39.5	40.6	39.8
Pennsylvania . . . . .	546	523	788	58,799	64,474	90,699	41.9	40.2	52.2
East North Central . . . . .	2,904	2,966	2,999	281,144	326,171	330,342	68.2	69.4	65.7
Ohio . . . . .	750	830	886	60,680	74,276	82,522	55.7	60.6	62.5
Indiana . . . . .	420	449	449	35,799	47,196	47,257	65.9	77.1	71.9
Illinois . . . . .	805	809	775	84,085	99,777	96,684	71.6	76.2	69.8
Michigan . . . . .	508	471	480	53,966	55,349	53,651	64.7	57.6	51.6
Wisconsin . . . . .	421	407	409	46,614	49,573	50,228	89.0	84.0	80.5
West North Central . . . . .	1,965	2,171	2,142	157,057	185,774	187,781	75.7	81.9	79.3
Minnesota . . . . .	385	390	399	38,177	42,500	44,357	85.4	85.0	84.3
Iowa . . . . .	440	475	440	31,785	38,150	34,942	86.1	95.6	84.4
Missouri . . . . .	408	530	552	32,539	46,403	50,204	53.3	69.7	72.3
North Dakota . . . . .	82	80	81	6,413	6,402	6,789	85.5	76.2	77.1
South Dakota . . . . .	117	116	114	8,047	7,938	7,918	93.6	84.4	80.0
Nebraska . . . . .	210	225	214	18,408	18,516	18,132	93.4	87.8	83.6
Kansas . . . . .	323	355	342	21,688	25,865	25,439	75.0	82.1	77.1
South Atlantic . . . . .	1,475	1,745	2,152	142,245	177,495	212,382	38.4	38.0	40.4
Delaware . . . . .	22	27	36	2,123	2,194	3,345	40.8	34.8	46.5
Maryland . . . . .	165	179	200	18,559	21,164	24,402	53.0	50.2	51.6
District of Columbia . . . . .	17	16	19	2,604	2,556	3,029	36.7	34.5	39.3
Virginia . . . . .	208	267	288	23,816	29,251	29,653	54.1	54.4	48.9
West Virginia . . . . .	73	95	103	4,858	7,505	8,692	22.6	30.4	33.3
North Carolina . . . . .	276	346	402	20,903	28,156	34,049	40.8	43.5	46.6
South Carolina . . . . .	102	130	157	8,311	11,560	14,071	34.8	37.3	39.6
Georgia . . . . .	304	306	298	28,732	32,194	31,738	64.9	58.6	52.2
Florida . . . . .	308	379	649	32,339	42,915	63,403	23.3	23.6	30.6
East South Central . . . . .	856	865	887	66,994	85,565	90,180	45.5	49.6	48.8
Kentucky . . . . .	267	276	277	19,929	25,837	26,426	53.3	60.8	58.9
Tennessee . . . . .	258	251	267	19,448	26,111	28,599	42.9	48.1	48.5
Alabama . . . . .	209	190	203	19,207	20,490	21,736	49.6	44.5	43.8
Mississippi . . . . .	122	148	140	8,410	13,127	13,419	32.5	43.9	42.7
West South Central . . . . .	1,740	1,789	1,922	157,173	177,237	192,629	72.6	68.9	69.0
Arkansas . . . . .	208	200	237	19,322	19,327	21,910	69.5	59.8	63.7
Louisiana . . . . .	200	224	276	18,969	24,836	32,747	53.4	59.3	72.1
Oklahoma . . . . .	341	359	382	25,990	28,902	30,359	76.2	74.5	73.9
Texas . . . . .	991	1,006	1,027	92,892	104,172	104,904	77.9	72.3	66.3
Mountain . . . . .	495	529	631	41,881	47,857	57,414	47.4	41.4	43.1
Montana . . . . .	69	59	57	4,725	5,120	4,804	61.4	56.9	48.5
Idaho . . . . .	54	47	60	4,263	4,102	5,240	52.6	40.6	46.8
Wyoming . . . . .	22	25	27	1,753	2,060	2,301	51.6	52.8	53.5
Colorado . . . . .	174	157	183	17,792	16,848	18,402	81.6	64.1	62.6
New Mexico . . . . .	30	31	56	2,489	2,351	4,915	26.5	18.7	34.1
Arizona . . . . .	67	109	134	5,832	9,888	12,740	24.6	28.9	31.1
Utah . . . . .	63	76	84	3,707	5,025	5,995	39.0	42.2	45.1
Nevada . . . . .	16	25	30	1,320	2,463	3,017	28.1	32.0	30.5

See footnotes at end of table.

**Table 95 (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]

Geographic division and State	Nursing homes			Beds			Bed rate <sup>1</sup>		
	1976	1982	1986	1976	1982	1986	1976	1982	1986
Pacific . . . . .	1,920	1,667	2,144	165,818	153,955	195,316	58.5	44.8	50.7
Washington . . . . .	318	309	328	29,415	30,017	32,021	78.4	65.0	61.6
Oregon . . . . .	202	177	214	15,758	15,711	17,404	59.0	48.5	48.1
California . . . . .	1,369	1,148	1,569	118,144	105,325	143,179	55.7	41.2	50.3
Alaska . . . . .	8	10	10	738	1,031	1,082	82.0	79.3	60.1
Hawaii . . . . .	23	23	23	1,763	1,871	1,630	29.4	22.0	15.8

<sup>1</sup>Number of beds per 1,000 resident population 65 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. Poper. *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; U.S. Bureau of the Census, State population and household estimates to 1985, with age and components of change. *Current Population Reports*. Series P-25, No. 998. Washington. U.S. Government Printing Office, 1986; U.S. Bureau of the Census, State population and household estimates with age, sex, and components of change 1981-1986. *Current Population Reports*. Series P-25, No. 1010. Washington. U.S. Government Printing Office, 1987.

**Table 96. Gross national product and national health expenditures: United States, selected years 1929–86**

[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	\$ 103.9	\$ 3.6	3.5	\$ 29
1935	72.8	2.9	4.0	23
1940	100.4	4.0	4.0	29
1950	288.3	12.7	4.4	80
1955	405.9	17.7	4.4	101
1960	515.3	26.9	5.2	142
1965	705.1	41.9	5.9	205
1966	772.0	46.3	6.0	224
1967	816.4	51.5	6.3	247
1968	892.6	58.2	6.5	276
1969	963.9	65.6	6.8	309
1970	1,015.5	75.0	7.4	349
1971	1,102.7	83.5	7.6	384
1972	1,212.8	94.0	7.7	428
1973	1,359.3	103.4	7.6	467
1974	1,472.8	116.1	7.9	521
1975	1,598.4	132.7	8.3	590
1976	1,782.8	150.8	8.5	665
1977	1,990.5	169.9	8.5	743
1978	2,249.7	189.7	8.4	822
1979	2,508.2	214.7	8.6	921
1980	2,731.9	248.1	9.1	1,054
1981	3,052.6	287.0	9.4	1,207
1982	3,166.0	323.6	10.2	1,348
1983	3,405.7	357.2	10.5	1,473
1984	3,765.0	391.1	10.4	1,597
1985	3,998.1	422.6	10.6	1,710
1986	4,206.1	458.2	10.9	1,837

NOTE: These data reflect Bureau of Economic Analysis, Department of Commerce, revisions to the gross national product as of December 1986 and Social Security Administration revisions to the population as of April 1986.

SOURCE: Division of National Cost Estimates, Office of the Actuary: National health expenditures, 1986–2000. *Health Care Financing Review*, Vol. 8, No. 4. HCFA Pub. No. 03239. Health Care Financing Administration. Washington. U.S. Government Printing Office, Aug. 1987.

**Table 97. Total health expenditures as a percentage of gross domestic product: Selected countries, selected years 1960-86**

Country	1960	1965	1970	1975	1980	1983	1984	1985	1986
Australia . . . . .	4.6	4.9	5.0	5.7	6.6	6.9	6.9	6.8	6.8
Austria . . . . .	4.6	5.0	5.4	7.3	7.9	7.9	8.0	8.2	8.0
Belgium . . . . .	3.4	3.9	4.0	5.8	6.6	7.2	7.2	7.2	7.1
Canada . . . . .	5.5	6.1	7.2	7.3	7.4	8.6	8.5	8.4	8.5
Denmark . . . . .	3.6	4.8	6.1	6.5	6.8	6.6	6.3	6.1	6.1
Finland . . . . .	4.2	4.9	5.6	6.2	6.3	6.6	6.8	7.3	7.5
France . . . . .	4.2	5.2	5.6	6.7	7.4	8.1	8.4	8.4	8.5
Germany . . . . .	4.7	5.1	5.5	7.8	7.9	8.0	8.1	8.2	8.1
Greece . . . . .	2.9	3.1	4.0	4.0	4.2	4.2	4.0	4.2	3.9
Iceland . . . . .	5.9	6.0	8.7	---	6.9	8.2	7.3	7.8	7.5
Ireland . . . . .	4.0	4.4	5.6	7.7	8.5	8.0	8.0	8.0	7.9
Italy . . . . .	3.3	4.0	4.8	5.8	6.8	6.7	6.6	6.7	6.7
Japan . . . . .	3.0	4.5	4.6	5.6	6.6	6.9	6.7	6.6	6.7
Netherlands . . . . .	3.9	4.4	6.0	7.7	8.2	8.6	8.3	8.3	8.3
New Zealand . . . . .	4.4	4.5	5.1	6.4	7.2	6.3	---	---	6.9
Norway . . . . .	3.3	3.9	5.0	6.7	6.6	6.8	6.5	6.4	6.8
Portugal . . . . .	---	---	---	6.4	5.9	5.4	5.6	5.6	5.6
Spain . . . . .	2.3	2.7	4.1	5.1	5.9	6.3	6.0	6.0	6.0
Sweden . . . . .	4.7	5.6	7.2	8.0	9.5	9.6	9.5	9.4	9.1
Switzerland . . . . .	3.3	3.8	5.2	7.1	7.2	7.8	7.7	7.9	8.0
United Kingdom . . . . .	3.9	4.1	4.5	5.5	5.8	6.2	6.2	6.1	6.2
United States . . . . .	5.2	6.0	7.4	8.4	9.2	10.7	10.5	10.7	11.1

NOTES: Gross domestic product differs slightly from gross national product shown in the previous table. For definitions, see Appendix II.

SOURCES: Organization for Economic Cooperation and Development: *Measuring Health Care 1960-1983*, OECD Pub. No. 43239. Paris, France, 1985; G. Schieber and J. Poulhier: International health care expenditure and utilization trends: An update. *Health Affairs*. Vol. 7, No. 4, fall 1988.

**Table 98. National health expenditures and percent distribution, according to type of expenditure: United States, selected years 1950-86**

[Data are compiled by the Health Care Financing Administration]

Type of expenditure	1950	1960	1965	1970	1975	1980	1984	1985	1986
Amount in billions									
Total . . . . .	\$ 12.7	\$ 26.9	\$ 41.9	\$ 75.0	\$132.7	\$248.1	\$391.1	\$422.6	\$458.2
Percent distribution									
All expenditures . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Health services and supplies . . . . .	92.4	93.6	91.6	92.8	93.7	95.2	96.0	96.3	96.5
Personal health care . . . . .	86.0	88.0	85.5	87.1	88.3	88.6	87.4	87.9	88.2
Hospital care . . . . .	30.4	33.8	33.3	37.3	39.5	41.0	40.0	39.6	39.2
Physician services . . . . .	21.7	21.1	20.2	19.1	18.8	18.9	19.3	19.6	20.1
Dentist services . . . . .	7.6	7.4	6.7	6.3	6.2	6.2	6.3	6.4	6.5
Nursing home care . . . . .	1.5	2.0	4.9	6.3	7.6	8.2	8.1	8.3	8.3
Other professional services . . . . .	3.1	3.2	2.5	2.1	2.0	2.3	2.8	2.9	3.1
Drugs and medical sundries . . . . .	13.6	13.6	12.4	10.7	9.0	7.6	6.8	6.8	6.7
Eyeglasses and appliances . . . . .	3.9	2.9	2.8	2.6	2.4	2.0	1.8	1.8	1.8
Other health services . . . . .	4.2	4.0	2.7	2.8	2.8	2.4	2.4	2.6	2.6
Program administration and net cost of health insurance . . . . .	3.6	4.1	4.2	3.8	3.0	3.7	5.8	5.6	5.4
Government public health activities . . . . .	2.9	1.5	1.9	1.9	2.4	2.9	2.8	2.9	2.9
Research and construction . . . . .	7.6	6.4	8.4	7.2	6.3	4.8	4.0	3.7	3.5
Noncommercial research . . . . .	0.9	2.5	3.6	2.6	2.5	2.2	1.7	1.7	1.8
Construction . . . . .	6.7	3.9	4.8	4.6	3.8	2.6	2.3	1.9	1.8

SOURCE: Division of National Cost Estimates, Office of the Actuary: National health expenditures, 1986-2000. *Health Care Financing Review*, Vol. 8, No. 4, HCFA Pub. No. 03239. Health Care Financing Administration. Washington, U.S. Government Printing Office, Aug. 1987.

