

## Deaths: Final Data for 1998

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### Abstract

**Objectives**—This report presents final 1998 data on U.S. deaths and death rates according to demographic and medical characteristics such as age, sex, race, Hispanic origin, marital status, educational attainment, injury at work, State of residence, and cause of death. Trends and patterns in general mortality, life expectancy, and infant and maternal mortality are also described. A previous report presented preliminary mortality data for 1998.

**Methods**—In 1998 a total of 2,337,256 deaths were reported in the United States. This report presents descriptive tabulations of information reported on the death certificates. Death certificates are completed by funeral directors, attending physicians, medical examiners, and coroners. Original records are filed in the State registration offices. Statistical information is compiled into a national data base through the Vital Statistics Cooperative Program of the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention.

**Results**—The 1998 age-adjusted death rate for the United States decreased to an all-time low of 471.7 deaths per 100,000 standard population, and life expectancy at birth increased to a record high of 76.7 years. Of the 15 leading causes of death in 1998, the largest decline from the previous year—9.5 percent—in age-adjusted death rates was for Atherosclerosis (atherosclerosis). Human immunodeficiency virus (HIV) infection dropped from among the 15 leading causes for the first time since 1987. The age-adjusted death rate for firearm injuries decreased for the fifth consecutive year, declining 7.4 percent between 1997 and 1998. Among all causes of death, age-specific death rates rose for those under 1 year but declined for all other age groups, although the decline for children aged 1–4 years was not significant. The infant mortality rate was unchanged from 1997 at 7.2 infant deaths per 1,000 live births.

**Conclusions**—The overall improvements in general mortality and life expectancy in 1998 continue the long-term downward trend in U.S. mortality. Although unchanged from 1997, the trend in U.S. infant mortality is of steady declines over the past four decades.

**Keywords:** deaths • mortality • leading causes of death • life expectancy • vital statistics

### Highlights

In 1998 a record high total of 2,337,256 deaths were registered in the United States, 23,011 more than the 2,314,245 deaths recorded in 1997. The **crude death rate** for 1998 was 864.7 deaths per 100,000 population, unchanged from the 1997 rate. The **age-adjusted death rate**, which eliminates the distorting effects of the aging of the population, was at a record low of 471.7 per 100,000 U.S. standard population, 1.5 percent lower than the previous low of 479.1 in 1997. The age-adjusted death rate declined between 1997 and 1998 for each of the four major race-sex groups: white males, white females, black males, and black females.

**Age-specific death rates** rose significantly (1.7 percent) for infants (under 1 year) and significantly decreased for all other age groups except for children aged 1–4 years where the decline was not significant. The largest declines were as follows: 4.7 percent for ages 25–34 years, 4.5 percent for ages 15–24 years, and 4.3 percent for ages 5–14 years.

In 1998 **life expectancy** at birth reached a record high of 76.7 years, an increase of 0.2 years compared with life expectancy in 1997.

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Based on mortality in 1998, **females are expected to outlive males by an average of 5.7 years**, and the white population is expected to outlive the black population by an average of 6.0 years. Record high life expectancies were reached for white and black males and white and black females. White females continue to have the highest life expectancy at birth (80.0 years), followed by black females (74.8 years), white males (74.5 years), and black males (67.6 years). The greatest improvement in life expectancy between 1997 and 1998 was for black males (0.4 years).

The ranking of the **15 leading causes of death** for the total population in 1998 remained the same for the first 10 causes. Septicemia (septicemia) moved from the 12th to the 11th position while Alzheimer's disease moved from the 11th to the 12th. Homicide and legal intervention (homicide) remained the 13th leading cause while atherosclerosis climbed from the 15th to the 14th position. Hypertension with or without renal disease (hypertension) rose to the 15th leading cause in 1998 while HIV infection dropped from among the 15 leading causes. The 15 leading causes of death accounted for 84.2 percent of all deaths in 1998. For the first time since 1987, HIV infection no longer ranked among the 15 leading causes for all age groups, although it remained the leading cause of death for black persons aged 25–44 years.

**Age-adjusted death rates decreased for 8 of the 15 leading causes of death between 1997 and 1998.** These included atherosclerosis, homicide, Alzheimer's disease, Cerebrovascular diseases (stroke), Diseases of heart (heart disease), Chronic liver disease and cirrhosis (chronic liver disease), Suicide (suicide), and Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (cancer). HIV infection, ranking among the 15 leading causes for 1997 but not 1998, declined 20.7 percent between 1997 and 1998.

Among the 15 leading causes in 1998, the largest decline in age-adjusted death rates was for atherosclerosis, with a 9.5 percent reduction from 1997. Homicide also declined substantially, falling 8.8 percent. The decrease from 1997 to 1998 in mortality from homicide coincided with a 7.4-percent decrease in the age-adjusted death rate for firearm injuries. Alzheimer's disease declined by 3.7 percent, stroke by 3.1 percent, heart disease by 3.0 percent, chronic liver disease by 2.7 percent, suicide by 1.9 percent, and cancer by 1.6 percent.

**Age-adjusted death rates increased between 1997 and 1998 for four leading causes of death:** Septicemia, hypertension, Pneumonia and influenza (pneumonia and influenza), and Chronic obstructive pulmonary diseases and allied conditions (COPD). Septicemia rose by 4.8 percent, hypertension by 4.3 percent, pneumonia and influenza by 2.3 percent, and COPD by 0.9 percent. Although not statistically significant, the age-adjusted death rate for Diabetes mellitus (diabetes) also increased. No changes occurred in the age-adjusted death rates for Accidents and adverse effects (accidents) and Nephritis, nephrotic syndrome, and nephrosis (kidney disease).

Mortality from **drug-induced causes** increased by 5 percent between 1997 and 1998, while the age-adjusted death rate for **alcohol-induced causes** decreased 3 percent from the previous year.

In terms of **sex differentials** in mortality, the age-adjusted death rate for all causes of death combined was 58.2 percent higher for males than for females. For each of the 15 leading causes of death except Alzheimer's disease, age-adjusted death rates for males were higher than for females. The greatest sex differential in age-adjusted death rates was for suicide, with a mortality sex ratio of 4.3 male deaths to

1 female death. This was followed by homicide, with a ratio of 3.5, and accidents, with a ratio of 2.4. The smallest sex differentials were for stroke and hypertension, each with a ratio of 1.1 male deaths to 1 female death and for Alzheimer's disease, with a ratio of 0.9, or about 1.1 female deaths to 1 male death.

The **15 leading causes of death for the total population differed by age.** For age groups 1–4, 5–14, 15–24, and 25–44 years, accidents was the leading cause of death. In 1998 cancer was the leading cause of death for those aged 45–64 years, while heart disease was the leading cause for those aged 65 years and over. The leading cause of death was the same for the white and black populations for all age groups except 15–24 and 25–44 years. For the white population, accidents was the leading cause for these two age groups. For the black population, homicide was the leading cause for those aged 15–24 years, while HIV infection was the leading cause for those aged 25–44 years.

**Mortality levels also varied by race** in 1998. Overall, age-adjusted death rates for the black population exceeded those of the white population by 53 percent. Rates for the black population were higher for most of the leading causes of death. The largest race differential was for homicide, with a rate 5.7 times higher for the black population compared with the white population. The next highest race differential was for hypertension, with an age-adjusted death rate for the black population that was 3.8 times that for the white population. Three leading causes that had lower rates for the black population were COPD, suicide, and Alzheimer's disease.

The **age-adjusted death rate for the Hispanic population decreased** from 1997 to 1998. Rates for the Mexican, Puerto Rican, and Cuban subgroups also decreased, although the decrease was not statistically significant for the Cuban subgroup. The Cuban population had the lowest age-adjusted rate, while the Puerto Rican population had the highest. Mortality of the Hispanic population is understated to some degree because of net underreporting of Hispanic origin on the death certificate. The impact of underreporting on the death certificate is offset somewhat by the undercoverage of the Hispanic population in the census and in annual population estimates based on the census.

Seven of the **10 leading causes of death among the Hispanic origin population** were also leading causes among the non-Hispanic population, although some rankings differed. Accidents and diabetes ranked higher among the Hispanic population, while stroke and COPD ranked higher among the non-Hispanic population. Homicide, chronic liver disease, and Certain conditions originating in the perinatal period (perinatal conditions) were among the 10 leading causes for the Hispanic population, but not the total non-Hispanic population; whereas suicide, kidney disease, and septicemia were among the 10 leading causes for the non-Hispanic population, but not the Hispanic population.

The **infant mortality rate** (7.2 infant deaths per 1,000 live births) was unchanged from 1997 when it reached a record low. Among the **10 leading causes of infant death**, reductions occurred in 5 causes of infant death. The only cause that showed a statistically significant decline, however, was Sudden infant death syndrome (SIDS), which declined 7.1 percent. The neonatal mortality rate remained the same between 1997 and 1998. The postneonatal mortality rate showed a slight decline, although the decline was not significant. The infant, neonatal, and postneonatal mortality rates did not change significantly from 1997 for the white and black populations. In 1998 the infant mortality rate for black infants was more than twice that for white infants.

Age-adjusted death rates by **marital status** show that in 1998 those who had never married had the highest mortality, followed by those who were divorced or widowed. Those who were married at the time of death had the lowest mortality. The never-married group had an age-adjusted death rate 70 percent higher than the ever married and 112 percent higher than the currently married. Age-adjusted death rates for those widowed and divorced were 85 percent and 86 percent higher than for those who were married at the time of death.

Higher **educational attainment** is associated with markedly lower risk of death. Persons with less than 12 years of education had the highest age-adjusted death rates, while those with 13 years or more of education had the lowest. Persons with less than 12 years of education had rates nearly 21 percent higher than persons with 12 years of education and 2.5 times higher than persons with 13 years or more. Based on age-adjusted death rates, males were 12 times more likely to die from an **injury at work** than females. Mortality from injury at work declined 4 percent between 1997 and 1998.

## Introduction

This report represents the release of final national mortality statistics for 1998 and presents detailed data on deaths and death rates according to a number of social, demographic, and medical characteristics. These data provide information on mortality patterns among Americans by such variables as age, sex, race, Hispanic origin, marital status, educational attainment, injury at work, State of residence, and cause of death. Information on these mortality patterns is important for understanding changes in the health and well-being of the U.S. population (1). Preliminary data for 1998 were presented in the report *Births and Deaths: Preliminary Data for 1998* using at least an 85 percent sample of 1998 U.S. deaths weighted to independent control totals (2). The findings in this final report are generally consistent with those based on preliminary data.

Mortality data in this report can be used to monitor and evaluate the health status of the Nation in terms of current mortality levels and long-term mortality trends, as well as to identify segments of the U.S. population at greatest risk of death from specific diseases and injuries. Differences in death rates among demographic groups, including racial and ethnic groups, may reflect group differences in factors such as socioeconomic status, access to medical care, and the prevalence of risks specific to a particular group.

## Methods

Data in this report are based on information from all death certificates filed in the 50 States and the District of Columbia. It is believed that more than 99 percent of deaths occurring in this country are registered (3). Tables showing data by State also provide information for Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (Northern Marianas). Cause-of-death statistics presented in this report are classified in accordance with the *Ninth Revision, International Classification of Diseases (ICD-9)* (4). A discussion of cause-of-death classification is provided in the [Technical notes](#).

Mortality data on specific demographic and medical characteristics except educational attainment cover all 50 States and the District of Columbia. Educational attainment data are provided for 46 States and

the District of Columbia. Details on reporting areas for educational attainment are provided in the [Technical notes](#).

Measures of mortality in this report include the number of deaths; crude, age-specific and age-adjusted death rates; infant, neonatal, postneonatal, and maternal mortality rates; life expectancy; and rate ratios. Changes in death rates from 1997 to 1998 and differences in death rates across demographic groups in 1998 are tested for statistical significance. Unless otherwise specified, reported differences are statistically significant. Additional information on these statistical methods, random variation and relative standard error, the computation of derived statistics and rates, population denominators, and the definition of terms is presented in the [Technical notes](#). Data in this report are based in part on unpublished work tables. These and other data are available on the NCHS Web page, at [www.cdc.gov/nchs/about/major/dvs/mortdata.htm](http://www.cdc.gov/nchs/about/major/dvs/mortdata.htm), and on the forthcoming CD-ROM entitled, *Vital Statistics of the United States, Mortality, 1998*. Availability of mortality microdata is described in the [Technical notes](#) of this report.

## Results and discussion

### Deaths and death rates

In 1998 a total of 2,337,256 deaths were registered in the United States, 23,011 more than in 1997. The crude death rate for 1998, 864.7 deaths per 100,000 population, was unchanged from the 1997 rate.

The age-adjusted death rate in 1998 was a record low 471.7 deaths per 100,000 U.S. standard population, 1.5 percent lower than the rate of 479.1 in 1997. Age-adjusted death rates are constructs that show what the level of mortality would be if no changes occurred in the age composition of the population from year to year. (For a discussion of age-adjusted death rates, see [Technical notes](#).) Thus, they are better indicators than unadjusted (crude) death rates for examining changes in the risk of death over a period of time when the age distribution of the population is changing. Also, age-adjusted death rates are better indicators of relative risk when comparing mortality across geographic areas or between sex or race subgroups of the population that have different age compositions. Since 1980 the age-adjusted death rate has decreased every year except 1985, 1988, and 1993, years when major influenza outbreaks increased mortality in the United States (5–8). Between 1980 and 1998 the age-adjusted death rate declined 19 percent ([figure 1](#) and [table 1](#)).

Between 1997 and 1998 age-adjusted death rates decreased for the four major race-sex groups, specifically by 2.0 percent for white males, 0.8 percent for white females, 3.0 percent for black males, and 0.8 percent for black females ([tables A and 1](#)). The 1998 age-adjusted death rates of 562.4 for white males and 355.2 for white females were record lows as were the 1998 rates of 884.5 for black males and 540.9 for black females. Age-adjusted death rates have declined almost every year between 1980 and 1998 for white males and females. In 1988 the rate rose for white females, and in 1993 the age-adjusted death rate rose for white males and females. For black males and females age-adjusted death rates fluctuated between 1980 and 1985. For black males age-adjusted death rates increased from 1985 to 1988, while for black females age-adjusted death rates declined between 1985 and 1987, and then rose in 1988. Since 1988, except for 1993, age-adjusted death rates for black males and females have followed a general downward trend.

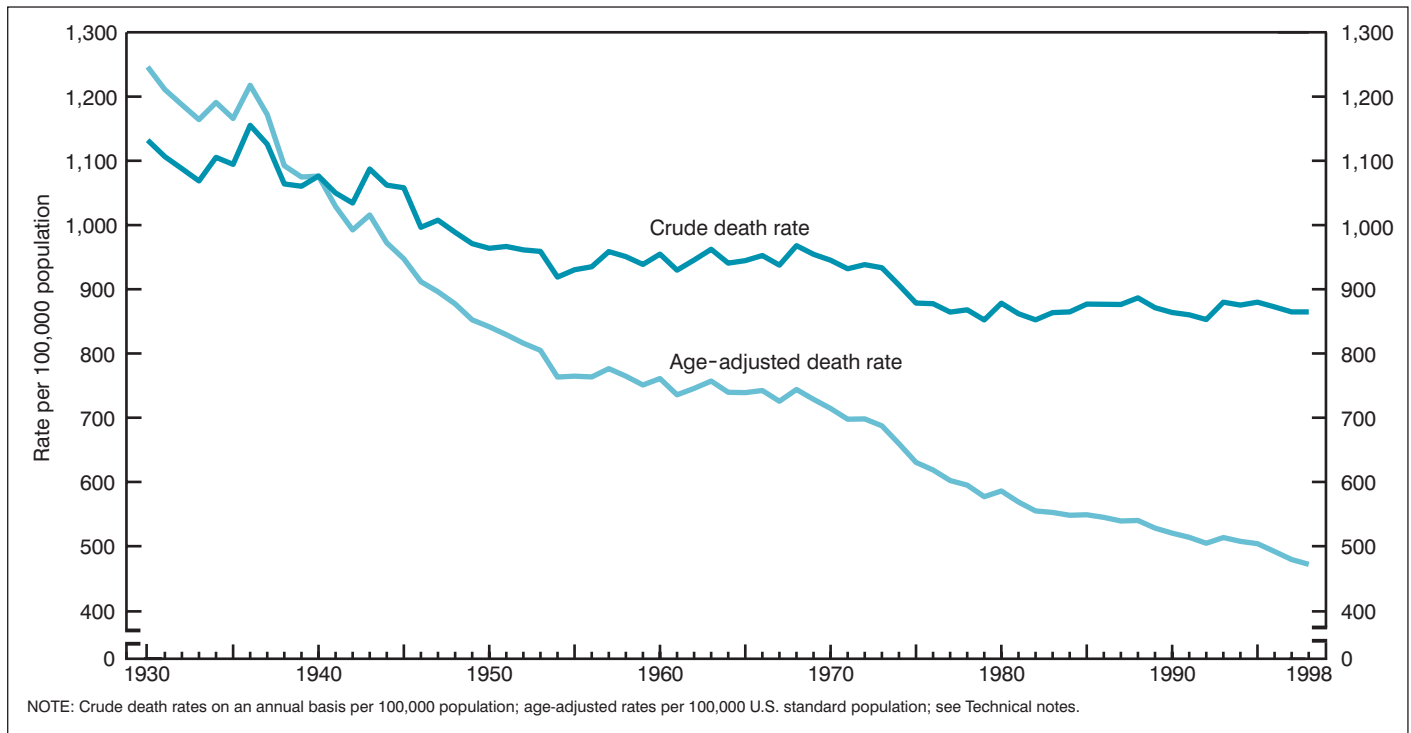


Figure 1. Crude and age-adjusted death rates: United States, 1930–98

Table A. Percent change in death rates and age-adjusted death rates between 1997 and 1998 by age, race, and sex: United States

Age	All races <sup>1</sup>			White			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Percent change									
All ages:									
Crude. . . . .	0.0	-0.5	0.5	0.2	-0.2	0.7	-0.7	-1.8	0.5
Age-adjusted. . . . .	-1.5	-2.2	-0.9	-1.3	-2.0	-0.8	-2.0	-3.0	-0.8
Under 1 year <sup>2</sup> . . . . .	1.7	0.7	3.1	1.0	-0.6	3.2	1.7	2.8	0.4
1–4 years. . . . .	-3.4	-5.3	-1.3	-4.7	-7.4	-1.8	4.1	3.0	5.7
5–14 years. . . . .	-4.3	-2.5	-6.9	-3.7	-4.1	-3.8	-5.5	2.3	-15.1
15–24 years. . . . .	-4.5	-3.8	-6.0	-2.7	-1.3	-5.9	-9.1	-9.8	-6.5
25–34 years. . . . .	-4.7	-5.2	-2.6	-4.2	-4.6	-2.5	-7.0	-8.6	-3.4
35–44 years. . . . .	-1.8	-2.7	0.1	-0.4	-1.1	0.9	-5.1	-7.8	-0.8
45–54 years. . . . .	-1.7	-1.4	-2.1	-1.7	-1.3	-2.4	-2.3	-2.8	-1.4
55–64 years. . . . .	-3.1	-3.0	-3.3	-3.1	-2.9	-3.4	-2.4	-2.2	-2.7
65–74 years. . . . .	-0.6	-1.5	0.4	-0.4	-1.3	0.7	-1.6	-2.6	-0.6
75–84 years. . . . .	-0.4	-1.4	0.2	-0.5	-1.4	0.1	1.6	0.2	2.5
85 years and over. . . . .	-1.5	-4.0	-0.4	-1.5	-4.0	-0.4	-1.7	-3.4	-0.9

<sup>1</sup>Includes races other than white and black.

<sup>2</sup>Death rates for "Under 1 year" (based on population estimates) differ from infant mortality rates (based on live births).

In 1998 the age-adjusted death rate for males of all races was 1.6 times that for females (table B), unchanged from the previous year. During 1940–79 rates for males and females diverged as the rates for females declined more than for males (54.9 and 36.6 percent, respectively). Since 1980 age-adjusted death rates have decreased less for females than males (13.9 and 24.2 percent, respectively), with the result that the gap between male and female mortality is narrowing (table 1).

In 1998 the age-adjusted death rate for the black population was 1.5 times that for the white population (table B). For 1960–82 rates for

the black and white populations declined by similar percents (27.1 and 26.8 percent, respectively). For 1982–88 rates diverged as they increased 3.5 percent for the black population and decreased 3.7 percent for the white population. Since 1988 age-adjusted death rates have declined by 14.7 percent for the black and by 12.2 percent for the white population.

*Death rates by age, sex, and race*—Between 1997 and 1998 death rates for the total population significantly increased for infants under 1 year but decreased for all other age groups, except for ages 1–4 years



**Table B. Percent of total deaths, death rates, age-adjusted death rates for 1998, percent change in age-adjusted death rates from 1997 to 1998 and 1979 to 1998, and ratio of age-adjusted death rates by race and sex for the 15 leading causes of death for the population in 1998: United States**

[Death rates on an annual basis per 100,000 population; age-adjusted rates per 100,000 U.S. standard population; see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the <i>Ninth Revision International Classification of Diseases, 1975</i> )	Percent of total deaths	Death rate	Age-adjusted death rate				
				1998	Percent change		Ratio	
					1997 to 1998	1979 to 1998	Male to female	Black to white
...	All causes	100.0	864.7	471.7	-1.5	-18.2	1.6	1.5
1	Diseases of heart	31.0	268.2	126.6	-3.0	-36.5	1.8	1.5
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues	23.2	200.3	123.6	-1.6	-5.5	1.4	1.3
3	Cerebrovascular diseases	6.8	58.6	25.1	-3.1	-39.7	1.1	1.8
4	Chronic obstructive pulmonary diseases and allied conditions	4.8	41.7	21.3	0.9	45.9	1.4	0.8
5	Accidents and adverse effects	4.2	36.2	30.1	-	-29.8	2.4	1.2
...	Motor vehicle accidents	1.9	16.1	15.6	-1.9	-32.8	2.2	1.1
...	All other accidents and adverse effects	2.3	20.1	14.4	1.4	-26.5	2.7	1.4
6	Pneumonia and influenza	3.9	34.0	13.2	2.3	17.9	1.5	1.4
7	Diabetes mellitus	2.8	24.0	13.6	0.7	38.8	1.2	2.4
8	Suicide	1.3	11.3	10.4	-1.9	-11.1	4.3	0.5
9	Nephritis, nephrotic syndrome, and nephrosis	1.1	9.7	4.4	-	2.3	1.5	2.5
10	Chronic liver disease and cirrhosis	1.1	9.3	7.2	-2.7	-40.0	2.3	1.1
11	Septicemia	1.0	8.8	4.4	4.8	91.3	1.2	2.7
12	Alzheimer's disease	1.0	8.4	2.6	-3.7	1,200.0	0.9	0.7
13	Homicide and legal intervention	0.8	6.8	7.3	-8.8	-28.4	3.5	5.7
14	Atherosclerosis	0.7	5.7	1.9	-9.5	-66.7	1.3	1.0
15	Hypertension with or without renal disease	0.6	5.3	2.4	4.3	26.3	1.1	3.8
...	All other causes	15.8	136.6	...	...	...	...	...

- Quantity zero.

... Category not applicable.

<sup>1</sup>Rank based on number of deaths; see Technical notes.

where the decline was not statistically significant (table A and figure 2). The largest decreases occurred for the following age groups: 25–34 (4.7 percent), 15–24 (4.5 percent), and 5–14 years (4.3 percent).

The death rate for males declined significantly between 1997 and 1998 in all age groups except under 1 year and 5–14 years (table A). The largest decreases for males were for those aged 1–4 (5.3 percent), 25–34 (5.2 percent), and 85 years and over (4.0 percent). For females, the death rate increased significantly (3.1 percent) for infants under 1 year but declined significantly in age groups 5–14, 15–24, 25–34, 45–54, 55–64, and 85 years and over. The largest decreases for females were for those aged 5–14 (6.9 percent) and 15–24 years (6.0 percent).

Among white males, age-specific death rates were lower in 1998 than in 1997 for all age groups. Decreases were statistically significant for all ages except for under 1 year, 5–14, 15–24, and 35–44 years, with the largest decrease for those aged 1–4 years (7.4 percent). The death rate for black males declined significantly in all age groups except under 1 year, 1–4, 5–14, and 75–84 years. The largest decreases were for those aged 15–24, 25–34, and 35–44 years (9.8, 8.6, and 7.8 percent, respectively). For white females, the age-specific death rate for under 1 year increased significantly (3.2 percent) while the rate for age groups 15–24, 45–54, and 55–64 years decreased significantly. The largest decline was 5.9 percent for those aged 15–24 years. The rate for black females significantly increased for ages 75–84 years (2.5 percent) while the rate significantly decreased for age groups 5–14 and 55–64 years, with the largest decline for those aged 5–14 years (15.1 percent).

## Expectation of life at birth and at specified ages

Life expectancy at birth represents the average number of years that a group of infants would live if the infants were to experience throughout life the age-specific death rates present at birth. The life table methodology used to calculate the life expectancies shown in this report was revised beginning with the 1997 data year (see Technical notes). The new method is more comparable to decennial life table methods, provides more accurate estimates, and provides more age detail than the previous method. Values produced by the new method are similar to those produced by the previous method. In 1998 life expectancy at birth reached a record high of 76.7 years, an increase of 0.2 year contrasted with life expectancy in 1997. This increase continues the general upward trend in U.S. life expectancy observed throughout the 20th century.

In 1998 life expectancy for females was 79.5 years, a 0.1-year increase from 1997, while for males it was 73.8 years, a 0.2-year increase. From 1900 to the late 1970's, the sex gap in life expectancy widened from 2.0 years to 7.8 years. Since the peak in the 1970's, this gap has been narrowing. The difference in life expectancy between the sexes declined from 5.8 years in 1997 to 5.7 years in 1998.

Between 1997 and 1998 life expectancy increased 0.2 year for the white and black populations to record highs of 77.3 and 71.3 years, respectively. The difference in life expectancy between the white and black populations was 6.0 years, the same as in 1997. The white-black difference in life expectancy was the smallest in 1982 at 5.7 years, but by 1989 had widened to 7.1 years.

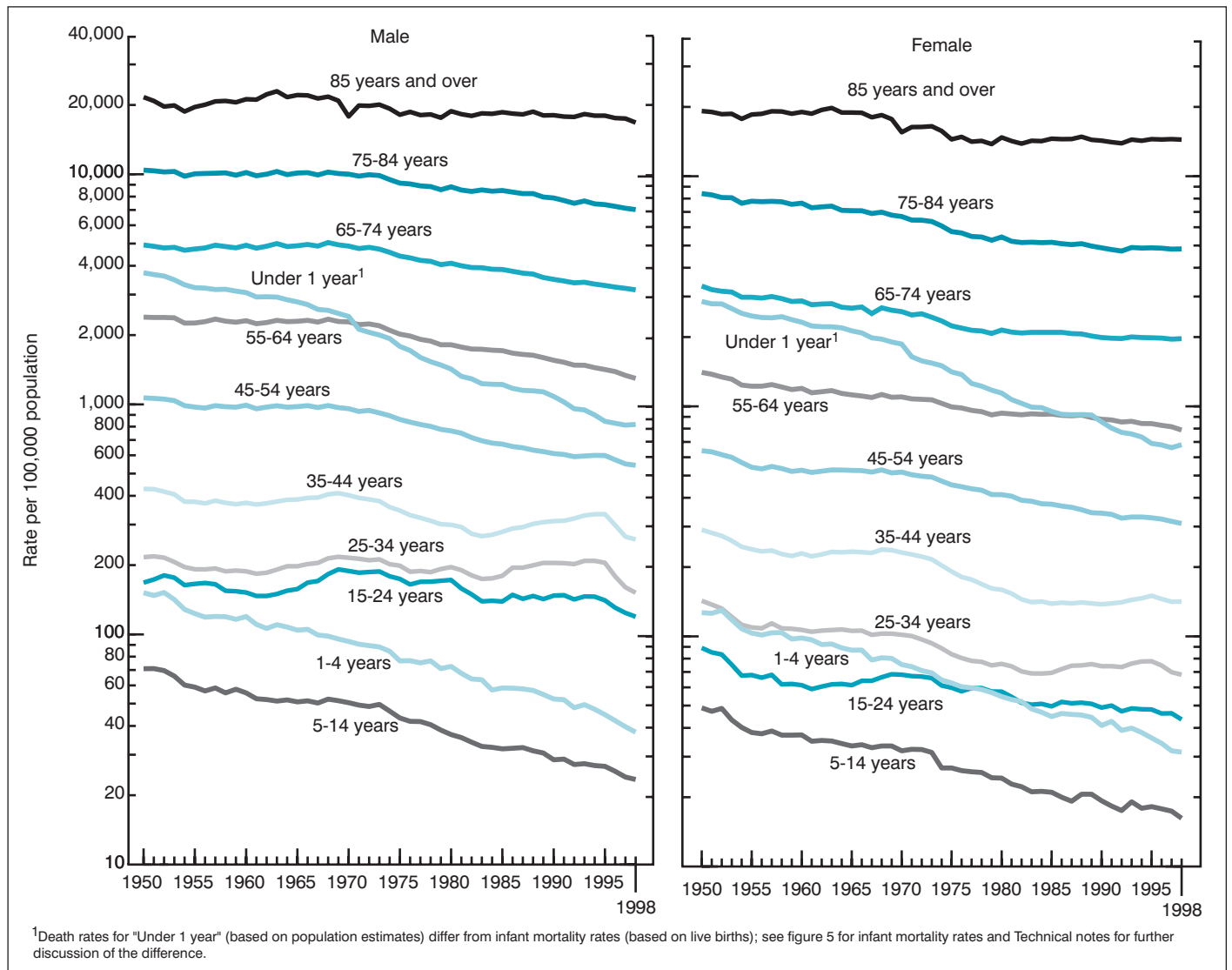


Figure 2. Death rates by age and sex: United States, 1950-98

Among the four race-sex groups (figure 3), white females continued to have the highest life expectancy at birth (80.0 years), followed by black females (74.8 years), white males (74.5 years), and black males (67.6 years). Record high life expectancies were reached for all groups. Life expectancy for black males declined every year from 1984 to 1989 then increased from 1990 to 1992 and 1994 to 1998 (table 6). For white females life expectancy increased nearly every year from 1970 to 1992, when it reached a record high of 79.8 years. In 1998 life expectancy for white females surpassed this high by 0.2 year. Between 1988 and 1992 and between 1995 and 1998, life expectancy for black females increased. Overall the largest gain in life expectancy between 1980 and 1998 was for white and black males (3.8 years each), followed by black females (2.3 years), and white females (1.9 years). Between 1997 and 1998 the largest gain was for black males (0.4 years), followed by white males (0.2), and white and black females (0.1 each).

Life tables shown in this report may be used to compare life expectancies at selected ages from birth to 100 years. For example, a person who has reached 65 years may look forward to living to an older age, on the average, than one who has reached 50 years. On the basis of mortality experienced in 1998, a person aged 50 years could

expect to live an average of 29.8 more years for a total of 79.8 years, a person aged 65 years could expect to live an average of 17.8 more years for a total of 82.8 years, and a person aged 85 years could expect to live an average of 6.3 more years for a total of 91.3 years (tables 4 and 5).

### Leading causes of death

The 15 leading causes of death in 1998 accounted for 84.2 percent of all deaths in the United States (table B). (Causes of death are ranked according to number of deaths. For ranking procedures, see Technical notes.) In 1998, 14 of the 15 leading causes remained the same as in 1997, but the ranking changed as follows: Alzheimer's disease, the 11th leading cause of death in 1997, became the 12th leading cause in 1998; septicemia, the 12th leading cause in 1997, became the 11th leading cause in 1998; and atherosclerosis, the 15th leading cause in 1997, became the 14th leading cause in 1998. Homicide remained the 13th leading cause in 1998 despite an 8.8 percent decrease in the age-adjusted rate. Newly among the 15

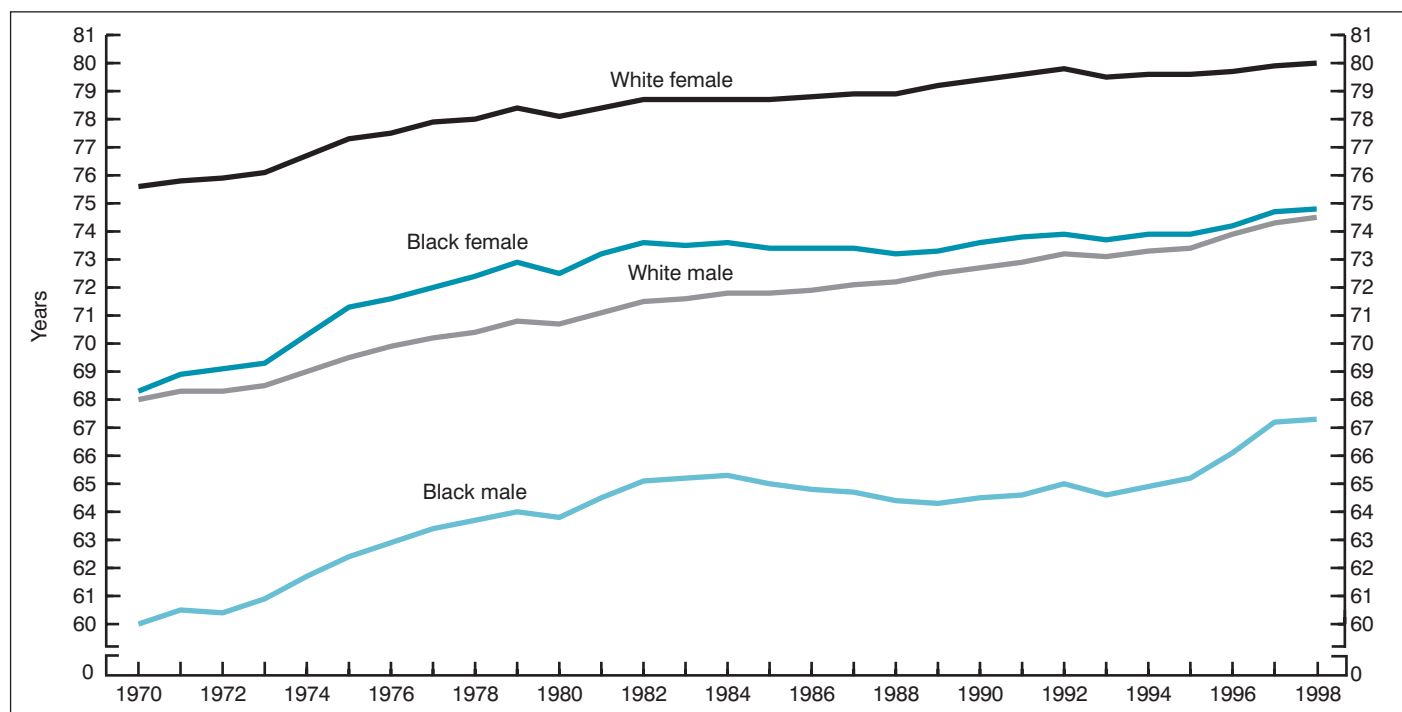


Figure 3. Life expectancy by sex: United States, 1970–98

leading causes in 1998 was hypertension as the 15th leading cause while HIV infection fell from among the 15 leading causes for the first time since 1987.

Because the age pattern of mortality can vary greatly by cause of death, changes in crude rates over time can be greatly influenced by the changing composition of the population. In contrast, age-adjusted rates eliminate the influence of such a shift in population. Therefore, for most leading causes, age-adjusted death rates are better indicators than crude death rates for showing changes in mortality risk over time. Consequently, age-adjusted rates are used to depict trends for all 15 leading causes of death (figure 4).

Among these causes, age-adjusted death rates for 8 of the 15 leading causes showed statistically significant decreases from 1997 to 1998 (table B). The most notable decline was for atherosclerosis, with a decrease of 9.5 percent, a decline consistent with the general downward trend observed since 1950.

In 1998 HIV infection fell from among the 15 leading causes of death for the first time since 1987, the year in which HIV infection was added to the list of rankable causes (see Technical notes). The age-adjusted rate for HIV infection continued to decline significantly for the third consecutive year, decreasing 28.8 percent from 1995 to 1996; 47.7 percent from 1996 to 1997; and 20.7 percent from 1997 to 1998.

The age-adjusted death rate for the leading cause of death, heart disease, declined by 3.0 percent in 1998, while the age-adjusted death rate for cancer, the second leading cause of death, declined by 1.6 percent. Together, these two causes accounted for 54 percent of all U.S. deaths. Heart disease mortality has generally been declining since 1950, and cancer mortality has shown a gradual but consistently downward trend since 1990. The age-adjusted rate for stroke, the third leading cause of death, declined by 3.1 percent between 1997 and 1998. Stroke generally declined between 1950 and 1992, increased 1.9 percent between 1992 and 1995, and has declined 6.0 percent

since 1995. Suicide, the eighth leading cause of death, decreased for the third consecutive year, declining 1.9 percent between 1997 and 1998. The 10th leading cause of death, chronic liver disease, decreased by 2.7 percent, and the 12th leading cause, Alzheimer's disease, decreased by 3.7 percent. Homicide, the 13th leading cause, continued a downward trend observed since 1991, declining 8.8 percent between 1997 and 1998. From 1987 to 1991 homicide mortality rose at an average rate of more than 6 percent per year. Atherosclerosis, the 14th leading cause of death, decreased by 9.5 percent, the largest decline among the 15 leading causes in 1998.

Age-adjusted death rates increased significantly for 4 of the 15 leading causes from 1997 to 1998. The fourth leading cause, COPD, increased 0.9 percent. Pneumonia and influenza, the sixth leading cause, increased by 2.3 percent, reflecting the effect of an influenza outbreak that occurred during the 1997–1998 winter season. Among the 15 leading causes, the largest increase in the age-adjusted rate was for septicemia, the 11th leading cause, followed by hypertension, the 15th leading cause (4.8 and 4.3 percent, respectively). The seventh leading cause, diabetes, increased although not significantly. Between 1986 and 1996 diabetes mortality had been increasing consistently, and at an accelerated rate since 1990. An anomalous 14-percent increase in the age-adjusted rate for diabetes during 1988–89 has been attributed in part to the 1989 revision of the death certificate (9). Age-adjusted death rates for two of the leading causes of death, accidents and kidney disease, did not change between 1997 and 1998.

Leading causes of death differed by age, sex, and race (table 8). Accidents was the leading cause of death for those aged 1–4, 5–14, 15–24, and 25–44 years. While in 1995 HIV infection was the leading cause of death for the age group 25–44 years, by 1997 it dropped to a rank of fifth where it remained in 1998. In the older age groups, chronic

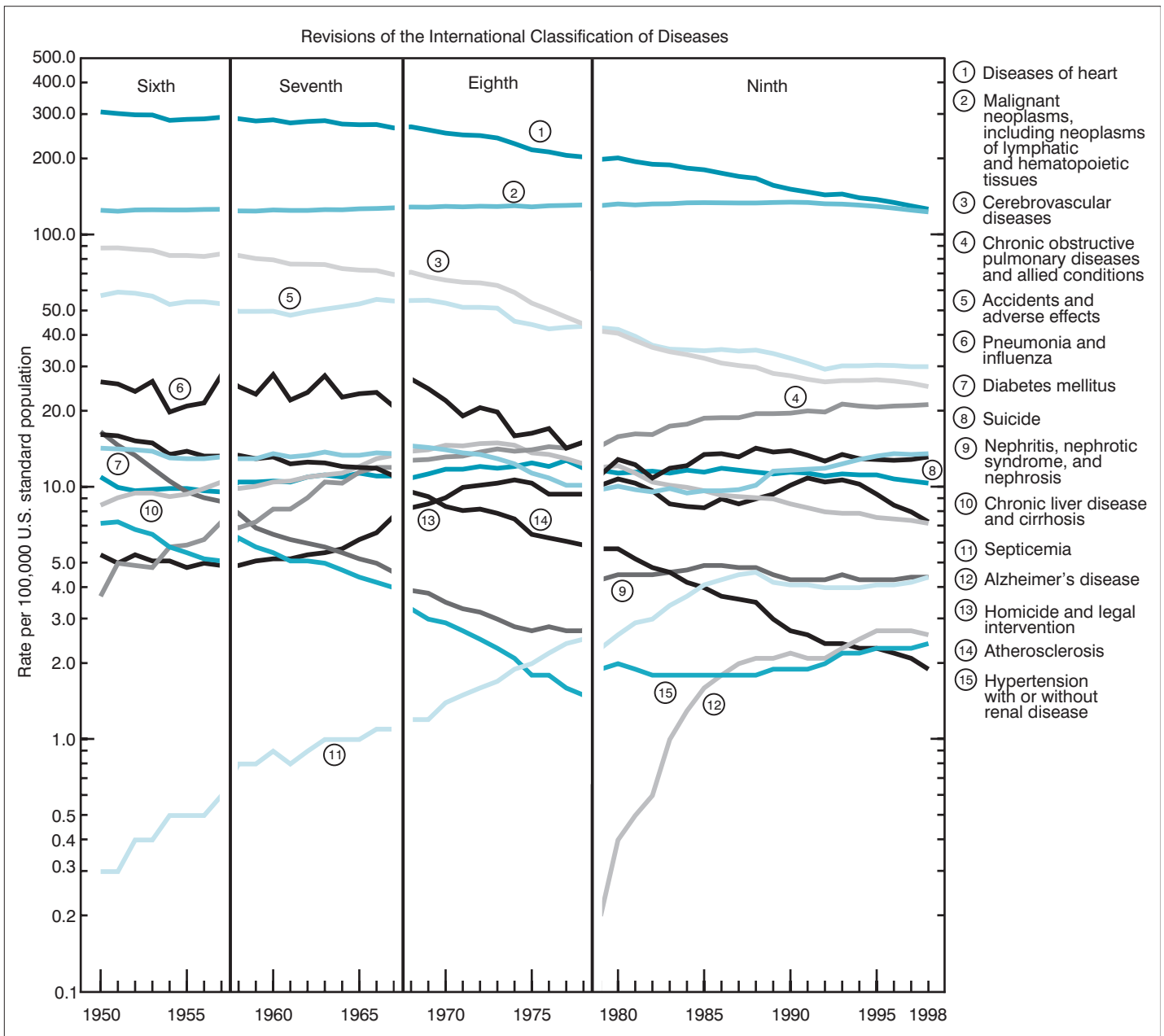


Figure 4. Age-adjusted death rates for the 15 leading causes of death: United States, 1950–98

diseases were the leading causes: cancer, for those aged 45–64 years, and heart disease, for those aged 65 years and over. At the younger ages, homicide ranked third for those aged 1–4 and 5–14 years and second for those aged 15–24 years while suicide ranked third for those aged 15–24 years.

Seven of the 10 leading causes of death were the same for males and females, although there were differences in the ranking. Accidents was the third leading cause of death for males but seventh for females. Stroke, the third leading cause of death for females, was fourth for males, and COPD, the fourth leading cause for females, was fifth for males. While fifth in the leading causes of death among females, pneumonia and influenza was sixth among males. Diabetes was the seventh leading cause of death for males but was sixth for females. Suicide, chronic liver disease, and homicide were respectively the 8th,

9th, and 10th leading causes of death for males but did not rank at all among the 10 leading causes of death for females. Alzheimer's disease, kidney disease, and septicemia (diseases more likely to affect the elderly) were among the 10 leading causes of death for females but not males. The sex patterns in leading causes of death also differed according to age. In general the 10 leading causes were the same, but the relative rankings varied by sex for a given age group. For example, for the age group 25–44 years, cancer was the leading cause of death among females but ranked fourth for males; for the age group 45–64 years, accidents ranked third among males but sixth among females.

Although there were differences in ranking, seven of the leading causes were the same for the white and black populations. Thus, COPD was the fourth leading cause for the white population, but was eighth for the black population. Diabetes, the fifth leading cause for the black



population, was the seventh leading cause for the white population. Suicide, chronic liver disease, and kidney disease were among the 10 leading causes for the white population but not for the black population. Homicide, HIV infection, and perinatal conditions were among the 10 leading causes for the black population but not the white population. Within broad age groups for the white and black populations, the leading cause was the same except for the age groups 15–24 and 25–44 years. For both of these age groups, the leading cause for the white population was accidents; while for the black population, the leading cause for those aged 15–24 years was homicide, and for those aged 25–44 years, HIV infection. Beyond the age group 5–14 years, accidents ranked higher for the white than for the black population; while homicide consistently ranked higher for the black population for all age groups under 25 years and HIV infection consistently ranked higher for the black population for all age groups under 45 years. For the age groups 5–14, 15–24, and 25–44 years, suicide ranked higher for the white population.

The relative risk of death in one group compared with another can be expressed as a ratio. Ratios based on age-adjusted death rates show that males have higher rates than females for 14 leading causes of death (table B), with seven rates for males at least 1.5 times those for females. The largest ratio (4.3) was for suicide. Other large ratios were homicide (3.5), accidents (2.4), chronic liver disease (2.3), heart disease (1.8), pneumonia and influenza (1.5), and kidney disease (1.5).