**Table 99. National health expenditures average annual percent change, according to type of expenditure: United States, selected years 1950–86**

[Data are compiled by the Health Care Financing Administration]

<i>Type of expenditure</i>	<i>1950–60</i>	<i>1960–65</i>	<i>1965–70</i>	<i>1970–75</i>	<i>1975–80</i>	<i>1980–85</i>	<i>1984–85</i>	<i>1985–86</i>
	Average annual percent change							
All expenditures . . . . .	7.8	9.3	12.3	12.1	13.3	11.2	8.1	8.4
Health services and supplies . . . . .	8.0	8.8	12.6	12.3	13.7	11.5	8.4	8.5
Personal health care . . . . .	8.1	8.7	12.8	12.4	13.4	11.1	8.6	8.8
Hospital care . . . . .	9.0	9.0	14.9	13.4	14.2	10.5	7.0	7.4
Physician services . . . . .	7.5	8.3	11.1	11.7	13.4	12.1	9.8	11.1
Dentist services . . . . .	7.5	7.3	11.1	11.6	13.3	12.0	9.9	9.5
Nursing home care . . . . .	10.9	31.5	17.8	16.4	15.2	11.4	10.1	9.1
Other professional services . . . . .	8.1	3.7	9.1	10.4	16.8	16.7	13.5	13.8
Drugs and medical sundries . . . . .	7.8	7.2	9.1	8.3	9.4	8.7	8.1	6.5
Eyeglasses and appliances . . . . .	4.7	8.6	10.7	10.1	9.9	7.7	7.0	9.8
Other health services . . . . .	7.7	0.7	12.5	12.8	9.5	12.9	14.2	10.2
Program administration and net cost of								
health insurance . . . . .	9.1	9.8	10.1	7.2	18.1	20.7	4.7	3.8
Government public health activities . . . . .	1.4	14.5	11.9	17.2	18.2	11.0	11.4	9.2
Research and construction . . . . .	5.9	15.5	9.0	9.2	7.3	5.3	-1.2	5.3
Noncommercial research . . . . .	18.9	18.0	5.4	11.1	10.3	6.5	8.9	11.4
Construction . . . . .	2.2	13.8	11.4	8.1	5.1	4.5	-9.0	-0.2

SOURCE: Division of National Cost Estimates, Office of the Actuary; National health expenditures, 1986–2000. *Health Care Financing Review*. Vol. 8, No. 4. HCFA Pub. No. 03239. Health Care Financing Administration. Washington. U.S. Government Printing Office, Aug. 1987.



**Table 100. Personal health care expenditures average annual percent change and percent distribution of factors affecting growth: United States, 1965-86**

[Data are compiled by the Health Care Financing Administration]

Period	Average annual percent change	Factors affecting growth <sup>1</sup>			
		All factors	Prices	Population	Intensity <sup>2</sup>
		Percent distribution			
1965-86 . . . . .	11.4	100	62	8	30
1965-66 . . . . .	10.6	100	46	11	43
1966-67 . . . . .	12.2	100	55	9	36
1967-68 . . . . .	13.1	100	45	8	47
1968-69 . . . . .	13.4	100	42	8	50
1969-70 . . . . .	14.5	100	48	8	44
1970-71 . . . . .	10.4	100	67	11	22
1971-72 . . . . .	11.6	100	39	9	52
1972-73 . . . . .	10.5	100	46	8	45
1973-74 . . . . .	13.8	100	68	6	26
1974-75 . . . . .	15.7	100	69	6	26
1975-76 . . . . .	13.4	100	62	7	32
1976-77 . . . . .	12.3	100	64	7	29
1977-78 . . . . .	12.2	100	64	8	28
1978-79 . . . . .	13.3	100	67	8	25
1979-80 . . . . .	15.8	100	73	7	21
1980-81 . . . . .	15.9	100	67	7	26
1981-82 . . . . .	12.5	100	69	9	23
1982-83 . . . . .	9.8	100	66	10	23
1983-84 . . . . .	8.6	100	69	11	20
1984-85 . . . . .	8.6	100	58	11	31
1985-86 . . . . .	8.8	100	54	11	35

<sup>1</sup>Revised for 1965-86 because of a new hospital input price index for deflating hospital costs.

<sup>2</sup>Represents changes in use and/or kinds of services and supplies.

SOURCE: Division of National Cost Estimates, Office of the Actuary: National health expenditures, 1986-2000. *Health Care Financing Review*, Vol. 8, No. 4. HCFA Pub. No. 03239. Health Care Financing Administration. Washington. U.S. Government Printing Office, Aug. 1987.

**Table 101. Consumer Price Index and average annual percent change for all items and selected items: United States, selected years 1950-87**

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

Year	All items	Medical care	Food	Apparel and upkeep	Housing	Energy	Personal care
Consumer Price Index							
1950	72.1	53.7	74.5	79.0	72.8	---	68.3
1955	80.2	64.8	81.6	84.1	82.3	---	77.9
1960	88.7	79.1	88.0	89.6	90.2	94.2	90.1
1965	94.5	89.5	94.4	93.7	94.9	96.3	95.2
1970	113.3	120.6	114.9	116.1	118.2	107.0	113.2
1975	161.2	168.6	175.4	142.3	164.5	176.6	150.7
1976	170.5	184.7	180.8	147.6	174.6	189.3	160.5
1977	181.5	202.4	192.2	154.2	186.5	207.3	170.9
1978	195.4	219.4	211.4	159.6	202.8	220.4	182.0
1979	217.4	239.7	234.5	166.6	227.6	275.9	195.8
1980	246.8	265.9	254.6	178.4	263.3	361.1	213.1
1981	272.4	294.5	274.6	186.9	293.5	410.0	232.0
1982	289.1	328.7	285.7	191.8	314.7	416.1	248.3
1983	298.4	357.3	291.7	196.5	323.1	419.3	261.1
1984	311.1	379.5	302.9	200.2	336.5	423.6	271.4
1985	322.2	403.1	309.8	206.0	349.9	426.5	281.9
1986	328.4	433.5	319.7	207.8	360.2	370.3	291.3
1987	340.4	462.2	333.0	216.9	371.0	371.7	299.6
Average annual percent change							
1950-55	2.2	3.8	1.8	1.3	2.5	---	2.7
1955-60	2.0	4.1	1.5	1.3	1.9	---	3.0
1960-65	1.3	2.5	1.4	0.9	1.0	0.4	1.1
1965-70	4.2	6.1	4.0	4.4	4.5	2.1	3.5
1970-75	6.7	6.9	8.8	4.2	6.8	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	3.1	3.7	6.1	7.2	6.5
1976-77	6.5	9.6	6.3	4.5	6.8	9.5	6.5
1977-78	7.7	8.4	10.0	3.5	8.7	6.3	6.5
1978-79	11.3	9.3	10.9	4.4	12.2	25.2	7.6
1979-80	13.5	10.9	8.6	7.1	15.7	30.9	8.8
1980-85	5.5	8.7	4.0	2.9	5.9	3.4	5.8
1980-81	10.4	10.8	7.9	4.8	11.5	13.5	8.9
1981-82	6.1	11.6	4.0	2.6	7.2	1.5	7.0
1982-83	3.2	8.7	2.1	2.5	2.7	0.8	5.2
1983-84	4.3	6.2	3.8	1.9	4.1	1.0	3.9
1984-85	3.6	6.2	2.3	2.9	4.0	0.7	3.9
1985-86	1.9	7.5	3.2	0.9	2.9	-13.2	3.3
1986-87	3.7	6.6	4.2	4.4	3.0	0.4	2.8

NOTE: 1967 = 100.

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

**Table 102. Consumer Price Index for all items and medical care components: United States, selected years 1950-87**

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

<i>Item and medical care component</i>	<i>1950</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>
Consumer Price Index									
CPI, all items . . . . .	72.1	88.7	94.5	116.3	161.2	246.8	322.2	328.4	340.4
Less medical care . . . . .	---	89.4	94.9	116.1	160.9	245.5	317.7	322.6	333.8
CPI, all services . . . . .	58.7	83.5	92.2	121.6	166.6	270.3	381.5	400.5	417.1
All medical care . . . . .	53.7	79.1	89.5	120.6	168.6	265.9	403.1	433.5	462.2
Medical care services . . . . .	49.2	74.9	87.3	124.2	179.1	287.4	435.1	468.6	499.6
Professional medical services . . . . .	---	---	---	119.7	164.5	252.0	367.3	390.9	416.8
Physicians' services . . . . .	55.2	77.0	88.3	121.4	169.4	269.3	398.8	427.7	459.1
Dental services . . . . .	63.9	82.1	92.2	119.4	161.9	240.2	347.9	367.3	392.1
Eye care <sup>1</sup> . . . . .	---	---	---	---	---	---	---	---	103.5
Services by other medical professionals <sup>1</sup> . . . . .	---	---	---	---	---	---	---	---	102.4
Hospital and related services <sup>2</sup> . . . . .	---	---	---	---	---	133.5	224.0	237.4	253.9
Hospital rooms . . . . .	30.3	57.3	75.9	145.4	236.1	418.9	710.5	753.1	807.5
Other inpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	---	103.9
Outpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	---	103.3
Medical care commodities . . . . .	88.5	104.5	100.2	103.6	118.8	168.1	256.7	273.6	291.9
Prescription drugs . . . . .	92.6	115.3	102.0	101.2	109.3	154.8	256.5	278.6	300.8
Nonprescription drugs and medical supplies <sup>1</sup> . . . . .	---	---	---	---	---	---	---	---	103.1
Internal and respiratory over-the-counter drugs . . . . .	---	---	98.0	106.2	130.1	188.1	281.7	295.5	311.1
Nonprescription medical equipment and supplies <sup>2</sup> . . . . .	---	---	---	---	---	118.2	163.7	171.7	178.5

<sup>1</sup>Dec. 1986 = 100.

<sup>2</sup>Dec. 1977 = 100.

NOTE: 1967 = 100, except where noted.

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

**Table 103. Consumer Price Index average annual percent change for all items and medical care components: United States, selected years 1950-87**

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

<i>Item and medical care component</i>	<i>1950-60</i>	<i>1960-65</i>	<i>1965-70</i>	<i>1970-75</i>	<i>1975-80</i>	<i>1980-85</i>	<i>1985-86</i>	<i>1986-87</i>
Average annual percent change								
CPI, all items . . . . .	2.1	1.3	4.2	6.7	8.9	5.5	1.9	3.7
Less medical care . . . . .	---	1.2	4.1	6.7	8.8	5.3	1.5	3.5
CPI, all services . . . . .	3.6	2.0	5.7	6.5	10.2	7.1	5.0	4.1
All medical care . . . . .	4.0	2.5	6.1	6.9	9.6	8.7	7.5	6.6
Medical care services . . . . .	4.3	3.1	7.3	7.6	10.0	8.6	7.7	6.6
Professional medical services . . . . .	---	---	---	6.6	9.2	7.8	6.4	6.6
Physicians' services . . . . .	3.4	2.8	6.6	6.9	10.1	8.2	7.2	7.3
Dental services . . . . .	2.5	2.3	5.3	6.3	8.4	7.7	5.6	6.8
Eye care <sup>1</sup> . . . . .	---	---	---	---	---	---	---	---
Services by other								
medical professionals <sup>1</sup> . . . . .	---	---	---	---	---	---	---	---
Hospital and related services <sup>2</sup> . . . . .	---	---	---	---	---	10.9	6.0	7.0
Hospital rooms . . . . .	6.6	5.8	13.9	10.2	12.0	11.1	6.0	7.2
Other inpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	---
Outpatient services <sup>1</sup> . . . . .	---	---	---	---	---	---	---	---
Medical care commodities . . . . .	1.7	-0.8	0.7	2.8	7.3	8.8	6.6	6.7
Prescription drugs . . . . .	2.2	-2.4	-0.2	1.6	7.3	10.6	8.6	8.0
Nonprescription drugs and								
medical supplies <sup>1</sup> . . . . .	---	---	---	---	---	---	---	---
Internal and respiratory								
over-the-counter drugs . . . . .	---	---	1.6	4.1	7.7	8.4	4.9	5.3
Nonprescription medical								
equipment and supplies <sup>2</sup> . . . . .	---	---	---	---	---	6.7	4.9	4.0

<sup>1</sup>Dec. 1986 = 100.

<sup>2</sup>Dec. 1977 = 100.

NOTE: 1967 = 100, except where noted.

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

**Table 104. Hospital expenses and personnel and average annual percent change: United States, 1971-86**

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

Year and period	Adjusted expenses for Inpatient care			Employee costs as percent of total <sup>1</sup>	Personnel <sup>2</sup>	
	Total in millions	Per inpatient day	Per inpatient stay		Number in thousands	Number per 100 patients
1971	\$ 22,400	\$ 83	\$ 667	63.9	1,999	272
1972	25,549	95	747	62.6	2,056	278
1973	28,496	102	794	61.8	2,149	280
1974	32,751	113	883	60.7	2,289	289
1975	39,110	133	1,025	59.4	2,399	298
1976	45,402	152	1,172	57.9	2,483	304
1977	51,832	173	1,317	57.5	2,581	315
1978	58,348	194	1,470	57.2	2,662	323
1979	66,184	216	1,631	57.0	2,762	328
1980	76,970	244	1,844	56.4	2,879	334
1981	90,739	284	2,168	56.7	3,039	347
1982	105,094	327	2,493	56.7	3,110	353
1983	116,632	368	2,776	56.5	3,102	357
1984	123,550	410	2,984	56.1	3,023	367
1985	130,700	460	3,239	55.2	3,003	385
1986	140,907	499	3,530	53.9	3,032	392
Average annual percent change						
1971-86	13.0	12.7	11.7	...	2.8	2.5
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

<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, 1987 Edition*. Chicago, 1987. (Copyright 1987: Used with the permission of the American Hospital Association.)

**Table 105. National health expenditures and average annual percent change, according to source of funds: United States, selected years 1929–86**

[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	26.9	20.3	107	75.3	6.6	35	24.7
1965	41.9	30.9	152	73.8	11.0	54	26.2
1966	46.3	32.7	158	70.7	13.6	66	29.3
1967	51.5	32.5	156	63.2	19.0	91	36.8
1968	58.2	36.1	171	62.0	22.1	105	38.0
1969	65.6	40.7	191	62.0	24.9	117	38.0
1970	75.0	47.2	220	63.0	27.8	129	37.0
1971	83.5	51.8	238	62.1	31.6	146	37.9
1972	94.0	58.5	267	62.3	35.4	161	37.7
1973	103.4	64.0	289	61.9	39.4	178	38.1
1974	116.1	69.1	310	59.5	47.0	211	40.5
1975	132.7	76.4	340	57.5	56.3	250	42.5
1976	150.8	88.0	388	58.4	62.8	277	41.6
1977	169.9	100.1	438	58.9	69.7	305	41.1
1978	189.7	110.1	477	58.0	79.6	345	42.0
1979	214.7	124.2	533	57.9	90.5	388	42.1
1980	248.1	142.9	607	57.6	105.2	447	42.4
1981	287.0	165.8	697	57.8	121.2	510	42.2
1982	323.6	188.4	784	58.2	135.3	563	41.8
1983	357.2	209.7	865	58.7	147.5	608	41.3
1984	391.0	231.3	945	59.2	159.7	652	40.8
1985	422.6	246.6	998	58.4	176.0	712	41.6
1986	458.2	268.5	1,076	58.6	189.7	760	41.4
Average annual percent change							
1929–65	7.1	6.5	5.1	...	9.0	7.5	...
1965–86	12.1	9.5	9.8	...	13.2	13.4	...
1929–35	-3.6	-4.6	-5.3	...	2.2	0.0	...
1935–40	6.3	6.0	5.0	...	7.6	8.4	...
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	8.7	9.0	7.4	...	7.8	6.1	...
1960–65	9.3	8.8	7.3	...	10.6	9.1	...
1965–70	12.3	8.8	7.7	...	20.4	19.0	...
1970–75	12.1	10.1	9.1	...	15.2	14.1	...
1975–80	13.3	13.4	12.3	...	13.3	12.3	...
1980–85	11.2	11.5	10.5	...	10.8	9.8	...
1980–81	15.7	16.0	14.8	...	15.2	14.1	...
1981–82	12.8	13.6	12.5	...	11.6	10.4	...
1982–83	10.4	11.3	10.3	...	9.1	8.0	...
1983–84	9.5	10.3	9.2	...	8.3	7.2	...
1984–85	8.1	6.6	5.6	...	10.2	9.2	...
1985–86	8.4	8.9	7.8	...	7.8	6.7	...

<sup>1</sup>Reflects May 1987 revisions to the Social Security area population estimates.

SOURCE: Division of National Cost Estimates, Office of the Actuary: National health expenditures, 1986–2000. *Health Care Financing Review*. Vol. 8, No. 4. HCFA Pub. No. 03239. Health Care Financing Administration, Washington. U.S. Government Printing Office, Aug. 1987.

**Table 106. Personal health care expenditures and percent distribution, according to source of funds: United States, selected years 1929–86**

[Data are compiled by the Health Care Financing Administration]

Year	Total in billions <sup>1</sup>	Per capita	All sources	Direct payment	Private health insurance	Philanthropy and industry	Government		
							Total	Federal	State and local
							Percent distribution		
1929 . . . . .	\$ 3.2	\$ 26	100.0	<sup>2</sup> 88.4	( <sup>3</sup> )	2.6	9.0	2.7	6.3
1935 . . . . .	2.7	21	100.0	<sup>2</sup> 82.4	( <sup>3</sup> )	2.8	14.7	3.4	11.3
1940 . . . . .	3.5	26	100.0	<sup>2</sup> 81.3	( <sup>3</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 . . . . .	23.7	129	100.0	54.9	21.1	2.3	21.8	9.3	12.5
1965 . . . . .	35.9	176	100.0	51.6	24.2	2.2	22.0	10.1	11.9
1970 . . . . .	65.4	304	100.0	40.5	23.4	1.7	34.3	22.2	12.1
1971 . . . . .	72.2	332	100.0	38.9	23.8	1.8	35.5	23.2	12.3
1972 . . . . .	80.5	367	100.0	38.0	23.6	2.5	35.8	23.5	12.3
1973 . . . . .	89.0	402	100.0	37.4	24.0	2.5	36.1	23.7	12.4
1974 . . . . .	101.3	454	100.0	35.7	24.8	1.5	38.0	25.4	12.6
1975 . . . . .	117.1	521	100.0	32.5	26.7	1.3	39.5	26.8	12.7
1976 . . . . .	132.8	586	100.0	31.6	28.3	1.4	38.7	27.2	11.5
1977 . . . . .	149.1	652	100.0	31.1	28.8	1.3	38.7	27.4	11.3
1978 . . . . .	167.4	725	100.0	30.3	29.3	1.2	39.2	27.7	11.5
1979 . . . . .	189.7	814	100.0	29.4	30.0	1.2	39.3	28.1	11.2
1980 . . . . .	219.7	934	100.0	28.7	30.7	1.2	39.4	28.4	10.9
1981 . . . . .	254.7	1,071	100.0	28.5	30.8	1.3	39.5	29.1	10.3
1982 . . . . .	286.5	1,193	100.0	27.8	31.4	1.2	39.6	29.3	10.3
1983 . . . . .	314.7	1,298	100.0	28.2	31.1	1.3	39.4	29.5	9.9
1984 . . . . .	341.9	1,396	100.0	28.8	30.7	1.2	39.3	29.5	9.8
1985 . . . . .	371.3	1,502	100.0	28.4	30.4	1.2	40.0	30.3	9.6
1986 . . . . .	404.0	1,620	100.0	28.7	30.4	1.2	39.6	30.2	9.4

<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>Includes any insurance benefits and expenses for prepayment (insurance premiums less insurance benefits).

<sup>3</sup>Figures are not separable from direct payment.

SOURCE: Division of National Cost Estimates, Office of the Actuary: National health expenditures, 1986–2000. *Health Care Financing Review*. Vol. 8, No. 4. HCFA Pub. No. 03238. Health Care Financing Administration. Washington. U.S. Government Printing Office, Aug. 1987.

**Table 107. Expenditures on hospital care, nursing home care, and physician services and percent distribution, according to source of funds: United States, selected years, 1965-86**

Service and year	Total in billions	Direct payment	Private health insurance	Government		
				Total <sup>1</sup>	Medicaid	Medicare
Hospital care				Percent distribution		
1965 .....	\$ 14.0	16.8	41.1	39.9	...	...
1970 .....	28.0	11.4	34.6	52.4	8.0	18.2
1975 .....	52.4	7.9	35.9	55.1	9.1	21.9
1980 .....	101.6	7.8	38.1	53.1	9.4	25.5
1983 .....	146.8	9.0	37.4	52.3	8.8	27.6
1984 .....	156.3	9.7	36.1	53.0	8.8	28.2
1985 .....	167.2	8.7	36.2	54.0	8.9	29.2
1986 .....	179.6	9.4	36.1	53.3	8.8	28.8
Nursing home care						
1965 .....	2.1	64.5	0.1	34.3	...	...
1970 .....	4.7	50.3	0.4	48.6	30.3	5.6
1975 .....	10.1	42.7	0.7	56.0	47.9	2.9
1980 .....	20.4	43.6	0.9	54.9	48.0	1.9
1983 .....	29.4	48.0	0.9	50.4	44.4	1.8
1984 .....	31.7	49.1	0.9	49.3	43.2	1.7
1985 .....	35.0	49.9	0.9	48.5	42.4	1.7
1986 .....	38.1	51.0	0.8	47.5	41.4	1.6
Physician services						
1965 .....	8.5	61.6	31.4	6.9	...	...
1970 .....	14.3	45.4	33.6	20.9	4.8	11.3
1975 .....	24.9	34.1	39.5	26.3	7.5	13.5
1980 .....	46.8	30.4	42.6	26.9	5.2	16.9
1983 .....	68.4	28.3	43.2	28.4	4.3	19.6
1984 .....	75.3	27.7	44.1	28.1	4.1	19.5
1985 .....	82.8	27.8	42.9	29.3	4.3	20.5
1986 .....	92.0	28.5	42.1	29.4	4.3	20.6

<sup>1</sup>Includes other government expenditures for these health care services, for example, care funded by the Veterans Administration and State and local expenditures on public health.

NOTE: Philanthropy and Industry, which together accounted for 1.2 percent of personal health care expenditures in 1986, have been omitted from the sources of funds.

SOURCE: Division of National Cost Estimates, Office of the Actuary: National health expenditures, 1986-2000. *Health Care Financing Review*, Vol. 8, No. 4. HCFA Pub. No. 03239. Health Care Financing Administration, Washington. U.S. Government Printing Office, Aug. 1987.