Rates for the black population compared with the white population were at least 1.5 times greater for seven of the leading causes of death (table B). The largest ratio was for homicide (5.7). Other causes for which the ratio was large include hypertension (3.8), septicemia (2.7), kidney disease (2.5), diabetes (2.4), stroke (1.8), and heart disease (1.5). For three of the leading causes, age-adjusted rates were higher for the white than the black population: COPD (1.2), Alzheimer's disease (1.3), and suicide (1.5).

## Hispanic mortality

Problems of race and Hispanic-origin classification affect the level of Hispanic death rates and the relative levels compared with the non-Hispanic population (see [Technical notes](#)). Mortality of Hispanics is somewhat understated because of net underreporting of Hispanic origin on the death certificate. Hispanic origin on the death certificate may be underreported by an estimated 7 percent (10) (see [Technical notes](#)). Mitigating this somewhat is undercoverage of the Hispanic population in the census and in annual population estimates based on the census (10). The age-adjusted death rate for the Hispanic population declined by 2.1 percent from 1997 to 1998, from 350.3 deaths per 100,000 U.S. standard population to 342.8, compared with a decline of 1.4 percent for the non-Hispanic population from 485.0 to 478.0.

Mortality for the Hispanic population can be compared with that of the non-Hispanic white and black populations (tables 3 and 9). The crude death rate for the Hispanic population was nearly 67 percent below that of the non-Hispanic white population and 61 percent below that of the non-Hispanic black population. The age-adjusted death rate, which controls for age-composition differences, was 24 percent lower for the Hispanic population than for the non-Hispanic white population and nearly 52 percent lower than for the non-Hispanic black population. The larger difference in the crude death rates for the Hispanic and non-Hispanic black populations reflects a combination of the lower

age-specific mortality, especially for the older age groups, and the younger age composition of the Hispanic population compared with that of the non-Hispanic black population. Part of the difference is also due to underreporting of Hispanic origin on the death certificate (see [Technical notes](#)).

Within the Hispanic population, the age-adjusted death rate for males was 1.7 times that for females, compared with 1.6 for the non-Hispanic white and non-Hispanic black populations. The male-to-female ratio differed substantially by age, with Hispanic males experiencing more than 2 times greater death rates than Hispanic females for ages 15–44 years. The ratio ranged between 1.2 and 1.4 for ages under 15 years and between 1.2 and 2.0 for ages 45 years and over.

The age-adjusted death rates were substantially lower for the Cuban (299.5), Central and South American and Other and unknown Hispanic (325.0), and Mexican populations (348.4) than for the Puerto Rican population (406.1). Among Hispanic males and females, the Cuban population had the lowest age-adjusted death rate, while the Puerto Rican population had the highest.

Nine of the 10 leading causes of death for the Hispanic population remained the same from 1997 to 1998. The ranking also remained the same except that homicide, the sixth leading cause of death in 1997, dropped to seventh, while pneumonia and influenza moved from seventh to sixth.

Leading causes of death for all age groups combined differed between the Hispanic and the total non-Hispanic, non-Hispanic white, and non-Hispanic black populations (table 9). Although the two leading causes of death—heart disease and cancer—were the same, they accounted for 55 percent of all deaths in 1998 for the total non-Hispanic population but for only 45 percent for the Hispanic population. These two causes accounted for 55 percent of the deaths for the non-Hispanic white population and 50 percent for the non-Hispanic black population. Of the 10 leading causes of death for the Hispanic population, homicide (the 7th leading cause), chronic liver disease (the 8th leading cause), and perinatal conditions (the 10th leading cause) were not among the 10 leading causes for the total non-Hispanic population. Suicide, kidney disease, and septicemia, the 8th, 9th, and 10th leading causes of death for the total non-Hispanic population, were not among the 10 leading causes for the Hispanic population (table 9).

Differences in the ranking of the leading causes of death for all ages combined between these population groups largely reflect differences in age composition; that is, the Hispanic population has a greater proportion of young persons, and, accordingly, a larger proportion of deaths due to causes that are more prevalent at younger ages. Within broad age groups, leading causes were similar between the population groups. However, even within age categories some differences exist. Homicide and HIV infection ranked higher for the Hispanic population than for the total non-Hispanic population for those aged 25–44 years and HIV infection and chronic liver disease also ranked higher for the Hispanic population than for the total non-Hispanic population for ages 45–64 years. COPD ranked lower for the Hispanic population than for the total non-Hispanic population for ages 15–24, 45–64, and 65 years and over. Suicide ranked lower for the Hispanic population than for the total non-Hispanic population for ages 5–14, 25–44, and 45–64 years.

## Firearm mortality

In 1998 a total of 30,708 persons died from firearm injuries in the United States (tables 16 and 18). This number was 5.3 percent lower

than the 32,436 deaths in 1997. Firearm suicide and homicide, the two major component causes, accounted for 56.7 and 39.4 percent, respectively, of all firearm injury deaths in 1998. The number of firearm deaths among those aged 19 years and under was 10.2 percent lower than in 1997. This number has decreased each year since 1994, a peak year, resulting in an overall decline of 35 percent between 1994 and 1998. Despite the decrease, in 1998 children under 20 years still accounted for 12.3 percent of all firearm deaths.

Of the firearm injury deaths in 1998, 61.9 percent were white males, 21.5 percent were black males, 11.3 percent were white females, and 3.0 percent were black females. The largest numbers of firearm deaths for males were for the age groups 15–19, 20–24, and 25–29 years; the largest numbers of firearm deaths for females were for the age groups 25–29, 35–39, and 40–44 years. Although the numbers of firearm deaths for all ages were highest for white males, the age-adjusted and age-specific death rates for firearm injuries were generally highest for black males, followed by white males, black females, and white females. Over the age of 55, however, age-specific death rates for firearm injury were highest for white males (table 17).

Between 1997 and 1998 age-specific death rates for firearm injuries declined for age groups 15–19, 20–24, 25–29, 30–34, and 55–59. The only statistically significant increase, 12.9 percent, was among those aged 80–84 years; changes among all other age groups were not significant. The largest decline in firearm mortality between 1997 and 1998 was 13.3 percent for the age group 15–19 years.

In 1998 the age-adjusted death rate for firearm injuries was 11.3 deaths per 100,000 U.S. standard population, 7.4 percent lower than the rate of 12.2 in 1997. Since 1980 the trend in mortality due to firearms has changed directions several times. The age-adjusted death rate decreased by 14.2 percent between 1980 and 1985, increased by 16.9 percent between 1987 and 1991, decreased by 2 percent between 1991 and 1992, increased by 4.7 percent from 1992 to 1993, and has declined every year since 1993. Between 1993 and 1998 the age-adjusted death rate for firearm injuries declined by 27.6 percent (table 18).

Between 1997 and 1998 the age-adjusted death rate for firearm injuries decreased by 12.2 percent for black males and 5.3 percent for white males. The rate for black females and white females also declined, although the decline was not statistically significant. In 1998 the rate for males was 5.9 times that for females, and the rate for the black population was 2.4 times that of the white population.

The age-adjusted death rate decreased 10.7 percent for firearm homicide, and 3.3 percent for firearm suicide between 1997 and 1998. The rate remained the same for firearm accidents. In 1998 the age-specific death rates for firearm homicide were highest for the age groups 15–19, 20–24, and 25–29 years. Black males aged 20–24 years had the highest rate at 116.7 per 100,000 population. The highest rate for suicide by firearms was 47.2 for white males 85 years and over.

### Injury mortality by mechanism and intent

Injury data are presented using an alternative framework (11); the previously presented tabulations of firearm mortality are compatible with this framework. The framework shifts the focus from the traditional emphasis on manner of death or “intent,” that is, on accidents, homicides, suicides, with subcategories showing “mechanism” (for example, drowning or falls) (12) to an emphasis on mechanism with subcategories showing manner of death, or “intent” (for example, accident and homicide) (11,13).

In 1998 a total of 146,941 deaths were classified as “injuries” using the alternative framework (table 19) compared with 150,445 deaths classified to “external causes” (97,835 accidents; 30,575 suicides; 18,272 homicides; and 3,763 other external causes) using the traditional vital statistics tabulation lists (table 10). The difference between counts of total injury deaths and total external cause deaths is that the injuries exclude 3,228 deaths from Misadventures during medical care, abnormal reactions, and late complications and the 276 deaths from Drugs, medicaments, and biological substances causing adverse effects in therapeutic use, which are classified as external causes in ICD–9 (4). Deaths from motor vehicle traffic-related injuries and firearm-related injuries were responsible for 28.8 and 20.9 percent of all injury deaths in 1998. Deaths from poisoning and falls accounted for an additional 12.5 and 9.1 percent of injury deaths. While nearly all motor vehicle traffic deaths are classified as unintentional, 2.8 percent of firearm deaths are so classified while 56.7 percent and 38.4 percent, respectively, are coded as suicides and homicides. Similarly, 58.7 percent of poisoning deaths are unintentional, 27.6 percent are suicides and for 13.2 percent the intent is undetermined.

Of the 146,941 injury deaths, the largest number of deaths were for the age groups 15–24, 25–34, and 35–44 years. Although numbers of deaths were highest for young persons, age-specific death rates for injuries were highest at older ages, with the highest rate (289.7 per 100,000) for persons 85 years and over. Patterns of injury mortality by age vary by mechanisms. Death rates associated with motor vehicle traffic injuries are highest at 15–24 years and age groups 75 years and over while firearm-related death rates peak at 15–24 years. Death rates for poisoning are highest at ages 35–44 years (15.3 per 100,000 population); about 62.4 percent of poisoning deaths at that age are unintentional and 22.7 percent are suicides. Fall mortality, on the other hand, is higher for the oldest persons in the population, 108.7 per 100,000 persons 85 years and over.

In 1998 the age-adjusted death rate for injuries was 48.3 per 100,000 U.S. standard population. For the four major mechanisms, the rates were as follows: Motor vehicle traffic, all (15.3); Firearm (11.3); Poisoning (6.3); and Fall (2.6).

### Drug-induced mortality

In 1998 a total of 16,926 persons died of drug-induced causes in the United States (table 20). The category “drug-induced causes” includes not only deaths from dependent and nondependent use of drugs (legal and illegal use), but also poisoning from medically prescribed and other drugs. It excludes accidents, homicides, and other causes indirectly related to drug use. Also excluded are newborn deaths due to mother’s drug use. (For drug-induced causes, see Technical notes.) Between 1997 and 1998 the age-adjusted death rate for drug-induced causes increased 5 percent from 5.6 deaths per 100,000 U.S. standard population to 5.9, the highest it has been since at least 1979. The rate increased by 35 percent from 1983 to 1988, then declined 14 percent between 1988 and 1990, and increased every year since 1990. Between 1990 and 1998, the age-adjusted death rate for drug-induced causes increased by 64 percent. In 1998 the age-adjusted death rate for drug-induced causes for males was 2.3 times the rate for females, and the rate for the black population was 1.4 times the rate for the white population.

## Alcohol-induced mortality

In 1998 a total of 19,515 persons died of alcohol-induced causes in the United States (table 21). The category "alcohol-induced causes" includes not only deaths from dependent and nondependent use of alcohol but also accidental poisoning by alcohol. It excludes accidents, homicides, and other causes indirectly related to alcohol use as well as deaths due to fetal alcohol syndrome. (For alcohol-induced causes, see [Technical notes](#).) The age-adjusted death rate for alcohol-induced causes in 1998 was 6.1 deaths per 100,000 U.S. standard population, a decrease of 3.2 percent from the rate of 6.3 in 1997. The rate decreased 20 percent from 1980 to 1986, increased 9 percent from 1986 to 1989, and decreased 7 percent from 1989 to 1991. There was very little change in the age-adjusted rate between 1991 and 1995. Between 1995 and 1998 the age-adjusted death rate for alcohol-induced causes decreased 9 percent. In 1998 the age-adjusted death rate for alcohol-induced causes for males was 3.5 times the rate for females, and the rate for the black population was 1.5 times the rate for the white population.

## Marital status

Among those aged 15 years and over, the number of deaths in 1998 of persons who were married was 938,920; widowed, 885,535; never married, 228,256; and divorced, 233,291 (table 22) (see [Technical notes](#)). Those never married had the highest age-adjusted death rate, followed by divorced, widowed, and married persons, respectively. The never-married group has an age-adjusted death rate 70 percent higher than the ever-married and 2.1 times the rate for the currently married. Age-adjusted death rates for widowed and divorced persons were 85 percent and 86 percent higher, respectively, than for those who were currently married at the time of death.

For all age groups 15 years and over, death rates for married persons were much lower than those for never-married persons. For ages 25–34 and 35–44 years, widowed persons had the highest death rates; but beginning at age 45, those who never married had the highest death rates.

For each marital status group, males had higher age-adjusted death rates than females, ranging from 79 to 82 percent greater in 1998. Black persons in each marital status group were more likely to die than white persons, with rates ranging from 6 to 54 percent greater.

## Educational attainment

Age-specific and age-adjusted death rates are shown by educational attainment for age groups in the range 25–64 years (table 23). In the 46 reporting States and the District of Columbia, a total of 209,049 decedents aged 25–64 years had completed 12 years of education, compared with 144,423 who had completed 13 years or more and 110,572 who had completed less than 12 years. For the total population, and for males and females separately, mortality is inversely associated with educational attainment; that is, the average risk of death decreases markedly with increasing educational attainment. The age-adjusted death rate for those with less than 12 years of education was 538.3 per 100,000 U.S. standard population—20.8 percent higher than the rate of 445.6 for those with 12 years of education and 2.5 times the rate for those with 13 years of education or more. Rates are shown only for ages 25–64 years because persons under age 25 may not have completed their education. Rates

are not shown for the older ages because of misreporting of educational attainment on the death certificate (see [Technical notes](#)). Data on educational attainment must be interpreted with caution because of misreporting on the death certificate and biases that result from differences between the classification of educational attainment on the death certificate and in census surveys (see [Technical notes](#)).

## Injury at work

For persons aged 15 years and over, a total of 5,543 deaths were reported on death certificates due to injuries at work (table 24). Rates were lowest for age groups 15–34 years and 65 years and over. The risk of work-related death was much greater for males than for females; the age-adjusted death rate for males was 4.8 deaths per 100,000 U.S. standard population compared with 0.4 for females, resulting in a mortality ratio of 12. The age-adjusted rate for the white population (2.7) was 17 percent higher than the rate for the black population (2.3). The male-to-female ratios for the white and black populations were 10.0 and 11.5, respectively.

The age-adjusted death rate for injury-at-work deaths in 1998 was 2.6 deaths per 100,000 U.S. standard population (table 25), 4 percent less than that in 1997. The rate decreased by 4 percent for males and increased 20 percent for females. Changes in the rates between 1997 and 1998 for the white and black populations were not statistically significant.

## Infant mortality

In 1998 a total of 28,371 deaths occurred in children under 1 year (table C), 326 more than in 1997. However, the infant mortality rate of 7.2 infant deaths per 1,000 live births was unchanged from 1997 when it dropped to the lowest rate ever recorded for the United States (figure 5 and table 27). The mortality rate for white infants was unchanged (6.0 in both 1997 and 1998), whereas the rate for black infants increased (14.3 in 1998 compared with 14.2 in 1997) although the increase was not statistically significant. Race cited on the death certificate is considered accurate for white and black infants (10). For other racial groups, however, race may be misreported on the death certificate; consequently, race for these population groups is better measured using data from the linked file of live births and infant deaths (14).

The ratio of the black-to-white infant mortality rates was 2.4 in 1998. During 1960–71 infant mortality rates converged as a result of the rates declining more for the black than the white population (31.6 and 25.3 percent, respectively). From 1971–90 rates diverged as rates for the black population declined less than for the white population (43.9 and 55.0 percent, respectively). Since 1990 rates for the white and black populations declined by similar percents, each by about 21 percent.

Between 1997 and 1998 the neonatal mortality rate (deaths to infants age 0–27 days per 1,000 live births) for all infants (4.8) and white infants (4.0) remained the same (table 27). For black infants, the rate (9.5) did not change significantly from 1997. The postneonatal mortality rate (deaths to infants age 28 days–1 year per 1,000 live births) declined 4.0 percent. The rate for white infants (2.0) and black infants (4.8) did not change from 1997.

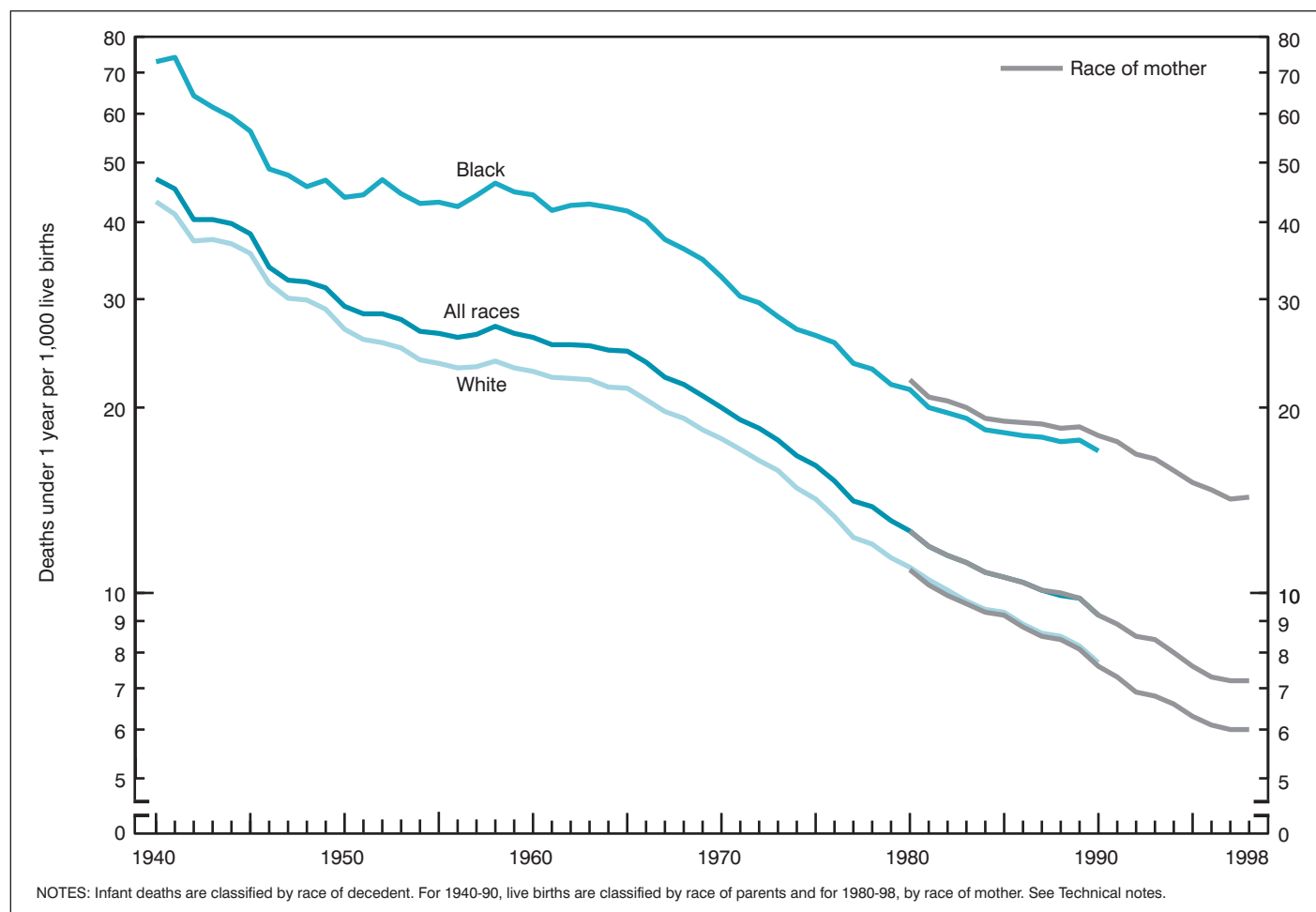
Among the 10 leading causes of infant death, the first four—Congenital anomalies, Disorders relating to short gestation and unspecified low birthweight (low birthweight), SIDS, and Newborn

**Table C. Number of infant, neonatal, and postneonatal deaths and mortality rates, by race and sex: United States, 1998**

[Rates are infant (under 1 year), neonatal (under 28 days), and postneonatal (28 days–11 months) deaths per 100,000 live births in specified group]

Race and sex	Infant		Neonatal		Postneonatal	
	Number	Rate	Number	Rate	Number	Rate
All races <sup>1</sup>	28,371	719.8	18,918	480.0	9,453	239.8
Male	15,786	783.0	10,498	520.7	5,288	262.3
Female	12,585	653.6	8,420	437.3	4,165	216.3
White	18,561	595.1	12,406	397.8	6,155	197.4
Male	10,327	646.8	6,878	430.8	3,449	216.0
Female	8,234	541.0	5,528	363.2	2,706	177.8
Black	8,726	1,430.7	5,824	954.9	2,902	475.8
Male	4,883	1,574.6	3,258	1,050.6	1,625	524.0
Female	3,843	1,281.9	2,566	855.9	1,277	426.0

<sup>1</sup>Includes races other than white and black.



**Figure 5. Infant mortality rates by race: United States, 1940–98**

affected by maternal complications of pregnancy (maternal complications)—accounted for just over one-half (51.0 percent) of all infant deaths in 1998. The remaining six causes accounted for only 16.7 percent of all infant deaths (table 28). The list of 10 leading causes of infant death was unchanged between 1997 and 1998, but the

rankings changed slightly for 2 of the causes. Maternal complications and Respiratory distress syndrome (RDS) switched positions, with maternal complications moving from the fifth leading cause in 1997 to the fourth leading cause in 1998 and RDS moving from the fourth to the fifth.



Congenital anomalies, low birthweight, and maternal complications accounted for more than one-half of all neonatal deaths (52 percent). SIDS, the leading cause of death among infants in the postneonatal period, accounted for 27.9 percent of all postneonatal deaths. Congenital anomalies and accidents were the second and third leading causes of postneonatal deaths and together accounted for one-fourth of all postneonatal deaths (table 28).

Between 1997 and 1998 the infant mortality rate for SIDS declined by 7.1 percent, the only statistically significant decline among the leading causes of infant death. Mortality from SIDS has declined 49 percent since 1988, from a rate of 140.1 to 71.6 in 1998 (15).

Differences between infant mortality rates for white and black infants by cause are reflected in differences in the ranking of the leading causes of infant death as well as in differences in cause-specific infant mortality rates. Congenital anomalies was the leading cause of death for white infants, followed by low birthweight, SIDS, and RDS. Combined, these four causes accounted for 52.1 percent of white infant deaths. In contrast, the order of the four leading causes of death for black infants was low birthweight, congenital anomalies, SIDS, and maternal complications. These causes accounted for 48.7 percent of black infant deaths (table 28).

Among the 10 leading causes of infant death, mortality risk was greater for black infants than for white infants. Expressed as the ratio of the infant mortality rate for black infants to that for white infants, the ranking of the leading cause ratios is low birthweight (3.9); pneumonia and influenza (3.0); maternal complications (2.9); RDS and SIDS (2.6); Newborn affected by complications of placenta, cord, and membranes (complications of placenta) (2.5); perinatal infections (2.4); accidents (2.2); Intrauterine hypoxia and birth asphyxia (asphyxia) (2.0); and congenital anomalies (1.2).

*Hispanic infant mortality*—The infant mortality rate was 5.9 deaths to Hispanic infants under 1 year of age per 1,000 live births in the United States (table 29) compared with 7.5 for non-Hispanic infants. Infant mortality rates by specified Hispanic origin and race for non-Hispanic origin are somewhat understated and are better measured using data from the linked file of live births and infant deaths (14) (see [Technical notes](#)).

## Maternal mortality

In 1998 a total of 281 women were reported to have died of maternal causes (table 32), compared with 327 in 1997. As in previous years, the number does not include all deaths occurring to pregnant women, but only to those deaths reported on the death certificate and assigned to the cause of death, Complications of pregnancy, childbirth, and the puerperium (ICD-9 Nos. 630–676). It excludes, for example, deaths occurring more than 42 days after the termination of pregnancy and deaths of pregnant women due to external causes (accidents, homicides, and suicides). The maternal mortality rate for 1998 was 7.1 deaths per 100,000 live births, compared with a rate of 8.4 in 1997. The difference in the rates between the years was not statistically significant.

Black women have a substantially higher risk of maternal death than white women. In 1998 the maternal mortality rate for black women was 17.1, more than 3 times the rate of 5.1 for white women. For Toxemia of pregnancy, the rate for black females was 3.6 deaths per 100,000 live births, over 5 times the rate of 0.7 for white females.

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**Table 1. Number of deaths, death rates, and age-adjusted death rates, by race and sex: United States, 1940, 1950, 1960, 1970, and 1980-1998**

[Crude rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. Rates are based on populations enumerated as of April 1 for census years and estimated as of July 1 for all other years. Beginning 1970, excludes deaths of nonresidents of the United States. Data for specified races other than white and black should be interpreted with caution because of inconsistencies between reporting race on death certificates and censuses and surveys; see Technical notes]

Year	All races <sup>1</sup>			White			Black			American Indian <sup>2</sup>			Asian or Pacific Islander <sup>3</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Number															
1998	2,337,256	1,157,260	1,179,996	2,015,984	990,190	1,025,794	278,440	143,417	135,023	10,845	5,994	4,851	31,987	17,659	14,328
1997	2,314,245	1,154,039	1,160,206	1,996,393	986,884	1,009,509	276,520	144,110	132,410	10,576	5,985	4,591	30,756	17,060	13,696
1996	2,314,690	1,163,569	1,151,121	1,992,966	991,984	1,000,982	282,089	149,472	132,617	10,127	5,563	4,564	29,508	16,550	12,958
1995	2,312,132	1,172,959	1,139,173	1,987,437	997,277	990,160	286,401	154,175	132,226	9,997	5,574	4,423	28,297	15,933	12,364
1994	2,278,994	1,162,747	1,116,247	1,959,875	988,823	971,052	282,379	153,019	129,360	9,637	5,497	4,140	27,103	15,408	11,695
1993	2,268,553	1,161,797	1,106,756	1,951,437	988,329	963,108	282,151	153,502	128,649	9,579	5,434	4,145	25,386	14,532	10,854
1992	2,175,613	1,122,336	1,053,277	1,873,781	956,957	916,824	269,219	146,630	122,589	8,953	5,181	3,772	23,660	13,568	10,092
1991	2,169,518	1,121,665	1,047,853	1,868,904	956,497	912,407	269,525	147,331	122,194	8,621	4,948	3,673	22,173	12,727	9,446
1990	2,148,463	1,113,417	1,035,046	1,853,254	950,812	902,442	265,498	145,359	120,139	8,316	4,877	3,439	21,127	12,211	8,916
1989	2,150,466	1,114,190	1,036,276	1,853,841	950,852	902,989	267,642	146,393	121,249	8,614	5,066	3,548	20,042	11,688	8,354
1988	2,167,999	1,125,540	1,042,459	1,876,906	965,419	911,487	264,019	144,228	119,791	7,917	4,617	3,300	18,963	11,155	7,808
1987	2,123,323	1,107,958	1,015,365	1,843,067	953,382	889,685	254,814	139,551	115,263	7,602	4,432	3,170	17,689	10,496	7,193
1986	2,105,361	1,104,005	1,001,356	1,831,083	952,554	878,529	250,326	137,214	113,112	7,301	4,365	2,936	16,514	9,795	6,719
1985	2,086,440	1,097,758	988,682	1,819,054	950,455	868,599	244,207	133,610	110,597	7,154	4,181	2,973	15,887	9,441	6,446
1984	2,039,369	1,076,514	962,855	1,781,897	934,529	847,368	235,884	129,147	106,737	6,949	4,117	2,832	14,483	8,627	5,856
1983	2,019,201	1,071,923	947,278	1,765,582	931,779	833,803	233,124	127,911	105,213	6,839	4,064	2,775	13,554	8,126	5,428
1982	1,974,797	1,056,440	918,357	1,729,085	919,239	809,846	226,513	125,610	100,903	6,679	3,974	2,705	12,430	7,564	4,866
1981	1,977,981	1,063,772	914,209	1,731,233	925,490	805,743	228,560	127,296	101,264	6,608	4,016	2,592	11,475	6,908	4,567
1980	1,989,841	1,075,078	914,763	1,738,607	933,878	804,729	233,135	130,138	102,997	6,923	4,193	2,730	11,071	6,809	4,262
1970	1,921,031	1,078,478	842,553	1,682,096	942,437	739,659	225,647	127,540	98,107	5,675	3,391	2,284	---	---	---
1960	1,711,982	975,648	736,334	1,505,335	860,857	644,478	196,010	107,701	88,309	4,528	---	1,870	---	---	---
1950	1,452,454	827,749	624,705	1,276,085	731,366	544,719	169,606	92,004	77,602	4,440	2,497	1,943	---	---	---
1940	1,417,269	791,003	626,266	1,231,223	690,901	540,322	178,743	95,517	83,226	4,791	2,527	2,264	---	---	---
Rate															
1998	864.7	876.4	853.5	904.0	904.4	903.7	808.7	877.7	746.4	459.5	513.2	407.0	304.4	349.8	262.5
1997	864.7	880.8	849.2	902.0	906.3	897.8	814.6	893.9	742.8	455.5	519.2	392.6	306.6	351.7	264.3
1996	872.5	896.4	849.7	906.9	918.1	896.2	842.0	939.9	753.5	442.6	489.8	396.0	302.8	350.7	257.9
1995	880.0	914.1	847.3	911.3	932.1	891.3	864.2	980.7	759.0	445.9	502.3	390.6	304.7	354.9	257.7
1994	875.4	915.0	837.6	905.4	931.6	880.1	864.3	987.8	752.9	436.1	502.6	371.0	301.5	354.0	252.2
1993	880.0	923.5	838.6	908.5	938.8	879.4	876.8	1,006.3	760.1	440.0	503.9	377.3	293.9	346.6	244.2
1992	852.9	901.6	806.5	880.0	917.2	844.3	850.5	977.5	736.2	417.7	487.7	348.9	283.1	332.7	235.8
1991	860.3	912.1	811.0	886.2	926.2	847.7	864.9	998.7	744.5	407.2	471.2	343.9	277.3	325.6	231.1
1990	863.8	918.4	812.0	888.0	930.9	846.9	871.0	1,008.0	747.9	402.8	476.4	330.4	283.3	334.3	234.3
1989	871.3	926.3	818.9	893.2	936.5	851.8	887.9	1,026.7	763.2	430.5	510.7	351.3	280.9	334.5	229.4
1988	886.7	945.1	831.2	910.5	957.9	865.3	888.3	1,026.1	764.6	411.7	485.0	339.9	282.0	339.0	227.4
1987	876.4	939.3	816.7	900.1	952.7	849.8	868.9	1,006.2	745.7	410.7	483.8	339.0	278.9	338.3	222.0
1986	876.7	944.7	812.3	900.1	958.6	844.3	864.9	1,002.6	741.5	409.5	494.9	325.9	276.2	335.1	219.9
1985	876.9	948.6	809.1	900.4	963.6	840.1	854.8	989.3	734.2	416.4	492.5	342.5	283.4	344.6	224.9
1984	864.8	938.8	794.7	887.8	954.1	824.6	836.1	968.5	717.4	419.6	502.7	338.4	275.9	336.5	218.1
1983	863.7	943.2	788.4	885.4	957.7	816.4	836.6	971.2	715.9	428.5	515.1	343.9	276.1	339.1	216.1
1982	852.4	938.4	771.2	873.1	951.8	798.2	823.4	966.2	695.5	434.5	522.9	348.1	271.3	338.3	207.4
1981	862.0	954.0	775.0	880.4	965.2	799.8	842.4	992.6	707.7	445.6	547.9	345.6	272.3	336.2	211.5
1980	878.3	976.9	785.3	892.5	983.3	806.1	875.4	1,034.1	733.3	487.4	597.1	380.1	296.9	375.3	222.5
1970	945.3	1,090.3	807.8	946.3	1,086.7	812.6	999.3	1,186.6	829.2	---	---	---	---	---	---
1960	954.7	1,104.5	809.2	947.8	1,098.5	800.9	1,038.6	1,181.7	905.0	---	---	---	---	---	---
1950	963.8	1,106.1	823.5	945.7	1,089.5	803.3	---	---	---	---	---	---	---	---	---
1940	1,076.4	1,197.4	954.6	1,041.5	1,162.2	919.4	---	---	---	---	---	---	---	---	---

See footnotes at end of table.



**Table 1. Number of deaths, death rates, and age-adjusted death rates, by race and sex: United States, 1940, 1950, 1960, 1970, and 1980-1998 - Con.**

[Crude rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. Rates are based on populations enumerated as of April 1 for census years and estimated as of July 1 for all other years. Beginning 1970, excludes deaths of nonresidents of the United States. Data for specified races other than white and black should be interpreted with caution because of inconsistencies between reporting race on death certificates and censuses and surveys; see Technical notes]

Year	All races <sup>1</sup>			White			Black			American Indian <sup>2</sup>			Asian or Pacific Islander <sup>3</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	Age-adjusted death rate <sup>4</sup>														
1998	471.7	589.4	372.5	450.4	562.4	355.2	690.9	884.5	540.9	458.1	564.9	363.3	264.6	336.2	207.4
1997	479.1	602.8	375.7	456.5	573.8	358.0	705.3	911.9	545.5	465.3	584.1	359.9	274.8	350.3	214.7
1996	491.6	623.7	381.0	466.8	591.4	361.9	738.3	967.0	561.0	456.7	555.9	367.7	277.4	355.8	214.4
1995	503.9	646.3	385.2	476.9	610.5	364.9	765.7	1,016.7	571.0	468.5	580.4	368.0	298.9	384.4	231.4
1994	507.4	654.6	385.2	479.8	617.9	364.9	772.1	1,029.9	572.0	460.7	585.9	350.8	299.2	386.5	229.3
1993	513.3	664.9	388.3	485.1	627.5	367.7	785.2	1,052.2	578.8	468.9	589.6	364.5	295.9	381.4	226.7
1992	504.5	656.0	380.3	477.5	620.9	359.9	767.5	1,026.9	568.4	453.1	579.6	343.1	285.8	364.1	220.5
1991	513.7	669.9	386.5	486.8	634.4	366.3	780.7	1,048.8	575.1	441.8	562.6	335.9	283.2	360.2	218.3
1990	520.2	680.2	390.6	492.8	644.3	369.9	789.2	1,061.3	581.6	445.1	573.1	335.1	297.6	377.8	228.9
1989	528.0	689.3	397.3	499.6	652.2	376.0	805.9	1,082.8	594.3	475.7	622.8	353.4	295.8	378.9	225.2
1988	539.9	706.1	406.1	512.8	671.3	385.3	809.7	1,083.0	601.0	456.3	585.7	343.2	300.2	385.4	226.5
1987	539.2	706.8	404.6	513.7	674.2	384.8	796.4	1,063.6	592.4	456.7	580.8	351.3	297.0	386.2	221.3
1986	544.8	716.2	407.6	520.1	684.9	388.1	796.8	1,061.9	594.1	451.4	591.6	328.4	296.7	385.3	220.3
1985	548.9	723.0	410.3	524.9	693.3	391.0	793.6	1,053.4	594.8	468.2	602.6	353.3	305.7	396.9	228.5
1984	548.1	721.6	410.5	525.2	693.6	391.7	783.3	1,035.9	590.1	476.9	614.2	347.3	299.4	386.0	223.0
1983	552.5	729.4	412.5	529.4	701.6	393.3	787.4	1,037.5	595.3	485.9	634.0	360.1	298.9	388.6	218.0
1982	554.7	734.2	411.9	532.3	706.8	393.6	782.1	1,035.4	585.9	494.3	634.6	371.6	293.6	389.2	212.8
1981	568.6	753.8	420.8	544.8	724.8	401.5	807.0	1,068.8	602.7	514.0	676.7	368.5	293.2	382.3	213.9
1980	585.8	777.2	432.6	559.4	745.3	411.1	842.5	1,112.8	631.1	564.1	732.5	414.1	315.6	416.6	224.6
1970	714.3	931.6	532.5	679.6	893.4	501.7	1,044.0	1,318.6	814.4	---	---	---	---	---	---
1960	760.9	949.3	590.6	727.0	917.7	555.0	1,073.3	1,246.1	916.9	---	---	---	---	---	---
1950	841.5	1,001.6	688.4	800.4	963.1	645.0	---	---	---	---	---	---	---	---	---
1940	1,076.1	1,213.0	938.9	1,017.2	1,155.1	879.0	---	---	---	---	---	---	---	---	---

--- Data not available.

<sup>1</sup> For 1940-91 includes deaths among races not shown separately; see Technical notes.

<sup>2</sup> Includes deaths among Aleuts and Eskimos.

<sup>3</sup> Includes deaths among Chinese, Filipino, Hawaiian, Japanese, and Other Asian or Pacific Islander.

<sup>4</sup> For method of computation, see Technical notes.

**Table 2. Number of deaths and death rates, by age, race, and sex: United States, 1998**

[Rates per 100,000 population in specified group. Data for specified races other than white and black should be interpreted with caution because of inconsistencies between reporting race on death certificates and censuses and surveys; see Technical notes]

Age	All races			White			Black			American Indian <sup>1</sup>			Asian or Pacific Islander <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	Number														
All ages .....	2,337,256	1,157,260	1,179,996	2,015,984	990,190	1,025,794	278,440	143,417	135,023	10,845	5,994	4,851	31,987	17,659	14,328
Under 1 year .....	28,371	15,786	12,585	18,561	10,327	8,234	8,726	4,883	3,843	379	211	168	705	365	340
1 - 4 years .....	5,251	2,920	2,331	3,628	2,010	1,618	1,397	795	602	94	52	42	132	63	69
5 - 9 years .....	3,530	2,038	1,492	2,456	1,424	1,032	920	532	388	50	26	24	104	56	48
10 - 14 years .....	4,261	2,648	1,613	3,157	1,929	1,228	895	582	313	65	44	21	144	93	51
15 - 19 years .....	13,788	9,913	3,875	10,325	7,246	3,079	2,939	2,296	643	207	154	53	317	217	100
20 - 24 years .....	16,839	12,804	4,035	11,971	9,133	2,838	4,220	3,226	994	276	196	80	372	249	123
25 - 29 years .....	18,151	12,890	5,261	12,663	9,082	3,581	4,745	3,310	1,435	284	196	88	459	302	157
30 - 34 years .....	24,365	16,325	8,040	17,417	11,905	5,512	6,059	3,832	2,227	382	254	128	507	334	173
35 - 39 years .....	37,236	24,034	13,202	27,304	18,024	9,280	8,839	5,302	3,537	472	317	155	621	391	230
40 - 44 years .....	51,630	33,105	18,525	38,043	24,943	13,100	12,166	7,288	4,878	533	338	195	888	536	352
45 - 49 years .....	65,410	41,707	23,703	48,731	31,547	17,184	14,846	9,045	5,801	577	369	208	1,256	746	510
50 - 54 years .....	81,069	50,020	31,049	63,425	39,365	24,060	15,419	9,315	6,104	710	423	287	1,515	917	598
55 - 59 years .....	100,645	60,895	39,750	80,555	49,142	31,413	17,596	10,260	7,336	706	412	294	1,788	1,081	707
60 - 64 years .....	133,079	79,239	53,840	108,757	65,269	43,488	21,217	12,130	9,087	876	515	361	2,229	1,325	904
65 - 69 years .....	189,780	110,193	79,587	160,753	94,345	66,408	25,173	13,714	11,459	919	507	412	2,935	1,627	1,308
70 - 74 years .....	269,202	149,150	120,052	233,911	130,959	102,952	30,434	15,560	14,874	1,104	568	536	3,753	2,063	1,690
75 - 79 years .....	329,463	171,426	158,037	292,762	153,165	139,597	31,448	15,365	16,083	1,007	517	490	4,246	2,379	1,867
80 - 84 years .....	352,200	162,786	189,414	319,419	148,428	170,991	27,967	11,951	16,016	870	385	485	3,944	2,022	1,922
85 years and over .....	612,575	199,057	413,518	561,836	181,696	380,140	43,341	13,964	29,377	1,333	509	824	6,065	2,888	3,177
Not stated .....	411	324	87	310	251	59	93	67	26	1	1	-	7	5	2
	Rate														
All ages <sup>3</sup> .....	864.7	876.4	853.5	904.0	904.4	903.7	808.7	877.7	746.4	459.5	513.2	407.0	304.4	349.8	262.5
Under 1 year <sup>4</sup> .....	751.3	818.2	681.3	620.1	673.8	563.6	1,556.2	1,717.8	1,390.1	926.9	1,028.1	825.0	388.8	397.0	380.2
1 - 4 years .....	34.6	37.6	31.4	30.1	32.5	27.5	61.6	69.2	53.9	59.2	64.7	53.5	18.7	17.6	19.9
5 - 9 years .....	17.7	20.0	15.3	15.7	17.7	13.5	29.0	33.1	24.9	22.3	22.8	21.8	12.4	12.9	11.8
10 - 14 years .....	22.1	26.9	17.2	20.8	24.7	16.6	29.9	38.3	21.3	26.7	35.6	17.6	17.9	22.6	13.0
15 - 19 years .....	70.6	98.7	40.8	66.6	90.7	41.0	97.2	149.4	43.2	90.5	133.9	46.6	39.9	54.0	25.5
20 - 24 years .....	95.3	142.3	46.5	84.9	126.4	41.3	160.3	248.1	74.6	146.1	205.7	85.4	49.1	66.3	32.1
25 - 29 years .....	97.6	139.4	56.3	85.2	121.5	48.4	180.9	264.0	104.8	147.4	197.1	94.4	50.7	71.8	32.4
30 - 34 years .....	120.7	163.1	79.0	106.5	145.2	67.7	222.1	299.6	153.7	210.6	276.2	143.2	54.5	76.9	34.9
35 - 39 years .....	164.6	213.5	116.1	146.6	192.5	100.2	306.5	391.5	231.2	255.3	343.1	167.5	66.7	87.9	47.4
40 - 44 years .....	235.8	305.3	167.7	209.3	274.1	144.3	454.6	582.2	342.5	313.9	407.7	224.4	102.0	130.2	76.7
45 - 49 years .....	346.8	450.8	246.7	307.8	401.4	215.6	689.3	919.1	495.9	416.9	549.5	291.9	170.6	217.9	129.5
50 - 54 years .....	515.5	654.1	384.4	470.7	594.3	351.3	971.3	1,308.7	697.1	655.7	812.2	510.6	272.5	353.2	201.8
55 - 59 years .....	811.2	1,022.4	616.2	754.8	948.5	572.0	1,408.5	1,876.2	1,044.3	876.4	1,081.9	692.1	442.0	567.5	330.4
60 - 64 years .....	1,295.9	1,634.0	993.4	1,228.4	1,542.4	941.0	2,063.4	2,758.0	1,544.2	1,399.2	1,761.2	1,082.0	686.1	891.1	513.1
65 - 69 years .....	1,978.2	2,508.6	1,530.2	1,927.3	2,445.9	1,481.1	2,689.0	3,428.5	2,137.3	1,868.2	2,283.6	1,526.5	1,098.3	1,438.1	848.8
70 - 74 years .....	3,058.5	3,867.0	2,427.8	2,990.4	3,793.4	2,356.1	4,170.9	5,198.3	3,456.3	2,764.4	3,178.9	2,428.7	1,785.1	2,356.5	1,377.4
75 - 79 years .....	4,564.5	5,719.7	3,744.2	4,512.7	5,660.9	3,691.2	5,678.5	7,107.5	4,763.6	3,343.7	4,039.4	2,829.6	2,898.2	3,807.7	2,221.9
80 - 84 years .....	7,439.5	9,226.6	6,377.9	7,413.9	9,219.8	6,336.5	8,553.3	10,625.4	7,466.8	4,729.3	5,221.0	4,400.3	4,904.4	5,848.7	4,192.3
85 years and over .....	15,111.7	16,763.3	14,427.4	15,326.3	17,048.3	14,620.4	14,155.8	15,540.9	13,580.5	7,038.0	8,486.2	6,366.9	9,673.4	11,178.6	8,618.4

- Quantity zero.

<sup>1</sup> Includes deaths among Aleuts and Eskimos.

<sup>2</sup> Includes deaths among Chinese, Filipino, Hawaiian, Japanese, and Other Asian or Pacific Islander.

<sup>3</sup> Figures for age not stated are included in "All ages" but not distributed among age groups.

<sup>4</sup> Death rates for "Under 1 year" (based on population estimates) differ from infant mortality rates (based on live births); see Technical notes.