**Table 108. 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. In press.

**Table 109. 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. In press.

**Table 110. National funding for health research and development and average annual percent change, according to source of funds: United States, selected years 1960-87**

[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	415	1,800	236
1979 . . . . .	7,135	4,321	465	2,093	256
1980 . . . . .	7,969	4,723	501	2,466	279
1981 . . . . .	8,645	4,848	575	2,921	301
1982 . . . . .	9,450	4,970	652	3,504	324
1983 . . . . .	10,535	5,399	726	4,035	375
1984 . . . . .	11,899	6,087	800	4,525	487
1985 . . . . .	13,346	6,791	869	5,190	496
1986 <sup>2</sup> . . . . .	14,605	6,895	1,015	5,985	710
1987 <sup>3</sup> . . . . .	16,180	7,640	1,074	6,778	688
Average annual percent change					
1960-86 . . . . .	11.4	11.1	12.6	12.9	6.5
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	11.9	13.3	1.1
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	22.8	11.5	7.3
1978-79 . . . . .	13.9	13.4	12.0	16.3	8.5
1979-80 . . . . .	11.7	9.3	7.7	17.8	9.0
1980-85 . . . . .	10.9	7.5	11.6	16.0	12.2
1980-81 . . . . .	8.5	2.6	14.8	18.4	7.9
1981-82 . . . . .	9.3	2.5	13.4	20.0	7.6
1982-83 . . . . .	11.5	8.6	11.3	15.2	15.7
1983-84 . . . . .	12.9	12.7	10.2	12.1	29.9
1984-85 . . . . .	12.2	11.6	8.6	14.7	1.8
1985-86 . . . . .	8.5	1.5	16.8	12.9	43.1

<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, 1987*. Public Health Service, U.S. Department of Health and Human Services, NIH Pub. No. 88-1261, Dec. 1987; National Institutes of Health, Office of Program Planning and Evaluation: Selected data.

**Table 111. Federal obligations for health research and development and percent distribution, according to agency: United States, selected fiscal years 1970–86**

[Data are compiled from Federal Government sources]

Agency	1970 <sup>1</sup>	1975 <sup>1</sup>	1980	1983	1984	1985 <sup>2</sup>	1986 <sup>2</sup>
				Amount in millions			
Total . . . . .	\$1,667	\$2,832	\$4,723	\$5,399	\$6,087	\$6,791	\$6,895
				Percent distribution			
All Federal agencies. . . . .	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
National Institutes of Health . . . . .	52.4	66.4	67.4	70.2	69.9	71.1	72.6
Centers for Disease Control . . . . .	---	1.5	1.8	1.4	0.7	0.7	0.8
Other Public Health Service . . . . .	16.2	8.3	7.9	7.5	7.5	7.3	7.3
Other Department of Health and Human Services . . . . .	2.0	1.3	1.1	0.8	0.7	0.6	0.5
Other agencies. . . . .	29.4	22.4	21.8	20.0	21.1	20.3	18.9
Department of Agriculture . . . . .	3.0	2.2	3.1	2.7	2.4	2.1	1.1
Department of Defense . . . . .	7.5	4.1	4.5	5.7	6.8	6.5	7.2
Department of Education <sup>3</sup> . . . . .	...	...	0.7	0.5	0.7	0.6	0.6
Department of Energy <sup>4</sup> . . . . .	6.3	5.8	4.5	3.1	3.0	2.6	2.4
Department of the Interior . . . . .	0.7	0.3	0.5	0.4	0.4	0.4	0.4
Environmental Protection Agency . . . . .	...	1.3	1.7	0.7	0.7	0.8	0.5
International Development Cooperation Agency <sup>5</sup> . . . . .	0.6	0.2	0.3	0.6	0.3	0.6	0.4
National Aeronautics and Space Administration . . . . .	5.2	2.6	1.5	1.4	1.8	1.7	1.9
National Science Foundation . . . . .	1.7	1.6	1.6	1.4	1.4	1.3	1.2
Veterans Administration . . . . .	3.5	3.3	2.8	3.0	3.1	3.3	2.7
All other departments and agencies . . . . .	0.9	1.0	0.4	0.4	0.3	0.4	0.4

<sup>1</sup>Data for fiscal year ending June 30; all other data for fiscal year ending September 30.

<sup>2</sup>Revised figures.

<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.

SOURCE: Office of Program Planning and Evaluation, National Institutes of Health, Public Health Service: Selected data.

**Table 112. Obligations for human immunodeficiency virus (HIV)-related activities by National Institutes of Health and other Public Health Service agencies: United States, fiscal years 1982-87**

<i>Agency</i>	<i>1982</i>	<i>1983</i>	<i>1984</i>	<i>1985</i>	<i>1986<sup>1</sup></i>	<i>1987</i>
	Thousands of dollars					
Public Health Service, total . . . . .	\$5,555	\$28,736	\$61,460	\$108,618	\$233,812	\$502,455
National Institutes of Health, total . . . . .	3,355	21,668	44,121	63,737	134,667	260,907
National Institute on Aging . . . . .	-	-	-	-	-	184
National Institute of Allergy and Infectious Diseases . . . . .	297	9,223	19,616	23,273	63,276	145,760
National Institute of Arthritis and Musculoskeletal and Skin Diseases . . . . .	-	-	-	-	-	100
National Cancer Institute . . . . .	2,400	9,790	16,627	26,874	45,050	63,755
National Institute of Child Health and Human Development . . . . .	-	-	-	-	1,400	4,762
National Institute of Dental Research . . . . .	25	25	81	97	1,712	3,247
National Institute of Diabetes and Digestive and Kidney Diseases . . . . .	-	-	-	-	-	495
National Institute of Environmental Health Sciences . . . . .	-	-	-	-	-	216
National Eye Institute . . . . .	33	45	60	200	96	253
National Institute of General Medical Sciences . . . . .	-	-	-	-	-	5,420
National Heart, Lung, and Blood Institute . . . . .	5	1,202	4,871	9,323	15,468	17,244
National Institute of Neurological and Communicative Disorders and Stroke . . . . .	31	684	1,510	1,168	1,435	3,685
Division of Research Resources . . . . .	564	699	1,356	2,802	6,157	11,027
Office of the Director . . . . .	-	-	-	-	73	4,759
Other Public Health Service, total . . . . .	2,200	7,068	17,339	44,881	99,145	241,548
Alcohol, Drug Abuse, and Mental Health Administration . . . . .	-	516	2,791	2,578	12,155	47,504
Centers for Disease Control . . . . .	2,050	6,202	13,750	33,298	62,152	136,007
Food and Drug Administration . . . . .	150	350	798	9,005	9,527	15,774
Health Resources and Services Administration . . . . .	-	-	-	-	15,311	11,900
Office of the Assistant Secretary for Health . . . . .	-	-	-	-	-	30,363

<sup>1</sup>Includes reimbursements where applicable (funds appropriated to Office of the Director but transferred to Institutes to be awarded and administered).

NOTES: The total personal medical care costs of AIDS in current dollars are estimated at \$1.1 billion in 1986, increasing to \$8.5 billion in 1991. (A. H. Scitovsky and D. P. Flice. Estimates of the direct and indirect costs of acquired immunodeficiency syndrome in the United States, 1985, 1986 and 1987. *Public Health Reports*. Jan.-Feb. 1987, Vol. 102, No. 1). An estimate in 1985 dollars for the personal medical care costs of patients diagnosed with AIDS, which included the cost of purchasing azidothymidine, was reported in 1988. These estimates are \$2.2 billion in 1988 increasing to \$4.5 billion in 1991. (F. J. Hellinger. Forecasting the personal medical care costs of AIDS from 1988 through 1991. *Public Health Reports*. May-June 1988, Vol. 103, No. 3).

SOURCE: National Institutes of Health: *NIH Data Book, 1988*. Public Health Service, U.S. Department of Health and Human Services, NIH Pub. No. 89-1261, Dec. 1988.

**Table 113. Public health expenditures by State and territorial health agencies, according to source of funds and program area: United States, selected fiscal years 1976-86**

<i>Funds and program area</i>	1976	1978	1980	1982	1983	1984	1985	1986
	Amount in millions							
Total . . . . .	\$2,539.8	\$3,256.2	\$4,450.8	\$5,144.5	\$5,610.3	\$6,241.9	\$6,949.5	\$7,491.0
Source of funds								
Federal grants and contracts . . . . .	796.9	1,133.2	1,573.1	1,777.8	2,001.2	2,344.0	2,555.7	2,699.6
Department of Agriculture . . . . .	153.7	350.8	678.4	916.3	1,060.8	1,306.7	1,455.1	1,551.2
Other . . . . .	643.2	782.3	894.7	861.4	940.4	1,037.3	1,100.7	1,148.4
State . . . . .	1,485.7	1,802.1	2,513.3	2,922.9	3,108.0	3,352.2	3,809.6	4,126.0
Local . . . . .	96.1	87.0	114.0	122.9	125.0	150.5	149.2	145.6
Fees, reimbursements, and other . . . . .	161.2	233.8	250.3	321.0	376.1	395.3	435.0	519.7
Program area								
WIC <sup>1</sup> . . . . .	137.7	337.2	660.7	889.7	1,049.5	1,268.6	1,431.1	1,534.1
Noninstitutional personal health other than WIC <sup>2</sup> . . . . .	1,079.0	1,356.1	1,698.2	1,904.9	2,079.3	2,379.7	2,521.4	2,776.9
State health agency-operated institutions . . . . .	531.1	641.1	819.3	949.6	967.5	978.7	1,153.4	1,235.8
Environmental health . . . . .	199.2	237.0	298.0	354.6	363.7	414.8	467.0	479.8
Health resources . . . . .	208.2	297.2	356.5	360.2	550.1	562.8	626.7	650.9
Laboratory . . . . .	104.1	131.1	161.1	181.6	191.6	214.1	229.2	237.9
Other <sup>3</sup> . . . . .	280.6	256.3	457.0	503.9	408.7	423.2	520.8	575.6
	Percent distribution							
Total . . . . .	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	35.7	37.6	36.8	36.0
Department of Agriculture . . . . .	6.1	10.8	15.2	17.8	18.9	20.9	20.9	20.7
Other . . . . .	25.3	24.0	20.1	16.7	16.8	16.6	15.8	15.3
State . . . . .	58.5	55.3	56.5	56.8	55.4	53.7	54.8	55.1
Local . . . . .	3.8	2.7	2.6	2.4	2.2	2.4	2.1	1.9
Fees, reimbursements, and other . . . . .	6.3	7.2	5.6	6.2	6.7	6.3	6.3	6.9
Program area								
WIC <sup>1</sup> . . . . .	5.4	10.4	14.8	17.3	18.7	20.3	20.6	20.5
Noninstitutional personal health other than WIC <sup>2</sup> . . . . .	42.5	41.6	38.2	37.0	37.1	38.1	36.3	37.1
State health agency-operated institutions . . . . .	20.9	19.7	18.4	18.5	17.2	15.7	16.6	16.5
Environmental health . . . . .	7.8	7.3	6.7	6.9	6.5	6.6	6.7	6.4
Health resources . . . . .	8.2	9.1	8.0	7.0	9.8	9.0	9.0	8.7
Laboratory . . . . .	4.1	4.0	3.6	3.5	3.4	3.4	3.3	3.2
Other <sup>3</sup> . . . . .	11.0	7.9	10.3	9.8	7.3	6.8	7.5	7.7

<sup>1</sup>Supplemental Food Program for Women, Infants, and Children.

<sup>2</sup>Includes funds for maternal and child health services other than WIC, handicapped children's services, communicable disease control, dental health, chronic disease control, mental health, alcohol and drug abuse, and supporting personal health programs.

<sup>3</sup>Funds for general administration and funds to local health departments not allocated to program areas.

NOTE: Data are reported for 55 health agencies in 50 States, the District of Columbia, and 4 territories (Puerto Rico, American Samoa, Guam, and the Virgin Islands).

SOURCES: Public Health Foundation: *Public Health Agencies 1987: Expenditures and Sources of Funds*. Washington, 1987; Unpublished data.