**Table 3. Number of deaths, death rates, and age-adjusted death rates according to specified Hispanic origin, race for non-Hispanic population, and sex: United States, 1998**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated separately by race; data for non-Hispanic persons are tabulated by race. Data for Hispanic origin should be interpreted with caution because of inconsistencies between reporting Hispanic origin on death certificates and censuses and surveys; see Technical notes]

Hispanic origin, race for non-Hispanic population, and sex	Total	Under 1 year <sup>1</sup>	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	Age not stated	Age-adjusted rate <sup>2</sup>
All origins .....	2,337,256	28,371	5,251	7,791	30,627	42,516	88,866	146,479	233,724	458,982	681,663	612,575	411	...
Male .....	1,157,260	15,786	2,920	4,686	22,717	29,215	57,139	91,727	140,134	259,343	334,212	199,057	324	...
Female .....	1,179,996	12,585	2,331	3,105	7,910	13,301	31,727	54,752	93,590	199,639	347,451	413,518	87	...
Hispanic .....	98,406	4,371	819	988	4,411	5,252	7,411	9,191	11,818	18,973	19,375	15,714	83	...
Male .....	55,821	2,422	456	592	3,544	3,979	5,256	6,017	7,164	10,742	9,654	5,913	82	...
Female .....	42,585	1,949	363	396	867	1,273	2,155	3,174	4,654	8,231	9,721	9,801	1	...
Mexican .....	55,104	3,059	617	705	3,169	3,371	4,101	5,070	6,457	10,680	10,154	7,683	38	...
Male .....	32,188	1,675	340	430	2,563	2,634	2,926	3,369	3,877	6,081	5,171	3,084	38	...
Female .....	22,916	1,384	277	275	606	737	1,175	1,701	2,580	4,599	4,983	4,599	-	...
Puerto Rican .....	12,765	422	73	99	378	659	1,317	1,617	1,954	2,453	2,247	1,545	1	...
Male .....	7,218	248	40	53	307	427	918	1,059	1,207	1,367	1,056	535	1	...
Female .....	5,547	174	33	46	71	232	399	558	747	1,086	1,191	1,010	-	...
Cuban .....	10,389	61	4	17	68	147	328	525	1,091	2,164	2,929	3,053	2	...
Male .....	5,472	39	2	12	60	114	256	339	744	1,339	1,500	1,065	2	...
Female .....	4,917	22	2	5	8	33	72	186	347	825	1,429	1,988	-	...
Central and South American .....	8,307	347	58	68	416	619	861	927	1,065	1,449	1,451	1,044	2	...
Male .....	4,315	191	37	38	340	470	571	554	568	674	564	307	1	...
Female .....	3,992	156	21	30	76	149	290	373	497	775	887	737	1	...
Other and unknown Hispanic .....	11,841	482	67	99	380	456	804	1,052	1,251	2,227	2,594	2,389	40	...
Male .....	6,628	269	37	59	274	334	585	696	768	1,281	1,363	922	40	...
Female .....	5,213	213	30	40	106	122	219	356	483	946	1,231	1,467	-	...
Non-Hispanic <sup>3</sup> .....	2,230,127	23,563	4,409	6,781	26,070	37,017	80,955	136,504	220,900	438,409	660,277	595,067	175	...
Male .....	1,096,677	13,127	2,449	4,084	19,064	25,059	51,531	85,149	132,288	247,649	323,559	192,599	119	...
Female .....	1,133,450	10,436	1,960	2,697	7,006	11,958	29,424	51,355	88,612	190,760	336,718	402,468	56	...
White .....	1,912,802	14,105	2,826	4,631	17,901	24,751	57,761	102,619	177,005	374,813	591,510	544,772	108	...
Male .....	931,844	7,857	1,563	2,769	12,855	16,954	37,569	64,630	106,896	214,004	291,285	175,389	73	...
Female .....	980,958	6,248	1,263	1,862	5,046	7,797	20,192	37,989	70,109	160,809	300,225	369,383	35	...
Black .....	275,264	8,447	1,369	1,804	7,039	10,685	20,729	29,916	38,390	55,015	58,821	42,987	62	...
Male .....	141,627	4,731	776	1,109	5,423	7,054	12,413	18,125	22,118	28,950	27,028	13,858	42	...
Female .....	133,637	3,716	593	695	1,616	3,631	8,316	11,791	16,272	26,065	31,793	29,129	20	...
Not stated <sup>4</sup> .....	8,723	437	23	22	146	247	500	784	1,006	1,600	2,011	1,794	153	...
Male .....	4,762	237	15	10	109	177	352	561	682	952	999	545	123	...
Female .....	3,961	200	8	12	37	70	148	223	324	648	1,012	1,249	30	...
Rate														
All origins .....	864.7	751.3	34.6	19.9	82.3	109.6	199.6	423.5	1,030.7	2,495.1	5,703.2	15,111.7	...	471.7
Male .....	876.4	818.2	37.6	23.4	119.3	151.7	258.5	542.8	1,296.9	3,143.7	7,019.2	16,763.4	...	589.4
Female .....	853.5	681.3	31.4	16.2	43.5	68.1	141.5	309.6	788.4	1,967.7	4,831.9	14,427.5	...	372.5
Hispanic .....	325.3	624.7	30.4	17.2	83.3	101.5	163.0	334.9	739.8	1,782.0	3,718.3	8,877.1	...	342.8
Male .....	366.4	678.5	33.1	20.2	128.8	148.4	226.6	449.3	966.3	2,284.9	4,564.6	9,946.7	...	442.7
Female .....	283.6	568.7	27.6	14.1	34.0	51.0	96.7	225.8	543.6	1,384.3	3,140.1	8,336.3	...	255.5
Mexican .....	282.3	622.9	32.3	17.6	88.2	99.1	150.4	314.1	748.3	1,819.9	3,852.4	*	...	348.4
Male .....	320.7	687.3	34.9	21.0	134.8	145.8	208.2	410.7	933.2	2,217.5	4,424.2	*	...	425.1
Female .....	241.6	559.4	29.5	14.1	35.9	46.2	88.9	214.3	576.6	1,471.1	3,396.8	*	...	273.9
Puerto Rican .....	422.9	*	27.6	18.1	74.3	143.4	286.5	539.1	945.3	1,911.2	*	*	...	406.1
Male .....	502.0	*	*	19.1	123.7	214.8	414.2	746.3	*	*	*	*	...	540.8
Female .....	350.9	*	*	17.1	27.3	89.0	167.7	353.0	641.0	*	*	*	...	296.3

See footnotes at end of table.

**Table 3. Number of deaths, death rates, and age-adjusted death rates according to specified Hispanic origin, race for non-Hispanic population, and sex: United States, 1998 - Con.**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated separately by race; data for non-Hispanic persons are tabulated by race. Data for Hispanic origin should be interpreted with caution because of inconsistencies between reporting Hispanic origin on death certificates and censuses and surveys; see Technical notes]

Hispanic origin, race for non-Hispanic population, and sex	Total	Under 1 year <sup>1</sup>	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	Age not stated	Age-adjusted rate <sup>2</sup>
Hispanic - Con.														
Cuban .....	785.7	*	*	*	*	77.1	154.2	378.1	689.7	1,483.2	*	*	...	299.5
Male .....	857.5	*	*	*	*	*	226.1	*	*	*	*	*	...	421.9
Female .....	718.7	*	*	*	*	*	*	*	*	*	*	*	...	203.1
Other Hispanic <sup>5</sup> .....	315.4	676.2	27.3	15.9	74.2	95.5	144.9	286.1	626.5	1,805.6	3,859.3	*	*	325.0
Male .....	350.5	*	31.5	18.4	113.1	137.7	199.4	410.4	838.4	*	*	*	...	469.2
Female .....	281.9	*	22.9	13.5	34.3	50.1	89.4	188.3	465.9	1,313.6	*	*	...	235.1
Non-Hispanic <sup>3</sup> .....														
Male .....	938.8	834.9	38.3	23.8	117.0	151.2	260.5	547.2	1,314.4	3,183.4	7,111.3	17,074.3	...	595.9
Female .....	919.7	693.7	32.1	16.5	44.8	70.2	145.7	315.5	804.5	1,997.2	4,893.3	14,642.6	...	379.0
White .....	978.7	599.4	29.4	18.0	72.3	93.4	176.7	382.8	979.8	2,468.7	5,736.5	15,567.8	...	452.7
Male .....	974.7	651.5	31.8	21.0	101.2	128.1	229.7	487.2	1,224.0	3,112.5	7,072.8	17,363.4	...	563.6
Female .....	982.5	544.6	27.0	14.9	41.9	58.7	123.7	280.5	751.3	1,935.8	4,847.8	14,839.1	...	359.1
Black .....	841.3	1,618.5	64.7	30.9	131.0	211.2	392.2	835.4	1,756.0	3,421.4	6,869.9	14,359.7	...	710.7
Male .....	914.6	1,789.4	72.4	37.5	201.4	295.6	503.4	1,120.4	2,339.7	4,291.9	8,468.6	15,808.6	...	911.1
Female .....	775.5	1,443.0	56.8	24.2	60.3	135.9	294.9	600.6	1,311.3	2,792.4	5,919.9	13,759.7	...	555.8

... Category not applicable.  
 - Quantity zero.  
 \* Figure does not meet standards of reliability or precision; see Technical notes.  
 1 Death rates for "Under 1 year" (based on population estimates) differ from infant mortality rates (based on live births); see Technical notes.  
 2 For method of computation, see Technical notes.  
 3 Includes races other than white and black.  
 4 Includes deaths for which Hispanic origin was not reported on the death certificate.  
 5 Includes Central and South American and Other and unknown Hispanic.



**Table 4. Abridged life table for the total population, 1998**[For explanation of the columns of the life table, see *United States Abridged Life Tables, 1997*, National Vital Statistics Reports, Volume 47, Number 28]

Age interval	Proportion dying	Of 100,000 born alive		Stationary population		Average remaining lifetime
	Proportion of persons alive at beginning of age interval dying during interval (2)	Number living at beginning of age interval (3)	Number dying during age interval (4)	In the age interval (5)	In this and all subsequent age intervals (6)	Average number of years of life remaining at beginning of age interval (7)
Period of life between two exact ages stated in years (1)						
$x$ to $x + n$	$nq_x$	$l_x$	$n^d x$	$nL_x$	$T_x$	${}^o e_x$
0-1 .....	0.00721	100,000	721	99,370	7,671,400	76.7
1-5 .....	0.00139	99,279	138	396,786	7,572,030	76.3
5-10 .....	0.00089	99,141	88	495,473	7,175,244	72.4
10-15 .....	0.00110	99,053	109	495,057	6,679,771	67.4
15-20 .....	0.00353	98,944	349	493,926	6,184,714	62.5
20-25 .....	0.00476	98,595	469	491,820	5,690,788	57.7
25-30 .....	0.00487	98,126	478	489,450	5,198,968	53.0
30-35 .....	0.00600	97,648	586	486,840	4,709,518	48.2
35-40 .....	0.00819	97,062	795	483,428	4,222,678	43.5
40-45 .....	0.01176	96,267	1,132	478,670	3,739,250	38.8
45-50 .....	0.01728	95,135	1,644	471,811	3,260,580	34.3
50-55 .....	0.02564	93,491	2,397	461,839	2,788,769	29.8
55-60 .....	0.04009	91,094	3,652	446,966	2,326,930	25.5
60-65 .....	0.06302	87,442	5,511	424,280	1,879,964	21.5
65-70 .....	0.09437	81,931	7,732	391,364	1,455,684	17.8
70-75 .....	0.14239	74,199	10,565	345,660	1,064,320	14.3
75-80 .....	0.20604	63,634	13,111	286,484	718,660	11.3
80-85 .....	0.31641	50,523	15,986	213,526	432,176	8.6
85-90 .....	0.46104	34,537	15,923	131,897	218,650	6.3
90-95 .....	0.61502	18,614	11,448	62,020	86,753	4.7
95-100 .....	0.75426	7,166	5,405	20,150	24,733	3.5
100 and over .....	1.00000	1,761	1,761	4,583	4,583	2.6

**Table 5. Life expectancy at selected ages by race and sex: United States, 1998**

Exact age in years	All races <sup>1</sup>			White			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
0 .....	76.7	73.8	79.5	77.3	74.5	80.0	71.3	67.6	74.8
1 .....	76.3	73.4	79.0	76.8	74.0	79.4	71.4	67.7	74.8
5 .....	72.4	69.5	75.1	72.9	70.1	75.5	67.6	63.9	70.9
10 .....	67.4	64.6	70.2	67.9	65.2	70.6	62.6	59.0	66.0
15 .....	62.5	59.7	65.2	63.0	60.2	65.6	57.7	54.1	61.1
20 .....	57.7	55.0	60.3	58.2	55.5	60.8	53.0	49.5	56.2
25 .....	53.0	50.3	55.5	53.4	50.8	55.9	48.4	45.1	51.4
30 .....	48.2	45.7	50.6	48.6	46.1	51.0	43.8	40.6	46.7
35 .....	43.5	41.0	45.8	43.9	41.5	46.2	39.3	36.2	42.0
40 .....	38.8	36.4	41.1	39.2	36.8	41.4	34.9	31.9	37.5
45 .....	34.3	31.9	36.4	34.6	32.3	36.7	30.6	27.7	33.1
50 .....	29.8	27.6	31.8	30.1	27.9	32.0	26.6	23.9	28.8
55 .....	25.5	23.5	27.4	25.7	23.7	27.6	22.8	20.4	24.8
60 .....	21.5	19.6	23.2	21.6	19.7	23.3	19.3	17.1	21.0
65 .....	17.8	16.0	19.2	17.8	16.1	19.3	16.1	14.3	17.4
70 .....	14.3	12.8	15.5	14.4	12.8	15.6	13.0	11.5	14.1
75 .....	11.3	10.0	12.2	11.3	10.0	12.2	10.5	9.2	11.3
80 .....	8.6	7.5	9.2	8.5	7.5	9.1	8.2	7.1	8.7
85 .....	6.3	5.5	6.7	6.3	5.4	6.6	6.3	5.5	6.6
90 .....	4.7	4.1	4.9	4.5	4.0	4.7	4.8	4.3	4.9
95 .....	3.5	3.0	3.6	3.3	2.9	3.4	3.7	3.4	3.7
100 .....	2.6	2.3	2.7	2.4	2.2	2.4	2.8	2.7	2.8

<sup>1</sup> Includes races other than white and black.

**Table 6. Life expectancy at birth by race and sex: United States, 1940, 1950, 1960, 1970 and 1975-98**

Year	All races <sup>1</sup>			White			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
1998 .....	76.7	73.8	79.5	77.3	74.5	80.0	71.3	67.6	74.8
1997 .....	76.5	73.6	79.4	77.1	74.3	79.9	71.1	67.2	74.7
1996 .....	76.1	73.1	79.1	76.8	73.9	79.7	70.2	66.1	74.2
1995 .....	75.8	72.5	78.9	76.5	73.4	79.6	69.6	65.2	73.9
1994 .....	75.7	72.4	79.0	76.5	73.3	79.6	69.5	64.9	73.9
1993 .....	75.5	72.2	78.8	76.3	73.1	79.5	69.2	64.6	73.7
1992 .....	75.8	72.3	79.1	76.5	73.2	79.8	69.6	65.0	73.9
1991 .....	75.5	72.0	78.9	76.3	72.9	79.6	69.3	64.6	73.8
1990 .....	75.4	71.8	78.8	76.1	72.7	79.4	69.1	64.5	73.6
1989 .....	75.1	71.7	78.5	75.9	72.5	79.2	68.8	64.3	73.3
1988 .....	74.9	71.4	78.3	75.6	72.2	78.9	68.9	64.4	73.2
1987 .....	74.9	71.4	78.3	75.6	72.1	78.9	69.1	64.7	73.4
1986 .....	74.7	71.2	78.2	75.4	71.9	78.8	69.1	64.8	73.4
1985 .....	74.7	71.1	78.2	75.3	71.8	78.7	69.3	65.0	73.4
1984 .....	74.7	71.1	78.2	75.3	71.8	78.7	69.5	65.3	73.6
1983 .....	74.6	71.0	78.1	75.2	71.6	78.7	69.4	65.2	73.5
1982 .....	74.5	70.8	78.1	75.1	71.5	78.7	69.4	65.1	73.6
1981 .....	74.1	70.4	77.8	74.8	71.1	78.4	68.9	64.5	73.2
1980 .....	73.7	70.0	77.4	74.4	70.7	78.1	68.1	63.8	72.5
1979 .....	73.9	70.0	77.8	74.6	70.8	78.4	68.5	64.0	72.9
1978 .....	73.5	69.6	77.3	74.1	70.4	78.0	68.1	63.7	72.4
1977 .....	73.3	69.5	77.2	74.0	70.2	77.9	67.7	63.4	72.0
1976 .....	72.9	69.1	76.8	73.6	69.9	77.5	67.2	62.9	71.6
1975 .....	72.6	68.8	76.6	73.4	69.5	77.3	66.8	62.4	71.3
1970 .....	70.8	67.1	74.7	71.7	68.0	75.6	64.1	60.0	68.3
1960 .....	69.7	66.6	73.1	70.6	67.4	74.1	---	---	---
1950 .....	68.2	65.6	71.1	69.1	66.5	72.2	---	---	---
1940 .....	62.9	60.8	65.2	64.2	62.1	66.6	---	---	---

--- Data not available.

<sup>1</sup> Includes races other than white and black.

**Table 7. Death rates and age-adjusted death rates for the 15 leading causes of death and selected components in 1998: United States, 1979, 1997, and 1998**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975) and year	Age												Age-adjusted rate <sup>3</sup>
	All ages <sup>1</sup>	Under 1 year <sup>2</sup>	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over	
All causes													
1998	864.7	751.3	34.6	19.9	82.3	109.6	199.6	423.5	1,030.7	2,495.1	5,703.2	15,111.7	471.7
1997	864.7	738.7	35.8	20.8	86.2	115.0	203.2	430.8	1,063.6	2,509.8	5,728.2	15,345.2	479.1
1979	852.2	1,332.9	64.2	31.5	114.8	133.0	229.8	589.7	1,338.0	2,929.0	6,496.6	14,962.4	577.0
Diseases of heart (390-398,402,404-429)													
1998	268.2	16.1	1.4	0.8	2.8	8.3	30.5	101.4	286.9	735.5	1,897.3	6,009.6	126.6
1997	271.6	16.4	1.4	0.8	3.0	8.3	30.1	104.9	302.4	753.7	1,943.6	6,198.9	130.5
1979	326.5	20.2	2.1	0.8	2.6	8.4	45.3	184.6	499.0	1,199.8	2,925.2	7,310.9	199.5
Rheumatic fever and rheumatic heart disease (390-398)													
1998	1.8	*	*	*	0.1	0.2	0.4	0.9	2.4	5.8	12.7	25.0	1.0
1997	1.9	*	*	*	0.1	0.2	0.5	1.0	2.5	6.1	13.7	26.8	1.0
1979	3.5	*	*	*	0.2	0.4	1.4	3.9	8.0	16.0	20.6	25.2	2.6
Hypertensive heart disease (402)													
1998	10.3	*	*	*	0.1	0.5	2.3	6.8	14.7	26.6	60.9	212.4	5.3
1997	9.9	*	*	*	0.1	0.4	2.2	6.7	13.7	26.1	60.3	214.3	5.2
1979	9.3	*	*	*	*	0.4	1.9	7.0	16.2	35.7	79.6	170.3	6.0
Hypertensive heart and renal disease (404)													
1998	0.9	*	*	*	*	0.1	0.1	0.3	0.7	2.2	7.0	20.1	0.4
1997	0.9	*	*	*	*	0.1	0.1	0.2	0.8	2.2	7.1	22.2	0.4
1979	1.6	*	*	*	*	*	0.2	0.4	1.4	5.1	16.8	50.9	0.9
Ischemic heart disease (410-414)													
1998	170.1	*	*	0.1	0.3	2.4	14.7	58.3	180.7	487.2	1,252.2	3,743.9	79.5
1997	174.2	0.6	*	*	0.3	2.5	14.6	62.1	192.9	504.4	1,291.5	3,900.5	82.9
1979	245.5	0.7	*	*	0.3	3.6	30.1	136.1	381.0	926.6	2,224.8	5,376.1	149.7
Acute myocardial infarction (410)													
1998	75.3	*	*	*	0.2	1.3	7.8	32.4	98.0	237.7	554.6	1,382.4	38.0
1997	77.0	*	*	*	0.2	1.3	7.8	34.6	104.6	248.5	574.6	1,407.8	39.7
1979	133.8	*	*	*	0.2	2.4	21.1	94.6	258.9	577.2	1,135.2	1,916.3	88.2
Other acute and subacute forms of ischemic heart disease (411)													
1998	1.1	*	*	*	*	*	0.2	0.8	1.8	3.1	6.5	19.3	0.6
1997	1.1	*	*	*	*	*	0.2	0.9	2.1	3.5	6.2	20.3	0.6
1979	2.1	*	*	*	*	0.1	0.5	2.0	4.8	8.2	15.3	30.2	1.5
Angina pectoris (413)													
1998	0.2	*	*	*	*	*	*	0.1	0.2	0.5	1.7	6.9	0.1
1997	0.3	*	*	*	*	*	*	0.1	0.2	0.6	1.9	8.3	0.1
1979	0.2	*	*	*	*	*	0.1	0.1	0.3	0.9	2.1	4.6	0.1
Old myocardial infarction and other forms of chronic ischemic heart disease (412,414)													
1998	93.5	*	*	*	0.1	1.1	6.6	25.1	80.7	245.9	689.4	2,335.4	40.9
1997	95.7	*	*	*	0.1	1.2	6.6	26.6	86.0	251.8	708.9	2,464.1	42.5
1979	109.4	*	*	*	0.1	1.0	8.4	39.3	117.0	340.3	1,072.2	3,424.9	59.9
Other diseases of endocardium (424)													
1998	6.9	*	*	*	0.1	0.2	0.7	1.6	3.9	13.3	50.7	199.6	2.7
1997	6.6	*	*	*	0.1	0.3	0.7	1.5	4.0	13.0	50.9	192.4	2.7
1979	2.9	*	*	*	0.1	0.2	0.6	1.5	4.3	11.6	27.5	47.1	1.8
All other forms of heart disease (415-423,425-429)													
1998	78.3	15.0	1.3	0.7	2.3	4.8	12.3	33.4	84.5	200.3	513.9	1,808.7	37.7
1997	78.2	15.6	1.3	0.7	2.3	4.7	12.0	33.2	88.5	201.9	520.2	1,842.6	38.2
1979	63.7	19.0	2.0	0.7	1.9	3.7	11.0	35.7	88.1	204.8	555.9	1,641.4	38.4
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208)													
1998	200.3	2.1	2.4	2.6	4.6	11.3	38.2	132.3	383.8	841.3	1,326.3	1,749.4	123.6
1997	201.6	2.4	2.9	2.7	4.5	11.6	38.9	135.1	395.7	847.3	1,335.2	1,805.0	125.6
1979	179.6	3.4	4.6	4.4	6.1	13.3	48.3	181.4	429.4	800.0	1,207.6	1,522.9	130.8
Malignant neoplasms of lip, oral cavity, and pharynx (140-149)													
1998	2.9	*	*	*	0.1	0.1	0.7	3.0	7.7	11.7	14.8	21.7	2.0
1997	2.9	*	*	*	0.1	0.2	0.7	3.2	7.5	12.4	14.4	20.3	2.0
1979	3.8	*	*	*	0.1	0.2	1.1	5.6	11.8	16.3	18.1	23.7	3.0

See footnotes at end of table.

**Table 7. Death rates and age-adjusted death rates for the 15 leading causes of death and selected components in 1998: United States, 1979, 1997, and 1998 - Con.**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975) and year	Age												Age-adjusted rate <sup>3</sup>
	All ages <sup>1</sup>	Under 1 year <sup>2</sup>	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	
<b>Malignant neoplasms of digestive organs and peritoneum (150-159)</b>													
1998 .....	47.6	*	*	0.1	0.3	1.7	7.0	29.9	85.7	191.7	327.5	507.7	28.1
1997 .....	47.5	*	0.1	*	0.3	1.6	7.1	29.0	87.8	191.3	330.2	521.0	28.2
1979 .....	48.6	*	*	0.1	0.3	1.8	8.2	36.3	103.9	221.9	388.7	547.8	33.1
<b>Malignant neoplasms of respiratory and intrathoracic organs (160-165)</b>													
1998 .....	59.1	*	*	*	0.1	0.6	6.5	34.9	136.2	305.5	378.4	299.2	38.2
1997 .....	59.2	*	*	*	0.1	0.7	6.5	36.2	139.7	304.4	379.1	308.2	38.7
1979 .....	45.9	*	*	*	0.1	0.8	9.8	56.0	140.9	231.0	238.1	170.3	35.2
<b>Malignant neoplasm of breast (174-175)</b>													
1998 .....	15.6	*	*	*	*	1.3	6.8	18.4	32.8	51.9	80.1	138.8	10.2
1997 .....	15.8	*	*	*	*	1.3	7.0	19.4	34.1	52.6	80.8	142.5	10.5
1979 .....	15.4	*	*	*	*	1.6	9.1	25.3	41.3	56.6	77.4	114.2	12.2
<b>Malignant neoplasms of genital organs (179-187)</b>													
1998 .....	21.6	*	*	*	0.2	1.3	3.6	9.8	28.0	77.1	172.5	287.6	11.7
1997 .....	22.0	*	*	*	0.2	1.3	3.5	10.1	28.7	80.4	175.7	304.0	12.0
1979 .....	20.2	*	*	*	0.5	1.6	4.7	14.5	35.6	88.3	176.0	252.0	13.6
<b>Malignant neoplasms of urinary organs (188-189)</b>													
1998 .....	8.8	*	0.1	0.1	0.1	0.2	1.1	4.8	14.8	34.3	64.0	102.6	5.0
1997 .....	8.7	*	*	0.1	*	0.2	1.0	5.0	14.9	34.1	64.6	103.9	5.0
1979 .....	7.8	*	0.2	0.2	0.1	0.2	1.1	5.7	15.1	34.6	65.6	97.0	5.2
<b>Malignant neoplasms of all other and unspecified sites (170-173,190-199)</b>													
1998 .....	24.2	1.1	1.3	1.4	1.9	3.2	7.6	19.6	46.7	90.9	142.3	201.1	15.7
1997 .....	24.5	1.1	1.6	1.4	1.8	3.2	7.7	19.8	48.9	92.3	145.3	208.6	16.1
1979 .....	21.6	1.7	2.2	1.7	2.3	3.7	8.6	24.0	49.8	86.4	130.2	175.8	16.4
<b>Leukemia (204-208)</b>													
1998 .....	7.5	*	0.8	0.8	1.2	1.3	2.1	3.9	10.3	26.9	52.3	76.5	4.6
1997 .....	7.6	0.8	0.9	0.9	1.2	1.3	1.9	4.2	11.1	27.3	51.2	79.7	4.7
1979 .....	7.1	1.0	1.7	1.9	1.7	1.7	2.7	5.5	11.3	25.4	50.3	76.1	5.3
<b>Other malignant neoplasms of lymphatic and hematopoietic tissues (200-203)</b>													
1998 .....	13.0	*	*	0.1	0.7	1.6	2.9	7.9	21.6	51.3	94.4	114.3	7.9
1997 .....	13.3	*	*	0.2	0.7	1.8	3.3	8.3	23.0	52.4	93.9	116.8	8.2
1979 .....	9.1	*	0.3	0.4	0.9	1.8	3.0	8.6	19.5	39.5	63.1	66.0	6.7
<b>Cerebrovascular diseases (430-438)</b>													
1998 .....	58.6	7.8	0.4	0.2	0.5	1.7	6.0	16.5	42.6	130.0	455.4	1,500.0	25.1
1997 .....	59.7	7.0	0.4	0.2	0.5	1.7	6.3	16.9	44.4	134.8	462.0	1,584.6	25.9
1979 .....	75.5	4.6	0.3	0.3	0.9	2.6	9.1	26.4	68.1	226.9	793.8	2,264.9	41.6
<b>Chronic obstructive pulmonary diseases and allied conditions (490-496)</b>													
1998 .....	41.7	1.0	0.3	0.4	0.6	0.8	2.0	8.2	44.8	169.1	365.8	569.3	21.3
1997 .....	40.7	1.3	0.3	0.3	0.5	0.9	2.0	8.4	46.3	165.3	359.6	561.9	21.1
1979 .....	22.2	1.9	0.5	0.2	0.3	0.5	1.7	9.3	40.2	117.0	200.6	230.2	14.6
<b>Accidents and adverse effects (E800-E949)</b>													
1998 .....	36.2	20.0	12.7	8.3	35.9	31.1	34.0	31.6	32.4	48.3	106.3	280.5	30.1
1997 .....	35.7	20.1	13.1	8.7	36.5	31.8	33.0	31.0	32.6	46.4	103.4	276.5	30.1
1979 .....	46.9	31.5	26.5	16.1	62.6	45.7	38.4	39.4	43.5	58.8	117.8	276.0	42.9
<b>Motor vehicle accidents (E810-E825)</b>													
1998 .....	16.1	4.3	5.0	4.8	26.9	18.4	15.6	14.4	15.1	18.5	28.9	31.5	15.6
1997 .....	16.2	4.3	5.0	5.1	27.9	18.9	15.2	14.3	15.3	18.2	29.0	32.7	15.9
1979 .....	23.8	6.5	9.8	8.3	45.6	28.8	21.0	18.6	18.2	20.7	28.7	24.4	23.2
<b>All other accidents and adverse effects (E800-E807,E826-E949)</b>													
1998 .....	20.1	15.7	7.7	3.5	8.9	12.7	18.3	17.2	17.3	29.8	77.4	249.0	14.4
1997 .....	19.5	15.8	8.1	3.6	8.6	12.9	17.9	16.7	17.3	28.2	74.4	243.8	14.2
1979 .....	23.1	25.0	16.7	7.7	17.0	16.9	17.4	20.8	25.2	38.1	89.2	251.6	19.6

See footnotes at end of table.

**Table 7. Death rates and age-adjusted death rates for the 15 leading causes of death and selected components in 1998: United States, 1979, 1997, and 1998 - Con.**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975) and year	Age												Age-adjusted rate <sup>3</sup>
	All ages <sup>1</sup>	Under 1 year <sup>2</sup>	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	
<b>Pneumonia and influenza (480-487)</b>													
1998 .....	34.0	11.7	1.0	0.3	0.6	1.4	3.1	6.3	17.0	59.8	241.4	1,063.9	13.2
1997 .....	32.3	11.1	1.2	0.4	0.6	1.3	3.2	6.6	17.2	57.0	233.7	1,024.7	12.9
1979 .....	20.1	33.0	2.0	0.6	0.8	1.5	3.2	7.1	16.4	47.8	184.2	694.9	11.2
<b>Diabetes mellitus (250)</b>													
1998 .....	24.0	*	*	0.1	0.4	1.6	4.2	12.7	38.4	89.6	171.8	294.9	13.6
1997 .....	23.4	*	*	0.1	0.4	1.6	4.2	12.9	38.4	88.2	167.4	294.1	13.5
1979 .....	14.8	*	0.1	0.1	0.4	1.4	3.6	9.0	25.8	61.3	130.3	211.6	9.8
<b>Suicide (E950-E959)</b>													
1998 .....	11.3	...	...	0.8	11.1	13.8	15.4	14.8	13.1	14.1	19.7	21.0	10.4
1997 .....	11.4	...	...	0.8	11.4	14.3	15.3	14.7	13.5	14.4	19.3	20.8	10.6
1979 .....	12.1	...	...	0.4	12.4	16.3	15.4	16.5	16.6	17.8	20.8	17.9	11.7
<b>Nephritis, nephrotic syndrome, and nephrosis (580-589)</b>													
1998 .....	9.7	3.7	*	0.1	0.1	0.4	1.0	2.7	8.0	26.0	75.8	217.2	4.4
1997 .....	9.5	3.6	*	*	0.1	0.5	1.0	2.6	8.4	25.6	73.6	218.0	4.4
1979 .....	7.0	6.4	0.2	0.2	0.3	0.7	1.5	3.7	8.5	23.7	64.7	155.2	4.3
<b>Chronic liver disease and cirrhosis (571)</b>													
1998 .....	9.3	*	*	*	0.1	1.3	7.6	16.6	23.3	30.7	31.0	21.9	7.2
1997 .....	9.4	*	*	*	0.1	1.3	8.0	16.7	24.1	31.4	30.2	22.8	7.4
1979 .....	13.2	1.0	*	*	0.2	3.4	13.9	31.0	40.9	41.8	28.3	18.1	12.0
<b>Septicemia (038)</b>													
1998 .....	8.8	5.7	0.6	0.1	0.3	0.7	1.5	3.6	9.2	24.3	62.2	175.3	4.4
1997 .....	8.4	5.2	0.5	0.1	0.2	0.6	1.4	3.5	8.5	22.6	60.0	177.6	4.2
1979 .....	3.6	7.6	0.5	0.1	0.2	0.4	0.8	2.2	4.9	12.4	29.7	70.3	2.3
<b>Alzheimer's disease (331.0)</b>													
1998 .....	8.4	*	*	*	*	*	*	0.1	1.1	10.4	70.0	299.5	2.6
1997 .....	8.4	*	*	*	*	*	*	0.1	1.2	10.8	73.3	299.2	2.7
1979 .....	0.4	*	*	*	*	*	*	0.1	0.8	2.1	3.0	4.3	0.2
<b>Homicide and legal intervention (E960-E978)</b>													
1998 .....	6.8	8.5	2.6	1.2	14.8	11.8	8.0	5.0	3.4	2.5	2.7	2.5	7.3
1997 .....	7.4	8.3	2.4	1.2	16.8	12.8	8.4	5.6	3.9	2.9	2.9	3.8	8.0
1979 .....	10.0	5.0	2.5	1.1	14.5	18.2	14.3	10.8	7.0	5.4	4.8	5.0	10.2
<b>Atherosclerosis (440)</b>													
1998 .....	5.7	*	*	*	*	*	0.1	0.5	2.5	9.2	36.9	207.2	1.9
1997 .....	6.0	*	*	*	*	*	0.1	0.6	2.4	9.8	40.5	225.5	2.1
1979 .....	12.8	*	*	*	*	*	0.1	0.9	4.8	24.4	125.3	649.1	5.7
<b>Hypertension with or without renal disease (401,403)</b>													
1998 .....	5.3	*	*	*	*	0.1	0.5	1.7	5.0	13.6	38.3	128.4	2.4
1997 .....	5.1	*	*	*	*	0.1	0.5	1.7	4.6	13.1	38.2	122.5	2.3
1979 .....	3.2	0.1	*	*	*	0.1	0.6	1.7	4.1	10.4	29.5	88.4	1.9

\* Figure does not meet standards of reliability or precision, see Technical notes.

<sup>1</sup> Category not applicable.

<sup>2</sup> Figures for age not stated included in "All ages" but not distributed among age groups.

<sup>2</sup> Death rates for "Under 1 year" (based on population estimates) differ from infant mortality rates (based on live births); see Technical notes.

<sup>3</sup> For method of computation, see Technical notes.



**Table 8. Deaths and death rates for the 10 leading causes of death in specified age groups, by race and sex: United States, 1998**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
All races <sup>3</sup> , both sexes, all ages <sup>4</sup>				All races <sup>3</sup> , both sexes, 15-24 years			
...	All causes .....	2,337,256	864.7	...	All causes .....	30,627	82.3
1	Diseases of heart (390-398,402,404-429) .....	724,859	268.2	1	Accidents and adverse effects (E800-E949) .....	13,349	35.9
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	541,532	200.3	...	Motor vehicle accidents (E810-E825) .....	10,026	26.9
3	Cerebrovascular diseases (430-438) .....	158,448	58.6	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	3,323	8.9
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	112,584	41.7	2	Homicide and legal intervention (E960-E978) .....	5,506	14.8
5	Accidents and adverse effects (E800-E949) .....	97,835	36.2	3	Suicide (E950-E959) .....	4,135	11.1
...	Motor vehicle accidents (E810-E825) .....	43,501	16.1	4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	1,699	4.6
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	54,334	20.1	5	Diseases of heart (390-398,402,404-429) .....	1,057	2.8
6	Pneumonia and influenza (480-487) .....	91,871	34.0	6	Congenital anomalies (740-759) .....	450	1.2
7	Diabetes mellitus (250) .....	64,751	24.0	7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	239	0.6
8	Suicide (E950-E959) .....	30,575	11.3	8	Pneumonia and influenza (480-487) .....	215	0.6
9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	26,182	9.7	9	Human immunodeficiency virus infection (*042-*044) .....	194	0.5
10	Chronic liver disease and cirrhosis (571) .....	25,192	9.3	10	Cerebrovascular diseases (430-438) .....	178	0.5
...	All other causes (Residual) .....	463,427	171.5	...	All other causes (Residual) .....	3,605	9.7
All races <sup>3</sup> , both sexes, 1-4 years				All races <sup>3</sup> , both sexes, 25-44 years			
...	All causes .....	5,251	34.6	...	All causes .....	131,382	157.7
1	Accidents and adverse effects (E800-E949) .....	1,935	12.7	1	Accidents and adverse effects (E800-E949) .....	27,172	32.6
...	Motor vehicle accidents (E810-E825) .....	759	5.0	...	Motor vehicle accidents (E810-E825) .....	14,095	16.9
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,176	7.7	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	13,077	15.7
2	Congenital anomalies (740-759) .....	564	3.7	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	21,407	25.7
3	Homicide and legal intervention (E960-E978) .....	399	2.6	3	Diseases of heart (390-398,402,404-429) .....	16,800	20.2
4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	365	2.4	4	Suicide (E950-E959) .....	12,202	14.6
5	Diseases of heart (390-398,402,404-429) .....	214	1.4	5	Human immunodeficiency virus infection (*042-*044) .....	8,658	10.4
6	Pneumonia and influenza (480-487) .....	146	1.0	6	Homicide and legal intervention (E960-E978) .....	8,132	9.8
7	Septicemia (038) .....	89	0.6	7	Chronic liver disease and cirrhosis (571) .....	3,876	4.7
8	Certain conditions originating in the perinatal period (760-779) .....	75	0.5	8	Cerebrovascular diseases (430-438) .....	3,320	4.0
9	Cerebrovascular diseases (430-438) .....	57	0.4	9	Diabetes mellitus (250) .....	2,521	3.0
10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	53	0.3	10	Pneumonia and influenza (480-487) .....	1,931	2.3
...	All other causes (Residual) .....	1,354	8.9	...	All other causes (Residual) .....	25,363	30.4
All races <sup>3</sup> , both sexes, 5-14 years				All races <sup>3</sup> , both sexes, 45-64 years			
...	All causes .....	7,791	19.9	...	All causes .....	380,203	664.0
1	Accidents and adverse effects (E800-E949) .....	3,254	8.3	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	132,771	231.9
...	Motor vehicle accidents (E810-E825) .....	1,868	4.8	2	Diseases of heart (390-398,402,404-429) .....	100,124	174.9
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,386	3.5	3	Accidents and adverse effects (E800-E949) .....	18,286	31.9
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	1,013	2.6	...	Motor vehicle accidents (E810-E825) .....	8,416	14.7
3	Homicide and legal intervention (E960-E978) .....	460	1.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	9,870	17.2
4	Congenital anomalies (740-759) .....	371	0.9	4	Cerebrovascular diseases (430-438) .....	15,362	26.8
5	Diseases of heart (390-398,402,404-429) .....	326	0.8	5	Diabetes mellitus (250) .....	13,091	22.9
6	Suicide (E950-E959) .....	324	0.8	6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	12,990	22.7
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	152	0.4	7	Chronic liver disease and cirrhosis (571) .....	11,023	19.3
8	Pneumonia and influenza (480-487) .....	121	0.3	8	Suicide (E950-E959) .....	8,094	14.1
9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	84	0.2	9	Pneumonia and influenza (480-487) .....	6,023	10.5
10	Cerebrovascular diseases (430-438) .....	82	0.2	10	Human immunodeficiency virus infection (*042-*044) .....	4,099	7.2
...	All other causes (Residual) .....	1,604	4.1	...	All other causes (Residual) .....	58,340	101.9

See footnotes at end of table.

**Table 8. Deaths and death rates for the 10 leading causes of death in specified age groups, by race and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
All races <sup>3</sup> , both sexes, 65 years and over				All races <sup>3</sup> , male, 5-14 years			
...	All causes .....	1,753,220	5,096.4	...	All causes .....	4,686	23.4
1	Diseases of heart (390-398,402,404-429) .....	605,673	1,760.6	1	Accidents and adverse effects (E800-E949) .....	2,086	10.4
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	384,186	1,116.8	...	Motor vehicle accidents (E810-E825) .....	1,144	5.7
3	Cerebrovascular diseases (430-438) .....	139,144	404.5	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	942	4.7
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	97,896	284.6	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	582	2.9
5	Pneumonia and influenza (480-487) .....	82,989	241.2	3	Homicide and legal intervention (E960-E978) .....	257	1.3
6	Diabetes mellitus (250) .....	48,974	142.4	4	Suicide (E950-E959) .....	241	1.2
7	Accidents and adverse effects (E800-E949) .....	32,975	95.9	5	Congenital anomalies (740-759) .....	197	1.0
...	Motor vehicle accidents (E810-E825) .....	8,145	23.7	6	Diseases of heart (390-398,402,404-429) .....	191	1.0
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	24,830	72.2	7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	88	0.4
8	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	22,640	65.8	8	Pneumonia and influenza (480-487) .....	57	0.3
9	Alzheimer's disease (331.0) .....	22,416	65.2	9	Cerebrovascular diseases (430-438) .....	48	0.2
10	Septicemia (038) .....	19,012	55.3	10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	46	0.2
...	All other causes (Residual) .....	297,315	864.3	...	All other causes (Residual) .....	893	4.5
All races <sup>3</sup> , male, all ages <sup>4</sup>				All races <sup>3</sup> , male, 15-24 years			
...	All causes .....	1,157,260	876.4	...	All causes .....	22,717	119.3
1	Diseases of heart (390-398,402,404-429) .....	353,897	268.0	1	Accidents and adverse effects (E800-E949) .....	9,887	51.9
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	282,065	213.6	...	Motor vehicle accidents (E810-E825) .....	7,109	37.3
3	Accidents and adverse effects (E800-E949) .....	63,042	47.7	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,778	14.6
...	Motor vehicle accidents (E810-E825) .....	28,990	22.0	2	Homicide and legal intervention (E960-E978) .....	4,720	24.8
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	34,052	25.8	3	Suicide (E950-E959) .....	3,532	18.5
4	Cerebrovascular diseases (430-438) .....	61,145	46.3	4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	1,029	5.4
5	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	57,018	43.2	5	Diseases of heart (390-398,402,404-429) .....	672	3.5
6	Pneumonia and influenza (480-487) .....	40,979	31.0	6	Congenital anomalies (740-759) .....	256	1.3
7	Diabetes mellitus (250) .....	29,584	22.4	7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	149	0.8
8	Suicide (E950-E959) .....	24,538	18.6	8	Cerebrovascular diseases (430-438) .....	109	0.6
9	Chronic liver disease and cirrhosis (571) .....	16,343	12.4	8	Pneumonia and influenza (480-487) .....	109	0.6
10	Homicide and legal intervention (E960-E978) .....	14,023	10.6	10	Human immunodeficiency virus infection (*042-*044) .....	93	0.5
...	All other causes (Residual) .....	214,626	162.5	...	All other causes (Residual) .....	2,161	11.3
All races <sup>3</sup> , male, 1-4 years				All races <sup>3</sup> , male, 25-44 years			
...	All causes .....	2,920	37.6	...	All causes .....	86,354	208.8
1	Accidents and adverse effects (E800-E949) .....	1,155	14.9	1	Accidents and adverse effects (E800-E949) .....	20,232	48.9
...	Motor vehicle accidents (E810-E825) .....	416	5.4	...	Motor vehicle accidents (E810-E825) .....	9,994	24.2
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	739	9.5	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	10,238	24.8
2	Congenital anomalies (740-759) .....	287	3.7	2	Diseases of heart (390-398,402,404-429) .....	11,796	28.5
3	Homicide and legal intervention (E960-E978) .....	223	2.9	3	Suicide (E950-E959) .....	9,700	23.5
4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	189	2.4	4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	9,684	23.4
5	Diseases of heart (390-398,402,404-429) .....	114	1.5	5	Human immunodeficiency virus infection (*042-*044) .....	6,509	15.7
6	Pneumonia and influenza (480-487) .....	73	0.9	6	Homicide and legal intervention (E960-E978) .....	6,210	15.0
7	Septicemia (038) .....	54	0.7	7	Chronic liver disease and cirrhosis (571) .....	2,670	6.5
8	Certain conditions originating in the perinatal period (760-779) .....	37	0.5	8	Cerebrovascular diseases (430-438) .....	1,703	4.1
9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	33	0.4	9	Diabetes mellitus (250) .....	1,507	3.6
10	Meningitis (320-322) .....	29	0.4	10	Pneumonia and influenza (480-487) .....	1,118	2.7
...	All other causes (Residual) .....	726	9.3	...	All other causes (Residual) .....	15,225	36.8

See footnotes at end of table.