**Table 114. 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
Per capita amount								
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
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 115. 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
Per capita amount								
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
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

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 116. 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
Per capita amount								
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
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 117. Health care coverage for persons under 65 years of age, according to type of coverage and selected characteristics: United States, 1980, 1982, and 1986**

[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	1982	1986	1980	1982	1986	1980	1982	1986
Percent of population									
Total <sup>3,4</sup> . . . . .	78.8	77.3	75.9	5.9	5.6	5.9	12.5	14.7	15.3
Age									
Under 15 years . . . . .	74.7	72.7	71.4	10.2	9.8	10.4	12.8	15.8	16.1
Under 5 years . . . . .	70.3	69.7	68.0	12.0	11.4	12.0	15.2	17.0	17.5
5-14 years . . . . .	76.7	74.2	73.1	9.4	8.9	9.5	11.7	15.2	15.3
15-44 years . . . . .	79.3	77.6	75.8	4.2	4.1	4.1	14.2	16.5	17.4
45-64 years . . . . .	83.6	83.1	82.4	3.1	2.7	3.0	8.6	9.7	10.3
Sex <sup>3</sup>									
Male . . . . .	79.5	78.0	76.4	4.7	4.5	4.8	12.7	14.8	15.8
Female . . . . .	78.2	76.7	75.4	7.1	6.6	6.8	12.2	14.5	14.9
Race <sup>3</sup>									
White . . . . .	81.9	80.4	79.1	3.9	3.6	4.0	11.4	13.5	14.0
Black . . . . .	60.1	59.6	57.0	17.9	17.2	17.4	19.0	21.2	22.6
Family income <sup>3,5</sup>									
Less than \$10,000 . . . . .	38.6	38.3	31.3	27.6	24.9	28.4	31.0	35.0	37.0
\$10,000-\$14,999 . . . . .	61.1	67.6	58.1	9.2	4.4	8.8	25.9	24.7	31.3
\$15,000-\$19,999 . . . . .	79.0	81.3	72.6	3.0	2.0	*2.7	15.0	14.2	21.2
\$20,000-\$34,999 . . . . .	90.2	91.8	88.3	1.1	0.7	*1.0	6.2	5.7	8.4
\$35,000 or more . . . . .	93.7	93.8	93.7	0.6	0.5	*0.4	3.9	4.1	3.9
Geographic region <sup>3</sup>									
Northeast . . . . .	81.7	80.5	81.6	7.0	6.9	5.9	10.3	11.0	10.7
Midwest . . . . .	83.8	82.0	79.7	5.8	5.8	7.6	9.0	10.9	10.9
South . . . . .	75.6	74.3	71.6	4.8	4.6	5.1	15.0	17.5	19.2
West . . . . .	74.3	72.4	72.9	6.5	5.8	5.1	15.3	19.1	18.8
Location of residence <sup>3</sup>									
Within MSA . . . . .	79.7	78.0	76.8	6.2	6.0	5.7	11.3	13.6	14.5
Outside MSA . . . . .	77.0	75.9	72.7	5.2	4.7	6.2	14.8	17.0	18.2

<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 1982 and 1986. Income categories in 1980 are less than \$7,000; \$7,000-\$9,999; \$10,000-\$14,999; \$15,000-\$24,999; \$25,000 or more.

\*Relative standard error greater than 30 percent.

NOTES: Denominators include persons with unknown health insurance (1.7 percent in 1986). Percents do not add to 100 because the percent with other types of health insurance (e.g., Medicare, military) and unknown health insurance are not shown, and because persons with both private insurance and Medicaid appear in both columns.

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

**Table 118. Health care coverage for persons 65 years of age and over, according to type of coverage and selected characteristics: United States, 1980, 1982, and 1986**

[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 <sup>2</sup>		
	1980	1982	1986	1980	1982	1986	1980	1982	1986
	Percent of population								
Total <sup>3,4</sup> . . . . .	64.4	65.5	71.6	8.1	6.1	5.8	22.7	23.1	17.9
Age									
65-74 years . . . . .	67.0	68.2	73.5	6.8	4.8	4.9	20.6	20.5	15.7
75 years and over . . . . .	59.9	60.6	68.2	10.3	8.3	7.3	26.4	27.7	21.7
75-84 years . . . . .	61.9	62.7	70.4	9.7	8.1	7.0	24.8	26.0	19.8
85 years and over . . . . .	51.2	51.3	58.7	12.7	9.3	8.8	33.0	34.9	29.6
Sex <sup>3</sup>									
Male . . . . .	65.6	66.2	72.8	5.7	4.3	3.7	23.1	23.4	18.4
Female . . . . .	63.6	65.0	70.8	9.6	7.3	7.3	22.4	23.0	17.5
Race <sup>3</sup>									
White . . . . .	68.3	68.9	75.4	6.6	4.8	4.5	21.0	21.6	16.1
Black . . . . .	26.5	33.0	34.2	23.3	18.2	19.7	40.6	38.5	34.9
Family income <sup>3,5</sup>									
Less than \$10,000 . . . . .	53.4	55.6	54.7	15.7	11.7	14.4	28.2	28.9	27.1
\$10,000-\$14,999 . . . . .	72.9	76.3	78.0	4.8	3.3	*3.9	19.1	17.3	15.5
\$15,000-\$19,999 . . . . .	74.1	74.1	82.8	3.9	1.8	*2.0	18.3	17.8	11.5
\$20,000-\$34,999 . . . . .	74.4	74.6	82.0	2.5	*1.2	*2.2	16.8	17.9	10.0
\$35,000 or more . . . . .	71.9	73.7	77.5	2.2	*1.3	*1.4	18.3	16.0	13.9
Geographic region <sup>3</sup>									
Northeast . . . . .	67.4	66.6	74.1	5.6	4.1	4.1	22.3	23.3	17.0
Midwest . . . . .	71.2	71.3	77.7	4.9	3.1	3.8	19.9	21.2	14.5
South . . . . .	58.9	60.2	65.3	10.8	9.2	8.0	25.6	25.4	21.0
West . . . . .	60.7	65.3	70.6	10.9	7.2	6.6	21.7	21.5	18.2
Location of residence <sup>3</sup>									
Within MSA . . . . .	64.2	66.1	71.7	7.5	5.0	5.2	23.0	22.8	17.8
Outside MSA . . . . .	64.9	64.3	71.2	9.2	7.8	7.2	22.2	23.7	18.1

<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.

<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 1982 and 1986. Income categories in 1980 are less than \$7,000; \$7,000-\$9,999; \$10,000-\$14,999; \$15,000-\$24,999; \$25,000 or more.

\*Relative standard error greater than 30 percent.

NOTES: Persons with Medicare, private insurance, and Medicaid appear in both columns. Denominators include persons with unknown health insurance (0.8 percent in 1986). In 1986, 5.0 percent of all persons 65 years of age and over had no Medicare but only 0.6 percent were without health insurance.

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

**Table 119. Health maintenance organizations and enrollment, according to model type, geographic region, and Federal program: United States, selected years 1976-87**

<i>Plans and enrollment</i>	1976	1978	1980	1982	1984	1985 <sup>1</sup>	1986	1987
Plans		Number						
All plans . . . . .	174	202	235	264	304	478	623	647
Model type:								
Individual practice association <sup>2</sup> . . . . .	<sup>3</sup> 41	<sup>4</sup> 70	97	97	125	244	384	409
Group . . . . .	<sup>3</sup> 122	<sup>4</sup> 129	138	167	179	234	239	238
Geographic region:								
Northeast . . . . .	29	49	55	59	67	81	105	114
Midwest . . . . .	52	57	72	87	105	157	202	203
South . . . . .	23	33	45	52	67	141	188	194
West . . . . .	70	63	63	66	65	99	128	136
Enrollment <sup>5</sup>		Number of persons in thousands						
Total . . . . .	5,987	7,450	9,078	10,807	15,101	21,005	25,725	29,232
Model type:								
Individual practice association <sup>2</sup> . . . . .	<sup>3</sup> 390	<sup>4</sup> 1,051	1,694	1,471	2,929	6,379	9,932	12,014
Group . . . . .	<sup>3</sup> 5,562	<sup>4</sup> 6,376	7,384	9,336	12,172	14,625	15,793	17,217
Federal program: <sup>6</sup>								
Medicaid . . . . .	---	230	265	197	349	561	802	7811
Medicare . . . . .	---	376	391	431	671	<sup>8</sup> 1,064	<sup>8</sup> 1,490	1,674
		Number per 1,000 population						
Geographic region:								
Northeast . . . . .	19.9	24.9	31.4	39.0	57.8	79.4	100.5	117.0
Midwest . . . . .	15.2	18.7	28.1	37.2	61.6	96.8	116.4	130.5
South . . . . .	4.3	6.2	8.3	11.1	20.4	37.5	54.4	64.2
West . . . . .	96.9	113.3	121.8	128.7	148.0	172.5	190.4	205.6

<sup>1</sup>Increases partly due to changes in reporting methods (see Appendix I).

<sup>2</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>3</sup>11 HMO's with 35,000 enrollment did not report model type.

<sup>4</sup>3 HMO's with 23,000 enrollment did not report model type.

<sup>5</sup>Combined HMO and open-ended enrollment amounting to 379 thousand members in 1987 is not included in this table.

<sup>6</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>7</sup>Preliminary estimate.

<sup>8</sup>Revised figures.

NOTES: Data as of June 30 each year, except August in 1978 and December 31 in 1985-87. 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; 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: Used with the permission of InterStudy); Regional populations obtained from U.S. Bureau of the Census, unpublished data; Data computed by the Division of Analysis.

**Table 120. Medicare enrollees and Medicaid recipients and expenditures and percent distribution, according to type of service: United States, selected years 1967-86**

[Data are compiled by the Health Care Financing Administration]

Type of service	1967	1970	1975	1980	1983	1984	1985	1986
<b>Medicare</b>								
Number in millions								
Enrollees <sup>1</sup> . . . . .	19.5	20.5	25.0	28.5	30.0	30.5	31.1	31.7
Amount in billions								
All expenditures . . . . .	\$4.5	\$7.1	\$15.6	\$35.7	\$57.4	\$62.9	\$70.5	\$76.0
Percent distribution of expenditures								
All services . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hospital care . . . . .	69.1	71.5	73.8	72.6	70.5	70.1	69.3	68.0
Physician services . . . . .	24.7	22.8	21.6	22.1	23.4	23.3	24.0	25.0
Nursing home care . . . . .	4.6	3.7	1.9	1.1	0.9	0.9	0.8	0.8
Other health services <sup>2</sup> . . . . .	1.6	1.9	2.8	4.1	5.3	5.7	5.9	6.2
<b>Medicaid</b>								
Number in millions								
Recipients <sup>3</sup> . . . . .	---	---	22.0	21.6	21.6	21.6	21.8	22.4
Amount in billions								
All expenditures <sup>4</sup> . . . . .	\$2.9	\$5.2	\$13.5	\$25.2	\$33.9	\$36.3	\$40.1	\$43.6
Percent distribution of expenditures								
All services . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hospital care . . . . .	42.3	42.9	35.3	38.1	38.0	38.0	37.2	36.3
Physician services . . . . .	10.9	13.3	13.9	9.7	8.6	8.4	8.8	9.1
Dentist services . . . . .	4.4	3.2	2.7	2.0	1.4	1.2	1.2	1.2
Other professional services . . . . .	0.9	1.4	1.8	2.3	3.1	3.2	3.3	3.5
Drugs and medical sundries . . . . .	7.2	7.9	6.6	5.5	5.5	5.7	6.0	6.6
Nursing home care . . . . .	31.7	27.2	35.6	38.8	38.4	37.8	37.0	36.3
Other health services <sup>5</sup> . . . . .	2.6	4.1	4.1	3.7	4.9	5.7	6.5	7.0

<sup>1</sup>Number enrolled in the hospital insurance and/or supplementary medical insurance programs on July 1.

<sup>2</sup>Other services include the national health account service categories "eyeglasses and appliances" and "other professional services" (including home health services).

<sup>3</sup>Unduplicated count of recipients during the fiscal year.

<sup>4</sup>Calendar year expenditures from Federal, State, and local funds under Medicaid. Includes per capita payments for Part B of Medicare and excludes administrative costs.

<sup>5</sup>Other services include the national health account category of "other health services," which includes family-planning services and early and periodic screening, diagnosis, and treatment (EPSDT) services.

SOURCE: Division of National Cost Estimates, Office of the Actuary: National health expenditures, 1986-2000. *Health Care Financing Review*. Vol. 8, No. 4. HCFA Pub. No. 03239. Health Care Financing Administration. Washington. U.S. Government Printing Office, Aug. 1987.

**Table 121. Medicare enrollment, persons served, and reimbursements for Medicare enrollees 65 years of age and over, according to selected characteristics: United States, selected years 1967-86**

[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>			Reimbursements per person served <sup>3</sup>			Reimbursements per enrollee <sup>3</sup>		
	1967	1977	1986	1967	1977	1986	1967	1977	1986	1967	1977	1986
Total <sup>4</sup> . . . . .	19.5	23.8	28.2	367	570	732	\$592	\$1,332	\$2,870	\$217	\$ 759	\$2,146
Age												
65-66 years . . . . .	2.8	3.3	3.7	300	533	652	496	1,075	2,118	149	573	1,453
67-68 years . . . . .	2.6	3.2	3.5	326	511	656	521	1,173	2,441	170	599	1,604
69-70 years . . . . .	2.4	2.9	3.3	339	531	689	530	1,211	2,579	180	643	1,776
71-72 years . . . . .	2.3	2.6	3.1	351	555	719	560	1,228	2,777	197	681	2,032
73-74 years . . . . .	2.1	2.3	2.7	369	576	735	574	1,319	2,910	212	759	2,199
75-79 years . . . . .	3.9	4.5	5.5	398	597	768	624	1,430	3,100	248	853	2,433
80-84 years . . . . .	2.2	3.0	3.5	430	623	808	693	1,549	3,310	298	965	2,749
85 years and over . . . . .	1.3	2.1	2.9	465	652	827	740	1,636	3,477	345	1,068	2,946
Sex												
Male . . . . .	8.3	9.6	11.3	357	546	691	647	1,505	3,272	231	821	1,956
Female . . . . .	11.3	14.2	16.9	373	586	759	554	1,223	2,626	207	717	2,036
Race <sup>5</sup>												
White . . . . .	17.4	21.1	24.7	375	576	738	593	1,328	2,842	222	765	2,139
Other . . . . .	1.5	2.1	2.6	260	514	683	557	1,404	3,185	145	722	2,252
Geographic region <sup>6</sup>												
Northeast . . . . .	5.1	5.7	6.4	385	613	775	604	1,426	2,933	233	874	2,306
Midwest . . . . .	5.6	6.3	7.2	352	541	729	599	1,401	2,894	211	757	2,141
South . . . . .	5.6	7.5	9.2	351	556	736	528	1,198	2,744	186	666	2,073
West . . . . .	2.9	3.8	4.9	455	632	727	620	1,341	3,051	282	848	2,292

<sup>1</sup>Includes fee-for-service and Health Maintenance Organization (HMO) enrollees.

<sup>2</sup>Excludes HMO enrollees.

<sup>3</sup>Excludes amounts for HMO services.

<sup>4</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>5</sup>Excludes persons of unknown race.

<sup>6</sup>Includes the resident population of the United States but not residence unknown.

SOURCE: Bureau of Data Management and Strategy, Health Care Financing Administration: Unpublished data.

**Table 122. 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 1986**

[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	1986	1980	1984	1986	1980	1984	1986
	Number per 1,000 hospital insurance enrollees			Number of days per hospital discharge			Number per 1,000 hospital insurance enrollees		
United States . . . . .	372	371	327	10.6	8.9	8.7	4,016	3,297	2,845
New England . . . . .	333	343	307	12.1	10.4	10.0	4,130	3,562	3,078
Middle Atlantic . . . . .	329	348	319	13.4	11.8	10.9	4,528	4,099	3,465
East North Central . . . . .	373	367	325	11.2	9.0	8.7	4,243	3,288	2,843
West North Central . . . . .	426	400	339	9.9	7.9	7.8	4,371	3,176	2,658
South Atlantic . . . . .	372	375	326	10.3	8.6	8.6	3,880	3,205	2,814
East South Central . . . . .	436	450	420	9.6	8.1	8.1	4,260	3,649	3,398
West South Central . . . . .	433	436	360	9.1	7.7	7.8	4,025	3,364	2,807
Mountain . . . . .	360	333	307	8.7	7.3	7.1	3,243	2,432	2,183
Pacific . . . . .	338	326	285	8.7	7.3	7.3	2,988	2,389	2,083

Geographic division	Benefit payments								
	Average total charges in short-stay hospitals <sup>1</sup>			Hospital insurance <sup>2</sup>			Supplementary medical insurance		
	1980	1984	1986	1980	1984	1986	1980	1984	1986
	Amount per day			Amount per enrollee					
United States . . . . .	\$296	\$552	\$687	\$ 909	\$1,466	\$1,624	\$390	\$672	\$ 863
New England . . . . .	295	496	607	978	1,543	1,607	402	672	849
Middle Atlantic . . . . .	304	502	608	965	1,596	1,662	428	763	992
East North Central . . . . .	298	560	689	1,008	1,542	1,785	370	636	819
West North Central . . . . .	246	506	643	888	1,387	1,586	304	477	687
South Atlantic . . . . .	277	538	668	818	1,346	1,475	384	663	848
East South Central . . . . .	249	491	625	754	1,296	1,451	281	479	603
West South Central . . . . .	259	516	683	798	1,434	1,581	352	652	730
Mountain . . . . .	310	623	794	782	1,269	1,408	368	625	778
Pacific . . . . .	424	819	982	1,003	1,551	1,790	509	863	1,144

<sup>1</sup>Includes charges for Medicare covered and not covered services and days. For these years billing reimbursements represented about 65-70 percent of hospital total charges.

<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: Health Care Financing Administration: Unpublished data.

**Table 123. Recipients and Medicaid medical vendor payments, according to basis of eligibility: United States, selected years 1972-87**

[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>
<b>Recipients</b>				<b>Number in millions</b>			
All recipients . . . . .	17.6	22.0	21.6	21.6	21.8	22.4	23.2
				<b>Percent distribution</b>			
Total . . . . .	100.0	100.0	...	...	...	...	...
Aged <sup>3</sup> . . . . .	18.8	16.5	15.9	15.0	14.0	14.0	14.1
Blind and disabled . . . . .	9.8	11.2	13.5	13.5	13.8	14.2	14.6
Adults in AFDC <sup>4</sup> families . . . . .	17.8	20.6	22.6	26.0	25.3	25.1	24.3
Children in AFDC <sup>4</sup> families . . . . .	44.5	43.7	43.2	44.7	44.7	44.4	44.1
Other Title XIX <sup>5</sup> . . . . .	9.0	8.2	6.9	5.5	5.6	6.1	6.1
<b>Vendor payments</b>				<b>Amount in billions</b>			
All payments . . . . .	\$6.3	\$12.2	\$23.3	\$33.9	\$37.5	\$40.9	\$45.2
				<b>Percent distribution</b>			
Total . . . . .	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	36.9	35.7
Blind and disabled . . . . .	22.2	25.7	32.7	35.3	35.9	36.4	37.2
Adults in AFDC <sup>4</sup> families . . . . .	15.3	16.8	13.9	13.0	12.7	11.9	12.4
Children in AFDC <sup>4</sup> families . . . . .	18.1	17.9	13.4	11.7	11.8	12.5	12.3
Other Title XIX <sup>5</sup> . . . . .	13.9	4.0	2.6	2.1	2.1	2.4	2.4

<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 one 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: Office of the Actuary, Health Care Financing Administration: Unpublished data.



**Table 124. Veterans medical care expenditures and percent distribution, according to type of service: United States, selected fiscal years 1965-87**

[Data are compiled from Veterans Administration sources]

Type of service	1965 <sup>1</sup>	1970 <sup>1</sup>	1975 <sup>1</sup>	1980	1984	1985	1986	1987 <sup>2</sup>
<b>Patients treated</b>				<b>Number in thousands</b>				
Inpatient hospital. . . . .	730	787	1,065	1,235	1,290	1,306	1,328	1,077
Outpatient care. . . . .	5,987	7,312	13,799	18,206	18,597	19,586	20,188	21,890
Veterans Administration nursing homes and domiciliaries . . . . .	---	34	30	28	30	34	37	40
Community nursing homes . . . . .	---	15	24	28	36	39	41	42
All other <sup>3</sup> . . . . .	---	43	53	57	55	56	56	52
<b>Expenditures</b>				<b>Amount in millions</b>				
All expenditures <sup>4</sup> . . . . .	\$1,150	\$1,689	\$3,328	\$5,981	\$8,301	\$8,936	\$9,275	\$9,673
<b>Percent distribution</b>								
All services . . . . .	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Inpatient hospital. . . . .	81.9	71.3	66.4	64.3	61.3	60.3	57.2	55.5
Outpatient care. . . . .	12.0	14.0	17.8	19.1	18.7	18.9	20.7	21.5
Veterans Administration nursing homes and domiciliaries . . . . .	2.9	4.3	4.8	5.1	5.5	5.4	5.9	6.2
Community nursing homes . . . . .	0.0	1.2	1.4	2.0	2.8	3.0	3.3	3.4
All other <sup>3</sup> . . . . .	3.2	9.1	9.6	9.6	11.7	12.4	12.9	13.4

<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.

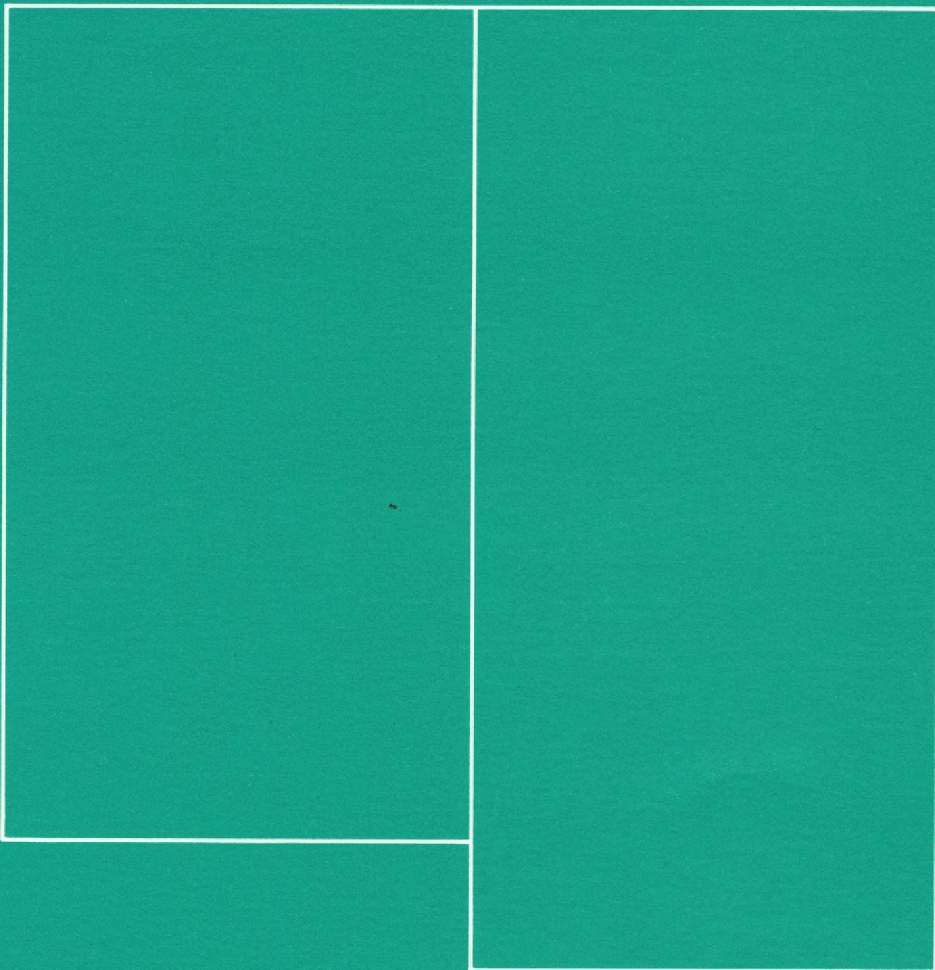
**Table 125. State mental health agency per capita expenditures for mental health services, by State: United States, fiscal years 1981, 1983, and 1985**