**Table 8. Deaths and death rates for the 10 leading causes of death in specified age groups, by race and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
All races <sup>3</sup> , male, 45-64 years				All races <sup>3</sup> , female, 1-4 years			
...	All causes .....	231,861	836.9	...	All causes .....	2,331	31.4
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	70,736	255.3	1	Accidents and adverse effects (E800-E949) .....	780	10.5
2	Diseases of heart (390-398,402,404-429) .....	70,138	253.2	...	Motor vehicle accidents (E810-E825) .....	343	4.6
3	Accidents and adverse effects (E800-E949) .....	12,971	46.8	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	437	5.9
...	Motor vehicle accidents (E810-E825) .....	5,658	20.4	2	Congenital anomalies (740-759) .....	277	3.7
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	7,313	26.4	3	Homicide and legal intervention (E960-E978) .....	176	2.4
4	Cerebrovascular diseases (430-438) .....	8,466	30.6	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	176	2.4
5	Chronic liver disease and cirrhosis (571) .....	8,031	29.0	5	Diseases of heart (390-398,402,404-429) .....	100	1.3
6	Diabetes mellitus (250) .....	7,139	25.8	6	Pneumonia and influenza (480-487) .....	73	1.0
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	6,737	24.3	7	Certain conditions originating in the perinatal period (760-779) .....	38	0.5
8	Suicide (E950-E959) .....	6,201	22.4	8	Septicemia (038) .....	35	0.5
9	Pneumonia and influenza (480-487) .....	3,589	13.0	9	Cerebrovascular diseases (430-438) .....	32	0.4
10	Human immunodeficiency virus infection (*042-*044) .....	3,352	12.1	10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	25	0.3
...	All other causes (Residual) .....	34,501	124.5	...	All other causes (Residual) .....	619	8.3
All races <sup>3</sup> , male, 65 years and over				All races <sup>3</sup> , female, 5-14 years			
...	All causes .....	792,612	5,582.4	...	All causes .....	3,105	16.2
1	Diseases of heart (390-398,402,404-429) .....	270,637	1,906.1	1	Accidents and adverse effects (E800-E949) .....	1,168	6.1
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	199,794	1,407.2	...	Motor vehicle accidents (E810-E825) .....	724	3.8
3	Cerebrovascular diseases (430-438) .....	50,616	356.5	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	444	2.3
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	49,376	347.8	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	431	2.3
5	Pneumonia and influenza (480-487) .....	35,790	252.1	3	Homicide and legal intervention (E960-E978) .....	203	1.1
6	Diabetes mellitus (250) .....	20,862	146.9	4	Congenital anomalies (740-759) .....	174	0.9
7	Accidents and adverse effects (E800-E949) .....	16,176	113.9	5	Diseases of heart (390-398,402,404-429) .....	135	0.7
...	Motor vehicle accidents (E810-E825) .....	4,554	32.1	6	Suicide (E950-E959) .....	83	0.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	11,622	81.9	7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	64	0.3
8	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	10,533	74.2	7	Pneumonia and influenza (480-487) .....	64	0.3
9	Septicemia (038) .....	7,687	54.1	9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	38	0.2
10	Alzheimer's disease (331.0) .....	6,913	48.7	10	Cerebrovascular diseases (430-438) .....	34	0.2
...	All other causes (Residual) .....	124,228	874.9	...	All other causes (Residual) .....	711	3.7
All races <sup>3</sup> , female, all ages <sup>4</sup>				All races <sup>3</sup> , female, 15-24 years			
...	All causes .....	1,179,996	853.5	...	All causes .....	7,910	43.5
1	Diseases of heart (390-398,402,404-429) .....	370,962	268.3	1	Accidents and adverse effects (E800-E949) .....	3,462	19.1
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	259,467	187.7	...	Motor vehicle accidents (E810-E825) .....	2,917	16.1
3	Cerebrovascular diseases (430-438) .....	97,303	70.4	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	545	3.0
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	55,566	40.2	2	Homicide and legal intervention (E960-E978) .....	786	4.3
5	Pneumonia and influenza (480-487) .....	50,892	36.8	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	670	3.7
6	Diabetes mellitus (250) .....	35,167	25.4	4	Suicide (E950-E959) .....	603	3.3
7	Accidents and adverse effects (E800-E949) .....	34,793	25.2	5	Diseases of heart (390-398,402,404-429) .....	385	2.1
...	Motor vehicle accidents (E810-E825) .....	14,511	10.5	6	Congenital anomalies (740-759) .....	194	1.1
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	20,282	14.7	7	Pneumonia and influenza (480-487) .....	106	0.6
8	Alzheimer's disease (331.0) .....	15,671	11.3	8	Human immunodeficiency virus infection (*042-*044) .....	101	0.6
9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	13,621	9.9	9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	90	0.5
10	Septicemia (038) .....	13,506	9.8	10	Diabetes mellitus (250) .....	75	0.4
...	All other causes (Residual) .....	233,048	168.6	...	All other causes (Residual) .....	1,438	7.9

See footnotes at end of table.

**Table 8. Deaths and death rates for the 10 leading causes of death in specified age groups, by race and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
All races <sup>3</sup> , female, 25-44 years				White, both sexes, all ages <sup>4</sup>			
...	All causes .....	45,028	107.4	...	All causes .....	2,015,984	904.0
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	11,723	28.0	1	Diseases of heart (390-398,402,404-429) .....	635,549	285.0
2	Accidents and adverse effects (E800-E949) .....	6,940	16.5	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	470,139	210.8
...	Motor vehicle accidents (E810-E825) .....	4,101	9.8	3	Cerebrovascular diseases (430-438) .....	136,855	61.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,839	6.8	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	104,061	46.7
3	Diseases of heart (390-398,402,404-429) .....	5,004	11.9	5	Accidents and adverse effects (E800-E949) .....	82,178	36.9
4	Suicide (E950-E959) .....	2,502	6.0	...	Motor vehicle accidents (E810-E825) .....	36,182	16.2
5	Human immunodeficiency virus infection (*042-*044) .....	2,149	5.1	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	45,996	20.6
6	Homicide and legal intervention (E960-E978) .....	1,922	4.6	6	Pneumonia and influenza (480-487) .....	81,659	36.6
7	Cerebrovascular diseases (430-438) .....	1,617	3.9	7	Diabetes mellitus (250) .....	51,706	23.2
8	Chronic liver disease and cirrhosis (571) .....	1,206	2.9	8	Suicide (E950-E959) .....	27,648	12.4
9	Diabetes mellitus (250) .....	1,014	2.4	9	Chronic liver disease and cirrhosis (571) .....	21,771	9.8
10	Pneumonia and influenza (480-487) .....	813	1.9	10	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	21,369	9.6
...	All other causes (Residual) .....	10,138	24.2	...	All other causes (Residual) .....	383,049	171.8
All races <sup>3</sup> , female, 45-64 years				White, both sexes, 1-4 years			
...	All causes .....	148,342	501.9	...	All causes .....	3,628	30.1
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	62,035	209.9	1	Accidents and adverse effects (E800-E949) .....	1,388	11.5
2	Diseases of heart (390-398,402,404-429) .....	29,986	101.5	...	Motor vehicle accidents (E810-E825) .....	535	4.4
3	Cerebrovascular diseases (430-438) .....	6,896	23.3	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	853	7.1
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	6,253	21.2	2	Congenital anomalies (740-759) .....	406	3.4
5	Diabetes mellitus (250) .....	5,952	20.1	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	289	2.4
6	Accidents and adverse effects (E800-E949) .....	5,315	18.0	4	Homicide and legal intervention (E960-E978) .....	199	1.7
...	Motor vehicle accidents (E810-E825) .....	2,758	9.3	5	Diseases of heart (390-398,402,404-429) .....	136	1.1
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,557	8.7	6	Pneumonia and influenza (480-487) .....	98	0.8
7	Chronic liver disease and cirrhosis (571) .....	2,992	10.1	7	Septicemia (038) .....	64	0.5
8	Pneumonia and influenza (480-487) .....	2,434	8.2	8	Certain conditions originating in the perinatal period (760-779) .....	48	0.4
9	Suicide (E950-E959) .....	1,893	6.4	9	Meningitis (320-322) .....	39	0.3
10	Septicemia (038) .....	1,534	5.2	9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	39	0.3
...	All other causes (Residual) .....	23,052	78.0	...	All other causes (Residual) .....	922	7.6
All races <sup>3</sup> , female, 65 years and over				White, both sexes, 5-14 years			
...	All causes .....	960,608	4,754.9	...	All causes .....	5,613	18.2
1	Diseases of heart (390-398,402,404-429) .....	335,036	1,658.4	1	Accidents and adverse effects (E800-E949) .....	2,336	7.6
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	184,392	912.7	...	Motor vehicle accidents (E810-E825) .....	1,401	4.5
3	Cerebrovascular diseases (430-438) .....	88,528	438.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	935	3.0
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	48,520	240.2	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	802	2.6
5	Pneumonia and influenza (480-487) .....	47,199	233.6	3	Congenital anomalies (740-759) .....	275	0.9
6	Diabetes mellitus (250) .....	28,112	139.1	4	Suicide (E950-E959) .....	274	0.9
7	Accidents and adverse effects (E800-E949) .....	16,799	83.2	5	Homicide and legal intervention (E960-E978) .....	267	0.9
...	Motor vehicle accidents (E810-E825) .....	3,591	17.8	6	Diseases of heart (390-398,402,404-429) .....	224	0.7
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	13,208	65.4	7	Pneumonia and influenza (480-487) .....	89	0.3
8	Alzheimer's disease (331.0) .....	15,503	76.7	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	78	0.3
9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	12,107	59.9	9	Cerebrovascular diseases (430-438) .....	58	0.2
10	Septicemia (038) .....	11,325	56.1	9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	58	0.2
...	All other causes (Residual) .....	173,087	856.8	...	All other causes (Residual) .....	1,152	3.7

See footnotes at end of table.

**Table 8. Deaths and death rates for the 10 leading causes of death in specified age groups, by race and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
White, both sexes, 15-24 years				White, both sexes, 65 years and over			
...	All causes .....	22,296	75.4	...	All causes .....	1,568,681	5,122.3
1	Accidents and adverse effects (E800-E949) .....	11,170	37.8	1	Diseases of heart (390-398,402,404-429) .....	543,392	1,774.4
...	Motor vehicle accidents (E810-E825) .....	8,485	28.7	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	341,574	1,115.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,685	9.1	3	Cerebrovascular diseases (430-438) .....	123,562	403.5
2	Suicide (E950-E959) .....	3,434	11.6	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	91,799	299.8
3	Homicide and legal intervention (E960-E978) .....	2,262	7.6	5	Pneumonia and influenza (480-487) .....	75,203	245.6
4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	1,371	4.6	6	Diabetes mellitus (250) .....	40,390	131.9
5	Diseases of heart (390-398,402,404-429) .....	693	2.3	7	Accidents and adverse effects (E800-E949) .....	29,851	97.5
6	Congenital anomalies (740-759) .....	324	1.1	...	Motor vehicle accidents (E810-E825) .....	7,307	23.9
7	Pneumonia and influenza (480-487) .....	139	0.5	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	22,544	73.6
8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	129	0.4	8	Alzheimer's disease (331.0) .....	21,081	68.8
9	Cerebrovascular diseases (430-438) .....	128	0.4	9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	19,100	62.4
10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	91	0.3	10	Septicemia (038) .....	15,719	51.3
...	All other causes (Residual) .....	2,555	8.6	...	All other causes (Residual) .....	267,010	871.9
White, both sexes, 25-44 years				White, male, all ages <sup>4</sup>			
...	All causes .....	95,427	140.3	...	All causes .....	990,190	904.4
1	Accidents and adverse effects (E800-E949) .....	22,026	32.4	1	Diseases of heart (390-398,402,404-429) .....	309,952	283.1
...	Motor vehicle accidents (E810-E825) .....	11,353	16.7	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	244,109	223.0
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	10,673	15.7	3	Accidents and adverse effects (E800-E949) .....	52,398	47.9
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	16,651	24.5	...	Motor vehicle accidents (E810-E825) .....	23,985	21.9
3	Diseases of heart (390-398,402,404-429) .....	11,840	17.4	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	28,413	26.0
4	Suicide (E950-E959) .....	10,837	15.9	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	52,172	47.7
5	Homicide and legal intervention (E960-E978) .....	4,071	6.0	5	Cerebrovascular diseases (430-438) .....	51,766	47.3
6	Human immunodeficiency virus infection (*042-*044) .....	4,006	5.9	6	Pneumonia and influenza (480-487) .....	35,795	32.7
7	Chronic liver disease and cirrhosis (571) .....	3,138	4.6	7	Diabetes mellitus (250) .....	24,249	22.1
8	Cerebrovascular diseases (430-438) .....	2,143	3.2	8	Suicide (E950-E959) .....	22,174	20.3
9	Diabetes mellitus (250) .....	1,768	2.6	9	Chronic liver disease and cirrhosis (571) .....	14,096	12.9
10	Pneumonia and influenza (480-487) .....	1,270	1.9	10	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	10,406	9.5
...	All other causes (Residual) .....	17,677	26.0	...	All other causes (Residual) .....	173,073	158.1
White, both sexes, 45-64 years				White, male, 1-4 years			
...	All causes .....	301,468	617.4	...	All causes .....	2,010	32.5
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	109,375	224.0	1	Accidents and adverse effects (E800-E949) .....	833	13.5
2	Diseases of heart (390-398,402,404-429) .....	78,828	161.4	...	Motor vehicle accidents (E810-E825) .....	291	4.7
3	Accidents and adverse effects (E800-E949) .....	14,798	30.3	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	542	8.8
...	Motor vehicle accidents (E810-E825) .....	6,957	14.2	2	Congenital anomalies (740-759) .....	205	3.3
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	7,841	16.1	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	149	2.4
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	11,259	23.1	4	Homicide and legal intervention (E960-E978) .....	104	1.7
5	Cerebrovascular diseases (430-438) .....	10,728	22.0	5	Diseases of heart (390-398,402,404-429) .....	70	1.1
6	Diabetes mellitus (250) .....	9,438	19.3	6	Pneumonia and influenza (480-487) .....	52	0.8
7	Chronic liver disease and cirrhosis (571) .....	9,150	18.7	7	Septicemia (038) .....	40	0.6
8	Suicide (E950-E959) .....	7,546	15.5	8	Certain conditions originating in the perinatal period (760-779) .....	25	0.4
9	Pneumonia and influenza (480-487) .....	4,604	9.4	8	Meningitis (320-322) .....	25	0.4
10	Septicemia (038) .....	2,252	4.6	10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	22	0.4
...	All other causes (Residual) .....	43,490	89.1	...	All other causes (Residual) .....	485	7.8

See footnotes at end of table.



**Table 8. Deaths and death rates for the 10 leading causes of death in specified age groups, by race and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
White, male, 5-14 years				White, male, 45-64 years			
...	All causes .....	3,353	21.2	...	All causes .....	185,323	775.6
1	Accidents and adverse effects (E800-E949) .....	1,468	9.3	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	58,080	243.1
...	Motor vehicle accidents (E810-E825) .....	835	5.3	2	Diseases of heart (390-398,402,404-429) .....	56,832	237.8
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	633	4.0	3	Accidents and adverse effects (E800-E949) .....	10,471	43.8
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	459	2.9	...	Motor vehicle accidents (E810-E825) .....	4,682	19.6
3	Suicide (E950-E959) .....	205	1.3	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	5,789	24.2
4	Homicide and legal intervention (E960-E978) .....	142	0.9	4	Chronic liver disease and cirrhosis (571) .....	6,718	28.1
5	Congenital anomalies (740-759) .....	139	0.9	5	Cerebrovascular diseases (430-438) .....	5,897	24.7
6	Diseases of heart (390-398,402,404-429) .....	136	0.9	6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	5,803	24.3
7	Pneumonia and influenza (480-487) .....	43	0.3	7	Suicide (E950-E959) .....	5,786	24.2
8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	41	0.3	8	Diabetes mellitus (250) .....	5,346	22.4
9	Cerebrovascular diseases (430-438) .....	33	0.2	9	Pneumonia and influenza (480-487) .....	2,706	11.3
9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	33	0.2	10	Human immunodeficiency virus infection (*042-*044) .....	1,615	6.8
...	All other causes (Residual) .....	654	4.1	...	All other causes (Residual) .....	26,069	109.1
White, male, 15-24 years				White, male, 65 years and over			
...	All causes .....	16,379	107.6	...	All causes .....	708,593	5,583.5
1	Accidents and adverse effects (E800-E949) .....	8,239	54.1	1	Diseases of heart (390-398,402,404-429) .....	243,553	1,919.1
...	Motor vehicle accidents (E810-E825) .....	5,995	39.4	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	176,845	1,393.5
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,244	14.7	3	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	45,839	361.2
2	Suicide (E950-E959) .....	2,934	19.3	4	Cerebrovascular diseases (430-438) .....	44,482	350.5
3	Homicide and legal intervention (E960-E978) .....	1,858	12.2	5	Pneumonia and influenza (480-487) .....	32,054	252.6
4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	845	5.6	6	Diabetes mellitus (250) .....	17,781	140.1
5	Diseases of heart (390-398,402,404-429) .....	434	2.9	7	Accidents and adverse effects (E800-E949) .....	14,512	114.4
6	Congenital anomalies (740-759) .....	179	1.2	...	Motor vehicle accidents (E810-E825) .....	4,054	31.9
7	Cerebrovascular diseases (430-438) .....	85	0.6	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	10,458	82.4
8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	79	0.5	8	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	9,109	71.8
8	Pneumonia and influenza (480-487) .....	79	0.5	9	Alzheimer's disease (331.0) .....	6,510	51.3
10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	57	0.4	10	Septicemia (038) .....	6,403	50.5
...	All other causes (Residual) .....	1,590	10.4	...	All other causes (Residual) .....	111,505	878.6
White, male, 25-44 years				White, female, all ages <sup>4</sup>			
...	All causes .....	63,954	187.3	...	All causes .....	1,025,794	903.7
1	Accidents and adverse effects (E800-E949) .....	16,479	48.3	1	Diseases of heart (390-398,402,404-429) .....	325,597	286.8
...	Motor vehicle accidents (E810-E825) .....	8,035	23.5	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	226,030	199.1
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	8,444	24.7	3	Cerebrovascular diseases (430-438) .....	85,089	75.0
2	Diseases of heart (390-398,402,404-429) .....	8,693	25.5	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	51,889	45.7
3	Suicide (E950-E959) .....	8,594	25.2	5	Pneumonia and influenza (480-487) .....	45,864	40.4
4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	7,690	22.5	6	Accidents and adverse effects (E800-E949) .....	29,780	26.2
5	Human immunodeficiency virus infection (*042-*044) .....	3,381	9.9	...	Motor vehicle accidents (E810-E825) .....	12,197	10.7
6	Homicide and legal intervention (E960-E978) .....	2,982	8.7	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	17,583	15.5
7	Chronic liver disease and cirrhosis (571) .....	2,214	6.5	7	Diabetes mellitus (250) .....	27,457	24.2
8	Cerebrovascular diseases (430-438) .....	1,137	3.3	8	Alzheimer's disease (331.0) .....	14,723	13.0
9	Diabetes mellitus (250) .....	1,071	3.1	9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	10,963	9.7
10	Pneumonia and influenza (480-487) .....	722	2.1	10	Septicemia (038) .....	10,741	9.5
...	All other causes (Residual) .....	10,991	32.2	...	All other causes (Residual) .....	197,661	174.1

See footnotes at end of table.

**Table 8. Deaths and death rates for the 10 leading causes of death in specified age groups, by race and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
White, female, 1-4 years				White, female, 25-44 years			
...	All causes .....	1,618	27.5	...	All causes .....	31,473	92.9
1	Accidents and adverse effects (E800-E949) .....	555	9.4	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	8,961	26.4
...	Motor vehicle accidents (E810-E825) .....	244	4.2	2	Accidents and adverse effects (E800-E949) .....	5,547	16.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	311	5.3	...	Motor vehicle accidents (E810-E825) .....	3,318	9.8
2	Congenital anomalies (740-759) .....	201	3.4	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,229	6.6
3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	140	2.4	3	Diseases of heart (390-398,402,404-429) .....	3,147	9.3
4	Homicide and legal intervention (E960-E978) .....	95	1.6	4	Suicide (E950-E959) .....	2,243	6.6
5	Diseases of heart (390-398,402,404-429) .....	66	1.1	5	Homicide and legal intervention (E960-E978) .....	1,089	3.2
6	Pneumonia and influenza (480-487) .....	46	0.8	6	Cerebrovascular diseases (430-438) .....	1,006	3.0
7	Septicemia (038) .....	24	0.4	7	Chronic liver disease and cirrhosis (571) .....	924	2.7
8	Certain conditions originating in the perinatal period (760-779) .....	23	0.4	8	Diabetes mellitus (250) .....	697	2.1
9	Cerebrovascular diseases (430-438) .....	21	0.4	9	Human immunodeficiency virus infection (*042-*044) .....	625	1.8
10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	17	*	10	Pneumonia and influenza (480-487) .....	548	1.6
...	All other causes (Residual) .....	430	7.3	...	All other causes (Residual) .....	6,686	19.7
White, female, 5-14 years				White, female, 45-64 years			
...	All causes .....	2,260	15.0	...	All causes .....	116,145	465.8
1	Accidents and adverse effects (E800-E949) .....	868	5.8	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	51,295	205.7
...	Motor vehicle accidents (E810-E825) .....	566	3.8	2	Diseases of heart (390-398,402,404-429) .....	21,996	88.2
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	302	2.0	3	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	5,456	21.9
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	343	2.3	4	Cerebrovascular diseases (430-438) .....	4,831	19.4
3	Congenital anomalies (740-759) .....	136	0.9	...	Accidents and adverse effects (E800-E949) .....	4,327	17.4
4	Homicide and legal intervention (E960-E978) .....	125	0.8	...	Motor vehicle accidents (E810-E825) .....	2,275	9.1
5	Diseases of heart (390-398,402,404-429) .....	88	0.6	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,052	8.2
6	Suicide (E950-E959) .....	69	0.5	6	Diabetes mellitus (250) .....	4,092	16.4
7	Pneumonia and influenza (480-487) .....	46	0.3	7	Chronic liver disease and cirrhosis (571) .....	2,432	9.8
8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	37	0.2	8	Pneumonia and influenza (480-487) .....	1,898	7.6
9	Cerebrovascular diseases (430-438) .....	25	0.2	9	Suicide (E950-E959) .....	1,760	7.1
9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	25	0.2	10	Septicemia (038) .....	1,037	4.2
...	All other causes (Residual) .....	498	3.3	...	All other causes (Residual) .....	17,021	68.3
White, female, 15-24 years				White, female, 65 years and over			
...	All causes .....	5,917	41.2	...	All causes .....	860,088	4,795.9
1	Accidents and adverse effects (E800-E949) .....	2,931	20.4	1	Diseases of heart (390-398,402,404-429) .....	299,839	1,671.9
...	Motor vehicle accidents (E810-E825) .....	2,490	17.3	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	164,729	918.5
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	441	3.1	3	Cerebrovascular diseases (430-438) .....	79,080	441.0
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	526	3.7	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	45,960	256.3
3	Suicide (E950-E959) .....	500	3.5	5	Pneumonia and influenza (480-487) .....	43,149	240.6
4	Homicide and legal intervention (E960-E978) .....	404	2.8	6	Diabetes mellitus (250) .....	22,609	126.1
5	Diseases of heart (390-398,402,404-429) .....	259	1.8	7	Accidents and adverse effects (E800-E949) .....	15,339	85.5
6	Congenital anomalies (740-759) .....	145	1.0	...	Motor vehicle accidents (E810-E825) .....	3,253	18.1
7	Pneumonia and influenza (480-487) .....	60	0.4	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	12,086	67.4
8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	50	0.3	8	Alzheimer's disease (331.0) .....	14,571	81.2
9	Diabetes mellitus (250) .....	47	0.3	9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	9,991	55.7
10	Cerebrovascular diseases (430-438) .....	43	0.3	10	Septicemia (038) .....	9,316	51.9
...	All other causes (Residual) .....	952	6.6	...	All other causes (Residual) .....	155,505	867.1

See footnotes at end of table.

**Table 8. Deaths and death rates for the 10 leading causes of death in specified age groups, by race and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
<b>Black, both sexes, all ages<sup>4</sup></b>				<b>Black, both sexes, 15-24 years</b>			
...	All causes .....	278,440	808.7	...	All causes .....	7,159	126.5
1	Diseases of heart (390-398,402,404-429) .....	78,294	227.4	1	Homicide and legal intervention (E960-E978) .....	3,095	54.7
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	61,193	177.7	2	Accidents and adverse effects (E800-E949) .....	1,654	29.2
3	Cerebrovascular diseases (430-438) .....	18,237	53.0	...	Motor vehicle accidents (E810-E825) .....	1,151	20.3
4	Accidents and adverse effects (E800-E949) .....	12,801	37.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	503	8.9
...	Motor vehicle accidents (E810-E825) .....	5,686	16.5	3	Suicide (E950-E959) .....	488	8.6
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	7,115	20.7	4	Diseases of heart (390-398,402,404-429) .....	325	5.7
5	Diabetes mellitus (250) .....	11,378	33.0	5	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	248	4.4
6	Homicide and legal intervention (E960-E978) .....	8,420	24.5	6	Human immunodeficiency virus infection (*042-*044) .....	137	2.4
7	Pneumonia and influenza (480-487) .....	8,326	24.2	7	Congenital anomalies (740-759) .....	107	1.9
8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	7,205	20.9	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	105	1.9
9	Human immunodeficiency virus infection (*042-*044) .....	7,180	20.9	9	Anemias (280-285) .....	68	1.2
10	Certain conditions originating in the perinatal period (760-779) .....	4,841	14.1	10	Pneumonia and influenza (480-487) .....	62	1.1
...	All other causes (Residual) .....	60,565	175.9	...	All other causes (Residual) .....	870	15.4
<b>Black, both sexes, 1-4 years</b>				<b>Black, both sexes, 25-44 years</b>			
...	All causes .....	1,397	61.6	...	All causes .....	31,809	291.5
1	Accidents and adverse effects (E800-E949) .....	470	20.7	1	Human immunodeficiency virus infection (*042-*044) .....	4,558	41.8
...	Motor vehicle accidents (E810-E825) .....	186	8.2	2	Diseases of heart (390-398,402,404-429) .....	4,547	41.7
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	284	12.5	3	Accidents and adverse effects (E800-E949) .....	4,210	38.6
2	Homicide and legal intervention (E960-E978) .....	187	8.2	...	Motor vehicle accidents (E810-E825) .....	2,155	19.8
3	Congenital anomalies (740-759) .....	125	5.5	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,055	18.8
4	Diseases of heart (390-398,402,404-429) .....	64	2.8	4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	3,963	36.3
5	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	60	2.6	5	Homicide and legal intervention (E960-E978) .....	3,782	34.7
6	Pneumonia and influenza (480-487) .....	44	1.9	6	Cerebrovascular diseases (430-438) .....	1,062	9.7
7	Certain conditions originating in the perinatal period (760-779) .....	26	1.1	7	Suicide (E950-E959) .....	934	8.6
8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	24	1.1	8	Diabetes mellitus (250) .....	700	6.4
9	Septicemia (038) .....	23	1.0	9	Pneumonia and influenza (480-487) .....	593	5.4
10	Human immunodeficiency virus infection (*042-*044) .....	20	0.9	10	Chronic liver disease and cirrhosis (571) .....	546	5.0
10	Cerebrovascular diseases (430-438) .....	20	0.9	...	All other causes (Residual) .....	6,914	63.4
...	All other causes (Residual) .....	334	14.7	<b>Black, both sexes, 45-64 years</b>			
<b>Black, both sexes, 5-14 years</b>				...	All causes .....	69,078	1,147.7
...	All causes .....	1,815	29.4	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	20,089	333.8
1	Accidents and adverse effects (E800-E949) .....	761	12.3	2	Diseases of heart (390-398,402,404-429) .....	19,086	317.1
...	Motor vehicle accidents (E810-E825) .....	378	6.1	3	Cerebrovascular diseases (430-438) .....	4,025	66.9
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	383	6.2	4	Diabetes mellitus (250) .....	3,167	52.6
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	165	2.7	5	Accidents and adverse effects (E800-E949) .....	2,919	48.5
3	Homicide and legal intervention (E960-E978) .....	163	2.6	...	Motor vehicle accidents (E810-E825) .....	1,130	18.8
4	Diseases of heart (390-398,402,404-429) .....	89	1.4	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,789	29.7
5	Congenital anomalies (740-759) .....	80	1.3	6	Human immunodeficiency virus infection (*042-*044) .....	2,220	36.9
6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	64	1.0	7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	1,541	25.6
7	Human immunodeficiency virus infection (*042-*044) .....	37	0.6	8	Chronic liver disease and cirrhosis (571) .....	1,513	25.1
8	Suicide (E950-E959) .....	31	0.5	9	Pneumonia and influenza (480-487) .....	1,266	21.0
9	Pneumonia and influenza (480-487) .....	28	0.5	10	Septicemia (038) .....	986	16.4
10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	24	0.4	...	All other causes (Residual) .....	12,266	203.8
...	All other causes (Residual) .....	373	6.1				

See footnotes at end of table.

**Table 8. Deaths and death rates for the 10 leading causes of death in specified age groups, by race and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
Black, both sexes, 65 years and over				Black, male, 5-14 years			
...	All causes .....	158,363	5,551.2	...	All causes .....	1,114	35.6
1	Diseases of heart (390-398,402,404-429) .....	53,994	1,892.7	1	Accidents and adverse effects (E800-E949) .....	521	16.6
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	36,656	1,284.9	...	Motor vehicle accidents (E810-E825) .....	255	8.1
3	Cerebrovascular diseases (430-438) .....	12,972	454.7	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	266	8.5
4	Diabetes mellitus (250) .....	7,458	261.4	2	Homicide and legal intervention (E960-E978) .....	100	3.2
5	Pneumonia and influenza (480-487) .....	6,181	216.7	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	97	3.1
6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	5,026	176.2	4	Diseases of heart (390-398,402,404-429) .....	48	1.5
7	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	3,168	111.1	5	Congenital anomalies (740-759) .....	46	1.5
8	Septicemia (038) .....	3,034	106.4	6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	39	1.2
9	Accidents and adverse effects (E800-E949) .....	2,552	89.5	7	Suicide (E950-E959) .....	23	0.7
...	Motor vehicle accidents (E810-E825) .....	641	22.5	8	Human immunodeficiency virus infection (*042-*044) .....	15	*
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,911	67.0	9	Pneumonia and influenza (480-487) .....	14	*
10	Hypertension with or without renal disease (401,403) .....	2,287	80.2	9	Cerebrovascular diseases (430-438) .....	14	*
...	All other causes (Residual) .....	25,035	877.6	...	All other causes (Residual) .....	197	6.3
Black, male, all ages <sup>4</sup>				Black, male, 15-24 years			
...	All causes .....	143,417	877.7	...	All causes .....	5,522	194.6
1	Diseases of heart (390-398,402,404-429) .....	37,662	230.5	1	Homicide and legal intervention (E960-E978) .....	2,739	96.5
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	32,523	199.0	2	Accidents and adverse effects (E800-E949) .....	1,286	45.3
3	Accidents and adverse effects (E800-E949) .....	8,788	53.8	...	Motor vehicle accidents (E810-E825) .....	860	30.3
...	Motor vehicle accidents (E810-E825) .....	3,996	24.5	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	426	15.0
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	4,792	29.3	3	Suicide (E950-E959) .....	425	15.0
4	Cerebrovascular diseases (430-438) .....	7,765	47.5	4	Diseases of heart (390-398,402,404-429) .....	214	7.5
5	Homicide and legal intervention (E960-E978) .....	6,873	42.1	5	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	134	4.7
6	Human immunodeficiency virus infection (*042-*044) .....	4,994	30.6	6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	69	2.4
7	Diabetes mellitus (250) .....	4,511	27.6	7	Congenital anomalies (740-759) .....	67	2.4
8	Pneumonia and influenza (480-487) .....	4,178	25.6	8	Human immunodeficiency virus infection (*042-*044) .....	56	2.0
9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	4,039	24.7	9	Anemias (280-285) .....	35	1.2
10	Certain conditions originating in the perinatal period (760-779) .....	2,732	16.7	10	Pneumonia and influenza (480-487) .....	23	0.8
...	All other causes (Residual) .....	29,352	179.6	...	All other causes (Residual) .....	474	16.7
Black, male, 1-4 years				Black, male, 25-44 years			
...	All causes .....	795	69.2	...	All causes .....	19,732	384.0
1	Accidents and adverse effects (E800-E949) .....	279	24.3	1	Accidents and adverse effects (E800-E949) .....	3,091	60.1
...	Motor vehicle accidents (E810-E825) .....	108	9.4	...	Motor vehicle accidents (E810-E825) .....	1,575	30.6
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	171	14.9	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,516	29.5
2	Homicide and legal intervention (E960-E978) .....	109	9.5	2	Human immunodeficiency virus infection (*042-*044) .....	3,052	59.4
3	Congenital anomalies (740-759) .....	69	6.0	3	Homicide and legal intervention (E960-E978) .....	3,031	59.0
4	Diseases of heart (390-398,402,404-429) .....	38	3.3	4	Diseases of heart (390-398,402,404-429) .....	2,783	54.2
5	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	32	2.8	5	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	1,630	31.7
6	Pneumonia and influenza (480-487) .....	20	1.7	6	Suicide (E950-E959) .....	781	15.2
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	15	*	7	Cerebrovascular diseases (430-438) .....	498	9.7
8	Septicemia (038) .....	13	*	8	Diabetes mellitus (250) .....	397	7.7
9	Certain conditions originating in the perinatal period (760-779) .....	12	*	9	Pneumonia and influenza (480-487) .....	354	6.9
10	Human immunodeficiency virus infection (*042-*044) .....	11	*	10	Chronic liver disease and cirrhosis (571) .....	346	6.7
...	All other causes (Residual) .....	197	17.1	...	All other causes (Residual) .....	3,769	73.3

See footnotes at end of table.

**Table 8. Deaths and death rates for the 10 leading causes of death in specified age groups, by race and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
<b>Black, male, 45-64 years</b>				<b>Black, female, 1-4 years</b>			
...	All causes .....	40,750	1,519.1	...	All causes .....	602	53.9
1	Diseases of heart (390-398,402,404-429) .....	11,700	436.2	1	Accidents and adverse effects (E800-E949) .....	191	17.1
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	10,968	408.9	...	Motor vehicle accidents (E810-E825) .....	78	7.0
3	Cerebrovascular diseases (430-438) .....	2,220	82.8	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	113	10.1
4	Accidents and adverse effects (E800-E949) .....	2,129	79.4	2	Homicide and legal intervention (E960-E978) .....	78	7.0
...	Motor vehicle accidents (E810-E825) .....	777	29.0	3	Congenital anomalies (740-759) .....	56	5.0
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,352	50.4	4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	28	2.5
5	Human immunodeficiency virus infection (*042-*044) .....	1,703	63.5	5	Diseases of heart (390-398,402,404-429) .....	26	2.3
6	Diabetes mellitus (250) .....	1,507	56.2	6	Pneumonia and influenza (480-487) .....	24	2.1
7	Chronic liver disease and cirrhosis (571) .....	1,078	40.2	7	Certain conditions originating in the perinatal period (760-779) .....	14	*
8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	814	30.3	8	Septicemia (038) .....	10	*
9	Pneumonia and influenza (480-487) .....	798	29.7	8	Cerebrovascular diseases (430-438) .....	10	*
10	Homicide and legal intervention (E960-E978) .....	693	25.8	10	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	9	*
...	All other causes (Residual) .....	7,140	266.2	10	Human immunodeficiency virus infection (*042-*044) .....	9	*
<b>Black, male, 65 years and over</b>				...	All other causes (Residual) .....	147	13.2
...	All causes .....	70,554	6,311.6	<b>Black, female, 5-14 years</b>			
1	Diseases of heart (390-398,402,404-429) .....	22,781	2,038.0	...	All causes .....	701	23.1
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	19,653	1,758.1	1	Accidents and adverse effects (E800-E949) .....	240	7.9
3	Cerebrovascular diseases (430-438) .....	4,948	442.6	...	Motor vehicle accidents (E810-E825) .....	123	4.1
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	2,884	258.0	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	117	3.9
5	Pneumonia and influenza (480-487) .....	2,883	257.9	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	68	2.2
6	Diabetes mellitus (250) .....	2,583	231.1	3	Homicide and legal intervention (E960-E978) .....	63	2.1
7	Accidents and adverse effects (E800-E949) .....	1,353	121.0	4	Diseases of heart (390-398,402,404-429) .....	41	1.4
...	Motor vehicle accidents (E810-E825) .....	402	36.0	5	Congenital anomalies (740-759) .....	34	1.1
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	951	85.1	6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	25	0.8
8	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	1,254	112.2	7	Human immunodeficiency virus infection (*042-*044) .....	22	0.7
9	Septicemia (038) .....	1,163	104.0	8	Pneumonia and influenza (480-487) .....	14	*
10	Hypertension with or without renal disease (401,403) .....	789	70.6	9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	13	*
...	All other causes (Residual) .....	10,263	918.1	10	Septicemia (038) .....	10	*
<b>Black, female, all ages<sup>4</sup></b>				...	All other causes (Residual) .....	171	5.6
...	All causes .....	135,023	746.4	<b>Black, female, 15-24 years</b>			
1	Diseases of heart (390-398,402,404-429) .....	40,632	224.6	...	All causes .....	1,637	58.0
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	28,670	158.5	1	Accidents and adverse effects (E800-E949) .....	368	13.0
3	Cerebrovascular diseases (430-438) .....	10,472	57.9	...	Motor vehicle accidents (E810-E825) .....	291	10.3
4	Diabetes mellitus (250) .....	6,867	38.0	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	77	2.7
5	Pneumonia and influenza (480-487) .....	4,148	22.9	2	Homicide and legal intervention (E960-E978) .....	356	12.6
6	Accidents and adverse effects (E800-E949) .....	4,013	22.2	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	114	4.0
...	Motor vehicle accidents (E810-E825) .....	1,690	9.3	4	Diseases of heart (390-398,402,404-429) .....	111	3.9
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,323	12.8	5	Human immunodeficiency virus infection (*042-*044) .....	81	2.9
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	3,166	17.5	6	Suicide (E950-E959) .....	63	2.2
8	Septicemia (038) .....	2,564	14.2	7	Congenital anomalies (740-759) .....	40	1.4
9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	2,400	13.3	8	Pneumonia and influenza (480-487) .....	39	1.4
10	Human immunodeficiency virus infection (*042-*044) .....	2,186	12.1	9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	36	1.3
...	All other causes (Residual) .....	29,905	165.3	10	Complications of pregnancy, childbirth, and the puerperium (630-676) .....	33	1.2
See footnotes at end of table.				10	Anemias (280-285) .....	33	1.2
				...	All other causes (Residual) .....	363	12.9



**Table 8. Deaths and death rates for the 10 leading causes of death in specified age groups, by race and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
Black, female, 25-44 years				Black, female, 65 years and over			
...	All causes .....	12,077	209.2	...	All causes .....	87,809	5,061.3
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	2,333	40.4	1	Diseases of heart (390-398,402,404-429) .....	31,213	1,799.1
2	Diseases of heart (390-398,402,404-429) .....	1,764	30.6	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	17,003	980.0
3	Human immunodeficiency virus infection (*042-*044) .....	1,506	26.1	3	Cerebrovascular diseases (430-438) .....	8,024	462.5
4	Accidents and adverse effects (E800-E949) .....	1,119	19.4	4	Diabetes mellitus (250) .....	4,875	281.0
...	Motor vehicle accidents (E810-E825) .....	580	10.0	5	Pneumonia and influenza (480-487) .....	3,298	190.1
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	539	9.3	6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	2,142	123.5
5	Homicide and legal intervention (E960-E978) .....	751	13.0	7	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	1,914	110.3
6	Cerebrovascular diseases (430-438) .....	564	9.8	8	Septicemia (038) .....	1,871	107.8
7	Diabetes mellitus (250) .....	303	5.2	9	Hypertension with or without renal disease (401,403) .....	1,498	86.3
8	Pneumonia and influenza (480-487) .....	239	4.1	10	Accidents and adverse effects (E800-E949) .....	1,199	69.1
9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	219	3.8	...	Motor vehicle accidents (E810-E825) .....	239	13.8
10	Chronic liver disease and cirrhosis (571) .....	200	3.5	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	960	55.3
...	All other causes (Residual) .....	3,079	53.3	...	All other causes (Residual) .....	14,772	851.4
Black, female, 45-64 years							
...	All causes .....	28,328	849.1				
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) ..	9,121	273.4				
2	Diseases of heart (390-398,402,404-429) .....	7,386	221.4				
3	Cerebrovascular diseases (430-438) .....	1,805	54.1				
4	Diabetes mellitus (250) .....	1,660	49.8				
5	Accidents and adverse effects (E800-E949) .....	790	23.7				
...	Motor vehicle accidents (E810-E825) .....	353	10.6				
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	437	13.1				
6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	727	21.8				
7	Human immunodeficiency virus infection (*042-*044) .....	517	15.5				
8	Pneumonia and influenza (480-487) .....	468	14.0				
9	Septicemia (038) .....	457	13.7				
10	Chronic liver disease and cirrhosis (571) .....	435	13.0				
...	All other causes (Residual) .....	4,962	148.7				

... Category not applicable.

\* Figure does not meet standards of reliability or precision; see Technical notes.

<sup>1</sup>Rank based on number of deaths; see Technical notes.<sup>2</sup>Figures for age not stated are included in "All ages" but not distributed among age groups.<sup>3</sup>Includes races other than white and black.<sup>4</sup>Includes deaths for "Under 1 year."

**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
Hispanic, both sexes, all ages <sup>3</sup>				Hispanic, both sexes, 15-24 years			
...	All causes .....	98,406	325.3	...	All causes .....	4,411	83.3
1	Diseases of heart (390-398,402,404-429) .....	24,596	81.3	1	Accidents and adverse effects (E800-E949) .....	1,788	33.7
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	19,528	64.6	...	Motor vehicle accidents (E810-E825) .....	1,280	24.2
3	Accidents and adverse effects (E800-E949) .....	8,248	27.3	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	508	9.6
...	Motor vehicle accidents (E810-E825) .....	4,339	14.3	2	Homicide and legal intervention (E960-E978) .....	1,237	23.3
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	3,909	12.9	3	Suicide (E950-E959) .....	439	8.3
4	Cerebrovascular diseases (430-438) .....	5,587	18.5	4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	241	4.5
5	Diabetes mellitus (250) .....	4,741	15.7	5	Diseases of heart (390-398,402,404-429) .....	114	2.2
6	Pneumonia and influenza (480-487) .....	3,277	10.8	6	Congenital anomalies (740-759) .....	52	1.0
7	Homicide and legal intervention (E960-E978) .....	2,978	9.8	7	Cerebrovascular diseases (430-438) .....	32	0.6
8	Chronic liver disease and cirrhosis (571) .....	2,845	9.4	8	Pneumonia and influenza (480-487) .....	22	0.4
9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	2,528	8.4	9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	21	0.4
10	Certain conditions originating in the perinatal period (760-779) .....	1,987	6.6	9	Human immunodeficiency virus infection (*042-*044) .....	21	0.4
...	All other causes (Residual) .....	22,091	73.0	...	All other causes (Residual) .....	444	8.4
Hispanic, both sexes, 1-4 years				Hispanic, both sexes, 25-44 years			
...	All causes .....	819	30.4	...	All causes .....	12,663	130.2
1	Accidents and adverse effects (E800-E949) .....	297	11.0	1	Accidents and adverse effects (E800-E949) .....	3,247	33.4
...	Motor vehicle accidents (E810-E825) .....	156	5.8	...	Motor vehicle accidents (E810-E825) .....	1,608	16.5
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	141	5.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,639	16.9
2	Congenital anomalies (740-759) .....	92	3.4	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	1,637	16.8
3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	58	2.2	3	Homicide and legal intervention (E960-E978) .....	1,273	13.1
4	Homicide and legal intervention (E960-E978) .....	54	2.0	4	Human immunodeficiency virus infection (*042-*044) .....	1,181	12.1
5	Diseases of heart (390-398,402,404-429) .....	27	1.0	5	Diseases of heart (390-398,402,404-429) .....	1,002	10.3
6	Pneumonia and influenza (480-487) .....	26	1.0	6	Suicide (E950-E959) .....	755	7.8
7	Septicemia (038) .....	21	0.8	7	Chronic liver disease and cirrhosis (571) .....	577	5.9
8	Cerebrovascular diseases (430-438) .....	9	*	8	Cerebrovascular diseases (430-438) .....	345	3.5
9	Human immunodeficiency virus infection (*042-*044) .....	8	*	9	Diabetes mellitus (250) .....	182	1.9
9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	8	*	10	Viral hepatitis (070) .....	172	1.8
9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	8	*	...	All other causes (Residual) .....	2,292	23.6
...	All other causes (Residual) .....	211	7.8	Hispanic, both sexes, 45-64 years			
Hispanic, both sexes, 5-14 years				...	All causes .....	21,009	483.8
...	All causes .....	988	17.2	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	5,936	136.7
1	Accidents and adverse effects (E800-E949) .....	366	6.4	2	Diseases of heart (390-398,402,404-429) .....	4,801	110.6
...	Motor vehicle accidents (E810-E825) .....	232	4.0	3	Chronic liver disease and cirrhosis (571) .....	1,380	31.8
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	134	2.3	4	Accidents and adverse effects (E800-E949) .....	1,378	31.7
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	165	2.9	...	Motor vehicle accidents (E810-E825) .....	665	15.3
3	Homicide and legal intervention (E960-E978) .....	70	1.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	713	16.4
4	Congenital anomalies (740-759) .....	55	1.0	5	Diabetes mellitus (250) .....	1,240	28.6
5	Diseases of heart (390-398,402,404-429) .....	40	0.7	6	Cerebrovascular diseases (430-438) .....	1,149	26.5
6	Suicide (E950-E959) .....	28	0.5	7	Human immunodeficiency virus infection (*042-*044) .....	494	11.4
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	15	*	8	Pneumonia and influenza (480-487) .....	370	8.5
8	Pneumonia and influenza (480-487) .....	13	*	9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	325	7.5
9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	9	*	10	Suicide (E950-E959) .....	301	6.9
10	Septicemia (038) .....	8	*	...	All other causes (Residual) .....	3,635	83.7
...	All other causes (Residual) .....	219	3.8				

See footnotes at end of table.

**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
Hispanic, both sexes, 65 years and over				Hispanic, male, 5-14 years			
...	All causes .....	54,062	3,066.8	...	All causes .....	592	20.2
1	Diseases of heart (390-398,402,404-429) .....	18,513	1,050.2	1	Accidents and adverse effects (E800-E949) .....	242	8.3
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	11,479	651.2	...	Motor vehicle accidents (E810-E825) .....	147	5.0
3	Cerebrovascular diseases (430-438) .....	3,988	226.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	95	3.2
4	Diabetes mellitus (250) .....	3,304	187.4	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	94	3.2
5	Pneumonia and influenza (480-487) .....	2,622	148.7	3	Homicide and legal intervention (E960-E978) .....	44	1.5
6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	2,053	116.5	4	Congenital anomalies (740-759) .....	28	1.0
7	Accidents and adverse effects (E800-E949) .....	998	56.6	5	Diseases of heart (390-398,402,404-429) .....	27	0.9
...	Motor vehicle accidents (E810-E825) .....	346	19.6	6	Suicide (E950-E959) .....	18	*
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	652	37.0	7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	9	*
8	Chronic liver disease and cirrhosis (571) .....	882	50.0	8	Pneumonia and influenza (480-487) .....	5	*
9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	709	40.2	9	Cerebrovascular diseases (430-438) .....	4	*
10	Septicemia (038) .....	550	31.2	9	Human immunodeficiency virus infection (*042-*044) .....	4	*
...	All other causes (Residual) .....	8,964	508.5	9	Septicemia (038) .....	4	*
Hispanic, male, all ages <sup>3</sup>				9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	4	*
...	All causes .....	55,821	366.4	...	All other causes (Residual) .....	109	3.7
1	Diseases of heart (390-398,402,404-429) .....	12,932	84.9	Hispanic, male, 15-24 years			
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	10,465	68.7	...	All causes .....	3,544	128.8
3	Accidents and adverse effects (E800-E949) .....	6,229	40.9	1	Accidents and adverse effects (E800-E949) .....	1,440	52.3
...	Motor vehicle accidents (E810-E825) .....	3,168	20.8	...	Motor vehicle accidents (E810-E825) .....	989	36.0
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	3,061	20.1	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	451	16.4
4	Cerebrovascular diseases (430-438) .....	2,646	17.4	2	Homicide and legal intervention (E960-E978) .....	1,131	41.1
5	Homicide and legal intervention (E960-E978) .....	2,544	16.7	3	Suicide (E950-E959) .....	368	13.4
6	Diabetes mellitus (250) .....	2,203	14.5	4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	154	5.6
7	Chronic liver disease and cirrhosis (571) .....	2,096	13.8	5	Diseases of heart (390-398,402,404-429) .....	80	2.9
8	Pneumonia and influenza (480-487) .....	1,657	10.9	6	Congenital anomalies (740-759) .....	33	1.2
9	Suicide (E950-E959) .....	1,429	9.4	7	Cerebrovascular diseases (430-438) .....	21	0.8
10	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	1,422	9.3	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	14	*
...	All other causes (Residual) .....	12,198	80.1	9	Human immunodeficiency virus infection (*042-*044) .....	13	*
Hispanic, male, 1-4 years				10	Pneumonia and influenza (480-487) .....	12	*
...	All causes .....	456	33.1	...	All other causes (Residual) .....	278	10.1
1	Accidents and adverse effects (E800-E949) .....	178	12.9	Hispanic, male, 25-44 years			
...	Motor vehicle accidents (E810-E825) .....	84	6.1	...	All causes .....	9,235	184.6
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	94	6.8	1	Accidents and adverse effects (E800-E949) .....	2,655	53.1
2	Congenital anomalies (740-759) .....	52	3.8	...	Motor vehicle accidents (E810-E825) .....	1,232	24.6
3	Homicide and legal intervention (E960-E978) .....	30	2.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,423	28.5
3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	30	2.2	2	Homicide and legal intervention (E960-E978) .....	1,072	21.4
5	Pneumonia and influenza (480-487) .....	16	*	3	Human immunodeficiency virus infection (*042-*044) .....	945	18.9
6	Septicemia (038) .....	12	*	4	Diseases of heart (390-398,402,404-429) .....	735	14.7
6	Diseases of heart (390-398,402,404-429) .....	12	*	5	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	734	14.7
8	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	6	*	6	Suicide (E950-E959) .....	651	13.0
9	Human immunodeficiency virus infection (*042-*044) .....	5	*	7	Chronic liver disease and cirrhosis (571) .....	479	9.6
9	Cerebrovascular diseases (430-438) .....	5	*	8	Cerebrovascular diseases (430-438) .....	203	4.1
9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	5	*	9	Viral hepatitis (070) .....	132	2.6
...	All other causes (Residual) .....	105	7.6	10	Diabetes mellitus (250) .....	104	2.1
See footnotes at end of table.				...	All other causes (Residual) .....	1,525	30.5

**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age				Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age			
Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>
Hispanic, male, 45-64 years				Hispanic, female, 1-4 years			
...	All causes .....	13,181	633.5	...	All causes .....	363	27.6
1	Diseases of heart (390-398,402,404-429) .....	3,317	159.4	1	Accidents and adverse effects (E800-E949) .....	119	9.0
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	3,092	148.6	...	Motor vehicle accidents (E810-E825) .....	72	5.5
3	Chronic liver disease and cirrhosis (571) .....	1,105	53.1	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	47	3.6
4	Accidents and adverse effects (E800-E949) .....	1,023	49.2	2	Congenital anomalies (740-759) .....	40	3.0
...	Motor vehicle accidents (E810-E825) .....	447	21.5	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	28	2.1
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	576	27.7	4	Homicide and legal intervention (E960-E978) .....	24	1.8
5	Cerebrovascular diseases (430-438) .....	692	33.3	5	Diseases of heart (390-398,402,404-429) .....	15	*
6	Diabetes mellitus (250) .....	665	32.0	6	Pneumonia and influenza (480-487) .....	10	*
7	Human immunodeficiency virus infection (*042-*044) .....	384	18.5	7	Septicemia (038) .....	9	*
8	Pneumonia and influenza (480-487) .....	248	11.9	8	Cerebrovascular diseases (430-438) .....	4	*
9	Suicide (E950-E959) .....	240	11.5	9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	3	*
10	Homicide and legal intervention (E960-E978) .....	188	9.0	9	Certain conditions originating in the perinatal period (760-779) .....	3	*
...	All other causes (Residual) .....	2,227	107.0	9	Human immunodeficiency virus infection (*042-*044) .....	3	*
Hispanic, male, 65 years and over				9	Meningitis (320-322) .....	3	*
...	All causes .....	26,309	3,550.2	9	Anemias (280-285) .....	3	*
1	Diseases of heart (390-398,402,404-429) .....	8,706	1,174.8	...	All other causes (Residual) .....	99	7.5
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	6,354	857.4	Hispanic, female, 5-14 years			
3	Cerebrovascular diseases (430-438) .....	1,682	227.0	...	All causes .....	396	14.1
4	Diabetes mellitus (250) .....	1,429	192.8	1	Accidents and adverse effects (E800-E949) .....	124	4.4
5	Pneumonia and influenza (480-487) .....	1,233	166.4	...	Motor vehicle accidents (E810-E825) .....	85	3.0
6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	1,157	156.1	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	39	1.4
7	Accidents and adverse effects (E800-E949) .....	576	77.7	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	71	2.5
...	Motor vehicle accidents (E810-E825) .....	232	31.3	3	Congenital anomalies (740-759) .....	27	1.0
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	344	46.4	4	Homicide and legal intervention (E960-E978) .....	26	0.9
8	Chronic liver disease and cirrhosis (571) .....	509	68.7	5	Diseases of heart (390-398,402,404-429) .....	13	*
9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	345	46.6	6	Suicide (E950-E959) .....	10	*
10	Septicemia (038) .....	277	37.4	7	Pneumonia and influenza (480-487) .....	8	*
...	All other causes (Residual) .....	4,041	545.3	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	6	*
Hispanic, female, all ages <sup>3</sup>				9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	5	*
...	All causes .....	42,585	283.6	10	Septicemia (038) .....	4	*
1	Diseases of heart (390-398,402,404-429) .....	11,664	77.7	...	All other causes (Residual) .....	102	3.6
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	9,063	60.4	Hispanic, female, 15-24 years			
3	Cerebrovascular diseases (430-438) .....	2,941	19.6	...	All causes .....	867	34.0
4	Diabetes mellitus (250) .....	2,538	16.9	1	Accidents and adverse effects (E800-E949) .....	348	13.7
5	Accidents and adverse effects (E800-E949) .....	2,019	13.4	...	Motor vehicle accidents (E810-E825) .....	291	11.4
...	Motor vehicle accidents (E810-E825) .....	1,171	7.8	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	57	2.2
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	848	5.6	2	Homicide and legal intervention (E960-E978) .....	106	4.2
6	Pneumonia and influenza (480-487) .....	1,620	10.8	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	87	3.4
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	1,106	7.4	4	Suicide (E950-E959) .....	71	2.8
8	Certain conditions originating in the perinatal period (760-779) .....	864	5.8	5	Diseases of heart (390-398,402,404-429) .....	34	1.3
9	Chronic liver disease and cirrhosis (571) .....	749	5.0	6	Congenital anomalies (740-759) .....	19	*
10	Congenital anomalies (740-759) .....	722	4.8	7	Cerebrovascular diseases (430-438) .....	11	*
...	All other causes (Residual) .....	9,299	61.9	7	Complications of pregnancy, childbirth, and the puerperium (630-676) .....	11	*
See footnotes at end of table.				9	Pneumonia and influenza (480-487) .....	10	*
				10	Diabetes mellitus (250) .....	9	*
				...	All other causes (Residual) .....	161	6.3

**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age				Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age			
Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>
Hispanic, female, 25-44 years				Total non-Hispanic <sup>4</sup> , both sexes, all ages <sup>3</sup>			
...	All causes .....	3,428	72.6	...	All causes .....	2,230,127	929.0
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	903	19.1	1	Diseases of heart (390-398,402,404-429) .....	697,516	290.6
2	Accidents and adverse effects (E800-E949) .....	592	12.5	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	520,483	216.8
...	Motor vehicle accidents (E810-E825) .....	376	8.0	3	Cerebrovascular diseases (430-438) .....	152,418	63.5
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	216	4.6	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	109,703	45.7
3	Diseases of heart (390-398,402,404-429) .....	267	5.7	5	Accidents and adverse effects (E800-E949) .....	89,069	37.1
4	Human immunodeficiency virus infection (*042-*044) .....	236	5.0	...	Motor vehicle accidents (E810-E825) .....	38,984	16.2
5	Homicide and legal intervention (E960-E978) .....	201	4.3	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	50,085	20.9
6	Cerebrovascular diseases (430-438) .....	142	3.0	6	Pneumonia and influenza (480-487) .....	88,280	36.8
7	Suicide (E950-E959) .....	104	2.2	7	Diabetes mellitus (250) .....	59,808	24.9
8	Chronic liver disease and cirrhosis (571) .....	98	2.1	8	Suicide (E950-E959) .....	28,721	12.0
9	Diabetes mellitus (250) .....	78	1.7	9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	25,139	10.5
10	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	49	1.0	10	Septicemia (038) .....	22,754	9.5
...	All other causes (Residual) .....	758	16.1	...	All other causes (Residual) .....	436,236	181.7
Hispanic, female, 45-64 years				Total non-Hispanic <sup>4</sup> , both sexes, 1-4 years			
...	All causes .....	7,828	346.1	...	All causes .....	4,409	35.3
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	2,844	125.8	1	Accidents and adverse effects (E800-E949) .....	1,633	13.1
2	Diseases of heart (390-398,402,404-429) .....	1,484	65.6	...	Motor vehicle accidents (E810-E825) .....	600	4.8
3	Diabetes mellitus (250) .....	575	25.4	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,033	8.3
4	Cerebrovascular diseases (430-438) .....	457	20.2	2	Congenital anomalies (740-759) .....	468	3.7
5	Accidents and adverse effects (E800-E949) .....	355	15.7	3	Homicide and legal intervention (E960-E978) .....	345	2.8
...	Motor vehicle accidents (E810-E825) .....	218	9.6	4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	304	2.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	137	6.1	5	Diseases of heart (390-398,402,404-429) .....	186	1.5
6	Chronic liver disease and cirrhosis (571) .....	275	12.2	6	Pneumonia and influenza (480-487) .....	119	1.0
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	144	6.4	7	Certain conditions originating in the perinatal period (760-779) .....	68	0.5
8	Pneumonia and influenza (480-487) .....	122	5.4	8	Septicemia (038) .....	67	0.5
9	Human immunodeficiency virus infection (*042-*044) .....	110	4.9	9	Cerebrovascular diseases (430-438) .....	47	0.4
10	Viral hepatitis (070) .....	95	4.2	10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	45	0.4
...	All other causes (Residual) .....	1,367	60.4	...	All other causes (Residual) .....	1,127	9.0
Hispanic, female, 65 years and over				Total non-Hispanic <sup>4</sup> , both sexes, 5-14 years			
...	All causes .....	27,753	2,716.3	...	All causes .....	6,781	20.3
1	Diseases of heart (390-398,402,404-429) .....	9,807	959.8	1	Accidents and adverse effects (E800-E949) .....	2,878	8.6
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	5,125	501.6	...	Motor vehicle accidents (E810-E825) .....	1,632	4.9
3	Cerebrovascular diseases (430-438) .....	2,306	225.7	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,246	3.7
4	Diabetes mellitus (250) .....	1,875	183.5	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	844	2.5
5	Pneumonia and influenza (480-487) .....	1,389	135.9	3	Homicide and legal intervention (E960-E978) .....	390	1.2
6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	896	87.7	4	Congenital anomalies (740-759) .....	315	0.9
7	Accidents and adverse effects (E800-E949) .....	422	41.3	5	Suicide (E950-E959) .....	295	0.9
...	Motor vehicle accidents (E810-E825) .....	114	11.2	6	Diseases of heart (390-398,402,404-429) .....	286	0.9
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	308	30.1	7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	137	0.4
8	Chronic liver disease and cirrhosis (571) .....	373	36.5	8	Pneumonia and influenza (480-487) .....	107	0.3
9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	364	35.6	9	Cerebrovascular diseases (430-438) .....	77	0.2
10	Alzheimer's disease (331.0) .....	317	31.0	10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	75	0.2
...	All other causes (Residual) .....	4,879	477.5	...	All other causes (Residual) .....	1,377	4.1

See footnotes at end of table.



**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
Total non-Hispanic <sup>4</sup> , both sexes, 15-24 years				Total non-Hispanic <sup>4</sup> , both sexes, 65 years and over			
...	All causes .....	26,070	81.7	...	All causes .....	1,693,753	5,189.5
1	Accidents and adverse effects (E800-E949) .....	11,514	36.1	1	Diseases of heart (390-398,402,404-429) .....	584,993	1,792.3
...	Motor vehicle accidents (E810-E825) .....	8,711	27.3	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	371,702	1,138.9
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,803	8.8	3	Cerebrovascular diseases (430-438) .....	134,791	413.0
2	Homicide and legal intervention (E960-E978) .....	4,218	13.2	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	95,548	292.7
3	Suicide (E950-E959) .....	3,678	11.5	5	Pneumonia and influenza (480-487) .....	80,124	245.5
4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	1,453	4.6	6	Diabetes mellitus (250) .....	45,527	139.5
5	Diseases of heart (390-398,402,404-429) .....	939	2.9	7	Accidents and adverse effects (E800-E949) .....	31,865	97.6
6	Congenital anomalies (740-759) .....	398	1.2	...	Motor vehicle accidents (E810-E825) .....	7,773	23.8
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	217	0.7	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	24,092	73.8
8	Pneumonia and influenza (480-487) .....	191	0.6	8	Alzheimer's disease (331.0) .....	21,892	67.1
9	Human immunodeficiency virus infection (*042-*044) .....	170	0.5	9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	21,860	67.0
10	Cerebrovascular diseases (430-438) .....	146	0.5	10	Septicemia (038) .....	18,389	56.3
...	All other causes (Residual) .....	3,146	9.9	...	All other causes (Residual) .....	287,062	879.5
Total non-Hispanic <sup>4</sup> , both sexes, 25-44 years				Total non-Hispanic <sup>4</sup> , male, all ages <sup>3</sup>			
...	All causes .....	117,972	160.4	...	All causes .....	1,096,677	938.8
1	Accidents and adverse effects (E800-E949) .....	23,739	32.3	1	Diseases of heart (390-398,402,404-429) .....	339,556	290.7
...	Motor vehicle accidents (E810-E825) .....	12,419	16.9	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	270,793	231.8
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	11,320	15.4	3	Cerebrovascular diseases (430-438) .....	58,328	49.9
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	19,710	26.8	4	Accidents and adverse effects (E800-E949) .....	56,425	48.3
3	Diseases of heart (390-398,402,404-429) .....	15,731	21.4	...	Motor vehicle accidents (E810-E825) .....	25,693	22.0
4	Suicide (E950-E959) .....	11,393	15.5	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	30,732	26.3
5	Human immunodeficiency virus infection (*042-*044) .....	7,382	10.0	5	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	55,402	47.4
6	Homicide and legal intervention (E960-E978) .....	6,805	9.2	6	Pneumonia and influenza (480-487) .....	39,187	33.5
7	Chronic liver disease and cirrhosis (571) .....	3,275	4.5	7	Diabetes mellitus (250) .....	27,274	23.3
8	Cerebrovascular diseases (430-438) .....	2,961	4.0	8	Suicide (E950-E959) .....	22,976	19.7
9	Diabetes mellitus (250) .....	2,328	3.2	9	Chronic liver disease and cirrhosis (571) .....	14,145	12.1
10	Pneumonia and influenza (480-487) .....	1,774	2.4	10	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	12,042	10.3
...	All other causes (Residual) .....	22,874	31.1	...	All other causes (Residual) .....	200,549	171.7
Total non-Hispanic <sup>4</sup> , both sexes, 45-64 years				Total non-Hispanic <sup>4</sup> , male, 1-4 years			
...	All causes .....	357,404	675.4	...	All causes .....	2,449	38.3
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	126,393	238.8	1	Accidents and adverse effects (E800-E949) .....	972	15.2
2	Diseases of heart (390-398,402,404-429) .....	94,825	179.2	...	Motor vehicle accidents (E810-E825) .....	329	5.1
3	Accidents and adverse effects (E800-E949) .....	16,790	31.7	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	643	10.1
...	Motor vehicle accidents (E810-E825) .....	7,720	14.6	2	Congenital anomalies (740-759) .....	234	3.7
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	9,070	17.1	3	Homicide and legal intervention (E960-E978) .....	193	3.0
4	Cerebrovascular diseases (430-438) .....	14,155	26.7	4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	156	2.4
5	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	12,620	23.8	5	Diseases of heart (390-398,402,404-429) .....	101	1.6
6	Diabetes mellitus (250) .....	11,803	22.3	6	Pneumonia and influenza (480-487) .....	56	0.9
7	Chronic liver disease and cirrhosis (571) .....	9,577	18.1	7	Septicemia (038) .....	42	0.7
8	Suicide (E950-E959) .....	7,745	14.6	8	Certain conditions originating in the perinatal period (760-779) .....	33	0.5
9	Pneumonia and influenza (480-487) .....	5,609	10.6	9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	28	0.4
10	Human immunodeficiency virus infection (*042-*044) .....	3,537	6.7	10	Meningitis (320-322) .....	25	0.4
...	All other causes (Residual) .....	54,350	102.7	...	All other causes (Residual) .....	609	9.5

See footnotes at end of table.

**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
Total non-Hispanic <sup>4</sup> , male, 5-14 years				Total non-Hispanic <sup>4</sup> , male, 45-64 years			
...	All causes .....	4,084	23.8	...	All causes .....	217,437	848.5
1	Accidents and adverse effects (E800-E949) .....	1,838	10.7	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	67,402	263.0
...	Motor vehicle accidents (E810-E825) .....	995	5.8	2	Diseases of heart (390-398,402,404-429) .....	66,447	259.3
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	843	4.9	3	Accidents and adverse effects (E800-E949) .....	11,852	46.3
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	486	2.8	...	Motor vehicle accidents (E810-E825) .....	5,190	20.3
3	Suicide (E950-E959) .....	222	1.3	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	6,662	26.0
4	Homicide and legal intervention (E960-E978) .....	213	1.2	4	Cerebrovascular diseases (430-438) .....	7,736	30.2
5	Congenital anomalies (740-759) .....	169	1.0	5	Chronic liver disease and cirrhosis (571) .....	6,866	26.8
6	Diseases of heart (390-398,402,404-429) .....	164	1.0	6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	6,528	25.5
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	79	0.5	7	Diabetes mellitus (250) .....	6,443	25.1
8	Pneumonia and influenza (480-487) .....	52	0.3	8	Suicide (E950-E959) .....	5,921	23.1
9	Cerebrovascular diseases (430-438) .....	44	0.3	9	Pneumonia and influenza (480-487) .....	3,310	12.9
10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	42	0.2	10	Human immunodeficiency virus infection (*042-*044) .....	2,910	11.4
...	All other causes (Residual) .....	775	4.5	...	All other causes (Residual) .....	32,022	125.0
Total non-Hispanic <sup>4</sup> , male, 15-24 years				Total non-Hispanic <sup>4</sup> , male, 65 years and over			
...	All causes .....	19,064	117.0	...	All causes .....	763,807	5,675.7
1	Accidents and adverse effects (E800-E949) .....	8,414	51.6	1	Diseases of heart (390-398,402,404-429) .....	260,954	1,939.1
...	Motor vehicle accidents (E810-E825) .....	6,094	37.4	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	192,910	1,433.5
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,320	14.2	3	Cerebrovascular diseases (430-438) .....	48,809	362.7
2	Homicide and legal intervention (E960-E978) .....	3,545	21.8	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	48,061	357.1
3	Suicide (E950-E959) .....	3,149	19.3	5	Pneumonia and influenza (480-487) .....	34,468	256.1
4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	872	5.4	6	Diabetes mellitus (250) .....	19,363	143.9
5	Diseases of heart (390-398,402,404-429) .....	590	3.6	7	Accidents and adverse effects (E800-E949) .....	15,534	115.4
6	Congenital anomalies (740-759) .....	223	1.4	...	Motor vehicle accidents (E810-E825) .....	4,305	32.0
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	134	0.8	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	11,229	83.4
8	Pneumonia and influenza (480-487) .....	97	0.6	8	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	10,167	75.5
9	Cerebrovascular diseases (430-438) .....	88	0.5	9	Septicemia (038) .....	7,370	54.8
10	Human immunodeficiency virus infection (*042-*044) .....	78	0.5	10	Alzheimer's disease (331.0) .....	6,735	50.0
...	All other causes (Residual) .....	1,874	11.5	...	All other causes (Residual) .....	119,436	887.5
Total non-Hispanic <sup>4</sup> , male, 25-44 years				Total non-Hispanic <sup>4</sup> , female, all ages <sup>3</sup>			
...	All causes .....	76,590	210.7	...	All causes .....	1,133,450	919.7
1	Accidents and adverse effects (E800-E949) .....	17,430	47.9	1	Diseases of heart (390-398,402,404-429) .....	357,960	290.5
...	Motor vehicle accidents (E810-E825) .....	8,710	24.0	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	249,690	202.6
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	8,720	24.0	3	Cerebrovascular diseases (430-438) .....	94,090	76.3
2	Diseases of heart (390-398,402,404-429) .....	11,013	30.3	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	54,301	44.1
3	Suicide (E950-E959) .....	9,001	24.8	5	Pneumonia and influenza (480-487) .....	49,093	39.8
4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	8,925	24.6	6	Accidents and adverse effects (E800-E949) .....	32,644	26.5
5	Human immunodeficiency virus infection (*042-*044) .....	5,499	15.1	...	Motor vehicle accidents (E810-E825) .....	13,291	10.8
6	Homicide and legal intervention (E960-E978) .....	5,096	14.0	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	19,353	15.7
7	Chronic liver disease and cirrhosis (571) .....	2,169	6.0	7	Diabetes mellitus (250) .....	32,534	26.4
8	Cerebrovascular diseases (430-438) .....	1,495	4.1	8	Alzheimer's disease (331.0) .....	15,317	12.4
9	Diabetes mellitus (250) .....	1,397	3.8	9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	13,097	10.6
10	Pneumonia and influenza (480-487) .....	1,007	2.8	10	Septicemia (038) .....	13,047	10.6
...	All other causes (Residual) .....	13,558	37.3	...	All other causes (Residual) .....	221,677	179.9

See footnotes at end of table.

**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
Total non-Hispanic <sup>4</sup> , female, 1-4 years				Total non-Hispanic <sup>4</sup> , female, 25-44 years			
...	All causes .....	1,960	32.1	...	All causes .....	41,382	111.2
1	Accidents and adverse effects (E800-E949) .....	661	10.8	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	10,785	29.0
...	Motor vehicle accidents (E810-E825) .....	271	4.4	2	Accidents and adverse effects (E800-E949) .....	6,309	17.0
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	390	6.4	...	Motor vehicle accidents (E810-E825) .....	3,709	10.0
2	Congenital anomalies (740-759) .....	234	3.8	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,600	7.0
3	Homicide and legal intervention (E960-E978) .....	152	2.5	3	Diseases of heart (390-398,402,404-429) .....	4,718	12.7
4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	148	2.4	4	Suicide (E950-E959) .....	2,392	6.4
5	Diseases of heart (390-398,402,404-429) .....	85	1.4	5	Human immunodeficiency virus infection (*042-*044) .....	1,883	5.1
6	Pneumonia and influenza (480-487) .....	63	1.0	6	Homicide and legal intervention (E960-E978) .....	1,709	4.6
7	Certain conditions originating in the perinatal period (760-779) .....	35	0.6	7	Cerebrovascular diseases (430-438) .....	1,466	3.9
8	Cerebrovascular diseases (430-438) .....	27	0.4	8	Chronic liver disease and cirrhosis (571) .....	1,106	3.0
9	Septicemia (038) .....	25	0.4	9	Diabetes mellitus (250) .....	931	2.5
10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	23	0.4	10	Pneumonia and influenza (480-487) .....	767	2.1
...	All other causes (Residual) .....	507	8.3	...	All other causes (Residual) .....	9,316	25.0
Total non-Hispanic <sup>4</sup> , female, 5-14 years				Total non-Hispanic <sup>4</sup> , female, 45-64 years			
...	All causes .....	2,697	16.5	...	All causes .....	139,967	512.8
1	Accidents and adverse effects (E800-E949) .....	1,040	6.4	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	58,991	216.1
...	Motor vehicle accidents (E810-E825) .....	637	3.9	2	Diseases of heart (390-398,402,404-429) .....	28,378	104.0
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	403	2.5	3	Cerebrovascular diseases (430-438) .....	6,419	23.5
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	358	2.2	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	6,092	22.3
3	Homicide and legal intervention (E960-E978) .....	177	1.1	5	Diabetes mellitus (250) .....	5,360	19.6
4	Congenital anomalies (740-759) .....	146	0.9	6	Accidents and adverse effects (E800-E949) .....	4,938	18.1
5	Diseases of heart (390-398,402,404-429) .....	122	0.7	...	Motor vehicle accidents (E810-E825) .....	2,530	9.3
6	Suicide (E950-E959) .....	73	0.4	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,408	8.8
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	58	0.4	7	Chronic liver disease and cirrhosis (571) .....	2,711	9.9
8	Pneumonia and influenza (480-487) .....	55	0.3	8	Pneumonia and influenza (480-487) .....	2,299	8.4
9	Cerebrovascular diseases (430-438) .....	33	0.2	9	Suicide (E950-E959) .....	1,824	6.7
9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	33	0.2	10	Septicemia (038) .....	1,456	5.3
...	All other causes (Residual) .....	602	3.7	...	All other causes (Residual) .....	21,499	78.8
Total non-Hispanic <sup>4</sup> , female, 15-24 years				Total non-Hispanic <sup>4</sup> , female, 65 years and over			
...	All causes .....	7,006	44.8	...	All causes .....	929,946	4,848.3
1	Accidents and adverse effects (E800-E949) .....	3,100	19.8	1	Diseases of heart (390-398,402,404-429) .....	324,039	1,689.4
...	Motor vehicle accidents (E810-E825) .....	2,617	16.7	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	178,792	932.1
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	483	3.1	3	Cerebrovascular diseases (430-438) .....	85,982	448.3
2	Homicide and legal intervention (E960-E978) .....	673	4.3	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	47,487	247.6
3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	581	3.7	5	Pneumonia and influenza (480-487) .....	45,656	238.0
4	Suicide (E950-E959) .....	529	3.4	6	Diabetes mellitus (250) .....	26,164	136.4
5	Diseases of heart (390-398,402,404-429) .....	349	2.2	7	Accidents and adverse effects (E800-E949) .....	16,331	85.1
6	Congenital anomalies (740-759) .....	175	1.1	...	Motor vehicle accidents (E810-E825) .....	3,468	18.1
7	Pneumonia and influenza (480-487) .....	94	0.6	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	12,863	67.1
8	Human immunodeficiency virus infection (*042-*044) .....	92	0.6	8	Alzheimer's disease (331.0) .....	15,157	79.0
9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	83	0.5	9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	11,693	61.0
10	Diabetes mellitus (250) .....	66	0.4	10	Septicemia (038) .....	11,019	57.4
...	All other causes (Residual) .....	1,264	8.1	...	All other causes (Residual) .....	167,626	873.9

See footnotes at end of table.

**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age				Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age			
Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>
White non-Hispanic, both sexes, all ages <sup>3</sup>				White non-Hispanic, both sexes, 15-24 years			
...	All causes .....	1,912,802	978.7	...	All causes .....	17,901	72.3
1	Diseases of heart (390-398,402,404-429) .....	609,256	311.7	1	Accidents and adverse effects (E800-E949) .....	9,383	37.9
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	449,785	230.1	...	Motor vehicle accidents (E810-E825) .....	7,206	29.1
3	Cerebrovascular diseases (430-438) .....	131,039	67.0	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,177	8.8
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	101,274	51.8	2	Suicide (E950-E959) .....	2,990	12.1
5	Pneumonia and influenza (480-487) .....	78,174	40.0	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	1,131	4.6
6	Accidents and adverse effects (E800-E949) .....	73,669	37.7	4	Homicide and legal intervention (E960-E978) .....	1,039	4.2
...	Motor vehicle accidents (E810-E825) .....	31,791	16.3	5	Diseases of heart (390-398,402,404-429) .....	583	2.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	41,878	21.4	6	Congenital anomalies (740-759) .....	274	1.1
7	Diabetes mellitus (250) .....	46,884	24.0	7	Pneumonia and influenza (480-487) .....	116	0.5
8	Suicide (E950-E959) .....	25,846	13.2	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	109	0.4
9	Alzheimer's disease (331.0) .....	20,834	10.7	9	Cerebrovascular diseases (430-438) .....	96	0.4
10	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	20,372	10.4	10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	80	0.3
...	All other causes (Residual) .....	355,669	182.0	...	All other causes (Residual) .....	2,100	8.5
White non-Hispanic, both sexes, 1-4 years				White non-Hispanic, both sexes, 25-44 years			
...	All causes .....	2,826	29.4	...	All causes .....	82,512	139.4
1	Accidents and adverse effects (E800-E949) .....	1,097	11.4	1	Accidents and adverse effects (E800-E949) .....	18,678	31.6
...	Motor vehicle accidents (E810-E825) .....	381	4.0	...	Motor vehicle accidents (E810-E825) .....	9,715	16.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	716	7.5	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	8,963	15.1
2	Congenital anomalies (740-759) .....	314	3.3	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	14,997	25.3
3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	230	2.4	3	Diseases of heart (390-398,402,404-429) .....	10,825	18.3
4	Homicide and legal intervention (E960-E978) .....	150	1.6	4	Suicide (E950-E959) .....	10,046	17.0
5	Diseases of heart (390-398,402,404-429) .....	111	1.2	5	Human immunodeficiency virus infection (*042-*044) .....	2,814	4.8
6	Pneumonia and influenza (480-487) .....	73	0.8	6	Homicide and legal intervention (E960-E978) .....	2,795	4.7
7	Septicemia (038) .....	43	0.4	7	Chronic liver disease and cirrhosis (571) .....	2,549	4.3
8	Certain conditions originating in the perinatal period (760-779) .....	41	0.4	8	Cerebrovascular diseases (430-438) .....	1,792	3.0
9	Meningitis (320-322) .....	32	0.3	9	Diabetes mellitus (250) .....	1,585	2.7
10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	31	0.3	10	Pneumonia and influenza (480-487) .....	1,123	1.9
...	All other causes (Residual) .....	704	7.3	...	All other causes (Residual) .....	15,308	25.9
White non-Hispanic, both sexes, 5-14 years				White non-Hispanic, both sexes, 45-64 years			
...	All causes .....	4,631	18.0	...	All causes .....	279,624	623.1
1	Accidents and adverse effects (E800-E949) .....	1,972	7.7	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	103,225	230.0
...	Motor vehicle accidents (E810-E825) .....	1,173	4.6	2	Diseases of heart (390-398,402,404-429) .....	73,788	164.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	799	3.1	3	Accidents and adverse effects (E800-E949) .....	13,364	29.8
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	642	2.5	...	Motor vehicle accidents (E810-E825) .....	6,286	14.0
3	Suicide (E950-E959) .....	245	1.0	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	7,078	15.8
4	Congenital anomalies (740-759) .....	219	0.9	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	10,910	24.3
5	Homicide and legal intervention (E960-E978) .....	198	0.8	5	Cerebrovascular diseases (430-438) .....	9,579	21.3
6	Diseases of heart (390-398,402,404-429) .....	184	0.7	6	Diabetes mellitus (250) .....	8,183	18.2
7	Pneumonia and influenza (480-487) .....	75	0.3	7	Chronic liver disease and cirrhosis (571) .....	7,736	17.2
8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	64	0.2	8	Suicide (E950-E959) .....	7,209	16.1
9	Cerebrovascular diseases (430-438) .....	53	0.2	9	Pneumonia and influenza (480-487) .....	4,207	9.4
10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	49	0.2	10	Septicemia (038) .....	2,071	4.6
...	All other causes (Residual) .....	930	3.6	...	All other causes (Residual) .....	39,352	87.7

See footnotes at end of table.

**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
White non-Hispanic, both sexes, 65 years and over				White non-Hispanic, male, 5-14 years			
...	All causes .....	1,511,095	5,211.8	...	All causes .....	2,769	21.0
1	Diseases of heart (390-398,402,404-429) .....	523,431	1,805.3	1	Accidents and adverse effects (E800-E949) .....	1,231	9.3
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	329,496	1,136.4	...	Motor vehicle accidents (E810-E825) .....	694	5.3
3	Cerebrovascular diseases (430-438) .....	119,353	411.7	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	537	4.1
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	89,513	308.7	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	367	2.8
5	Pneumonia and influenza (480-487) .....	72,406	249.7	3	Suicide (E950-E959) .....	186	1.4
6	Diabetes mellitus (250) .....	37,021	127.7	4	Congenital anomalies (740-759) .....	111	0.8
7	Accidents and adverse effects (E800-E949) .....	28,768	99.2	5	Diseases of heart (390-398,402,404-429) .....	109	0.8
...	Motor vehicle accidents (E810-E825) .....	6,945	24.0	6	Homicide and legal intervention (E960-E978) .....	99	0.8
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	21,823	75.3	7	Pneumonia and influenza (480-487) .....	38	0.3
8	Alzheimer's disease (331.0) .....	20,562	70.9	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	33	0.3
9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	18,349	63.3	9	Cerebrovascular diseases (430-438) .....	29	0.2
10	Septicemia (038) .....	15,126	52.2	9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	29	0.2
...	All other causes (Residual) .....	257,070	886.6	...	All other causes (Residual) .....	537	4.1
White non-Hispanic, male, all ages <sup>3</sup>				White non-Hispanic, male, 15-24 years			
...	All causes .....	931,844	974.7	...	All causes .....	12,855	101.2
1	Diseases of heart (390-398,402,404-429) .....	296,161	309.8	1	Accidents and adverse effects (E800-E949) .....	6,801	53.6
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	233,213	243.9	...	Motor vehicle accidents (E810-E825) .....	5,006	39.4
3	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	50,615	52.9	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,795	14.1
4	Cerebrovascular diseases (430-438) .....	49,035	51.3	2	Suicide (E950-E959) .....	2,560	20.2
5	Accidents and adverse effects (E800-E949) .....	45,968	48.1	3	Homicide and legal intervention (E960-E978) .....	742	5.8
...	Motor vehicle accidents (E810-E825) .....	20,776	21.7	4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	694	5.5
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	25,192	26.4	5	Diseases of heart (390-398,402,404-429) .....	357	2.8
6	Pneumonia and influenza (480-487) .....	34,059	35.6	6	Congenital anomalies (740-759) .....	148	1.2
7	Diabetes mellitus (250) .....	21,991	23.0	7	Pneumonia and influenza (480-487) .....	67	0.5
8	Suicide (E950-E959) .....	20,654	21.6	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	66	0.5
9	Chronic liver disease and cirrhosis (571) .....	11,940	12.5	9	Cerebrovascular diseases (430-438) .....	64	0.5
10	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	9,905	10.4	10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	51	0.4
...	All other causes (Residual) .....	158,303	165.6	...	All other causes (Residual) .....	1,305	10.3
White non-Hispanic, male, 1-4 years				White non-Hispanic, male, 25-44 years			
...	All causes .....	1,563	31.8	...	All causes .....	54,523	184.3
1	Accidents and adverse effects (E800-E949) .....	656	13.3	1	Accidents and adverse effects (E800-E949) .....	13,745	46.5
...	Motor vehicle accidents (E810-E825) .....	207	4.2	...	Motor vehicle accidents (E810-E825) .....	6,779	22.9
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	449	9.1	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	6,966	23.5
2	Congenital anomalies (740-759) .....	155	3.1	2	Diseases of heart (390-398,402,404-429) .....	7,943	26.8
3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	117	2.4	3	Suicide (E950-E959) .....	7,909	26.7
4	Homicide and legal intervention (E960-E978) .....	79	1.6	4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	6,951	23.5
5	Diseases of heart (390-398,402,404-429) .....	58	1.2	5	Human immunodeficiency virus infection (*042-044) .....	2,427	8.2
6	Pneumonia and influenza (480-487) .....	36	0.7	6	Homicide and legal intervention (E960-E978) .....	1,906	6.4
7	Septicemia (038) .....	28	0.6	7	Chronic liver disease and cirrhosis (571) .....	1,723	5.8
8	Meningitis (320-322) .....	21	0.4	8	Diabetes mellitus (250) .....	968	3.3
8	Certain conditions originating in the perinatal period (760-779) .....	21	0.4	9	Cerebrovascular diseases (430-438) .....	932	3.1
10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	16	*	10	Pneumonia and influenza (480-487) .....	618	2.1
...	All other causes (Residual) .....	376	7.6	...	All other causes (Residual) .....	9,401	31.8

See footnotes at end of table.



**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
White non-Hispanic, male, 45-64 years				White non-Hispanic, female, 1-4 years			
...	All causes .....	171,526	779.7	...	All causes .....	1,263	27.0
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	54,871	249.4	1	Accidents and adverse effects (E800-E949) .....	441	9.4
2	Diseases of heart (390-398,402,404-429) .....	53,316	242.4	...	Motor vehicle accidents (E810-E825) .....	174	3.7
3	Accidents and adverse effects (E800-E949) .....	9,395	42.7	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	267	5.7
...	Motor vehicle accidents (E810-E825) .....	4,226	19.2	2	Congenital anomalies (740-759) .....	159	3.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	5,169	23.5	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	113	2.4
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	5,611	25.5	4	Homicide and legal intervention (E960-E978) .....	71	1.5
5	Chronic liver disease and cirrhosis (571) .....	5,580	25.4	5	Diseases of heart (390-398,402,404-429) .....	53	1.1
6	Suicide (E950-E959) .....	5,518	25.1	6	Pneumonia and influenza (480-487) .....	37	0.8
7	Cerebrovascular diseases (430-438) .....	5,201	23.6	7	Certain conditions originating in the perinatal period (760-779) .....	20	0.4
8	Diabetes mellitus (250) .....	4,670	21.2	8	Cerebrovascular diseases (430-438) .....	16	*
9	Pneumonia and influenza (480-487) .....	2,441	11.1	9	Septicemia (038) .....	15	*
10	Human immunodeficiency virus infection (*042-*044) .....	1,207	5.5	9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	15	*
...	All other causes (Residual) .....	23,716	107.8	...	All other causes (Residual) .....	323	6.9
White non-Hispanic, male, 65 years and over				White non-Hispanic, female, 5-14 years			
...	All causes .....	680,678	5,670.4	...	All causes .....	1,862	14.9
1	Diseases of heart (390-398,402,404-429) .....	234,202	1,951.0	1	Accidents and adverse effects (E800-E949) .....	741	5.9
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	170,180	1,417.7	...	Motor vehicle accidents (E810-E825) .....	479	3.8
3	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	44,561	371.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	262	2.1
4	Cerebrovascular diseases (430-438) .....	42,722	355.9	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	275	2.2
5	Pneumonia and influenza (480-487) .....	30,764	256.3	3	Congenital anomalies (740-759) .....	108	0.9
6	Diabetes mellitus (250) .....	16,307	135.8	4	Homicide and legal intervention (E960-E978) .....	99	0.8
7	Accidents and adverse effects (E800-E949) .....	13,887	115.7	5	Diseases of heart (390-398,402,404-429) .....	75	0.6
...	Motor vehicle accidents (E810-E825) .....	3,813	31.8	6	Suicide (E950-E959) .....	59	0.5
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	10,074	83.9	7	Pneumonia and influenza (480-487) .....	37	0.3
8	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	8,751	72.9	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	31	0.2
9	Alzheimer's disease (331.0) .....	6,333	52.8	9	Cerebrovascular diseases (430-438) .....	24	0.2
10	Septicemia (038) .....	6,103	50.8	10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	20	0.2
...	All other causes (Residual) .....	106,868	890.3	...	All other causes (Residual) .....	393	3.1
White non-Hispanic, female, all ages <sup>3</sup>				White non-Hispanic, female, 15-24 years			
...	All causes .....	980,958	982.5	...	All causes .....	5,046	41.9
1	Diseases of heart (390-398,402,404-429) .....	313,095	313.6	1	Accidents and adverse effects (E800-E949) .....	2,582	21.4
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	216,572	216.9	...	Motor vehicle accidents (E810-E825) .....	2,200	18.3
3	Cerebrovascular diseases (430-438) .....	82,004	82.1	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	382	3.2
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	50,659	50.7	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	437	3.6
5	Pneumonia and influenza (480-487) .....	44,115	44.2	3	Suicide (E950-E959) .....	430	3.6
6	Accidents and adverse effects (E800-E949) .....	27,701	27.7	4	Homicide and legal intervention (E960-E978) .....	297	2.5
...	Motor vehicle accidents (E810-E825) .....	11,015	11.0	5	Diseases of heart (390-398,402,404-429) .....	226	1.9
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	16,686	16.7	6	Congenital anomalies (740-759) .....	126	1.0
7	Diabetes mellitus (250) .....	24,893	24.9	7	Pneumonia and influenza (480-487) .....	49	0.4
8	Alzheimer's disease (331.0) .....	14,373	14.4	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	43	0.4
9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	10,467	10.5	9	Diabetes mellitus (250) .....	38	0.3
10	Septicemia (038) .....	10,303	10.3	10	Cerebrovascular diseases (430-438) .....	32	0.3
...	All other causes (Residual) .....	186,776	187.1	...	All other causes (Residual) .....	786	6.5

See footnotes at end of table.