State	1981	1983	1985
United States . . . . .	\$26.87	\$30.64	\$34.99
Alabama . . . . .	19.92	24.15	27.78
Alaska . . . . .	37.88	41.17	44.85
Arizona . . . . .	9.99	9.51	12.06
Arkansas . . . . .	16.82	20.27	23.80
California . . . . .	28.41	28.88	33.51
Colorado . . . . .	23.83	24.88	27.72
Connecticut . . . . .	31.77	39.22	44.02
Delaware . . . . .	44.38	51.33	46.05
District of Columbia . . . . .	---	23.35	27.82
Florida . . . . .	19.89	22.66	25.52
Georgia . . . . .	25.10	26.28	23.38
Hawaii . . . . .	18.89	21.95	22.66
Idaho . . . . .	13.39	14.99	14.99
Illinois . . . . .	17.83	21.00	23.73
Indiana . . . . .	18.83	22.74	27.44
Iowa . . . . .	7.89	9.56	10.51
Kansas . . . . .	17.47	22.28	26.85
Kentucky . . . . .	14.84	16.95	18.82
Louisiana . . . . .	18.85	23.29	25.62
Maine . . . . .	25.12	31.90	36.15
Maryland . . . . .	32.96	37.39	39.96
Massachusetts . . . . .	31.83	35.95	46.11
Michigan . . . . .	32.49	38.65	48.98
Minnesota <sup>1</sup> . . . . .	16.91	29.92	31.98
Mississippi . . . . .	13.69	16.31	23.78
Missouri . . . . .	23.57	24.62	27.72
Montana . . . . .	24.49	28.02	29.20
Nebraska . . . . .	16.48	19.15	21.29
Nevada . . . . .	21.81	25.20	25.95
New Hampshire . . . . .	34.70	38.84	42.02
New Jersey . . . . .	26.27	31.32	35.65
New Mexico . . . . .	23.73	24.93	24.60
New York . . . . .	66.84	74.06	90.12
North Carolina . . . . .	23.82	28.53	37.81
North Dakota . . . . .	38.46	41.92	36.25
Ohio . . . . .	24.72	28.48	30.41
Oklahoma . . . . .	22.07	33.02	30.89
Oregon . . . . .	20.45	21.35	24.89
Pennsylvania . . . . .	40.54	47.44	52.39
Rhode Island . . . . .	36.03	31.54	35.00
South Carolina . . . . .	30.79	32.61	32.61
South Dakota . . . . .	17.06	20.73	21.73
Tennessee . . . . .	17.79	19.97	22.75
Texas . . . . .	13.08	15.95	17.33
Utah . . . . .	13.31	15.91	17.30
Vermont . . . . .	32.18	39.60	44.35
Virginia . . . . .	22.65	28.68	32.10
Washington . . . . .	17.81	23.55	29.50
West Virginia . . . . .	19.64	19.96	21.71
Wisconsin . . . . .	22.44	26.66	27.82
Wyoming . . . . .	23.13	27.92	30.52

<sup>1</sup>1981 data not comparable with 1983 and 1985 data.

SOURCE: 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.

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# Appendix I

## Sources and Limitations of Data

### Introduction

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

Generally, the data presented in the detailed tables are from the ongoing data collection systems of the National Center for Health Statistics. 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 Bureau of Data Management and Strategy, 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). 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; so that since 1983 information on births of Hispanic parentage is available for 23 States and the District of Columbia. In 1986, about 90 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, 1985*, Vol. I, DHHS Pub. No. (PHS) 88-1113 and Vol. II, Part A, DHHS Pub. No. (PHS) 88-1101, Public Health Service, Washington, U.S. Government Printing Office, 1988.

### National Survey of Family Growth

Data from the National Survey of Family Growth (NSFG) are based on

a five-stage area probability sample of civilian noninstitutionalized women living in the coterminous United States who are 15-44 years of age.

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 for Cycle I of NSFG, conducted from June 1973 to February 1974. 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 not included in the sample for Cycle I.

Cycle II of NSFG was conducted from January to September 1976. The sample design was basically the same as it was in Cycle I. 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 not included in 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.

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. In 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. In

Cycle III, the poststratification was done within categories of age, race, and marital status.

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.

Discussion of the balanced half-sample technique, summary sampling error charts, and 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 1986, there was a reduced sample of about 62,000 persons. In 1987, a full sample was used consisting of about 123,000 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, D. A. Dawson and P. F. Adams: Current estimates from the National Health Interview Survey, United States, 1986. *Vital and Health Statistics*. Series 10, No. 164. DHHS Pub. No. (PHS) 86-1592. Public Health Service. Washington. U.S. Government Printing Office, Oct. 1987.

### National Health Examination Survey

The National Health Examination Survey (NHES) is a continuing nationwide sample survey conducted by the National Center for Health Statistics in which data for determining the health status of the population are collected through direct standardized physical examinations, clinical and laboratory

tests, and measurements. The content of the NHES program is revised periodically, and selected components are added or deleted to meet the current needs for health data of this type.

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.

### National Health and Nutrition Examination Survey

Through this survey, health-related data are obtained by means of direct physical examinations, clinical and laboratory tests, and related measurement procedures. 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 remained nearly identical to that 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.

### 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. The scope of NHDS encompasses 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. 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 sample was selected 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. The largest hospitals were selected with certainty in the sample, and the probability of selection of a hospital decreased as the bed size of the hospital decreased. Within each sample hospital, a systematic random sample of discharges was selected from the daily listing sheet. The within-hospital sampling ratio for selecting discharges varied inversely with the probability of selection of the hospital, so that the overall probability of selecting a discharge was approximately the same in each bed size class.

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 and 19 percent in 1986, involving the purchase of data tapes from commercial abstracting services. For hospitals using the automated system, tapes containing machine-readable medical record data were purchased from commercial abstracting services. Upon receipt of these tapes they were subject to NCHS sampling, editing, and weighting procedures.

The basic unit of estimation for NHDS was the sample patient abstract. The estimation procedure involved inflation by the reciprocal of the probability of selection, adjustment for nonresponding hospitals and missing abstracts, and ratio adjustments to fixed totals. Of the 558 hospitals selected for the survey, 493 were within the scope of the survey, and 418 participated in the survey in 1986. Data were abstracted from about 193,000 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: *Utilization of short-stay hospitals, United States, 1986, Annual summary. Vital and Health Statistics. Series 13, No. 96. DHHS Pub. No. (PHS) 88-1757. Public Health Service. Washington. U.S. Government Printing Office, June 1988; and National Center for Health Statistics. 1987 Summary: National Hospital Discharge Survey. Advance Data From Vital and Health Statistics. No. 159 (Rev). DHHS Pub. No. (PHS) 88-1250. Public Health Service. Hyattsville, Md., 1988.*

### 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 (NMF1) 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 NMF1 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 NMF1; homes identified in the 1982 Complement Survey of the NMF1 as "missing" from the 1982 NMF1; 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 88 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, G. Strahan. *Nursing home characteristics, preliminary data from the 1985 National Nursing Home Survey. Advance Data***

From *Vital and Health Statistics*. No. 131, DHHS Pub. No. (PHS) 87-1250. Public Health Service. Hyattsville, Md. 1987; National Center for Health Statistics, E. Hing. Use of nursing homes by the elderly: Preliminary data from the 1985 National Nursing Home Survey. *Advance Data From Vital and Health Statistics*. No. 135, DHHS Pub. No. (PHS) 87-1250. Public Health Service. Hyattsville, Md. 1987.

### National Ambulatory Medical Care Survey

The National Ambulatory Medical Care Survey (NAMCS) is a continuing national probability sample of ambulatory medical encounters. The scope of the survey covers physician-patient encounters in the offices of nonfederally employed physicians classified by the American Medical Association or American Osteopathic Association as "office-based, patient care" physicians. Excluded are visits to hospital-based physicians, visits to specialists in anesthesiology, pathology, and radiology and visits to physicians who are principally engaged in teaching, research, or administration. Telephone contacts and nonoffice visits are also excluded.

A multistage probability design is employed. The first-stage sample consists of 87 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 selection within a randomly assigned 7-day reporting period, and the selection of samples of patient visits during that period.

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 random 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 follow up, and for publication in the *AIDS Weekly 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 Washington, D.C., 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, 32 in 1986, and 33 in 1987. The number of areas reporting mumps was 48 in 1985 and 1986 and 49 in 1987.

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 1987 reports of notifiable diseases, *Morbidity and Mortality Weekly Report*, 36(54), Public Health Service, DHHS, Atlanta, Ga., Sept. 1988; or write to Centers for Disease Control, Director, Division of Surveillance and Epidemiologic Studies, Epidemiology Program Office, 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 each September 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 inter-

view, 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

Beginning in 1981, NIOSH began a second national survey of worksites, patterned after the NOHS. This second survey, known as the National Occupational Exposure Survey (NOES), collected information 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 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 foreign and Canadian 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 using estimates of mortality and retirement. 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, *Sixth Report to the President and Congress on the Status of Health Personnel in the United States*, DHHS Pub. No. (HRS-P-OD) 88-1, Health Resources and Services Administration, Rockville, Md., 1988.

### 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, 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 November 1984.

## 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 of 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 1985 survey is the eighth 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.

The most recent survey (1985) is based on home personal interviews of 8,038 randomly selected Americans 12 years of age and over. The response rate in this survey was 86 percent for the youth sample (12-17 years). In 1985, for the first time blacks and Hispanics were oversampled.

For more information on the National Household Survey on Drug Abuse, see: Population Estimates, 1985. For further information on drug abuse treatment units, see: National Institute on Drug Abuse, *Main Findings for Drug Abuse Treatment Units. Data From the National Drug and Alcoholism Treatment Utilization Survey N DATUS*. DHHS Pub. No. (ADM) 83-1284, U.S. Government Printing Office, 1983.

### 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, and other types of partial care organizations. 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 socio-demographic, 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 1985. Patients diagnosed between 1973 and 1984 have been followed through 1985 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. Census Bureau. Currently, the Bureau has provided population projections through 1984. Population projections for 1985 have been made by NCI.

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-specific group included in the SEER Program.

For further information, see: National Cancer Institute, *Annual Cancer Statistics Review, Including Cancer Trends: 1950-1985*, by E. Sondik et al., NIH Pub. No. 88-2789. Public Health Service, Bethesda, Md., Feb. 1987.

## Health Care Financing Administration

### Office of the Actuary

#### Estimates of National Health Expenditures

Estimates of public and private expenditures for health (National Health Accounts) are compiled annually by type of expenditure and source of funds. The Health Care Financing Administration occasionally revises its

health expenditure estimates. Data in this volume may differ slightly from those appearing in earlier volumes of *Health, United States*. The data for Federal health programs are taken from administrative sources.

Estimates for non-Federal expenditures come from an array of sources. American Hospital Association data on hospital finances are the primary source for estimates relating to hospital care. The salaries of dentists and physicians on the staffs of hospitals and hospital outpatient facilities are considered a component of hospital care. Expenditures for the education and training of medical personnel are considered to be expenditures for education, and where they can be separated, they are excluded from health expenditures. Since 1977 the costs of services of health professionals have been estimated using data from the U.S. Bureau of the Census Services Annual Survey, the Bureau of Labor Statistics and the Consumer Price Index with some adjustments using data from the Medicare program, the Internal Revenue Service, and health maintenance organizations. Expenditures for drugs, drug sundries, eyeglasses, and appliances exclude those provided to inpatients and are obtained principally from the estimate of personal consumption expenditures prepared by the U.S. Department of Commerce's Bureau of Economic Analysis. Nursing home care expenditures by both public and private sources are based on revenue data from the National Nursing Home Survey conducted by the National Center for Health Statistics. Data on the financial expenditures of health insurance organizations come from special Health Care Financing Administration analyses of private health insurers. Expenditures for construction include the erection or renovation of hospitals, nursing homes, medical clinics, and medical research facilities but not for private office buildings providing office space for private practitioners.

For more specific information on items included and excluded and on general methodology used, see: National health expenditures, 1985, by H. Lazenby, K. R. Levit, and D. R. Waldo, *Health Care Financing Notes*, HCFA Pub. No. 03232, Health Care Financing Administration, Washington, U.S. Government Printing Office, Sept. 1986.

## Medicare Statistical System

The Medicare Statistical System (MSS) is a byproduct of the administrative recordkeeping system of the Medicare program. This program tracks the eligibility of enrollees and the benefits they use, the certification status of institutional providers, and the payments made for covered services. Currently, records are maintained on about 31 million active enrollees and 26,400 participating institutional providers, and about 240 million bills for services are processed annually.

The basic data files of MSS parallel the major files of Medicare's administrative system. There is an enrollment file containing demographic data including age, sex, race, State, county, and ZIP code of residence, and eligibility information for all enrollees. The institutional provider file contains information on hospitals, skilled nursing facilities, home health agencies, and independent laboratories certified for Medicare participation. The information in this file includes the institution's size, location, and type of control. The third major type of file contains records of services used under Part A of Medicare—hospital, skilled nursing facility, or home health agency services. The last major type of file in MSS provides information on the use of Medicare Part B services, the most important of which is use of physician services. These files include data on the physician's submitted charge, the amount Medicare allowed, Medicare reimbursements, and the number and type of services received.