**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age				Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age			
Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>
White non-Hispanic, female, 25-44 years				Black non-Hispanic, both sexes, all ages <sup>3</sup>			
...	All causes .....	27,989	94.6	...	All causes .....	275,264	841.3
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	8,046	27.2	1	Diseases of heart (390-398,402,404-429) .....	77,434	236.7
2	Accidents and adverse effects (E800-E949) .....	4,933	16.7	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	60,642	185.3
...	Motor vehicle accidents (E810-E825) .....	2,936	9.9	3	Cerebrovascular diseases (430-438) .....	18,067	55.2
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,997	6.7	4	Accidents and adverse effects (E800-E949) .....	12,617	38.6
3	Diseases of heart (390-398,402,404-429) .....	2,882	9.7	...	Motor vehicle accidents (E810-E825) .....	5,607	17.1
4	Suicide (E950-E959) .....	2,137	7.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	7,010	21.4
5	Homicide and legal intervention (E960-E978) .....	889	3.0	5	Diabetes mellitus (250) .....	11,278	34.5
6	Cerebrovascular diseases (430-438) .....	860	2.9	6	Homicide and legal intervention (E960-E978) .....	8,282	25.3
7	Chronic liver disease and cirrhosis (571) .....	826	2.8	7	Pneumonia and influenza (480-487) .....	8,246	25.2
8	Diabetes mellitus (250) .....	617	2.1	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	7,131	21.8
9	Pneumonia and influenza (480-487) .....	505	1.7	9	Human immunodeficiency virus infection (*042-*044) .....	7,055	21.6
10	Human immunodeficiency virus infection (*042-*044) .....	387	1.3	10	Certain conditions originating in the perinatal period (760-779) .....	4,674	14.3
...	All other causes (Residual) .....	5,907	20.0	...	All other causes (Residual) .....	59,838	182.9
White non-Hispanic, female, 45-64 years				Black non-Hispanic, both sexes, 1-4 years			
...	All causes .....	108,098	472.5	...	All causes .....	1,369	64.7
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	48,354	211.4	1	Accidents and adverse effects (E800-E949) .....	462	21.8
2	Diseases of heart (390-398,402,404-429) .....	20,472	89.5	...	Motor vehicle accidents (E810-E825) .....	182	8.6
3	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	5,299	23.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	280	13.2
4	Cerebrovascular diseases (430-438) .....	4,378	19.1	2	Homicide and legal intervention (E960-E978) .....	183	8.6
5	Accidents and adverse effects (E800-E949) .....	3,969	17.3	3	Congenital anomalies (740-759) .....	121	5.7
...	Motor vehicle accidents (E810-E825) .....	2,060	9.0	4	Diseases of heart (390-398,402,404-429) .....	63	3.0
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,909	8.3	5	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	59	2.8
6	Diabetes mellitus (250) .....	3,513	15.4	6	Pneumonia and influenza (480-487) .....	42	2.0
7	Chronic liver disease and cirrhosis (571) .....	2,156	9.4	7	Certain conditions originating in the perinatal period (760-779) .....	26	1.2
8	Pneumonia and influenza (480-487) .....	1,766	7.7	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	23	1.1
9	Suicide (E950-E959) .....	1,691	7.4	9	Septicemia (038) .....	22	1.0
10	Septicemia (038) .....	963	4.2	10	Cerebrovascular diseases (430-438) .....	20	0.9
...	All other causes (Residual) .....	15,537	67.9	...	All other causes (Residual) .....	348	16.4
White non-Hispanic, female, 65 years and over				Black non-Hispanic, both sexes, 5-14 years			
...	All causes .....	830,417	4,887.8	...	All causes .....	1,804	30.9
1	Diseases of heart (390-398,402,404-429) .....	289,229	1,702.4	1	Accidents and adverse effects (E800-E949) .....	758	13.0
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	159,316	937.7	...	Motor vehicle accidents (E810-E825) .....	376	6.4
3	Cerebrovascular diseases (430-438) .....	76,631	451.1	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	382	6.6
4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	44,952	264.6	2	Homicide and legal intervention (E960-E978) .....	163	2.8
5	Pneumonia and influenza (480-487) .....	41,642	245.1	3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	161	2.8
6	Diabetes mellitus (250) .....	20,714	121.9	4	Diseases of heart (390-398,402,404-429) .....	89	1.5
7	Accidents and adverse effects (E800-E949) .....	14,881	87.6	5	Congenital anomalies (740-759) .....	80	1.4
...	Motor vehicle accidents (E810-E825) .....	3,132	18.4	6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	64	1.1
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	11,749	69.2	7	Human immunodeficiency virus infection (*042-*044) .....	37	0.6
8	Alzheimer's disease (331.0) .....	14,229	83.8	8	Suicide (E950-E959) .....	31	0.5
9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	9,598	56.5	9	Pneumonia and influenza (480-487) .....	28	0.5
10	Septicemia (038) .....	9,023	53.1	10	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	24	0.4
...	All other causes (Residual) .....	150,202	884.1	...	All other causes (Residual) .....	369	6.3

See footnotes at end of table.

**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age	Number <sup>2</sup>	Rate <sup>2</sup>
<b>Black non-Hispanic, both sexes, 15-24 years</b>				<b>Black non-Hispanic, both sexes, 65 years and over</b>			
...	All causes .....	7,039	131.0	...	All causes .....	156,823	5,674.8
1	Homicide and legal intervention (E960-E978) .....	3,034	56.5	1	Diseases of heart (390-398,402,404-429) .....	53,399	1,932.3
2	Accidents and adverse effects (E800-E949) .....	1,627	30.3	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	36,324	1,314.4
...	Motor vehicle accidents (E810-E825) .....	1,132	21.1	3	Cerebrovascular diseases (430-438) .....	12,861	465.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	495	9.2	4	Diabetes mellitus (250) .....	7,396	267.6
3	Suicide (E950-E959) .....	480	8.9	5	Pneumonia and influenza (480-487) .....	6,130	221.8
4	Diseases of heart (390-398,402,404-429) .....	319	5.9	6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	4,976	180.1
5	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	245	4.6	7	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	3,142	113.7
6	Human immunodeficiency virus infection (*042-*044) .....	134	2.5	8	Septicemia (038) .....	3,008	108.8
7	Congenital anomalies (740-759) .....	105	2.0	9	Accidents and adverse effects (E800-E949) .....	2,529	91.5
8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	104	1.9	...	Motor vehicle accidents (E810-E825) .....	632	22.9
9	Anemias (280-285) .....	67	1.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,897	68.6
10	Pneumonia and influenza (480-487) .....	61	1.1	10	Hypertension with or without renal disease (401,403) .....	2,270	82.1
...	All other causes (Residual) .....	863	16.1	...	All other causes (Residual) .....	24,788	897.0
<b>Black non-Hispanic, both sexes, 25-44 years</b>				<b>Black non-Hispanic, male, all ages<sup>3</sup></b>			
...	All causes .....	31,414	303.7	...	All causes .....	141,627	914.6
1	Diseases of heart (390-398,402,404-429) .....	4,504	43.5	1	Diseases of heart (390-398,402,404-429) .....	37,223	240.4
2	Human immunodeficiency virus infection (*042-*044) .....	4,483	43.3	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	32,217	208.1
3	Accidents and adverse effects (E800-E949) .....	4,147	40.1	3	Accidents and adverse effects (E800-E949) .....	8,652	55.9
...	Motor vehicle accidents (E810-E825) .....	2,130	20.6	...	Motor vehicle accidents (E810-E825) .....	3,939	25.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,017	19.5	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	4,713	30.4
4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	3,929	38.0	4	Cerebrovascular diseases (430-438) .....	7,704	49.8
5	Homicide and legal intervention (E960-E978) .....	3,742	36.2	5	Homicide and legal intervention (E960-E978) .....	6,758	43.6
6	Cerebrovascular diseases (430-438) .....	1,056	10.2	6	Human immunodeficiency virus infection (*042-*044) .....	4,905	31.7
7	Suicide (E950-E959) .....	925	8.9	7	Diabetes mellitus (250) .....	4,469	28.9
8	Diabetes mellitus (250) .....	692	6.7	8	Pneumonia and influenza (480-487) .....	4,134	26.7
9	Pneumonia and influenza (480-487) .....	585	5.7	9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	3,996	25.8
10	Chronic liver disease and cirrhosis (571) .....	536	5.2	10	Certain conditions originating in the perinatal period (760-779) .....	2,640	17.0
...	All other causes (Residual) .....	6,815	65.9	...	All other causes (Residual) .....	28,929	186.8
<b>Black non-Hispanic, both sexes, 45-64 years</b>				<b>Black non-Hispanic, male, 1-4 years</b>			
...	All causes .....	68,306	1,184.4	...	All causes .....	776	72.4
1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	19,913	345.3	1	Accidents and adverse effects (E800-E949) .....	273	25.5
2	Diseases of heart (390-398,402,404-429) .....	18,875	327.3	...	Motor vehicle accidents (E810-E825) .....	105	9.8
3	Cerebrovascular diseases (430-438) .....	3,976	68.9	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	168	15.7
4	Diabetes mellitus (250) .....	3,137	54.4	2	Homicide and legal intervention (E960-E978) .....	105	9.8
5	Accidents and adverse effects (E800-E949) .....	2,871	49.8	3	Congenital anomalies (740-759) .....	66	6.2
...	Motor vehicle accidents (E810-E825) .....	1,114	19.3	4	Diseases of heart (390-398,402,404-429) .....	38	3.5
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,757	30.5	5	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	31	2.9
6	Human immunodeficiency virus infection (*042-*044) .....	2,179	37.8	6	Pneumonia and influenza (480-487) .....	19	*
7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	1,525	26.4	7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	15	*
8	Chronic liver disease and cirrhosis (571) .....	1,487	25.8	8	Septicemia (038) .....	13	*
9	Pneumonia and influenza (480-487) .....	1,254	21.7	9	Certain conditions originating in the perinatal period (760-779) .....	12	*
10	Septicemia (038) .....	978	17.0	10	Human immunodeficiency virus infection (*042-*044) .....	10	*
...	All other causes (Residual) .....	12,111	210.0	10	Cerebrovascular diseases (430-438) .....	10	*
...				...	All other causes (Residual) .....	184	17.2

See footnotes at end of table.

**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age				Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age			
Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>
<b>Black non-Hispanic, male, 5-14 years</b>				<b>Black non-Hispanic, male, 45-64 years</b>			
...	All causes .....	1,109	37.5	...	All causes .....	40,243	1,570.1
1	Accidents and adverse effects (E800-E949) .....	518	17.5	1	Diseases of heart (390-398,402,404-429) .....	11,558	450.9
...	Motor vehicle accidents (E810-E825) .....	253	8.5	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	10,870	424.1
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	265	9.0	3	Cerebrovascular diseases (430-438) .....	2,192	85.5
2	Homicide and legal intervention (E960-E978) .....	100	3.4	4	Accidents and adverse effects (E800-E949) .....	2,097	81.8
3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	96	3.2	...	Motor vehicle accidents (E810-E825) .....	771	30.1
4	Diseases of heart (390-398,402,404-429) .....	48	1.6	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,326	51.7
5	Congenital anomalies (740-759) .....	46	1.6	5	Human immunodeficiency virus infection (*042-*044) .....	1,671	65.2
6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	39	1.3	6	Diabetes mellitus (250) .....	1,490	58.1
7	Suicide (E950-E959) .....	23	0.8	7	Chronic liver disease and cirrhosis (571) .....	1,056	41.2
8	Human immunodeficiency virus infection (*042-*044) .....	15	*	8	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	801	31.3
9	Pneumonia and influenza (480-487) .....	14	*	9	Pneumonia and influenza (480-487) .....	788	30.7
9	Cerebrovascular diseases (430-438) .....	14	*	10	Homicide and legal intervention (E960-E978) .....	681	26.6
...	All other causes (Residual) .....	196	6.6	...	All other causes (Residual) .....	7,039	274.6
<b>Black non-Hispanic, male, 15-24 years</b>				<b>Black non-Hispanic, male, 65 years and over</b>			
...	All causes .....	5,423	201.4	...	All causes .....	69,836	6,458.3
1	Homicide and legal intervention (E960-E978) .....	2,684	99.7	1	Diseases of heart (390-398,402,404-429) .....	22,515	2,082.2
2	Accidents and adverse effects (E800-E949) .....	1,264	46.9	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	19,466	1,800.2
...	Motor vehicle accidents (E810-E825) .....	844	31.3	3	Cerebrovascular diseases (430-438) .....	4,920	455.0
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	420	15.6	4	Pneumonia and influenza (480-487) .....	2,856	264.1
3	Suicide (E950-E959) .....	421	15.6	4	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	2,856	264.1
4	Diseases of heart (390-398,402,404-429) .....	210	7.8	6	Diabetes mellitus (250) .....	2,563	237.0
5	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	131	4.9	7	Accidents and adverse effects (E800-E949) .....	1,339	123.8
6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	68	2.5	...	Motor vehicle accidents (E810-E825) .....	395	36.5
7	Congenital anomalies (740-759) .....	65	2.4	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	944	87.3
8	Human immunodeficiency virus infection (*042-*044) .....	54	2.0	8	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	1,246	115.2
9	Anemias (280-285) .....	34	1.3	9	Septicemia (038) .....	1,149	106.3
10	Pneumonia and influenza (480-487) .....	23	0.9	10	Hypertension with or without renal disease (401,403) .....	783	72.4
...	All other causes (Residual) .....	469	17.4	...	All other causes (Residual) .....	10,143	938.0
<b>Black non-Hispanic, male, 25-44 years</b>				<b>Black non-Hispanic, female, all ages<sup>3</sup></b>			
...	All causes .....	19,467	401.2	...	All causes .....	133,637	775.5
1	Accidents and adverse effects (E800-E949) .....	3,039	62.6	1	Diseases of heart (390-398,402,404-429) .....	40,211	233.3
...	Motor vehicle accidents (E810-E825) .....	1,555	32.0	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	28,425	164.9
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	1,484	30.6	3	Cerebrovascular diseases (430-438) .....	10,363	60.1
2	Human immunodeficiency virus infection (*042-*044) .....	3,003	61.9	4	Diabetes mellitus (250) .....	6,809	39.5
3	Homicide and legal intervention (E960-E978) .....	3,001	61.8	5	Pneumonia and influenza (480-487) .....	4,112	23.9
4	Diseases of heart (390-398,402,404-429) .....	2,758	56.8	6	Accidents and adverse effects (E800-E949) .....	3,965	23.0
5	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	1,615	33.3	...	Motor vehicle accidents (E810-E825) .....	1,668	9.7
6	Suicide (E950-E959) .....	774	16.0	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	2,297	13.3
7	Cerebrovascular diseases (430-438) .....	495	10.2	7	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	3,135	18.2
8	Diabetes mellitus (250) .....	392	8.1	8	Septicemia (038) .....	2,545	14.8
9	Pneumonia and influenza (480-487) .....	349	7.2	9	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	2,379	13.8
10	Chronic liver disease and cirrhosis (571) .....	337	6.9	10	Human immunodeficiency virus infection (*042-*044) .....	2,150	12.5
...	All other causes (Residual) .....	3,704	76.3	...	All other causes (Residual) .....	29,543	171.4

See footnotes at end of table.



**Table 9. Deaths and death rates for the 10 leading causes of death in specified age groups, by Hispanic origin, race for non-Hispanic population, and sex: United States, 1998—Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes. Race and Hispanic origin are reported separately on the death certificate. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated by race; data for non-Hispanic persons are tabulated by race]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age				Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), Hispanic origin, race for non-Hispanic population, sex, and age			
Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>	Rank <sup>1</sup>		Number <sup>2</sup>	Rate <sup>2</sup>
<b>Black non-Hispanic, female, 1-4 years</b>				<b>Black non-Hispanic, female, 25-44 years</b>			
...	All causes .....	593	56.8	...	All causes .....	11,947	217.5
1	Accidents and adverse effects (E800-E949) .....	189	18.1	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	2,314	42.1
...	Motor vehicle accidents (E810-E825) .....	77	7.4	2	Diseases of heart (390-398,402,404-429) .....	1,746	31.8
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	112	10.7	3	Human immunodeficiency virus infection (*042-*044) .....	1,480	26.9
2	Homicide and legal intervention (E960-E978) .....	78	7.5	4	Accidents and adverse effects (E800-E949) .....	1,108	20.2
3	Congenital anomalies (740-759) .....	55	5.3	...	Motor vehicle accidents (E810-E825) .....	575	10.5
4	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	28	2.7	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	533	9.7
5	Diseases of heart (390-398,402,404-429) .....	25	2.4	5	Homicide and legal intervention (E960-E978) .....	741	13.5
6	Pneumonia and influenza (480-487) .....	23	2.2	6	Cerebrovascular diseases (430-438) .....	561	10.2
7	Certain conditions originating in the perinatal period (760-779) .....	14	*	7	Diabetes mellitus (250) .....	300	5.5
8	Cerebrovascular diseases (430-438) .....	10	*	8	Pneumonia and influenza (480-487) .....	236	4.3
9	Human immunodeficiency virus infection (*042-*044) .....	9	*	9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	214	3.9
9	Septicemia (038) .....	9	*	10	Chronic liver disease and cirrhosis (571) .....	199	3.6
...	All other causes (Residual) .....	153	14.6	...	All other causes (Residual) .....	3,048	55.5
<b>Black non-Hispanic, female, 5-14 years</b>				<b>Black non-Hispanic, female, 45-64 years</b>			
...	All causes .....	695	24.2	...	All causes .....	28,063	875.9
1	Accidents and adverse effects (E800-E949) .....	240	8.4	1	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	9,043	282.2
...	Motor vehicle accidents (E810-E825) .....	123	4.3	2	Diseases of heart (390-398,402,404-429) .....	7,317	228.4
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	117	4.1	3	Cerebrovascular diseases (430-438) .....	1,784	55.7
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	65	2.3	4	Diabetes mellitus (250) .....	1,647	51.4
3	Homicide and legal intervention (E960-E978) .....	63	2.2	5	Accidents and adverse effects (E800-E949) .....	774	24.2
4	Diseases of heart (390-398,402,404-429) .....	41	1.4	...	Motor vehicle accidents (E810-E825) .....	343	10.7
5	Congenital anomalies (740-759) .....	34	1.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	431	13.5
6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	25	0.9	6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	724	22.6
7	Human immunodeficiency virus infection (*042-*044) .....	22	0.8	7	Human immunodeficiency virus infection (*042-*044) .....	508	15.9
8	Pneumonia and influenza (480-487) .....	14	*	8	Pneumonia and influenza (480-487) .....	466	14.5
9	Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	13	*	9	Septicemia (038) .....	453	14.1
10	Septicemia (038) .....	10	*	10	Chronic liver disease and cirrhosis (571) .....	431	13.5
...	All other causes (Residual) .....	168	5.8	...	All other causes (Residual) .....	4,916	153.4
<b>Black non-Hispanic, female, 15-24 years</b>				<b>Black non-Hispanic, female, 65 years and over</b>			
...	All causes .....	1,616	60.3	...	All causes .....	86,987	5,171.1
1	Accidents and adverse effects (E800-E949) .....	363	13.5	1	Diseases of heart (390-398,402,404-429) .....	30,884	1,835.9
...	Motor vehicle accidents (E810-E825) .....	288	10.7	2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	16,858	1,002.1
...	All other accidents and adverse effects (E800-E807,E826-E949) .....	75	2.8	3	Cerebrovascular diseases (430-438) .....	7,941	472.1
2	Homicide and legal intervention (E960-E978) .....	350	13.1	4	Diabetes mellitus (250) .....	4,833	287.3
3	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	114	4.3	5	Pneumonia and influenza (480-487) .....	3,274	194.6
4	Diseases of heart (390-398,402,404-429) .....	109	4.1	6	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	2,120	126.0
5	Human immunodeficiency virus infection (*042-*044) .....	80	3.0	7	Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	1,896	112.7
6	Suicide (E950-E959) .....	59	2.2	8	Septicemia (038) .....	1,859	110.5
7	Congenital anomalies (740-759) .....	40	1.5	9	Hypertension with or without renal disease (401,403) .....	1,487	88.4
8	Pneumonia and influenza (480-487) .....	38	1.4	10	Accidents and adverse effects (E800-E949) .....	1,190	70.7
9	Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	36	1.3	...	Motor vehicle accidents (E810-E825) .....	237	14.1
10	Complications of pregnancy, childbirth, and the puerperium (630-676) .....	33	1.2	...	All other accidents and adverse effects (E800-E807,E826-E949) .....	953	56.7
10	Anemias (280-285) .....	33	1.2	...	All other causes (Residual) .....	14,645	870.6
...	All other causes (Residual) .....	361	13.5				

... Category not applicable.  
 \* Figure does not meet standards of reliability or precision; see Technical notes.  
<sup>1</sup>Rank based on number of deaths; see Technical notes.  
<sup>2</sup>Figures for age not stated are included in "All ages" but not distributed among age groups.  
<sup>3</sup>Includes deaths for "Under 1 year."  
<sup>4</sup>Includes races other than white and black.



**Table 10. Number of deaths from 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by age: United States, 1998**

[For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All ages	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	Not stated
All causes .....	2,337,256	28,371	5,251	7,791	30,627	42,516	88,866	146,479	233,724	458,982	681,663	612,575	411
Shigellosis and amebiasis (004,006) .....	8	-	-	1	-	-	2	-	-	-	1	4	-
Certain other intestinal infections (007-009) .....	1,059	229	19	1	4	3	13	22	46	127	293	302	-
Tuberculosis (010-018) .....	1,112	-	3	1	11	38	108	114	151	229	280	177	-
Tuberculosis of respiratory system (010-012) .....	815	-	-	-	7	25	64	84	103	169	218	145	-
Other tuberculosis (013-018) .....	297	-	3	1	4	13	44	30	48	60	62	32	-
Whooping cough (033) .....	5	4	1	-	-	-	-	-	-	-	-	-	-
Streptococcal sore throat, scarlatina, and erysipelas (034-035) .....	8	-	1	2	-	1	-	-	1	2	1	-	-
Meningococcal infection (036) .....	234	23	33	32	50	22	17	23	5	10	9	10	-
Septicemia (038) .....	23,731	216	89	56	104	257	671	1,231	2,093	4,474	7,431	7,107	2
Acute poliomyelitis (045) .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles (055) .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Viral hepatitis (070) .....	4,796	2	2	3	26	120	903	1,333	740	854	660	153	-
Syphilis (090-097) .....	45	2	-	-	-	2	6	3	4	7	10	11	-
All other infectious and parasitic diseases (001-003,005,020-032,037,039-041,*042-*044,046-054,056-066,071-088,098-139) .....	20,254	272	109	138	309	3,208	6,389	3,929	1,941	1,673	1,454	829	3
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	541,532	78	365	1,013	1,699	4,385	17,022	45,747	87,024	154,753	158,517	70,916	13
Malignant neoplasms of lip, oral cavity, and pharynx (140-149) .....	7,965	-	1	4	23	55	306	1,038	1,749	2,145	1,766	878	-
Malignant neoplasms of digestive organs and peritoneum (150-159) .....	128,683	5	17	24	124	650	3,110	10,341	19,427	35,258	39,144	20,579	4
Malignant neoplasms of respiratory and intrathoracic organs (160-165) .....	159,736	4	3	10	46	243	2,897	12,086	30,892	56,193	45,232	12,128	2
Malignant neoplasm of breast (174-175) .....	42,086	-	-	-	5	509	3,024	6,375	7,434	9,539	9,571	5,628	1
Malignant neoplasms of genital organs (179-187) .....	58,367	-	-	4	81	495	1,600	3,381	6,340	14,190	20,618	11,657	1
Malignant neoplasms of urinary organs (188-189) .....	23,768	3	21	34	25	75	478	1,667	3,358	6,303	7,646	4,158	-
Malignant neoplasms of all other and unspecified sites (170-173,190-199) .....	65,389	42	191	555	699	1,251	3,387	6,787	10,592	16,727	17,002	8,153	3
Leukemia (204-208) .....	20,324	19	116	328	447	495	929	1,355	2,326	4,953	6,255	3,100	1
Other malignant neoplasms of lymphatic and hematopoietic tissues (200-203) .....	35,214	5	16	54	249	612	1,291	2,717	4,906	9,445	11,283	4,635	1
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	7,933	60	53	84	121	175	331	517	773	1,520	2,358	1,941	-
Diabetes mellitus (250) .....	64,751	2	6	20	137	636	1,885	4,386	8,705	16,490	20,529	11,955	-
Nutritional deficiencies (260-269) .....	4,077	11	5	3	7	12	43	56	119	344	1,166	2,311	-
Anemias (280-285) .....	4,544	23	31	46	93	168	220	202	235	572	1,261	1,693	-
Meningitis (320-322) .....	768	107	48	34	38	37	91	92	78	96	106	41	-
Major cardiovascular diseases (390-448) .....	940,565	932	277	429	1,308	4,161	17,076	42,589	78,804	170,010	300,064	324,850	65
Diseases of heart (390-398,402,404-429) .....	724,859	609	214	326	1,057	3,207	13,593	35,056	65,068	135,295	226,769	243,609	56
Rheumatic fever and rheumatic heart disease (390-398) .....	4,792	2	1	4	33	82	195	328	549	1,068	1,518	1,012	-
Hypertensive heart disease (402) .....	27,715	1	1	-	24	205	1,003	2,362	3,334	4,897	7,273	8,610	5
Hypertensive heart and renal disease (404) .....	2,412	-	-	-	4	22	55	107	165	412	833	814	-
Ischemic heart disease (410-414) .....	459,841	19	7	23	111	936	6,535	20,165	40,968	89,625	149,668	151,765	19
Acute myocardial infarction (410) .....	203,551	12	6	13	57	488	3,489	11,196	22,227	43,730	66,288	56,038	7
Other acute and subacute forms of ischemic heart disease (411) .....	2,907	1	-	-	5	13	100	263	404	569	771	781	-
Angina pectoris (413) .....	650	-	-	-	-	2	9	23	43	86	209	278	-
Old myocardial infarction and other forms of chronic ischemic heart disease (412,414) .....	252,733	6	1	10	49	433	2,937	8,683	18,294	45,240	82,400	94,668	12
Other diseases of endocardium (424) .....	18,520	19	5	8	38	96	325	552	882	2,447	6,056	8,090	2
All other forms of heart disease (415-423,425-429) .....	211,579	568	200	291	847	1,866	5,480	11,542	19,170	36,846	61,421	73,318	30

See footnotes at end of table.

**Table 10. Number of deaths from 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by age: United States, 1998 - Con.**

[For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All ages	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	Not stated
Hypertension with or without renal disease (401,403) ...	14,308	12	-	4	7	55	238	593	1,126	2,495	4,575	5,203	-
Cerebrovascular diseases (430-438) .....	158,448	296	57	82	178	670	2,650	5,709	9,653	23,912	54,428	60,804	9
Intracerebral and other intracranial hemorrhage (431-432) .....	26,230	37	15	28	68	248	1,056	2,287	3,042	5,585	8,924	4,936	4
Cerebral thrombosis and unspecified occlusion of cerebral arteries (434.0,434.9) .....	10,958	25	1	10	12	32	135	293	598	1,554	3,716	4,582	-
Cerebral embolism (434.1) .....	570	-	-	-	1	1	10	17	38	105	227	171	-
All other and late effects of cerebrovascular diseases (430,433,435-438) .....	120,690	234	41	44	97	389	1,449	3,112	5,975	16,668	41,561	51,115	5
Atherosclerosis (440) .....	15,279	1	1	-	2	10	41	172	560	1,687	4,407	8,398	-
Other diseases of arteries, arterioles, and capillaries (441-448) .....	27,671	14	5	17	64	219	554	1,059	2,397	6,621	9,885	6,836	-
Acute bronchitis and bronchiolitis (466) .....	452	44	18	2	6	6	9	15	27	57	110	158	-
Pneumonia and influenza (480-487) .....	91,871	441	146	121	215	531	1,400	2,167	3,856	11,005	28,857	43,127	5
Pneumonia (480-486) .....	90,147	435	143	107	205	530	1,383	2,146	3,795	10,853	28,344	42,201	5
Influenza (487) .....	1,724	6	3	14	10	1	17	21	61	152	513	926	-
Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	112,584	39	49	152	239	328	884	2,828	10,162	31,102	43,718	23,076	7
Bronchitis, chronic and unspecified (490-491) .....	3,032	27	12	11	10	13	41	101	279	676	1,048	814	-
Emphysema (492) .....	17,555	1	-	-	4	12	82	476	2,000	5,835	6,717	2,428	-
Asthma (493) .....	5,438	7	33	131	214	277	487	647	673	972	1,190	807	-
Other chronic obstructive pulmonary diseases and allied conditions (494-496) .....	86,559	4	4	10	11	26	274	1,604	7,210	23,619	34,763	19,027	7
Ulcer of stomach and duodenum (531-533) .....	4,695	4	2	3	8	35	109	256	417	845	1,496	1,520	-
Appendicitis (540-543) .....	439	9	5	15	12	11	29	29	53	76	121	79	-
Hernia of abdominal cavity and intestinal obstruction without mention of hernia (550-553,560) .....	6,635	69	20	19	24	33	95	210	341	874	2,182	2,768	-
Chronic liver disease and cirrhosis (571) .....	25,192	16	1	4	22	506	3,370	5,744	5,279	5,655	3,703	887	5
Cholelithiasis and other disorders of gallbladder (574-575) .....	2,822	2	5	1	8	29	56	107	179	496	954	985	-
Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	26,182	138	12	20	43	149	436	932	1,812	4,778	9,058	8,804	-
Acute glomerulonephritis and nephrotic syndrome (580-581) .....	325	11	2	4	1	3	7	17	23	59	109	89	-
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (582-583,587) .....	1,715	1	1	3	8	22	47	67	121	295	573	577	-
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause (584-586,588-589) .....	24,142	126	9	13	34	124	382	848	1,668	4,424	8,376	8,138	-
Infections of kidney (590) .....	828	5	-	-	2	7	31	43	58	120	240	322	-
Hyperplasia of prostate (600) .....	410	-	-	-	-	-	-	1	13	26	163	206	1
Complications of pregnancy, childbirth, and the puerperium (630-676) .....	281	...	...	-	67	140	73	1	...	...	...	...	-
Pregnancy with abortive outcome (630-638) .....	32	...	...	-	9	15	8	-	...	...	...	...	-
Other complications of pregnancy, childbirth, and the puerperium (640-676) .....	249	...	...	-	58	125	65	1	...	...	...	...	-
Congenital anomalies (740-759) .....	11,934	6,212	564	371	450	452	545	525	519	651	998	646	1
Certain conditions originating in the perinatal period (760-779) .....	13,428	13,294	75	26	6	8	8	2	4	1	1	2	1
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress syndrome (767-769) .....	1,997	1,950	27	11	3	-	1	2	2	1	-	-	-
Other conditions originating in the perinatal period (760-766,770-779) .....	11,431	11,344	48	15	3	8	7	-	2	-	1	2	1
Symptoms, signs, and ill-defined conditions (780-799) ..	25,992	3,658	219	156	558	1,058	1,966	1,935	1,734	2,902	4,619	7,099	88
All other diseases (Residual) .....	247,644	1,328	716	934	1,728	3,289	8,261	12,906	17,268	37,169	75,825	88,208	12

See footnotes at end of table.

**Table 10. Number of deaths from 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by age: United States, 1998 - Con.**

[For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All ages	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	Not stated
Accidents and adverse effects (E800-E949) .....	97,835	754	1,935	3,254	13,349	12,045	15,127	10,946	7,340	8,892	12,711	11,372	110
Motor vehicle accidents (E810-E825) .....	43,501	162	759	1,868	10,026	7,132	6,963	4,996	3,420	3,410	3,457	1,278	30
All other accidents and adverse effects (E800-E807,E826-E949) .....	54,334	592	1,176	1,386	3,323	4,913	8,164	5,950	3,920	5,482	9,254	10,094	80
Suicide (E950-E959) .....	30,575	...	...	324	4,135	5,365	6,837	5,131	2,963	2,597	2,355	851	17
Homicide and legal intervention (E960-E978) .....	18,272	322	399	460	5,506	4,565	3,567	1,744	766	468	318	101	56
All other external causes (E980-E999) .....	3,763	75	43	66	342	734	1,286	713	214	107	94	64	25
Human immunodeficiency virus infection <sup>1</sup> (*042-*044) ..	13,426	14	32	54	194	2,912	5,746	3,120	979	301	64	7	3
Alzheimer's disease <sup>2</sup> (331.0) .....	22,725	-	1	-	-	-	9	39	259	1,907	8,367	12,142	1

- Quantity zero.

.. Category not applicable.

<sup>1</sup> Included in "All other infectious and parasitic diseases" shown above.

<sup>2</sup> Included in "All other diseases (Residual)" category shown above.

**Table 11. Death rates for 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by age: United States, 1998**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All ages <sup>1</sup>	Under 1 year <sup>2</sup>	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
All causes .....	864.7	751.3	34.6	19.9	82.3	109.6	199.6	423.5	1,030.7	2,495.1	5,703.2	15,111.7
Shigellosis and amebiasis (004,006) .....	*	*	*	*	*	*	*	*	*	*	*	*
Certain other intestinal infections (007-009) .....	0.4	6.1	*	*	*	*	*	0.1	0.2	0.7	2.5	7.5
Tuberculosis (010-018) .....	0.4	*	*	*	*	0.1	0.2	0.3	0.7	1.2	2.3	4.4
Tuberculosis of respiratory system (010-012) .....	0.3	*	*	*	*	0.1	0.1	0.2	0.5	0.9	1.8	3.6
Other tuberculosis (013-018) .....	0.1	*	*	*	*	*	0.1	0.1	0.2	0.3	0.5	0.8
Whooping cough (033) .....	*	*	*	*	*	*	*	*	*	*	*	*
Streptococcal sore throat, scarlatina, and erysipelas (034-035) .....	*	*	*	*	*	*	*	*	*	*	*	*
Meningococcal infection (036) .....	0.1	0.6	0.2	0.1	0.1	0.1	*	0.1	*	*	*	*
Septicemia (038) .....	8.8	5.7	0.6	0.1	0.3	0.7	1.5	3.6	9.2	24.3	62.2	175.3
Acute poliomyelitis (045) .....	*	*	*	*	*	*	*	*	*	*	*	*
Measles (055) .....	*	*	*	*	*	*	*	*	*	*	*	*
Viral hepatitis (070) .....	1.8	*	*	*	0.1	0.3	2.0	3.9	3.3	4.6	5.5	3.8
Syphilis (090-097) .....	0.0	*	*	*	*	*	*	*	*	*	*	*
All other infectious and parasitic diseases (001-003,005,020-032,037,039-041,*042-*044,046-054,056-066,071-088,098-139) .....	7.5	7.2	0.7	0.4	0.8	8.3	14.4	11.4	8.6	9.1	12.2	20.5
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	200.3	2.1	2.4	2.6	4.6	11.3	38.2	132.3	383.8	841.3	1,326.3	1,749.4
Malignant neoplasms of lip, oral cavity, and pharynx (140-149) .....	2.9	*	*	*	0.1	0.1	0.7	3.0	7.7	11.7	14.8	21.7
Malignant neoplasms of digestive organs and peritoneum (150-159) .....	47.6	*	*	0.1	0.3	1.7	7.0	29.9	85.7	191.7	327.5	507.7
Malignant neoplasms of respiratory and intrathoracic organs (160-165) .....	59.1	*	*	*	0.1	0.6	6.5	34.9	136.2	305.5	378.4	299.2
Malignant neoplasm of breast (174-175) .....	15.6	*	*	*	*	1.3	6.8	18.4	32.8	51.9	80.1	138.8
Malignant neoplasms of genital organs (179-187) .....	21.6	*	*	*	0.2	1.3	3.6	9.8	28.0	77.1	172.5	287.6
Malignant neoplasms of urinary organs (188-189) .....	8.8	*	0.1	0.1	0.1	0.2	1.1	4.8	14.8	34.3	64.0	102.6
Malignant neoplasms of all other and unspecified sites (170-173,190-199) .....	24.2	1.1	1.3	1.4	1.9	3.2	7.6	19.6	46.7	90.9	142.3	201.1
Leukemia (204-208) .....	7.5	*	0.8	0.8	1.2	1.3	2.1	3.9	10.3	26.9	52.3	76.5
Other malignant neoplasms of lymphatic and hematopoietic tissues (200-203) .....	13.0	*	*	0.1	0.7	1.6	2.9	7.9	21.6	51.3	94.4	114.3
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	2.9	1.6	0.3	0.2	0.3	0.5	0.7	1.5	3.4	8.3	19.7	47.9
Diabetes mellitus (250) .....	24.0	*	*	0.1	0.4	1.6	4.2	12.7	38.4	89.6	171.8	294.9
Nutritional deficiencies (260-269) .....	1.5	*	*	*	*	*	0.1	0.2	0.5	1.9	9.8	57.0
Anemias (280-285) .....	1.7	0.6	0.2	0.1	0.2	0.4	0.5	0.6	1.0	3.1	10.6	41.8
Meningitis (320-322) .....	0.3	2.8	0.3	0.1	0.1	0.1	0.2	0.3	0.3	0.5	0.9	1.0
Major cardiovascular diseases (390-448) .....	348.0	24.7	1.8	1.1	3.5	10.7	38.4	123.1	347.5	924.2	2,510.5	8,013.8
Diseases of heart (390-398,402,404-429) .....	268.2	16.1	1.4	0.8	2.8	8.3	30.5	101.4	286.9	735.5	1,897.3	6,009.6
Rheumatic fever and rheumatic heart disease (390-398) .....	1.8	*	*	*	0.1	0.2	0.4	0.9	2.4	5.8	12.7	25.0
Hypertensive heart disease (402) .....	10.3	*	*	*	0.1	0.5	2.3	6.8	14.7	26.6	60.9	212.4
Hypertensive heart and renal disease (404) .....	0.9	*	*	*	*	0.1	0.1	0.3	0.7	2.2	7.0	20.1
Ischemic heart disease (410-414) .....	170.1	*	*	0.1	0.3	2.4	14.7	58.3	180.7	487.2	1,252.2	3,743.9
Acute myocardial infarction (410) .....	75.3	*	*	*	0.2	1.3	7.8	32.4	98.0	237.7	554.6	1,382.4
Other acute and subacute forms of ischemic heart disease (411) .....	1.1	*	*	*	*	*	0.2	0.8	1.8	3.1	6.5	19.3
Angina pectoris (413) .....	0.2	*	*	*	*	*	*	0.1	0.2	0.5	1.7	6.9
Old myocardial infarction and other forms of chronic ischemic heart disease (412,414) .....	93.5	*	*	*	0.1	1.1	6.6	25.1	80.7	245.9	689.4	2,335.4
Other diseases of endocardium (424) .....	6.9	*	*	*	0.1	0.2	0.7	1.6	3.9	13.3	50.7	199.6
All other forms of heart disease (415-423,425-429) .....	78.3	15.0	1.3	0.7	2.3	4.8	12.3	33.4	84.5	200.3	513.9	1,808.7

See footnotes at end of table.

**Table 11. Death rates for 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by age: United States, 1998 - Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All ages <sup>1</sup>	Under 1 year <sup>2</sup>	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
Hypertension with or without renal disease (401,403) ...	5.3	*	*	*	*	0.1	0.5	1.7	5.0	13.6	38.3	128.4
Cerebrovascular diseases (430-438) .....	58.6	7.8	0.4	0.2	0.5	1.7	6.0	16.5	42.6	130.0	455.4	1,500.0
Intracerebral and other intracranial hemorrhage (431-432) .....	9.7	1.0	*	0.1	0.2	0.6	2.4	6.6	13.4	30.4	74.7	121.8
Cerebral thrombosis and unspecified occlusion of cerebral arteries (434.0,434.9) .....	4.1	0.7	*	*	*	0.1	0.3	0.8	2.6	8.4	31.1	113.0
Cerebral embolism (434.1) .....	0.2	*	*	*	*	*	*	*	0.2	0.6	1.9	4.2
All other and late effects of cerebrovascular diseases (430,433,435-438) .....	44.7	6.2	0.3	0.1	0.3	1.0	3.3	9.0	26.3	90.6	347.7	1,261.0
Atherosclerosis (440) .....	5.7	*	*	*	*	*	0.1	0.5	2.5	9.2	36.9	207.2
Other diseases of arteries, arterioles, and capillaries (441-448) .....	10.2	*	*	*	0.2	0.6	1.2	3.1	10.6	36.0	82.7	168.6
Acute bronchitis and bronchiolitis (466) .....	0.2	1.2	*	*	*	*	*	*	0.1	0.3	0.9	3.9
Pneumonia and influenza (480-487) .....	34.0	11.7	1.0	0.3	0.6	1.4	3.1	6.3	17.0	59.8	241.4	1,063.9
Pneumonia (480-486) .....	33.4	11.5	0.9	0.3	0.6	1.4	3.1	6.2	16.7	59.0	237.1	1,041.1
Influenza (487) .....	0.6	*	*	*	*	*	*	0.1	0.3	0.8	4.3	22.8
Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	41.7	1.0	0.3	0.4	0.6	0.8	2.0	8.2	44.8	169.1	365.8	569.3
Bronchitis, chronic and unspecified (490-491) .....	1.1	0.7	*	*	*	*	0.1	0.3	1.2	3.7	8.8	20.1
Emphysema (492) .....	6.5	*	*	*	*	*	0.2	1.4	8.8	31.7	56.2	59.9
Asthma (493) .....	2.0	*	0.2	0.3	0.6	0.7	1.1	1.9	3.0	5.3	10.0	19.9
Other chronic obstructive pulmonary diseases and allied conditions (494-496) .....	32.0	*	*	*	*	0.1	0.6	4.6	31.8	128.4	290.9	469.4
Ulcer of stomach and duodenum (531-533) .....	1.7	*	*	*	*	0.1	0.2	0.7	1.8	4.6	12.5	37.5
Appendicitis (540-543) .....	0.2	*	*	*	*	*	0.1	0.1	0.2	0.4	1.0	1.9
Hernia of abdominal cavity and intestinal obstruction without mention of hernia (550-553,560) .....	2.5	1.8	0.1	*	0.1	0.1	0.2	0.6	1.5	4.8	18.3	68.3
Chronic liver disease and cirrhosis (571) .....	9.3	*	*	*	0.1	1.3	7.6	16.6	23.3	30.7	31.0	21.9
Cholelithiasis and other disorders of gallbladder (574-575) .....	1.0	*	*	*	*	0.1	0.1	0.3	0.8	2.7	8.0	24.3
Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	9.7	3.7	*	0.1	0.1	0.4	1.0	2.7	8.0	26.0	75.8	217.2
Acute glomerulonephritis and nephrotic syndrome (580-581) .....	0.1	*	*	*	*	*	*	*	0.1	0.3	0.9	2.2
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (582-583,587) .....	0.6	*	*	*	*	0.1	0.1	0.2	0.5	1.6	4.8	14.2
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause (584-586,588-589) .....	8.9	3.3	*	*	0.1	0.3	0.9	2.5	7.4	24.0	70.1	200.8
Infections of kidney (590) .....	0.3	*	*	*	*	*	0.1	0.1	0.3	0.7	2.0	7.9
Hyperplasia of prostate (600) .....	0.2	*	*	*	*	*	*	*	*	0.1	1.4	5.1
Complications of pregnancy, childbirth, and the puerperium (630-676) .....	0.1	...	...	*	0.2	0.4	0.2	*	...	...	...	...
Pregnancy with abortive outcome (630-638) .....	0.0	...	...	*	*	*	*	*	...	...	...	...
Other complications of pregnancy, childbirth, and the puerperium (640-676) .....	0.1	...	...	*	0.2	0.3	0.1	*	...	...	...	...
Congenital anomalies (740-759) .....	4.4	164.5	3.7	0.9	1.2	1.2	1.2	1.5	2.3	3.5	8.3	15.9
Certain conditions originating in the perinatal period (760-779) .....	5.0	352.0	0.5	0.1	*	*	*	*	*	*	*	*
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress syndrome (767-769) .....	0.7	51.6	0.2	*	*	*	*	*	*	*	*	*
Other conditions originating in the perinatal period (760-766,770-779) .....	4.2	300.4	0.3	*	*	*	*	*	*	*	*	*
Symptoms, signs, and ill-defined conditions (780-799) ..	9.6	96.9	1.4	0.4	1.5	2.7	4.4	5.6	7.6	15.8	38.6	175.1
All other diseases (Residual) .....	91.6	35.2	4.7	2.4	4.6	8.5	18.6	37.3	76.2	202.1	634.4	2,176.0

See footnotes at end of table.



**Table 11. Death rates for 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by age: United States, 1998 - Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All ages <sup>1</sup>	Under 1 year <sup>2</sup>	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
Accidents and adverse effects (E800-E949) .....	36.2	20.0	12.7	8.3	35.9	31.1	34.0	31.6	32.4	48.3	106.3	280.5
Motor vehicle accidents (E810-E825) .....	16.1	4.3	5.0	4.8	26.9	18.4	15.6	14.4	15.1	18.5	28.9	31.5
All other accidents and adverse effects (E800-E807,E826-E949) .....	20.1	15.7	7.7	3.5	8.9	12.7	18.3	17.2	17.3	29.8	77.4	249.0
Suicide (E950-E959) .....	11.3	...	...	0.8	11.1	13.8	15.4	14.8	13.1	14.1	19.7	21.0
Homicide and legal intervention (E960-E978) .....	6.8	8.5	2.6	1.2	14.8	11.8	8.0	5.0	3.4	2.5	2.7	2.5
All other external causes (E980-E999) .....	1.4	2.0	0.3	0.2	0.9	1.9	2.9	2.1	0.9	0.6	0.8	1.6
Human immunodeficiency virus infection <sup>3</sup> (*042-*044) ..	5.0	*	0.2	0.1	0.5	7.5	12.9	9.0	4.3	1.6	0.5	*
Alzheimer's disease <sup>4</sup> (331.0) .....	8.4	*	*	*	*	*	*	0.1	1.1	10.4	70.0	299.5

\* Figure does not meet standards of reliability or precision, see Technical notes.  
0.0 Quantity more than zero but less than 0.05.  
... Category not applicable.  
<sup>1</sup> Figures for age not stated included in "All ages" but not distributed among age groups.  
<sup>2</sup> Death rates for "Under 1 year" (based on population estimates) differ from infant mortality rates (based on live births); see Technical notes.  
<sup>3</sup> Included in "All other infectious and parasitic diseases" shown above.  
<sup>4</sup> Included in "All other diseases (Residual)" category shown above.

**Table 12. Number of deaths from 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by race and sex: United States, 1998**

[For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All races						All other					
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All causes	2,337,256	1,157,260	1,179,996	2,015,984	990,190	1,025,794	321,272	167,070	154,202	278,440	143,417	135,023
Shigellosis and amebiasis (004.006)	8	3	5	6	2	4	2	1	1	-	-	-
Certain other intestinal infections (007-009)	1,059	464	595	882	379	503	177	85	92	158	77	81
Tuberculosis (010-018)	1,112	658	454	667	381	286	445	277	168	346	213	133
Tuberculosis of respiratory system (010-012)	815	528	287	495	306	189	320	222	98	251	176	75
Other tuberculosis (013-018)	297	130	167	172	75	97	125	55	70	95	37	58
Whooping cough (033)	5	5	-	4	4	-	1	1	-	-	-	-
Streptococcal sore throat, scarlatina, and erysipelas (034-035)	8	5	3	7	4	3	1	1	-	1	1	-
Meningococcal infection (036)	234	132	102	180	98	82	54	34	20	51	32	19
Septicemia (038)	23,731	10,225	13,506	18,855	8,114	10,741	4,876	2,111	2,765	4,487	1,923	2,564
Acute poliomyelitis (045)	-	-	-	-	-	-	-	-	-	-	-	-
Measles (055)	-	-	-	-	-	-	-	-	-	-	-	-
Viral hepatitis (070)	4,796	2,982	1,814	3,829	2,382	1,447	967	600	367	694	429	265
Syphilis (090-097)	45	25	20	21	12	9	24	13	11	21	11	10
All other infectious and parasitic diseases (001-003,005,020-032,037,039-041,*042-*044,046-054,056-066,071-088,098-139)	20,254	13,700	6,554	11,362	7,844	3,518	8,892	5,856	3,036	8,566	5,658	2,908
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208)	541,532	282,065	259,467	470,139	244,109	226,030	71,393	37,956	33,437	61,193	32,523	28,670
Malignant neoplasms of lip, oral cavity, and pharynx (140-149)	7,965	5,281	2,684	6,612	4,289	2,323	1,353	992	361	1,155	849	306
Malignant neoplasms of digestive organs and peritoneum (150-159)	128,683	68,556	60,127	109,130	58,141	50,989	19,553	10,415	9,138	16,050	8,390	7,660
Malignant neoplasms of respiratory and intrathoracic organs (160-165)	159,736	95,261	64,475	140,268	82,739	57,529	19,468	12,522	6,946	16,948	10,944	6,004
Malignant neoplasm of breast (174-175)	42,086	349	41,737	36,060	301	35,759	6,026	48	5,978	5,329	48	5,281
Malignant neoplasms of genital organs (179-187)	58,367	32,800	25,567	48,920	26,947	21,973	9,447	5,853	3,594	8,580	5,491	3,089
Malignant neoplasms of urinary organs (188-189)	23,768	15,316	8,452	21,515	13,996	7,519	2,253	1,320	933	1,913	1,099	814
Malignant neoplasms of all other and unspecified sites (170-173,190-199)	65,389	34,965	30,424	58,269	31,348	26,921	7,120	3,617	3,503	5,996	3,025	2,971
Leukemia (204-208)	20,324	11,201	9,123	18,214	10,070	8,144	2,110	1,131	979	1,752	936	816
Other malignant neoplasms of lymphatic and hematopoietic tissues (200-203)	35,214	18,336	16,878	31,151	16,278	14,873	4,063	2,058	2,005	3,470	1,741	1,729
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239)	7,933	3,516	4,417	6,940	3,079	3,861	993	437	556	855	366	489
Diabetes mellitus (250)	64,751	29,584	35,167	51,706	24,249	27,457	13,045	5,335	7,710	11,378	4,511	6,867
Nutritional deficiencies (260-269)	4,077	1,278	2,799	3,539	1,067	2,472	538	211	327	480	188	292
Anemias (280-285)	4,544	1,873	2,671	3,503	1,391	2,112	1,041	482	559	953	429	524
Meningitis (320-322)	768	424	344	545	297	248	223	127	96	195	114	81
Major cardiovascular diseases (390-448)	940,565	441,278	499,287	821,836	384,520	437,316	118,729	56,758	61,971	103,458	48,391	55,067
Diseases of heart (390-398,402,404-429)	724,859	353,897	370,962	635,549	309,952	325,597	89,310	43,945	45,365	78,294	37,662	40,632
Rheumatic fever and rheumatic heart disease (390-398)	4,792	1,422	3,370	4,334	1,288	3,046	458	134	324	356	101	255
Hypertensive heart disease (402)	27,715	11,937	15,778	20,047	8,223	11,824	7,668	3,714	3,954	7,158	3,463	3,695
Hypertensive heart and renal disease (404)	2,412	996	1,416	1,648	669	979	764	327	437	700	293	407
Ischemic heart disease (410-414)	459,841	233,374	226,467	412,351	210,056	202,295	47,490	23,318	24,172	40,597	19,307	21,290
Acute myocardial infarction (410)	203,551	106,995	96,556	181,298	95,921	85,377	22,253	11,074	11,179	19,198	9,273	9,925
Other acute and subacute forms of ischemic heart disease (411)	2,907	1,563	1,344	2,448	1,293	1,155	459	270	189	407	234	173
Angina pectoris (413)	650	273	377	579	236	343	71	37	34	61	32	29
Old myocardial infarction and other forms of chronic ischemic heart disease (412,414)	252,733	124,543	128,190	228,026	112,606	115,420	24,707	11,937	12,770	20,931	9,768	11,163
Other diseases of endocardium (424)	18,520	7,326	11,194	17,120	6,704	10,416	1,400	622	778	1,149	489	660
All other forms of heart disease (415-423,425-429)	211,579	98,842	112,737	180,049	83,012	97,037	31,530	15,830	15,700	28,334	14,009	14,325

See footnotes at end of table.

**Table 12. Number of deaths from 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by race and sex: United States, 1998 - Con.**

[For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All races						All other					
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Hypertension with or without renal disease (401,403) ...	14,308	5,526	8,782	10,818	4,105	6,713	3,490	1,421	2,069	3,179	1,276	1,903
Cerebrovascular diseases (430-438) .....	158,448	61,145	97,303	136,855	51,766	85,089	21,593	9,379	12,214	18,237	7,765	10,472
Intracerebral and other intracranial hemorrhage (431-432) .....	26,230	12,044	14,186	21,553	9,694	11,859	4,677	2,350	2,327	3,694	1,862	1,832
Cerebral thrombosis and unspecified occlusion of cerebral arteries (434.0,434.9) .....	10,958	4,160	6,798	9,511	3,544	5,967	1,447	616	831	1,259	528	731
Cerebral embolism (434.1) .....	570	228	342	519	206	313	51	22	29	38	16	22
All other and late effects of cerebrovascular diseases (430,433,435-438) .....	120,690	44,713	75,977	105,272	38,322	66,950	15,418	6,391	9,027	13,246	5,359	7,887
Atherosclerosis (440) .....	15,279	5,719	9,560	14,050	5,213	8,837	1,229	506	723	1,082	436	646
Other diseases of arteries, arterioles, and capillaries (441-448) .....	27,671	14,991	12,680	24,564	13,484	11,080	3,107	1,507	1,600	2,666	1,252	1,414
Acute bronchitis and bronchiolitis (466) .....	452	194	258	400	164	236	52	30	22	46	27	19
Pneumonia and influenza (480-487) .....	91,871	40,979	50,892	81,659	35,795	45,864	10,212	5,184	5,028	8,326	4,178	4,148
Pneumonia (480-486) .....	90,147	40,395	49,752	79,992	35,235	44,757	10,155	5,160	4,995	8,293	4,165	4,128
Influenza (487) .....	1,724	584	1,140	1,667	560	1,107	57	24	33	33	13	20
Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	112,584	57,018	55,566	104,061	52,172	51,889	8,523	4,846	3,677	7,205	4,039	3,166
Bronchitis, chronic and unspecified (490-491) .....	3,032	1,482	1,550	2,817	1,359	1,458	215	123	92	165	94	71
Emphysema (492) .....	17,555	9,333	8,222	16,511	8,684	7,827	1,044	649	395	890	543	347
Asthma (493) .....	5,438	2,000	3,438	3,947	1,366	2,581	1,491	634	857	1,290	536	754
Other chronic obstructive pulmonary diseases and allied conditions (494-496) .....	86,559	44,203	42,356	80,786	40,763	40,023	5,773	3,440	2,333	4,860	2,866	1,994
Ulcer of stomach and duodenum (531-533) .....	4,695	2,235	2,460	4,162	1,960	2,202	533	275	258	411	204	207
Appendicitis (540-543) .....	439	256	183	356	201	155	83	55	28	66	46	20
Hernia of abdominal cavity and intestinal obstruction without mention of hernia (550-553,560) .....	6,635	2,350	4,285	5,815	2,005	3,810	820	345	475	750	310	440
Chronic liver disease and cirrhosis (571) .....	25,192	16,343	8,849	21,771	14,096	7,675	3,421	2,247	1,174	2,697	1,804	893
Cholelithiasis and other disorders of gallbladder (574-575) .....	2,822	1,216	1,606	2,474	1,074	1,400	348	142	206	282	109	173
Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	26,182	12,561	13,621	21,369	10,406	10,963	4,813	2,155	2,658	4,329	1,929	2,400
Acute glomerulonephritis and nephrotic syndrome (580-581) .....	325	154	171	272	133	139	53	21	32	45	19	26
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (582-583,587) .....	1,715	831	884	1,369	664	705	346	167	179	310	153	157
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause (584-586,588-589) .....	24,142	11,576	12,566	19,728	9,609	10,119	4,414	1,967	2,447	3,974	1,757	2,217
Infections of kidney (590) .....	828	214	614	704	173	531	124	41	83	102	33	69
Hyperplasia of prostate (600) .....	410	410	...	356	356	...	54	54	...	45	45	...
Complications of pregnancy, childbirth, and the puerperium (630-676) .....	281	...	281	158	...	158	123	...	123	104	...	104
Pregnancy with abortive outcome (630-638) .....	32	...	32	15	...	15	17	...	17	14	...	14
Other complications of pregnancy, childbirth, and the puerperium (640-676) .....	249	...	249	143	...	143	106	...	106	90	...	90
Congenital anomalies (740-759) .....	11,934	6,199	5,735	9,651	5,001	4,650	2,283	1,198	1,085	1,885	994	891
Certain conditions originating in the perinatal period (760-779) .....	13,428	7,496	5,932	8,129	4,523	3,606	5,299	2,973	2,326	4,841	2,732	2,109
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress syndrome (767-769) .....	1,997	1,131	866	1,323	746	577	674	385	289	615	353	262
Other conditions originating in the perinatal period (760-766,770-779) .....	11,431	6,365	5,066	6,806	3,777	3,029	4,625	2,588	2,037	4,226	2,379	1,847
Symptoms, signs, and ill-defined conditions (780-799) ..	25,992	12,766	13,226	21,041	10,045	10,996	4,951	2,721	2,230	4,481	2,451	2,030
All other diseases (Residual) .....	247,644	104,589	143,055	217,822	91,004	126,818	29,822	13,585	16,237	26,127	11,780	14,347

See footnotes at end of table.

**Table 12. Number of deaths from 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by race and sex: United States, 1998 - Con.**

[For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All races						All other					
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Accidents and adverse effects (E800-E949) .....	97,835	63,042	34,793	82,178	52,398	29,780	15,657	10,644	5,013	12,801	8,788	4,013
Motor vehicle accidents (E810-E825) .....	43,501	28,990	14,511	36,182	23,985	12,197	7,319	5,005	2,314	5,686	3,996	1,690
All other accidents and adverse effects (E800-E807,E826-E949) .....	54,334	34,052	20,282	45,996	28,413	17,583	8,338	5,639	2,699	7,115	4,792	2,323
Suicide (E950-E959) .....	30,575	24,538	6,037	27,648	22,174	5,474	2,927	2,364	563	1,977	1,659	318
Homicide and legal intervention (E960-E978) .....	18,272	14,023	4,249	9,241	6,707	2,534	9,031	7,316	1,715	8,420	6,873	1,547
All other external causes (E980-E999) .....	3,763	2,614	1,149	2,968	2,004	964	795	610	185	709	550	159
Human immunodeficiency virus infection <sup>1</sup> (*042-*044) ..	13,426	10,291	3,135	6,106	5,184	922	7,320	5,107	2,213	7,180	4,994	2,186
Alzheimer's disease <sup>2</sup> (331.0) .....	22,725	7,054	15,671	21,366	6,643	14,723	1,359	411	948	1,209	352	857

- Quantity zero.

.. Category not applicable.

<sup>1</sup> Included in "All other infectious and parasitic diseases" shown above.

<sup>2</sup> Included in "All other diseases (Residual)" category shown above.

**Table 13. Death rates for 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by race and sex: United States, 1998**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All races						All other					
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All causes .....	864.7	876.4	853.5	904.0	904.4	903.7	679.3	740.7	623.3	808.7	877.7	746.4
Shigellosis and amebiasis (004,006) .....	*	*	*	*	*	*	*	*	*	*	*	*
Certain other intestinal infections (007-009) .....	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.4
Tuberculosis (010-018) .....	0.4	0.5	0.3	0.3	0.3	0.3	0.9	1.2	0.7	1.0	1.3	0.7
Tuberculosis of respiratory system (010-012) .....	0.3	0.4	0.2	0.2	0.3	0.2	0.7	1.0	0.4	0.7	1.1	0.4
Other tuberculosis (013-018) .....	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.3	0.2	0.3
Whooping cough (033) .....	*	*	*	*	*	*	*	*	*	*	*	*
Streptococcal sore throat, scarlatina, and erysipelas (034-035) .....	*	*	*	*	*	*	*	*	*	*	*	*
Meningococcal infection (036) .....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	*
Septicemia (038) .....	8.8	7.7	9.8	8.5	7.4	9.5	10.3	9.4	11.2	13.0	11.8	14.2
Acute poliomyelitis (045) .....	*	*	*	*	*	*	*	*	*	*	*	*
Measles (055) .....	*	*	*	*	*	*	*	*	*	*	*	*
Viral hepatitis (070) .....	1.8	2.3	1.3	1.7	2.2	1.3	2.0	2.7	1.5	2.0	2.6	1.5
Syphilis (090-097) .....	0.0	0.0	0.0	0.0	*	*	0.1	*	*	0.1	*	*
All other infectious and parasitic diseases (001-003,005,020-032,037,039-041,*042-*044,046-054,056-066,071-088,098-139) .....	7.5	10.4	4.7	5.1	7.2	3.1	18.8	26.0	12.3	24.9	34.6	16.1
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	200.3	213.6	187.7	210.8	223.0	199.1	150.9	168.3	135.1	177.7	199.0	158.5
Malignant neoplasms of lip, oral cavity, and pharynx (140-149) .....	2.9	4.0	1.9	3.0	3.9	2.0	2.9	4.4	1.5	3.4	5.2	1.7
Malignant neoplasms of digestive organs and peritoneum (150-159) .....	47.6	51.9	43.5	48.9	53.1	44.9	41.3	46.2	36.9	46.6	51.3	42.3
Malignant neoplasms of respiratory and intrathoracic organs (160-165) .....	59.1	72.1	46.6	62.9	75.6	50.7	41.2	55.5	28.1	49.2	67.0	33.2
Malignant neoplasm of breast (174-175) .....	15.6	0.3	30.2	16.2	0.3	31.5	12.7	0.2	24.2	15.5	0.3	29.2
Malignant neoplasms of genital organs (179-187) .....	21.6	24.8	18.5	21.9	24.6	19.4	20.0	25.9	14.5	24.9	33.6	17.1
Malignant neoplasms of urinary organs (188-189) .....	8.8	11.6	6.1	9.6	12.8	6.6	4.8	5.9	3.8	5.6	6.7	4.5
Malignant neoplasms of all other and unspecified sites (170-173,190-199) .....	24.2	26.5	22.0	26.1	28.6	23.7	15.1	16.0	14.2	17.4	18.5	16.4
Leukemia (204-208) .....	7.5	8.5	6.6	8.2	9.2	7.2	4.5	5.0	4.0	5.1	5.7	4.5
Other malignant neoplasms of lymphatic and hematopoietic tissues (200-203) .....	13.0	13.9	12.2	14.0	14.9	13.1	8.6	9.1	8.1	10.1	10.7	9.6
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	2.9	2.7	3.2	3.1	2.8	3.4	2.1	1.9	2.2	2.5	2.2	2.7
Diabetes mellitus (250) .....	24.0	22.4	25.4	23.2	22.1	24.2	27.6	23.7	31.2	33.0	27.6	38.0
Nutritional deficiencies (260-269) .....	1.5	1.0	2.0	1.6	1.0	2.2	1.1	0.9	1.3	1.4	1.2	1.6
Anemias (280-285) .....	1.7	1.4	1.9	1.6	1.3	1.9	2.2	2.1	2.3	2.8	2.6	2.9
Meningitis (320-322) .....	0.3	0.3	0.2	0.2	0.3	0.2	0.5	0.6	0.4	0.6	0.7	0.4
Major cardiovascular diseases (390-448) .....	348.0	334.2	361.1	368.5	351.2	385.3	251.0	251.6	250.5	300.5	296.1	304.4
Diseases of heart (390-398,402,404-429) .....	268.2	268.0	268.3	285.0	283.1	286.8	188.8	194.8	183.4	227.4	230.5	224.6
Rheumatic fever and rheumatic heart disease (390-398) .....	1.8	1.1	2.4	1.9	1.2	2.7	1.0	0.6	1.3	1.0	0.6	1.4
Hypertensive heart disease (402) .....	10.3	9.0	11.4	9.0	7.5	10.4	16.2	16.5	16.0	20.8	21.2	20.4
Hypertensive heart and renal disease (404) .....	0.9	0.8	1.0	0.7	0.6	0.9	1.6	1.4	1.8	2.0	1.8	2.2
Ischemic heart disease (410-414) .....	170.1	176.7	163.8	184.9	191.9	178.2	100.4	103.4	97.7	117.9	118.2	117.7
Acute myocardial infarction (410) .....	75.3	81.0	69.8	81.3	87.6	75.2	47.0	49.1	45.2	55.8	56.7	54.9
Other acute and subacute forms of ischemic heart disease (411) .....	1.1	1.2	1.0	1.1	1.2	1.0	1.0	1.2	0.8	1.2	1.4	1.0
Angina pectoris (413) .....	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.1	0.2	0.2	0.2
Old myocardial infarction and other forms of chronic ischemic heart disease (412,414) .....	93.5	94.3	92.7	102.3	102.8	101.7	52.2	52.9	51.6	60.8	59.8	61.7
Other diseases of endocardium (424) .....	6.9	5.5	8.1	7.7	6.1	9.2	3.0	2.8	3.1	3.3	3.0	3.6
All other forms of heart disease (415-423,425-429) .....	78.3	74.9	81.5	80.7	75.8	85.5	66.7	70.2	63.5	82.3	85.7	79.2

See footnotes at end of table.



**Table 13. Death rates for 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by race and sex: United States, 1998 - Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All races						All other					
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Hypertension with or without renal disease (401,403) ...	5.3	4.2	6.4	4.9	3.7	5.9	7.4	6.3	8.4	9.2	7.8	10.5
Cerebrovascular diseases (430-438) .....	58.6	46.3	70.4	61.4	47.3	75.0	45.7	41.6	49.4	53.0	47.5	57.9
Intracerebral and other intracranial hemorrhage (431-432) .....	9.7	9.1	10.3	9.7	8.9	10.4	9.9	10.4	9.4	10.7	11.4	10.1
Cerebral thrombosis and unspecified occlusion of cerebral arteries (434.0,434.9) .....	4.1	3.2	4.9	4.3	3.2	5.3	3.1	2.7	3.4	3.7	3.2	4.0
Cerebral embolism (434.1) .....	0.2	0.2	0.2	0.2	0.2	0.3	0.1	0.1	0.1	0.1	*	0.1
All other and late effects of cerebrovascular diseases (430,433,435-438) .....	44.7	33.9	55.0	47.2	35.0	59.0	32.6	28.3	36.5	38.5	32.8	43.6
Atherosclerosis (440) .....	5.7	4.3	6.9	6.3	4.8	7.8	2.6	2.2	2.9	3.1	2.7	3.6
Other diseases of arteries, arterioles, and capillaries (441-448) .....	10.2	11.4	9.2	11.0	12.3	9.8	6.6	6.7	6.5	7.7	7.7	7.8
Acute bronchitis and bronchiolitis (466) .....	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	*
Pneumonia and influenza (480-487) .....	34.0	31.0	36.8	36.6	32.7	40.4	21.6	23.0	20.3	24.2	25.6	22.9
Pneumonia (480-486) .....	33.4	30.6	36.0	35.9	32.2	39.4	21.5	22.9	20.2	24.1	25.5	22.8
Influenza (487) .....	0.6	0.4	0.8	0.7	0.5	1.0	0.1	0.1	0.1	0.1	*	0.1
Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	41.7	43.2	40.2	46.7	47.7	45.7	18.0	21.5	14.9	20.9	24.7	17.5
Bronchitis, chronic and unspecified (490-491) .....	1.1	1.1	1.1	1.3	1.2	1.3	0.5	0.5	0.4	0.5	0.6	0.4
Emphysema (492) .....	6.5	7.1	5.9	7.4	7.9	6.9	2.2	2.9	1.6	2.6	3.3	1.9
Asthma (493) .....	2.0	1.5	2.5	1.8	1.2	2.3	3.2	2.8	3.5	3.7	3.3	4.2
Other chronic obstructive pulmonary diseases and allied conditions (494-496) .....	32.0	33.5	30.6	36.2	37.2	35.3	12.2	15.3	9.4	14.1	17.5	11.0
Ulcer of stomach and duodenum (531-533) .....	1.7	1.7	1.8	1.9	1.8	1.9	1.1	1.2	1.0	1.2	1.2	1.1
Appendicitis (540-543) .....	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.3	0.1
Hernia of abdominal cavity and intestinal obstruction without mention of hernia (550-553,560) .....	2.5	1.8	3.1	2.6	1.8	3.4	1.7	1.5	1.9	2.2	1.9	2.4
Chronic liver disease and cirrhosis (571) .....	9.3	12.4	6.4	9.8	12.9	6.8	7.2	10.0	4.7	7.8	11.0	4.9
Cholelithiasis and other disorders of gallbladder (574-575) .....	1.0	0.9	1.2	1.1	1.0	1.2	0.7	0.6	0.8	0.8	0.7	1.0
Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	9.7	9.5	9.9	9.6	9.5	9.7	10.2	9.6	10.7	12.6	11.8	13.3
Acute glomerulonephritis and nephrotic syndrome (580-581) .....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	*	0.1
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (582-583,587) .....	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.9	0.9	0.9
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause (584-586,588-589) .....	8.9	8.8	9.1	8.8	8.8	8.9	9.3	8.7	9.9	11.5	10.8	12.3
Infections of kidney (590) .....	0.3	0.2	0.4	0.3	0.2	0.5	0.3	0.2	0.3	0.3	0.2	0.4
Hyperplasia of prostate (600) .....	0.2	0.3	...	0.2	0.3	...	0.1	0.2	...	0.1	0.3	...
Complications of pregnancy, childbirth, and the puerperium (630-676) .....	0.1	...	0.2	0.1	...	0.1	0.3	...	0.5	0.3	...	0.6
Pregnancy with abortive outcome (630-638) .....	0.0	...	0.0	*	...	*	*	...	*	*	...	*
Other complications of pregnancy, childbirth, and the puerperium (640-676) .....	0.1	...	0.2	0.1	...	0.1	0.2	...	0.4	0.3	...	0.5
Congenital anomalies (740-759) .....	4.4	4.7	4.1	4.3	4.6	4.1	4.8	5.3	4.4	5.5	6.1	4.9
Certain conditions originating in the perinatal period (760-779) .....	5.0	5.7	4.3	3.6	4.1	3.2	11.2	13.2	9.4	14.1	16.7	11.7
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress syndrome (767-769) .....	0.7	0.9	0.6	0.6	0.7	0.5	1.4	1.7	1.2	1.8	2.2	1.4
Other conditions originating in the perinatal period (760-766,770-779) .....	4.2	4.8	3.7	3.1	3.4	2.7	9.8	11.5	8.2	12.3	14.6	10.2
Symptoms, signs, and ill-defined conditions (780-799) ..	9.6	9.7	9.6	9.4	9.2	9.7	10.5	12.1	9.0	13.0	15.0	11.2
All other diseases (Residual) .....	91.6	79.2	103.5	97.7	83.1	111.7	63.1	60.2	65.6	75.9	72.1	79.3

See footnotes at end of table.

**Table 13. Death rates for 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by race and sex: United States, 1998 - Con.**

[Rates per 100,000 population in specified group. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All races						All other					
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Accidents and adverse effects (E800-E949) .....	36.2	47.7	25.2	36.9	47.9	26.2	33.1	47.2	20.3	37.2	53.8	22.2
Motor vehicle accidents (E810-E825) .....	16.1	22.0	10.5	16.2	21.9	10.7	15.5	22.2	9.4	16.5	24.5	9.3
All other accidents and adverse effects (E800-E807,E826-E949) .....	20.1	25.8	14.7	20.6	26.0	15.5	17.6	25.0	10.9	20.7	29.3	12.8
Suicide (E950-E959) .....	11.3	18.6	4.4	12.4	20.3	4.8	6.2	10.5	2.3	5.7	10.2	1.8
Homicide and legal intervention (E960-E978) .....	6.8	10.6	3.1	4.1	6.1	2.2	19.1	32.4	6.9	24.5	42.1	8.6
All other external causes (E980-E999) .....	1.4	2.0	0.8	1.3	1.8	0.8	1.7	2.7	0.7	2.1	3.4	0.9
Human immunodeficiency virus infection <sup>1</sup> (*042-*044) ..	5.0	7.8	2.3	2.7	4.7	0.8	15.5	22.6	8.9	20.9	30.6	12.1
Alzheimer's disease <sup>2</sup> (331.0) .....	8.4	5.3	11.3	9.6	6.1	13.0	2.9	1.8	3.8	3.5	2.2	4.7

\* Figure does not meet standards of reliability or precision, see Technical notes.

0.0 Quantity more than zero but less than 0.05.

.. Category not applicable.

<sup>1</sup> Included in "All other infectious and parasitic diseases" shown above.

<sup>2</sup> Included in "All other diseases (Residual)" category shown above.

**Table 14. Age-adjusted death rates for 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by race and sex: United States, 1998**

[Age-adjusted rates per 100,000 U.S. standard population; see Technical notes. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All other											
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All causes .....	471.7	589.4	372.5	450.4	562.4	355.2	585.5	742.9	461.4	690.9	884.5	540.9
Shigellosis and amebiasis (004,006) .....	*	*	*	*	*	*	*	*	*	*	*	*
Certain other intestinal infections (007-009) .....	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
Tuberculosis (010-018) .....	0.2	0.3	0.2	0.2	0.2	0.1	0.8	1.2	0.6	0.9	1.3	0.6
Tuberculosis of respiratory system (010-012) .....	0.2	0.3	0.1	0.1	0.2	0.1	0.6	0.9	0.3	0.7	1.1	0.3
Other tuberculosis (013-018) .....	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.3	0.2	0.2	0.3
Whooping cough (033) .....	*	*	*	*	*	*	*	*	*	*	*	*
Streptococcal sore throat, scarlatina, and erysipelas (034-035) .....	*	*	*	*	*	*	*	*	*	*	*	*
Meningococcal infection (036) .....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	*
Septicemia (038) .....	4.4	4.8	4.0	3.8	4.2	3.5	8.4	9.2	7.7	10.4	11.5	9.5
Acute poliomyelitis (045) .....	*	*	*	*	*	*	*	*	*	*	*	*
Measles (055) .....	*	*	*	*	*	*	*	*	*	*	*	*
Viral hepatitis (070) .....	1.4	1.9	0.9	1.3	1.7	0.8	2.0	2.8	1.4	2.0	2.8	1.3
Syphilis (090-097) .....	0.0	0.0	0.0	0.0	*	*	0.0	*	*	0.1	*	*
All other infectious and parasitic diseases (001-003,005,020-032,037,039-041,*042-*044,046-054,056-066,071-088,098-139) .....	6.5	9.2	3.8	4.1	6.1	2.1	18.2	26.1	11.5	24.5	35.4	15.3
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	123.6	147.7	105.5	121.0	143.6	104.1	138.6	176.0	112.2	161.2	208.1	128.9
Malignant neoplasms of lip, oral cavity, and pharynx (140-149) .....	2.0	3.1	1.1	1.8	2.8	1.0	2.9	4.9	1.3	3.3	5.9	1.4
Malignant neoplasms of digestive organs and peritoneum (150-159) .....	28.1	36.2	21.4	26.6	34.3	20.2	37.4	48.9	28.6	41.4	54.5	31.8
Malignant neoplasms of respiratory and intrathoracic organs (160-165) .....	38.2	51.7	27.6	38.0	50.4	28.0	39.6	60.4	24.3	47.1	73.1	28.4
Malignant neoplasm of breast (174-175) .....	10.2	0.2	18.8	9.9	0.2	18.3	12.0	0.2	21.3	14.5	0.3	25.3
Malignant neoplasms of genital organs (179-187) .....	11.7	13.6	11.1	11.0	12.4	10.9	16.6	23.9	12.4	20.2	30.7	14.2
Malignant neoplasms of urinary organs (188-189) .....	5.0	7.7	3.0	5.1	7.9	3.0	4.2	6.0	2.8	4.8	6.9	3.3
Malignant neoplasms of all other and unspecified sites (170-173,190-199) .....	15.7	19.5	12.6	16.0	19.9	12.7	14.1	17.1	11.7	16.1	19.8	13.3
Leukemia (204-208) .....	4.6	5.9	3.6	4.7	6.1	3.6	4.1	5.1	3.2	4.5	5.8	3.6
Other malignant neoplasms of lymphatic and hematopoietic tissues (200-203) .....	7.9	9.8	6.4	7.9	9.8	6.3	7.9	9.5	6.6	9.2	11.2	7.7
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	1.6	1.8	1.5	1.6	1.8	1.5	1.8	1.9	1.7	2.1	2.3	2.0
Diabetes mellitus (250) .....	13.6	15.2	12.3	12.0	13.8	10.6	24.5	24.7	24.0	28.8	28.9	28.6
Nutritional deficiencies (260-269) .....	0.5	0.5	0.5	0.5	0.4	0.5	0.7	0.8	0.6	0.8	1.0	0.7
Anemias (280-285) .....	0.8	0.9	0.8	0.6	0.7	0.6	1.9	2.1	1.7	2.4	2.6	2.2
Meningitis (320-322) .....	0.2	0.3	0.2	0.2	0.2	0.2	0.4	0.6	0.4	0.6	0.7	0.4
Major cardiovascular diseases (390-448) .....	161.2	205.3	124.5	154.1	198.0	117.2	203.3	250.4	166.9	240.2	296.4	197.6
Diseases of heart (390-398,402,404-429) .....	126.6	166.9	93.3	121.9	162.3	88.1	154.0	194.8	122.7	183.3	231.8	146.8
Rheumatic fever and rheumatic heart disease (390-398) .....	1.0	0.7	1.2	1.0	0.7	1.2	0.9	0.6	1.1	1.0	0.6	1.2
Hypertensive heart disease (402) .....	5.3	6.3	4.3	4.0	4.7	3.2	14.1	17.2	11.6	18.0	22.3	14.6
Hypertensive heart and renal disease (404) .....	0.4	0.4	0.4	0.3	0.3	0.2	1.3	1.5	1.2	1.6	1.8	1.5
Ischemic heart disease (410-414) .....	79.5	108.9	55.6	79.2	109.4	54.2	80.1	102.5	63.1	92.5	117.6	73.9
Acute myocardial infarction (410) .....	38.0	52.3	26.1	37.8	52.6	25.3	38.6	49.4	30.4	45.0	57.3	35.8
Other acute and subacute forms of ischemic heart disease (411) .....	0.6	0.8	0.4	0.5	0.8	0.4	0.8	1.3	0.5	1.0	1.5	0.6
Angina pectoris (413) .....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1
Old myocardial infarction and other forms of chronic ischemic heart disease (412,414) .....	40.9	55.6	29.0	40.7	56.0	28.4	40.5	51.6	32.1	46.3	58.6	37.2
Other diseases of endocardium (424) .....	2.7	3.1	2.5	2.8	3.0	2.5	2.4	2.7	2.1	2.6	2.9	2.4
All other forms of heart disease (415-423,425-429) .....	37.7	47.5	29.3	34.8	44.0	26.9	55.3	70.4	43.6	67.6	86.5	53.2

See footnotes at end of table.

**Table 14. Age-adjusted death rates for 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by race and sex: United States, 1998 - Con.**

[Age-adjusted rates per 100,000 U.S. standard population; see Technical notes. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All races						All other					
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Hypertension with or without renal disease (401,403) ...	2.4	2.5	2.2	1.9	2.0	1.7	5.9	6.3	5.5	7.3	7.9	6.7
Cerebrovascular diseases (430-438) .....	25.1	26.6	23.6	23.3	24.5	22.0	36.2	40.8	32.7	41.4	46.8	37.2
Intracerebral and other intracranial hemorrhage (431-432) .....	5.5	6.2	4.8	4.8	5.4	4.2	9.2	11.1	7.7	10.2	12.4	8.4
Cerebral thrombosis and unspecified occlusion of cerebral arteries (434.0,434.9) .....	1.6	1.8	1.5	1.5	1.6	1.4	2.3	2.6	2.1	2.8	3.2	2.4
Cerebral embolism (434.1) .....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	*	0.1
All other and late effects of cerebrovascular diseases (430,433,435-438) .....	17.9	18.5	17.2	16.8	17.3	16.3	24.6	26.9	22.8	28.4	31.2	26.2
Atherosclerosis (440) .....	1.9	2.2	1.7	2.0	2.2	1.7	1.7	2.0	1.4	2.0	2.4	1.7
Other diseases of arteries, arterioles, and capillaries (441-448) .....	5.2	7.1	3.7	5.1	7.1	3.6	5.4	6.6	4.5	6.2	7.6	5.2
Acute bronchitis and bronchiolitis (466) .....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	*
Pneumonia and influenza (480-487) .....	13.2	16.3	11.0	12.7	15.5	10.7	15.6	20.9	11.9	17.4	23.5	13.2
Pneumonia (480-486) .....	13.0	16.1	10.7	12.4	15.3	10.4	15.6	20.8	11.9	17.4	23.5	13.1
Influenza (487) .....	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	*	0.0
Chronic obstructive pulmonary diseases and allied conditions (490-496) .....	21.3	25.9	18.1	21.9	26.4	18.9	15.3	21.0	11.4	17.7	24.3	13.3
Bronchitis, chronic and unspecified (490-491) .....	0.5	0.7	0.5	0.6	0.7	0.5	0.4	0.5	0.3	0.4	0.5	0.3
Emphysema (492) .....	3.6	4.5	2.9	3.8	4.6	3.2	2.0	3.0	1.3	2.3	3.4	1.5
Asthma (493) .....	1.4	1.2	1.5	1.1	0.9	1.2	3.0	2.9	3.1	3.7	3.4	3.8
Other chronic obstructive pulmonary diseases and allied conditions (494-496) .....	15.7	19.6	13.1	16.5	20.2	14.0	9.9	14.6	6.7	11.3	16.9	7.7
Ulcer of stomach and duodenum (531-533) .....	0.8	1.0	0.7	0.8	1.0	0.7	0.9	1.2	0.7	1.0	1.3	0.8
Appendicitis (540-543) .....	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.3	0.1	0.2	0.3	0.1
Hernia of abdominal cavity and intestinal obstruction without mention of hernia (550-553,560) .....	1.0	1.0	1.0	1.0	0.9	1.0	1.3	1.4	1.2	1.6	1.8	1.4
Chronic liver disease and cirrhosis (571) .....	7.2	10.3	4.4	7.1	10.2	4.3	7.3	11.0	4.4	8.0	12.3	4.7
Cholelithiasis and other disorders of gallbladder (574-575) .....	0.5	0.5	0.4	0.4	0.5	0.4	0.6	0.6	0.6	0.6	0.6	0.6
Nephritis, nephrotic syndrome, and nephrosis (580-589) .....	4.4	5.4	3.7	3.9	4.8	3.2	8.1	9.2	7.2	9.7	11.4	8.6
Acute glomerulonephritis and nephrotic syndrome (580-581) .....	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	*	0.1
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (582-583,587) .....	0.3	0.4	0.2	0.3	0.3	0.2	0.5	0.7	0.5	0.7	0.9	0.5
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause (584-586,588-589) .....	4.1	5.0	3.4	3.6	4.5	3.0	7.4	8.4	6.6	9.0	10.3	7.9
Infections of kidney (590) .....	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.3
Hyperplasia of prostate (600) .....	0.1	0.1	...	0.0	0.1	...	0.1	0.2	...	0.1	0.2	...
Complications of pregnancy, childbirth, and the puerperium (630-676) .....	0.1	...	0.2	0.1	...	0.2	0.2	...	0.5	0.3	...	0.6
Pregnancy with abortive outcome (630-638) .....	0.0	...	0.0	*	...	*	*	...	*	*	...	*
Other complications of pregnancy, childbirth, and the puerperium (640-676) .....	0.1	...	0.2	0.1	...	0.1	0.2	...	0.4	0.3	...	0.5
Congenital anomalies (740-759) .....	4.2	4.5	4.0	4.1	4.4	3.9	4.6	4.9	4.2	5.2	5.7	4.8
Certain conditions originating in the perinatal period (760-779) .....	5.5	6.0	4.9	4.1	4.5	3.8	10.4	11.5	9.2	13.3	14.7	11.7
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress syndrome (767-769) .....	0.8	0.9	0.7	0.7	0.7	0.6	1.3	1.5	1.2	1.7	1.9	1.5
Other conditions originating in the perinatal period (760-766,770-779) .....	4.6	5.0	4.2	3.5	3.8	3.2	9.1	10.0	8.1	11.6	12.8	10.3
Symptoms, signs, and ill-defined conditions (780-799) ..	6.2	7.6	4.8	5.5	6.8	4.3	9.1	11.5	7.0	11.3	14.4	8.7
All other diseases (Residual) .....	43.4	48.8	38.6	41.8	47.0	37.1	51.2	58.7	45.3	60.9	70.7	53.4

See footnotes at end of table.

**Table 14. Age-adjusted death rates for 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease by race and sex: United States, 1998 - Con.**

[Age-adjusted rates per 100,000 U.S. standard population; see Technical notes. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All races			White			All other					
	Both sexes	Male	Female	Both sexes	Male	Female	Total			Black		
							Both sexes	Male	Female	Both sexes	Male	Female
Accidents and adverse effects (E800-E949) .....	30.1	43.0	17.8	29.8	42.2	17.7	31.8	47.5	18.2	35.7	54.4	19.6
Motor vehicle accidents (E810-E825) .....	15.6	21.6	9.9	15.7	21.5	10.0	15.5	22.6	9.3	16.6	25.0	9.2
All other accidents and adverse effects (E800-E807,E826-E949) .....	14.4	21.4	8.0	14.1	20.7	7.7	16.3	24.9	8.9	19.1	29.4	10.4
Suicide (E950-E959) .....	10.4	17.2	4.0	11.2	18.3	4.4	6.3	10.8	2.2	5.9	10.5	1.8
Homicide and legal intervention (E960-E978) .....	7.3	11.3	3.2	4.4	6.4	2.2	19.6	33.2	6.9	25.2	43.1	8.6
All other external causes (E980-E999) .....	1.3	1.9	0.8	1.3	1.7	0.8	1.6	2.6	0.7	2.0	3.3	0.9
Human immunodeficiency virus infection <sup>1</sup> (*042-*044) ..	4.6	7.2	2.2	2.6	4.3	0.8	15.0	22.7	8.5	20.6	31.2	11.7
Alzheimer's disease <sup>2</sup> (331.0) .....	2.6	2.4	2.8	2.8	2.5	2.9	1.7	1.4	1.8	1.9	1.7	2.1

\* Figure does not meet standards of reliability or precision, see Technical notes.  
0.0 Quantity more than zero but less than 0.05.

.. Category not applicable.

<sup>1</sup> Included in "All other infectious and parasitic diseases" shown above.

<sup>2</sup> Included in "All other diseases (Residual)" category shown above.



**Table 15. Number of deaths and death rates for 16 selected subcategories of Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues, by race and sex: United States, 1998**

[Rates per 100,000 population in specified group]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All other											
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	Number											
Malignant neoplasms <sup>1</sup> (140-208) .....	541,532	282,065	259,467	470,139	244,109	226,030	71,393	37,956	33,437	61,193	32,523	28,670
Malignant neoplasm of esophagus (150) .....	11,765	8,876	2,889	9,810	7,481	2,329	1,955	1,395	560	1,753	1,245	508
Malignant neoplasm of stomach (151) .....	12,959	7,565	5,394	10,125	5,931	4,194	2,834	1,634	1,200	2,175	1,261	914
Malignant neoplasms of colon, rectum, rectosigmoid junction, and anus (153,154) .....	56,785	27,940	28,845	49,130	24,299	24,831	7,655	3,641	4,014	6,578	3,071	3,507
Malignant neoplasm of pancreas (157) .....	28,335	13,806	14,529	24,397	11,978	12,419	3,938	1,828	2,110	3,385	1,543	1,842
Malignant neoplasms of trachea, bronchus, and lung (162) .....	154,561	91,447	63,114	136,026	79,649	56,377	18,535	11,798	6,737	16,105	10,288	5,817
Malignant melanoma of skin (172) .....	7,431	4,747	2,684	7,275	4,685	2,590	156	62	94	121	44	77
Malignant neoplasm of cervix uteri (180) .....	4,340	...	4,340	3,272	...	3,272	1,068	...	1,068	906	...	906
Malignant neoplasms of body of uterus and of uterus, part unspecified (179,182) .....	6,421	...	6,421	5,340	...	5,340	1,081	...	1,081	970	...	970
Malignant neoplasm of ovary (183.0) .....	13,391	...	13,391	12,115	...	12,115	1,276	...	1,276	1,068	...	1,068
Malignant neoplasm of prostate (185) .....	32,203	32,203	...	26,416	26,416	...	5,787	5,787	...	5,436	5,436	...
Malignant neoplasm of bladder (188) .....	11,757	7,939	3,818	10,762	7,397	3,365	995	542	453	875	453	422
Malignant neoplasms of kidney and other and unspecified urinary organs (189) .....	12,011	7,377	4,634	10,753	6,599	4,154	1,258	778	480	1,038	646	392
Malignant neoplasms of brain and other and unspecified parts of nervous system (191,192) .....	12,667	6,936	5,731	11,718	6,415	5,303	949	521	428	747	399	348
Hodgkin's disease (201) .....	1,311	767	544	1,148	668	480	163	99	64	147	91	56
Malignant lymphoma other than Hodgkin's disease (200,202) .....	23,544	12,279	11,265	21,603	11,253	10,350	1,941	1,026	915	1,518	801	717
Multiple myeloma and other immunoproliferative neoplasms (203) ..	10,359	5,290	5,069	8,400	4,357	4,043	1,959	933	1,026	1,805	849	956
	Rate											
Malignant neoplasms <sup>1</sup> (140-208) .....	200.3	213.6	187.7	210.8	223.0	199.1	150.9	168.3	135.1	177.7	199.0	158.5
Malignant neoplasm of esophagus (150) .....	4.4	6.7	2.1	4.4	6.8	2.1	4.1	6.2	2.3	5.1	7.6	2.8
Malignant neoplasm of stomach (151) .....	4.8	5.7	3.9	4.5	5.4	3.7	6.0	7.2	4.9	6.3	7.7	5.1
Malignant neoplasms of colon, rectum, rectosigmoid junction, and anus (153,154) .....	21.0	21.2	20.9	22.0	22.2	21.9	16.2	16.1	16.2	19.1	18.8	19.4
Malignant neoplasm of pancreas (157) .....	10.5	10.5	10.5	10.9	10.9	10.9	8.3	8.1	8.5	9.8	9.4	10.2
Malignant neoplasms of trachea, bronchus, and lung (162) .....	57.2	69.3	45.7	61.0	72.7	49.7	39.2	52.3	27.2	46.8	63.0	32.2
Malignant melanoma of skin (172) .....	2.7	3.6	1.9	3.3	4.3	2.3	0.3	0.3	0.4	0.4	0.3	0.4
Malignant neoplasm of cervix uteri (180) .....	1.6	...	3.1	1.5	...	2.9	2.3	...	4.3	2.6	...	5.0
Malignant neoplasms of body of uterus and of uterus, part unspecified (179,182) .....	2.4	...	4.6	2.4	...	4.7	2.3	...	4.4	2.8	...	5.4
Malignant neoplasm of ovary (183.0) .....	5.0	...	9.7	5.4	...	10.7	2.7	...	5.2	3.1	...	5.9
Malignant neoplasm of prostate (185) .....	11.9	24.4	...	11.8	24.1	...	12.2	25.7	...	15.8	33.3	...
Malignant neoplasm of bladder (188) .....	4.3	6.0	2.8	4.8	6.8	3.0	2.1	2.4	1.8	2.5	2.8	2.3
Malignant neoplasms of kidney and other and unspecified urinary organs (189) .....	4.4	5.6	3.4	4.8	6.0	3.7	2.7	3.4	1.9	3.0	4.0	2.2
Malignant neoplasms of brain and other and unspecified parts of nervous system (191,192) .....	4.7	5.3	4.1	5.3	5.9	4.7	2.0	2.3	1.7	2.2	2.4	1.9
Hodgkin's disease (201) .....	0.5	0.6	0.4	0.5	0.6	0.4	0.3	0.4	0.3	0.4	0.6	0.3
Malignant lymphoma other than Hodgkin's disease (200,202) .....	8.7	9.3	8.1	9.7	10.3	9.1	4.1	4.5	3.7	4.4	4.9	4.0
Multiple myeloma and other immunoproliferative neoplasms (203) ..	3.8	4.0	3.7	3.8	4.0	3.6	4.1	4.1	4.1	5.2	5.2	5.3

... Category not applicable.