For further information on MSS and its derivative files, see: Health Care Financing Administration, *Medicare Data System*, by Irving Goldstein, HCFA Pub. No. 03111, Baltimore, Md., July 1981.

## 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 1987, the number of housing units or living quarters eligible for the national sample was about 70,000, of which about 59,500 were interviewed households, and 2,500 were households at which the members were not available for interview. About 11,000 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 underenumeration.

For more information, see: U.S. Bureau of the Census, Estimates of the population of the United States, by age, sex, and race: 1980-1987, *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—1967—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 1967 to \$12.20.

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 91 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 91 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, *The Consumer Price Index*, BLS Bulletin 2285, U.S. Department of Labor, Washington, April 1978; 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, Apr. 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 1988*, Vol. 35, No. 1, Washington, U.S. Government Printing Office, Jan. 1988.

## 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, 1940-86*, EPA-450/4-87-024, Research Triangle Park, N.C., Jan. 1988, 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 1985*, Pub. No. ST/ESA/STAT/SER.R/15, United Nations, New York, N.Y., 1987.

## 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 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 asso-

ciated areas accepted for registration by the American Hospital Association (AHA). In 1986, questionnaires were mailed to all hospitals on AHA files. Overall, 6,430 hospitals reported data, a response rate of 91 percent. For non-reporting 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; 42.4 percent of the responding hospitals used this reporting period. In the 1985 survey, the remaining hospitals used various reporting periods.

For more information on the AHA Annual Survey of Hospitals, see: American Hospital Association, *Hospital Statistics, 1987 Edition, Data from the American Hospital Association 1986 Annual Survey*, Chicago, 1987.

## 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.

## Interstudy

### National Health Maintenance Organization Census

From 1976 to 1981 the Office of Health Maintenance Organizations



conducted a census of health maintenance organizations (HMO). Since 1982 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 is 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. Excelsior, Minn., 1983-88.

## **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 exten-

sive detail on the agencies' expenditures and funding sources, and the services and activities in four program areas: personal health, environmental health, health resources, and laboratory. 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, i.e., 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. An exception is 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, child-birth, 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.

**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

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 five age groups: 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 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:

$$\left( \frac{P_n}{P_0} \right)^{1/N} - 1 \times 100$$

where  $P_n$  = later time period  
 $P_0$  = 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 father.

**Family income**—For purposes of the National Health Interview Survey and National Health and Nutrition Examination Survey, all people within a

**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
<b>NHIS, NAMCS, and NHDS</b>	
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
<b>NHIS health care coverage</b>	
65 years and over . . . . .	19,113
65-74 years . . . . .	12,224
75 years and over . . . . .	6,889
<b>NHIS smoking data</b>	
All ages . . . . .	123,072
20-24 years . . . . .	15,378
25-34 years . . . . .	24,430
35-44 years . . . . .	22,614
45-64 years . . . . .	41,537
65 years and over . . . . .	19,113
<b>NHES and NHANES</b>	
All ages . . . . .	100,804
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.

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.

**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 1979, the month during which prenatal care began was reported in 49 States and the District of Columbia.

**Metropolitan statistical area (MSA)**—The definitions and titles of MSA's are established by the U.S. Office of Management and Budget with the advice of the Federal Committee on Metropolitan Statistical Areas. Generally speaking, an MSA consists of a county or group of counties containing at least one city (or twin cities) having a population of 50,000 or more plus adjacent counties that are metropolitan in character and are economically and socially integrated with the central city. In New England, towns and cities rather than counties are the units used in defining MSA's. There is no limit to the number of adjacent counties included in the MSA as long as they are integrated with the central city, nor is an MSA limited to a single State; boundaries may cross State lines. The metropolitan population in this report is based on MSA's as defined in the 1980 census and does not include any subsequent additions or changes.

## Health Status and Determinants

### Fertility

**Abortion**—The Centers for Disease Control's surveillance program counts *legal abortions* only. For surveillance purposes, legal abortion is defined as a procedure performed by a licensed physician or someone acting under the supervision of a licensed physician.

**Birth rate**—This measure divides the number of live births in a population in a given period by the resident population at the middle of that period. It is expressed as the number of live births per 1,000 population. The rate may be restricted to births to women of specific age, race, marital status, or geographic location, or it may be related to the entire population.

**Completed fertility rate**—Sum of the central birth rates over all ages (14–49 years) of childbearing for a given birth cohort.

**Gestation**—For both the National Vital Statistics System and the Centers for Disease Control's Abortion Surveillance, the period of gestation is defined as beginning with the first day of the last normal menstrual period and ending with the day of birth.

**Live birth**—In the World Health Organization's definition, also adopted by the United Nations and the National Center for Health Statistics, a live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life such as heartbeat, umbilical cord pulsation, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born.

**Live-birth order**—In the National Vital Statistics System, this item from the birth certificate indicates the number of live births a woman has had, counting the birth being recorded.

**Low birth weight**—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. For data years 1979–84 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 the technical appendixes of the annual volumes of *Vital Statistics of the United States*, Volume II, Mortality, produced by the National Center for Health Statistics. The most recent published volume is: *Vital Statistics of the United States, 1981*, Volume II, Mortality, Part A DHHS Pub. No. (PHS) 86–1101, Public Health Service, Washington, U.S. Government Printing Office, 1986.

**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.

**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.

**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) and 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.)

**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

**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 infection or absence of specified causes of underlying immunodeficiency.

The AIDS case definition was changed in September 1987 to allow for the presumptive diagnosis of AIDS-associated diseases and conditions and to expand the spectrum of HIV-associated diseases reportable as AIDS. The list of expanded diseases includes HIV encephalopathy, HIV wasting syndrome, and others.

For more information, see: Centers for Disease Control. Revision of the CDC Surveillance Case definition for acquired immunodeficiency syndrome. *MMWR* 1987; 36 (suppl. no. 1S): 1S-15S.

**Condition**—A health condition is a departure from a state of physical or mental well-being. Conditions, except impairments, are coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*.

Based on duration, there are two categories of conditions, acute and chronic. In the National Health Interview Survey, an *acute condition* is a condition that has lasted less than 3 months and has involved either a physician visit (medical attention) or restricted activity, and a *chronic condition* is any condition lasting 3 months or more or is one of certain

conditions classified as chronic regardless of their time of onset. The National Nursing Home Survey uses a specific list of conditions classified as chronic, also disregarding time of onset.

**Disability**—Disability is any temporary or long-term reduction of a person's activity as a result of an acute or chronic condition. It is often measured in terms of the number of days that a person's activity has been reduced.

**Disability day**—The National Health Interview Survey identifies several types of days on which a person's usual activity is reduced because of illness or injury (reported for the 2-week period preceding the week of the interview). These short-term disability days are not mutually exclusive categories but are defined as follows:

A *restricted-activity day* is any day on which a person cuts down on his or her usual activities for all or most of that 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

**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
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
Malignant neoplasm of peritoneum and pleura . . . . .	...	...	158, 163.0	158, 163
Coalworkers' pneumoconiosis . . . . .	...	...	515.1	500
Asbestosis . . . . .	...	...	515.2	501
Silicosis . . . . .	...	...	515.0	502
Bladder cancer . . . . .	...	...	...	188
Lymphoid and myeloid acute leukemias . . . . .	...	...	...	204.0, 204.2, 204.8, 205.0 205.2, 205.8

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 6-16 years of age.

*Former smoker*—Any person who has smoked at least 100 cigarettes during his or her entire life but who reports smoking no cigarettes at the present time is a former smoker.

*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 6-16 years of age, it refers to school attendance; for 17 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 Federal, 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, and industrial 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 fulltime 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, 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, i.e., the termination of a period of hospitalization (including stays of 0 nights) by death or by disposition to a place of residence, nursing home, or another hospital. In this report, newborn infants are excluded.

In the National Nursing Home Survey, this is the formal release of a resident by a nursing home.

*First-listed diagnosis*—In the National Hospital Discharge Survey, this is the diagnosis listed first on the face sheet of the medical record.

*Hospital*—According to the American Hospital Association (AHA) and National Master Facility Inventory (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; oxygen therapy; and

**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

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.

**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, replacement, removal, and repair	37.7-37.8
Biopsies on the digestive system	42.24, 44.14, 44.15, 45.14, 45.15, 45.25, 45.26, 45.27, 48.24, 48.25, 48.26, 49.22, 49.23, 50.11, 50.12, 51.12, 51.13, 52.11, 52.12, 54.22, 54.23
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	72-73
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



**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
Angiocardiology using contrast material . . . . .	88.5
Diagnostic ultrasound . . . . .	88.7
Electroencephalogram . . . . .	89.14
Radioisotope scan . . . . .	92.0-92.1
Application of cast or splint . . . . .	93.51, 93.53-93.54

**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.)

**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.

**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 psychiatric services** are hospitals that knowingly and routinely admit patients to a separate psychiatric service for the purpose of diagnosing and treating psychiatric illness.

**Residential treatment centers for emotionally disturbed children** are residential institutions primarily serving emotionally disturbed children and providing treatment services, usually under the supervision of a psychiatrist.

**Federally funded community mental health centers** (prior to 1983) are legal entities through which comprehensive mental health services are provided to a delineated catchment area. This mental health delivery system may be implemented by a single facility

(with or without subunits) or by a group of affiliated facilities that make available at least the following essential mental health services: inpatient, day treatment, outpatient, emergency care, and community consultation and education.

**Freestanding psychiatric outpatient clinics** are administratively distinct facilities, the primary purpose of which is to provide non-residential mental health service and where a psychiatrist assumes medical responsibility for all patients and/or directs the mental health program.

**Service mode**—Service mode and *treatment modality* refer generally to the kinds of mental health service available: inpatient care, outpatient care, partial care, etc.

**Inpatient care** is the provision of mental health treatment to people requiring 24-hour supervision.

**Outpatient care** is the provision of mental health treatment on an outpatient basis and does not involve any overnight stay in an inpatient facility.

**Partial care treatment** is the provision of a planned therapeutic program during most or all of the day for groups of people needing broader programs than are possible through outpatient visits but who do not require full-time hospitalization.

### 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.

**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

**Table IX. Mental illness codes, according to applicable revision of the *Diagnostic and Statistical Manual of Mental Disorders and International Classification of Diseases***

Diagnostic category	DSM-II/ICDA-8	DSM-III/ICD-9-CM
Alcohol-related . . . . .	291; 303; 309.13	291; 303; 305.0
Drug-related . . . . .	294.3; 304; 309.14	292; 304; 305.1-305.9; 327; 328
Organic disorders (other than alcoholism and drug) . . .	290; 292; 293; 294 (except 294.3); 309.0; 309.2-309.9	290; 293; 294; 310
Affective disorders . . . . .	296; 298.0; 300.4	296; 298.0; 300.4; 301.11; 301.13
Schizophrenia . . . . .	295	295; 299

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 measure of the changes in average prices of the goods and services purchased by urban wage earners and by clerical workers and their families. 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 federally aided but State operated and administered. It provides medical benefits for certain low-income persons in need of medical care. The program, authorized in 1965 by Title XIX of the Social Security Act, categorically covers participants in the Aid to Families with Dependent Children program as well as some participants in the Supplemental Security Income program and other people deemed medically needy in a participating State. States also determine the benefits covered, rates of payment for providers, and methods of administering the program.

*Medicare*—This is a nationwide health insurance program providing health insurance protection to people 65 years of age and over, people eligible for social security disability payments for more than 2 years, 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 a specified time period. Detailed estimates are available by source of expenditure (e.g., direct payment, private health insurance, and government programs) and by type of expenditure (e.g., hospitals, physicians, and drugs). Data are compiled from a variety of sources that collect data from the providers of care.

*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.

*Private expenditures* are outlays for services provided or paid for by nongovernmental sources—consumers, insurance companies, private industry, and philanthropic organizations.

*Public expenditures* are outlays for services provided or paid for by Federal, State, and local government agencies or expenditures required by governmental action (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.