<sup>1</sup> Includes figures for subcategories not shown.

Table 16. Number of deaths from injury by firearms by age, race, and sex: United States, 1998

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, and sex	All ages	Under 1 year	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years
<b>Injury by firearms (E922, E955.0-E955.4, E965.0-E965.4, E970, E985.0-E985.4):</b>											
All races <sup>1</sup> , both sexes .....	30,708	5	78	96	433	3,180	4,240	3,453	2,856	2,998	2,692
Male .....	26,189	2	49	48	323	2,817	3,791	2,983	2,401	2,411	2,217
Female .....	4,519	3	29	48	110	363	449	470	455	587	475
White, both sexes .....	22,480	4	45	65	310	1,785	2,229	2,030	1,933	2,294	2,154
Male .....	19,019	2	27	30	239	1,554	1,965	1,725	1,601	1,830	1,769
Female .....	3,461	2	18	35	71	231	264	305	332	464	385
Black, both sexes .....	7,503	1	30	25	99	1,279	1,899	1,320	838	650	470
Male .....	6,592	-	20	14	70	1,160	1,730	1,175	733	544	392
Female .....	911	1	10	11	29	119	169	145	105	106	78
<b>Accident caused by firearm missile (E922):</b>											
All races <sup>1</sup> , both sexes .....	866	-	19	34	68	141	119	69	68	83	60
Male .....	762	-	15	23	58	130	113	62	61	67	52
Female .....	104	-	4	11	10	11	6	7	7	16	8
White, both sexes .....	672	-	12	19	53	102	81	50	55	68	52
Male .....	594	-	10	15	46	93	78	44	50	55	45
Female .....	78	-	2	4	7	9	3	6	5	13	7
Black, both sexes .....	174	-	6	12	12	38	35	18	8	14	8
Male .....	154	-	5	7	10	36	32	17	7	11	7
Female .....	20	-	1	5	2	2	3	1	1	3	1
<b>Suicide by firearms (E955.0-E955.4):</b>											
All races <sup>1</sup> , both sexes .....	17,424	...	...	1	153	1,087	1,423	1,418	1,371	1,683	1,646
Male .....	15,104	...	...	1	117	949	1,270	1,226	1,164	1,385	1,387
Female .....	2,320	...	...	-	36	138	153	192	207	298	259
White, both sexes .....	15,968	...	...	-	131	907	1,182	1,197	1,193	1,579	1,533
Male .....	13,836	...	...	-	102	789	1,051	1,033	1,006	1,297	1,291
Female .....	2,132	...	...	-	29	118	131	164	187	282	242
Black, both sexes .....	1,110	...	...	1	14	131	187	172	142	82	78
Male .....	983	...	...	1	10	116	171	154	129	72	67
Female .....	127	...	...	-	4	15	16	18	13	10	11
<b>Homicide and legal intervention by firearms (E965.0-E965.4, E970):</b>											
All races <sup>1</sup> , both sexes .....	12,102	5	58	60	194	1,898	2,661	1,939	1,390	1,197	964
Male .....	10,069	2	34	23	130	1,689	2,381	1,674	1,156	935	760
Female .....	2,033	3	24	37	64	209	280	265	234	262	204
White, both sexes .....	5,595	4	32	46	111	743	942	762	666	617	551
Male .....	4,397	2	17	15	76	642	819	632	532	459	419
Female .....	1,198	2	15	31	35	101	123	130	134	158	132
Black, both sexes .....	6,157	1	24	11	70	1,091	1,666	1,126	681	549	381
Male .....	5,399	-	15	5	47	991	1,518	1,000	591	456	315
Female .....	758	1	9	6	23	100	148	126	90	93	66
<b>Injury by firearms, undetermined whether accidentally or purposefully inflicted (E985.0-E985.4):</b>											
All races <sup>1</sup> , both sexes .....	316	-	1	1	18	54	37	27	27	35	22
Male .....	254	-	-	1	18	49	27	21	20	24	18
Female .....	62	-	1	-	-	5	10	6	7	11	4
White, both sexes .....	245	-	1	-	15	33	24	21	19	30	18
Male .....	192	-	-	-	15	30	17	16	13	19	14
Female .....	53	-	1	-	-	3	7	5	6	11	4
Black, both sexes .....	62	-	-	1	3	19	11	4	7	5	3
Male .....	56	-	-	1	3	17	9	4	6	5	3
Female .....	6	-	-	-	-	2	2	-	1	-	-

See footnotes at end of table.

**Table 16. Number of deaths from injury by firearms by age, race, and sex: United States, 1998 - Con.**

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, and sex	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85 years and over	Age not stated
<b>Injury by firearms (E922, E955.0-E955.4, E965.0-E965.4, E970, E985.0-E985.4):</b>										
All races <sup>1</sup> , both sexes .....	2,154	1,627	1,325	1,031	985	1,096	1,026	829	578	26
Male .....	1,741	1,358	1,114	871	863	971	914	759	533	23
Female .....	413	269	211	160	122	125	112	70	45	3
White, both sexes .....	1,796	1,405	1,185	937	907	1,037	980	798	563	23
Male .....	1,453	1,173	993	790	795	922	879	731	520	21
Female .....	343	232	192	147	112	115	101	67	43	2
Black, both sexes .....	312	190	110	87	71	44	41	23	11	3
Male .....	257	164	95	77	62	37	31	20	9	2
Female .....	55	26	15	10	9	7	10	3	2	1
<b>Accident caused by firearm missile (E922):</b>										
All races <sup>1</sup> , both sexes .....	44	33	40	23	15	19	12	9	9	1
Male .....	38	25	39	21	15	17	10	9	6	1
Female .....	6	8	1	2	-	2	2	-	3	-
White, both sexes .....	36	27	37	20	13	17	12	8	9	1
Male .....	30	21	36	18	13	15	10	8	6	1
Female .....	6	6	1	2	-	2	2	-	3	-
Black, both sexes .....	7	5	3	3	2	2	-	1	-	-
Male .....	7	4	3	3	2	2	-	1	-	-
Female .....	-	1	-	-	-	-	-	-	-	-
<b>Suicide by firearms (E955.0-E955.4):</b>										
All races <sup>1</sup> , both sexes .....	1,476	1,176	1,042	831	853	978	954	785	543	4
Male .....	1,216	997	889	719	767	893	871	735	514	4
Female .....	260	179	153	112	86	85	83	50	29	-
White, both sexes .....	1,375	1,120	986	792	812	945	920	761	531	4
Male .....	1,138	950	840	685	728	863	844	712	503	4
Female .....	237	170	146	107	84	82	76	49	28	-
Black, both sexes .....	76	43	36	36	37	22	29	16	8	-
Male .....	61	38	32	32	35	20	23	15	7	-
Female .....	15	5	4	4	2	2	6	1	1	-
<b>Homicide and legal intervention by firearms (E965.0-E965.4, E970):</b>										
All races <sup>1</sup> , both sexes .....	613	392	235	166	110	96	55	30	20	19
Male .....	468	317	180	123	74	59	29	10	9	16
Female .....	145	75	55	43	36	37	26	20	11	3
White, both sexes .....	367	234	155	115	76	72	43	25	17	17
Male .....	268	184	112	80	48	42	21	7	7	15
Female .....	99	50	43	35	28	30	22	18	10	2
Black, both sexes .....	226	141	70	47	31	20	12	5	3	2
Male .....	187	121	59	41	24	15	8	3	2	1
Female .....	39	20	11	6	7	5	4	2	1	1
<b>Injury by firearms, undetermined whether accidentally or purposefully inflicted (E985.0-E985.4):</b>										
All races <sup>1</sup> , both sexes .....	21	26	8	11	7	3	5	5	6	2
Male .....	19	19	6	8	7	2	4	5	4	2
Female .....	2	7	2	3	-	1	1	-	2	-
White, both sexes .....	18	24	7	10	6	3	5	4	6	1
Male .....	17	18	5	7	6	2	4	4	4	1
Female .....	1	6	2	3	-	1	1	-	2	-
Black, both sexes .....	3	1	1	1	1	-	-	1	-	1
Male .....	2	1	1	1	1	-	-	1	-	1
Female .....	1	-	-	-	-	-	-	-	-	-

- Quantity zero.

... Category not applicable.

1 "All races" includes races other than white and black.

**Table 17. Death rates and age-adjusted death rates for injury by firearms, by age, race, and sex: United States, 1998**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population. For a listing of injury by firearms, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, and sex	All ages <sup>1</sup>	Under 1 year <sup>2</sup>	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years
<b>Injury by firearms (E922, E955.0-E955.4, E965.0-E965.4, E970, E985.0-E985.4):</b>											
All races <sup>4</sup> , both sexes .....	11.4	*	0.5	0.5	2.3	16.3	24.0	18.6	14.1	13.3	12.3
Male .....	19.8	*	0.6	0.5	3.3	28.0	42.1	32.3	24.0	21.4	20.4
Female .....	3.3	*	0.4	0.5	1.2	3.8	5.2	5.0	4.5	5.2	4.3
White, both sexes .....	10.1	*	0.4	0.4	2.0	11.5	15.8	13.7	11.8	12.3	11.8
Male .....	17.4	*	0.4	0.4	3.1	19.4	27.2	23.1	19.5	19.5	19.4
Female .....	3.0	*	*	0.5	1.0	3.1	3.8	4.1	4.1	5.0	4.2
Black, both sexes .....	21.8	*	1.3	0.8	3.3	42.3	72.1	50.3	30.7	22.5	17.6
Male .....	40.3	*	1.7	*	4.6	75.5	133.0	93.7	57.3	40.2	31.3
Female .....	5.0	*	*	*	2.0	8.0	12.7	10.6	7.2	6.9	5.5
<b>Accident caused by firearm missile (E922):</b>											
All races <sup>4</sup> , both sexes .....	0.3	*	*	0.2	0.4	0.7	0.7	0.4	0.3	0.4	0.3
Male .....	0.6	*	*	0.2	0.6	1.3	1.3	0.7	0.6	0.6	0.5
Female .....	0.1	*	*	*	*	*	*	*	*	*	*
White, both sexes .....	0.3	*	*	*	0.3	0.7	0.6	0.3	0.3	0.4	0.3
Male .....	0.5	*	*	*	0.6	1.2	1.1	0.6	0.6	0.6	0.5
Female .....	0.1	*	*	*	*	*	*	*	*	*	*
Black, both sexes .....	0.5	*	*	*	*	1.3	1.3	*	*	*	*
Male .....	0.9	*	*	*	*	2.3	2.5	*	*	*	*
Female .....	0.1	*	*	*	*	*	*	*	*	*	*
<b>Suicide by firearms (E955.0-E955.4):</b>											
All races <sup>4</sup> , both sexes .....	6.4	...	...	*	0.8	5.6	8.1	7.6	6.8	7.4	7.5
Male .....	11.4	...	...	*	1.2	9.4	14.1	13.3	11.6	12.3	12.8
Female .....	1.7	...	...	*	0.4	1.5	1.8	2.1	2.0	2.6	2.3
White, both sexes .....	7.2	...	...	*	0.9	5.9	8.4	8.1	7.3	8.5	8.4
Male .....	12.6	...	...	*	1.3	9.9	14.5	13.8	12.3	13.9	14.2
Female .....	1.9	...	...	*	0.4	1.6	1.9	2.2	2.3	3.0	2.7
Black, both sexes .....	3.2	...	...	*	*	4.3	7.1	6.6	5.2	2.8	2.9
Male .....	6.0	...	...	*	*	7.5	13.2	12.3	10.1	5.3	5.4
Female .....	0.7	...	...	*	*	*	*	*	*	*	*
<b>Homicide and legal intervention by firearms (E965.0-E965.4, E970):</b>											
All races <sup>4</sup> , both sexes .....	4.5	*	0.4	0.3	1.0	9.7	15.1	10.4	6.9	5.3	4.4
Male .....	7.6	*	0.4	0.2	1.3	16.8	26.5	18.1	11.6	8.3	7.0
Female .....	1.5	*	0.3	0.4	0.7	2.2	3.2	2.8	2.3	2.3	1.8
White, both sexes .....	2.5	*	0.3	0.3	0.7	4.8	6.7	5.1	4.1	3.3	3.0
Male .....	4.0	*	*	*	1.0	8.0	11.3	8.5	6.5	4.9	4.6
Female .....	1.1	*	*	0.4	0.5	1.3	1.8	1.8	1.6	1.7	1.5
Black, both sexes .....	17.9	*	1.1	*	2.3	36.1	63.3	42.9	25.0	19.0	14.2
Male .....	33.0	*	*	*	3.1	64.5	116.7	79.8	46.2	33.7	25.2
Female .....	4.2	*	*	*	1.6	6.7	11.1	9.2	6.2	6.1	4.6
<b>Injury by firearms, undetermined whether accidentally or purposefully inflicted (E985.0-E985.4):</b>											
All races <sup>4</sup> , both sexes .....	0.1	*	*	*	*	0.3	0.2	0.1	0.1	0.2	0.1
Male .....	0.2	*	*	*	*	0.5	0.3	0.2	0.2	0.2	*
Female .....	0.0	*	*	*	*	*	*	*	*	*	*
White, both sexes .....	0.1	*	*	*	*	0.2	0.2	0.1	*	0.2	*
Male .....	0.2	*	*	*	*	0.4	*	*	*	*	*
Female .....	0.0	*	*	*	*	*	*	*	*	*	*
Black, both sexes .....	0.2	*	*	*	*	*	*	*	*	*	*
Male .....	0.3	*	*	*	*	*	*	*	*	*	*
Female .....	*	*	*	*	*	*	*	*	*	*	*

See footnotes at end of table.

**Table 17. Death rates and age-adjusted death rates for injury by firearms, by age, race, and sex: United States, 1998 - Con.**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population. For a listing of injury by firearms, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975), race, and sex	45-49 years	50-54 years	55-59 years	60-64 years	65-69 years	70-74 years	75-79 years	80-84 years	85 years and over	Age-adjusted rate <sup>3</sup>
<b>Injury by firearms (E922, E955.0-E955.4, E965.0-E965.4, E970, E985.0-E985.4):</b>										
All races <sup>4</sup> , both sexes .....	11.4	10.3	10.7	10.0	10.3	12.5	14.2	17.5	14.3	11.3
Male .....	18.8	17.8	18.7	18.0	19.6	25.2	30.5	43.0	44.9	19.6
Female .....	4.3	3.3	3.3	3.0	2.3	2.5	2.7	2.4	1.6	3.3
White, both sexes .....	11.3	10.4	11.1	10.6	10.9	13.3	15.1	18.5	15.4	9.5
Male .....	18.5	17.7	19.2	18.7	20.6	26.7	32.5	45.4	48.8	16.2
Female .....	4.3	3.4	3.5	3.2	2.5	2.6	2.7	2.5	1.7	3.0
Black, both sexes .....	14.5	12.0	8.8	8.5	7.6	6.0	7.4	7.0	*	22.7
Male .....	26.1	23.0	17.4	17.5	15.5	12.4	14.3	17.8	*	41.6
Female .....	4.7	3.0	*	*	*	*	*	*	*	5.2
<b>Accident caused by firearm missile (E922):</b>										
All races <sup>4</sup> , both sexes .....	0.2	0.2	0.3	0.2	*	*	*	*	*	0.4
Male .....	0.4	0.3	0.7	0.4	*	*	*	*	*	0.6
Female .....	*	*	*	*	*	*	*	*	*	0.1
White, both sexes .....	0.2	0.2	0.3	0.2	*	*	*	*	*	0.3
Male .....	0.4	0.3	0.7	*	*	*	*	*	*	0.6
Female .....	*	*	*	*	*	*	*	*	*	0.1
Black, both sexes .....	*	*	*	*	*	*	*	*	*	0.5
Male .....	*	*	*	*	*	*	*	*	*	0.9
Female .....	*	*	*	*	*	*	*	*	*	0.1
<b>Suicide by firearms (E955.0-E955.4):</b>										
All races <sup>4</sup> , both sexes .....	7.8	7.5	8.4	8.1	8.9	11.1	13.2	16.6	13.4	5.8
Male .....	13.1	13.0	14.9	14.8	17.5	23.2	29.1	41.7	43.3	10.4
Female .....	2.7	2.2	2.4	2.1	1.7	1.7	2.0	1.7	1.0	1.6
White, both sexes .....	8.7	8.3	9.2	8.9	9.7	12.1	14.2	17.7	14.5	6.4
Male .....	14.5	14.3	16.2	16.2	18.9	25.0	31.2	44.2	47.2	11.2
Female .....	3.0	2.5	2.7	2.3	1.9	1.9	2.0	1.8	1.1	1.8
Black, both sexes .....	3.5	2.7	2.9	3.5	4.0	3.0	5.2	*	*	3.3
Male .....	6.2	5.3	5.9	7.3	8.7	6.7	10.6	*	*	6.3
Female .....	*	*	*	*	*	*	*	*	*	0.7
<b>Homicide and legal intervention by firearms (E965.0-E965.4, E970):</b>										
All races <sup>4</sup> , both sexes .....	3.3	2.5	1.9	1.6	1.1	1.1	0.8	0.6	0.5	5.0
Male .....	5.1	4.1	3.0	2.5	1.7	1.5	1.0	*	*	8.4
Female .....	1.5	0.9	0.9	0.8	0.7	0.7	0.6	0.7	*	1.6
White, both sexes .....	2.3	1.7	1.5	1.3	0.9	0.9	0.7	0.6	*	2.7
Male .....	3.4	2.8	2.2	1.9	1.2	1.2	0.8	*	*	4.3
Female .....	1.2	0.7	0.8	0.8	0.6	0.7	0.6	*	*	1.1
Black, both sexes .....	10.5	8.9	5.6	4.6	3.3	2.7	*	*	*	18.7
Male .....	19.0	17.0	10.8	9.3	6.0	*	*	*	*	34.0
Female .....	3.3	2.3	*	*	*	*	*	*	*	4.4
<b>Injury by firearms, undetermined whether accidentally or purposefully inflicted (E985.0-E985.4):</b>										
All races <sup>4</sup> , both sexes .....	0.1	0.2	*	*	*	*	*	*	*	0.1
Male .....	*	*	*	*	*	*	*	*	*	0.2
Female .....	*	*	*	*	*	*	*	*	*	0.1
White, both sexes .....	*	0.2	*	*	*	*	*	*	*	0.1
Male .....	*	*	*	*	*	*	*	*	*	0.2
Female .....	*	*	*	*	*	*	*	*	*	0.0
Black, both sexes .....	*	*	*	*	*	*	*	*	*	0.2
Male .....	*	*	*	*	*	*	*	*	*	0.3
Female .....	*	*	*	*	*	*	*	*	*	*

\* Figure does not meet standards of reliability or precision; see Technical notes.

... Category not applicable.

0.0 Quantity more than zero but less than 0.05.

<sup>1</sup> Figures for age not stated included in "All ages" but not distributed among age groups.<sup>2</sup> Death rates for "Under 1 year" (based on population estimates) differ from infant mortality rates (based on live births); see Technical notes.<sup>3</sup> For method of computation, see Technical notes.<sup>4</sup> Includes races other than white and black.



**Table 18. Number of deaths, death rates, and age-adjusted death rates for injury by firearms, by race and sex: United States, 1979-1998**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. For listing of injury by firearms, see Technical notes]

Year	All races			White			All other					
							Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Number												
1998	30,708	26,189	4,519	22,480	19,019	3,461	8,228	7,170	1,058	7,503	6,592	911
1997	32,436	27,756	4,680	23,270	19,673	3,597	9,166	8,083	1,083	8,389	7,430	959
1996	34,040	29,183	4,857	24,114	20,511	3,603	9,926	8,672	1,254	9,175	8,050	1,125
1995	35,957	30,724	5,233	25,438	21,510	3,928	10,519	9,214	1,305	9,643	8,494	1,149
1994	38,505	33,021	5,484	26,403	22,408	3,995	12,102	10,613	1,489	11,223	9,880	1,343
1993	39,595	33,711	5,884	26,948	22,680	4,268	12,647	11,031	1,616	11,763	10,310	1,453
1992	37,776	32,425	5,351	26,120	22,208	3,912	11,656	10,217	1,439	10,906	9,581	1,325
1991	38,317	32,882	5,435	26,455	22,448	4,007	11,862	10,434	1,428	11,025	9,733	1,292
1990	37,155	31,736	5,419	26,299	22,249	4,050	10,856	9,487	1,369	10,175	8,922	1,253
1989	34,776	29,596	5,180	25,023	21,149	3,874	9,753	8,447	1,306	9,077	7,904	1,173
1988	33,989	28,674	5,315	24,892	20,884	4,008	9,097	7,790	1,307	8,475	7,272	1,203
1987	32,895	27,569	5,326	24,789	20,687	4,102	8,106	6,882	1,224	7,586	6,452	1,134
1986	33,373	28,084	5,289	25,339	21,240	4,099	8,034	6,844	1,190	7,494	6,413	1,081
1985	31,566	26,382	5,184	24,507	20,389	4,118	7,059	5,993	1,066	6,565	5,584	981
1984	31,331	26,229	5,102	24,419	20,356	4,063	6,912	5,873	1,039	6,449	5,494	955
1983	31,099	25,945	5,154	24,038	19,911	4,127	7,061	6,034	1,027	6,589	5,647	942
1982	32,957	27,517	5,440	25,071	20,710	4,361	7,886	6,807	1,079	7,415	6,410	1,005
1981	34,050	28,343	5,707	25,237	20,846	4,391	8,813	7,497	1,316	8,324	7,109	1,215
1980	33,780	28,322	5,458	24,849	20,714	4,135	8,931	7,608	1,323	8,505	7,265	1,240
1979	33,019	27,476	5,543	24,234	20,039	4,195	8,785	7,437	1,348	8,304	7,031	1,273
Rate												
1998	11.4	19.8	3.3	10.1	17.4	3.0	17.4	31.8	4.3	21.8	40.3	5.0
1997	12.1	21.2	3.4	10.5	18.1	3.2	19.8	36.5	4.5	24.7	46.1	5.4
1996	12.8	22.5	3.6	11.0	19.0	3.2	21.8	39.9	5.3	27.4	50.6	6.4
1995	13.7	23.9	3.9	11.7	20.1	3.5	23.5	43.2	5.6	29.1	54.0	6.6
1994	14.8	26.0	4.1	12.2	21.1	3.6	27.6	50.7	6.5	34.4	63.8	7.8
1993	15.4	26.8	4.5	12.5	21.5	3.9	29.4	53.7	7.2	36.6	67.6	8.6
1992	14.8	26.0	4.1	12.3	21.3	3.6	27.7	50.7	6.5	34.5	63.9	8.0
1991	15.2	26.7	4.2	12.5	21.7	3.7	28.7	52.9	6.6	35.4	66.0	7.9
1990	14.9	26.2	4.3	12.6	21.8	3.8	27.1	49.7	6.5	33.4	61.9	7.8
1989	14.1	24.6	4.1	12.1	20.8	3.7	24.8	45.1	6.4	30.1	55.4	7.4
1988	13.9	24.1	4.2	12.1	20.7	3.8	23.7	42.6	6.5	28.5	51.7	7.7
1987	13.6	23.4	4.3	12.1	20.7	3.9	21.6	38.5	6.2	25.9	46.5	7.3
1986	13.9	24.0	4.3	12.5	21.4	3.9	21.9	39.1	6.2	25.9	46.9	7.1
1985	13.3	22.8	4.2	12.1	20.7	4.0	19.7	35.1	5.7	23.0	41.3	6.5
1984	13.3	22.9	4.2	12.2	20.8	4.0	19.7	35.1	5.6	22.9	41.2	6.4
1983	13.3	22.8	4.3	12.1	20.5	4.0	20.5	36.9	5.7	23.6	42.9	6.4
1982	14.2	24.4	4.6	12.7	21.4	4.3	23.5	42.6	6.1	27.0	49.3	6.9
1981	14.8	25.4	4.8	12.8	21.7	4.4	26.8	48.0	7.6	30.7	55.4	8.5
1980	14.9	25.7	4.7	12.8	21.8	4.1	28.1	50.5	7.9	31.9	57.7	8.8
1979	14.7	25.2	4.8	12.5	21.2	4.2	28.5	50.8	8.3	31.6	56.5	9.2
Age-adjusted rate <sup>1</sup>												
1998	11.3	19.6	3.3	9.5	16.2	3.0	18.1	32.8	4.4	22.7	41.6	5.2
1997	12.2	21.1	3.4	10.0	17.1	3.1	20.6	37.6	4.6	25.7	47.4	5.6
1996	12.9	22.4	3.6	10.5	18.0	3.1	22.6	40.8	5.4	28.5	52.0	6.5
1995	13.9	24.1	4.0	11.3	19.3	3.5	24.4	44.4	5.7	30.3	55.6	6.8
1994	15.1	26.2	4.2	11.9	20.4	3.6	28.4	51.6	6.6	35.5	65.1	8.0
1993	15.6	26.9	4.6	12.2	20.7	3.9	30.1	54.4	7.3	37.6	68.8	8.8
1992	14.9	25.9	4.1	11.8	20.4	3.6	28.0	50.9	6.6	35.1	64.5	8.0
1991	15.2	26.4	4.2	12.0	20.7	3.7	29.0	52.9	6.6	35.9	66.4	8.0
1990	14.6	25.4	4.2	11.9	20.5	3.7	26.9	48.9	6.5	33.4	61.5	7.8
1989	13.7	23.7	4.1	11.4	19.5	3.6	24.5	44.3	6.3	30.0	54.9	7.4
1988	13.4	23.0	4.2	11.3	19.3	3.7	23.3	41.6	6.4	28.2	51.0	7.6
1987	13.0	22.3	4.2	11.3	19.2	3.8	21.3	38.0	6.2	25.7	46.4	7.3
1986	13.3	22.9	4.3	11.7	19.9	3.9	21.7	39.0	6.1	25.8	47.1	7.0
1985	12.7	21.8	4.2	11.4	19.4	3.9	19.7	35.4	5.7	23.2	42.2	6.5
1984	12.8	22.0	4.2	11.6	19.6	3.9	19.8	35.9	5.7	23.2	42.6	6.5
1983	12.9	22.1	4.3	11.5	19.4	4.0	20.8	37.9	5.7	24.2	44.6	6.5
1982	13.9	23.8	4.6	12.2	20.5	4.3	23.9	44.0	6.2	27.8	51.7	7.1
1981	14.6	24.9	4.9	12.5	21.0	4.4	27.5	50.0	7.8	31.9	58.6	8.7
1980	14.8	25.3	4.8	12.4	21.1	4.2	29.1	53.0	8.1	33.5	61.8	9.1
1979	14.6	24.9	4.9	12.2	20.6	4.3	29.9	54.5	8.6	33.6	61.5	9.5

<sup>1</sup> For method of computation, see Technical notes.

**Table 19. Deaths, death rates, and age-adjusted death rates for injury deaths according to mechanism and intent of death: United States, 1998**

[Totals for selected causes of death differ from those shown in other tables that utilize standard mortality tabulation lists, see Technical notes. Rates per 100,000 in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes]

Mechanism and intent of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	Number													Age not stated
	All ages	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over		
All injury deaths (E800-E869, E880-E929, E950-E999) .....	146,941	1,117	2,346	4,074	23,282	22,614	26,642	18,228	10,871	11,298	14,517	11,745	207	
Unintentional (E800-E869, E880-E929) .....	94,331	720	1,904	3,224	13,299	11,950	14,952	10,640	6,928	8,126	11,750	10,729	109	
Suicide (E950-E959) .....	30,575	...	...	324	4,135	5,365	6,837	5,131	2,963	2,597	2,355	851	17	
Homicide (E960-E969) .....	17,893	322	399	457	5,431	4,447	3,449	1,695	757	464	318	99	55	
Undetermined (E980-E989) .....	3,746	75	43	66	342	734	1,286	708	214	103	86	64	25	
Other (E970-E978, E990-E999) .....	396	-	-	3	75	118	118	54	9	8	8	2	1	
Cut/pierce (E920, E956, E966, E974, E986) .....	2,693	1	14	35	507	644	692	360	181	121	104	28	6	
Unintentional (E920) .....	121	-	4	4	12	18	27	20	12	12	10	2	-	
Suicide (E956) .....	476	...	...	-	25	67	121	114	51	45	41	12	-	
Homicide (E966) .....	2,087	1	10	31	468	558	543	223	117	64	53	13	6	
Undetermined (E986) .....	8	-	-	-	2	1	-	3	1	-	-	1	-	
Other (E974) .....	1	-	-	-	-	-	1	-	-	-	-	-	-	
Drowning (E830, E832, E910, E954, E964, E984) .....	5,096	80	516	462	876	755	845	547	316	303	238	101	57	
Unintentional (E830, E832, E910) ....	4,406	63	496	444	821	637	686	445	261	241	195	74	43	
Suicide (E954) .....	375	...	...	-	26	62	86	65	34	46	32	22	2	
Homicide (E964) .....	66	12	11	11	6	8	11	4	1	-	-	1	1	
Undetermined (E984) .....	249	5	9	7	23	48	62	33	20	16	11	4	11	
Fall (E880-E886, E888, E957, E968.1, E987) .....	13,301	22	47	57	327	458	822	932	899	1,671	3,654	4,405	7	
Unintentional (E880-E886, E888) ....	12,595	20	45	55	226	340	668	801	831	1,617	3,614	4,373	5	
Suicide (E957) .....	621	...	...	-	89	107	129	116	58	52	39	30	1	
Homicide (E968.1) .....	29	1	-	1	-	3	9	7	6	1	-	-	1	
Undetermined (E987) .....	56	1	2	1	12	8	16	8	4	1	1	2	-	
Fire/hot object/substance (E890-E899, E924, E958 (.1,.2,.7), E961, E968 (.0,.3), E988 (.1,.2,.7)) .....	3,813	48	290	342	241	332	530	437	345	442	517	284	5	
Unintentional (E890-E899, E924) ....	3,363	43	264	301	195	260	426	371	313	418	499	271	2	
Suicide (E958 (.1,.2,.7)) .....	161	...	...	1	19	31	52	28	16	5	6	3	-	
Homicide (E961, E968 (.0,.3)) .....	197	5	21	32	23	29	32	29	4	11	6	4	1	
Undetermined (E988 (.1,.2,.7)) .....	92	-	5	8	4	12	20	9	12	8	6	6	2	
Firearm (E922, E955 (.0-.4), E965 (.0-.4), E970, E985 (.0-.4)) .....	30,708	5	78	529	7,420	6,309	5,690	3,781	2,356	2,081	1,855	578	26	
Unintentional (E922) .....	866	-	19	102	260	137	143	77	63	34	21	9	1	
Suicide (E955 (.0-.4)) .....	17,424	...	...	154	2,510	2,789	3,329	2,652	1,873	1,831	1,739	543	4	
Homicide (E965 (.0-.4)) .....	11,798	5	58	251	4,484	3,231	2,080	971	394	202	85	19	18	
Undetermined (E985 (.0-.4)) .....	316	-	1	19	91	54	57	47	19	10	10	6	2	
Other (E970) .....	304	-	-	3	75	98	81	34	7	4	-	1	1	
Machinery (E919) .....	1,018	-	18	36	70	116	169	159	143	167	112	27	1	
Motor vehicle traffic, all (E810-E819, E958.5, E988.5) .....	42,337	158	627	1,783	9,858	6,975	6,817	4,867	3,324	3,312	3,341	1,246	29	
Unintentional (E810-E819) <sup>1</sup> .....	42,191	158	627	1,781	9,828	6,944	6,782	4,845	3,311	3,307	3,337	1,242	29	
Occupant (E810-E819 (.0,.1)) .....	24,783	125	330	888	6,382	4,082	3,699	2,661	1,843	2,026	1,982	754	11	
Motor cyclist (E810-E819 (.2,.3)) .....	1,691	-	1	19	395	489	433	226	91	25	11	1	-	
Pedal cyclist (E810-E819 (.6)) ....	683	-	8	173	92	94	123	85	51	33	19	4	1	
Pedestrian (E810-E819 (.7)) .....	5,362	5	186	385	603	688	989	729	549	468	560	184	16	
Unspecified (E810-E819 (.9)) .....	9,608	27	100	301	2,339	1,585	1,527	1,141	774	752	762	299	1	
Suicide (E958.5) .....	133	...	...	2	27	28	33	22	10	4	4	3	-	
Undetermined (E988.5) .....	13	-	-	-	3	3	2	-	3	1	-	1	-	
Pedal cyclist, other (E800-E807 (.3), E820-E825 (.6), E826 (.1,.9), E827-E829 (.1)) .....	142	-	1	21	9	21	24	34	10	11	7	3	1	
Pedestrian, other (E800-E807 (.2), E820-E825 (.7), E826-E829 (.0)) ..	957	2	106	42	136	136	170	116	84	62	70	27	6	

See footnotes at end of table.

**Table 19. Deaths, death rates, and age-adjusted death rates for injury deaths according to mechanism and intent of death: United States, 1998- Con.**

[Totals for selected causes of death differ from those shown in other tables that utilize standard mortality tabulation lists, see Technical notes. Rates per 100,000 in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes]

Mechanism and intent of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All ages	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	Age not stated	Number
Transportation, all other (E800-E807 (.0-.1,.8,.9), E820-E825 (.0-.5,.8,.9), E826 (.2-.8), E827-E829 (.2-.9), E831, E833-E845, E958.6, E988.6) .....	1,903	3	31	104	280	320	350	319	223	164	87	21	1	
Unintentional (E800-E807 (.0-.1,.8,.9), E820-E825 (.0-.5,.8,.9), E826 (.2-.8), E827-E829 (.2-.9), E831, E833-E845) .....	1,903	3	31	104	280	320	350	319	223	164	87	21	1	
Suicide (E958.6) .....	-	...	...	-	-	-	-	-	-	-	-	-	-	
Undetermined (E988.6) .....	-	-	-	-	-	-	-	-	-	-	-	-	-	
Natural/environmental (E900-E909, E928 (.0-.2), E958.3, E988.3) .....	1,530	15	32	43	68	119	200	198	182	181	266	213	13	
Unintentional (E900-E909, E928 (.0-.2)) .....	1,522	15	32	43	68	119	198	197	182	180	263	212	13	
Suicide (E958.3) .....	3	...	...	-	-	-	-	1	-	-	1	1	-	
Undetermined (E988.3) .....	5	-	-	-	-	-	2	-	-	1	2	-	-	
Poisoning (E850-E869, E950-E952, E962, E972, E980-E982) .....	18,392	18	44	49	1,335	3,541	6,797	4,000	1,184	633	534	246	11	
Unintentional (E850-E869) .....	10,801	9	27	33	860	2,152	4,241	2,234	542	285	278	134	6	
Suicide (E950-E952) .....	5,072	...	...	8	300	829	1,545	1,230	532	305	229	94	-	
Homicide (E962) .....	86	5	12	5	10	11	17	8	6	5	4	3	-	
Undetermined (E980-E982) .....	2,433	4	5	3	165	549	994	528	104	38	23	15	5	
Other (E972) .....	-	-	-	-	-	-	-	-	-	-	-	-	-	
Struck by/against (E916-E917, E960.0, E968.2, E973, E975) .....	1,467	9	36	42	199	209	273	253	156	136	103	48	3	
Unintentional (E916-E917) .....	1,059	5	26	41	133	148	174	179	126	111	79	37	-	
Homicide (E960.0, E968.2) .....	399	4	10	1	66	59	97	70	30	25	24	10	3	
Other (E973, E975) .....	9	-	-	-	-	2	2	4	-	-	-	1	-	
Suffocation (E911-E913, E953, E963, E983) .....	11,095	444	180	344	1,281	1,684	1,856	1,184	690	895	1,305	1,217	15	
Unintentional (E911-E913) .....	4,585	376	152	133	125	203	294	306	312	578	1,036	1,069	1	
Suicide (E953) .....	5,726	...	...	154	1,049	1,320	1,403	797	347	280	236	134	6	
Homicide (E963) .....	661	36	22	36	93	148	140	72	29	34	30	13	8	
Undetermined (E983) .....	123	32	6	21	14	13	19	9	2	3	3	1	-	
Other specified (classifiable and not elsewhere classifiable) and unspecified (E846-E848, E887, E914-E915, E918, E921, E923, E925-E927, E928 (.8,.9), E929, E955 (.5,.9), E958 (.0,.4,.8,.9), E959, E960.1, E965 (.5-.9), E967, E968 (.4,.8,.9), E969, E971, E976-E978, E985.5, E988 (.0,.4,.8,.9), E989-E999) .....	12,489	312	326	185	675	995	1,407	1,041	778	1,119	2,324	3,301	26	
Unintentional (E846-E848, E887, E914-E915, E918, E921, E923, E925-E927, E928 (.8-.9), E929) ....	8,802	26	56	84	276	399	600	537	515	939	2,142	3,228	-	
Suicide (E955 (.5,.9), E958 (.0,.4,.8,.9), E959) .....	584	...	...	5	90	132	139	106	42	29	28	9	4	
Homicide (E960.1, E965 (.5-.9), E967, E968 (.4,.8,.9), E969) .....	2,570	253	255	89	281	400	520	311	170	122	116	36	17	
Undetermined (E985.5, E988 (.0,.4,.8,.9), E989) .....	451	33	15	7	28	46	114	71	49	25	30	28	5	
Other (E971, E976-E978, E990-E996, E997, E998-E999) .....	82	-	-	-	-	18	34	16	2	4	8	-	-	

See footnotes at end of table.

**Table 19. Deaths, death rates, and age-adjusted death rates for injury deaths according to mechanism and intent of death: United States, 1998- Con.**

[Totals for selected causes of death differ from those shown in other tables that utilize standard mortality tabulation lists, see Technical notes. Rates per 100,000 in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes]

Mechanism and intent of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All ages <sup>2</sup>	Under 1 year <sup>3</sup>	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	Age- adjusted rate <sup>4</sup>
	Rate												
All injury deaths (E800-E869, E880-E929, E950-E999) .....	54.4	29.6	15.4	10.4	62.6	58.3	59.8	52.7	47.9	61.4	121.5	289.7	48.3
Unintentional (E800-E869, E880-E929) .....	34.9	19.1	12.5	8.2	35.7	30.8	33.6	30.8	30.6	44.2	98.3	264.7	29.3
Suicide (E950-E959) .....	11.3	...	...	0.8	11.1	13.8	15.4	14.8	13.1	14.1	19.7	21.0	10.4
Homicide (E960-E969) .....	6.6	8.5	2.6	1.2	14.6	11.5	7.7	4.9	3.3	2.5	2.7	2.4	7.1
Undetermined (E980-E989) .....	1.4	2.0	0.3	0.2	0.9	1.9	2.9	2.0	0.9	0.6	0.7	1.6	1.3
Other (E970-E978, E990-E999) .....	0.1	*	*	*	0.2	0.3	0.3	0.2	*	*	*	*	0.2
Cut/pierce (E920, E956, E966, E974, E986) .....	1.0	*	*	0.1	1.4	1.7	1.6	1.0	0.8	0.7	0.9	0.7	1.0
Unintentional (E920) .....	0.0	*	*	*	*	*	0.1	0.1	*	*	*	*	*
Suicide (E956) .....	0.2	...	...	*	0.1	0.2	0.3	0.3	0.2	0.2	0.3	*	0.2
Homicide (E966) .....	0.8	*	*	0.1	1.3	1.4	1.2	0.6	0.5	0.3	0.4	*	0.8
Undetermined (E986) .....	*	*	*	*	*	*	*	*	*	*	*	*	*
Other (E974) .....	*	*	*	*	*	*	*	*	*	*	*	*	*
Drowning (E830, E832, E910, E954, E964, E984) .....	1.9	2.1	3.4	1.2	2.4	1.9	1.6	1.4	1.4	1.6	2.0	2.5	1.9
Unintentional (E830, E832, E910) ....	1.6	1.7	3.3	1.1	2.2	1.6	1.5	1.3	1.2	1.3	1.6	1.8	1.6
Suicide (E954) .....	0.1	...	...	*	0.1	0.2	0.2	0.2	0.1	0.3	0.3	0.5	0.1
Homicide (E964) .....	0.0	*	*	*	*	*	*	*	*	*	*	*	*
Undetermined (E984) .....	0.1	*	*	*	0.1	0.1	0.1	0.1	0.1	*	*	*	0.1
Fall (E880-E886, E888, E957, E968.1, E987) .....	4.9	0.6	0.3	0.1	0.9	1.2	1.8	2.7	4.0	9.1	30.6	108.7	2.6
Unintentional (E880-E886, E888) ....	4.7	0.5	0.3	0.1	0.6	0.9	1.5	2.3	3.7	8.8	30.2	107.9	2.3
Suicide (E957) .....	0.2	...	...	*	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.7	0.2
Homicide (E968.1) .....	0.0	*	*	*	*	*	*	*	*	*	*	*	*
Undetermined (E987) .....	0.0	*	*	*	*	*	*	*	*	*	*	*	*
Fire/hot object/substance (E890-E899, E924, E958 (.1,.2,.7), E961, E968 (.0,.3), E988 (.1,.2,.7)) .....	1.4	1.3	1.9	0.9	0.6	0.9	1.2	1.3	1.5	2.4	4.3	7.0	1.2
Unintentional (E890-E899, E924) ....	1.2	1.1	1.7	0.8	0.5	0.7	1.0	1.1	1.4	2.3	4.2	6.7	1.1
Suicide (E958 (.1,.2,.7)) .....	0.1	...	...	*	*	0.1	0.1	0.1	*	*	*	*	0.1
Homicide (E961, E968 (.0,.3)) .....	0.1	*	0.1	0.1	0.1	0.1	0.1	0.1	*	*	*	*	0.1
Undetermined (E988 (.1,.2,.7)) .....	0.0	*	*	*	*	*	0.0	*	*	*	*	*	*
Firearm (E922, E955 (.0-.4), E965 (.0-.4), E970, E985 (.0-.4)) .....	11.4	*	0.5	1.4	19.9	16.3	12.8	10.9	10.4	11.3	15.5	14.3	11.3
Unintentional (E922) .....	0.3	*	*	0.3	0.7	0.4	0.3	0.2	0.3	0.2	0.2	*	0.4
Suicide (E955 (.0-.4)) .....	6.4	...	...	0.4	6.7	7.2	7.5	7.7	8.3	10.0	14.5	13.4	5.8
Homicide (E965 (.0-.4)) .....	4.4	*	0.4	0.6	12.0	8.3	4.7	2.8	1.7	1.1	0.7	*	4.8
Undetermined (E985 (.0-.4)) .....	0.1	*	*	*	0.2	0.1	0.1	0.1	*	*	*	*	0.1
Other (E970) .....	0.1	*	*	*	0.2	0.3	0.2	0.1	*	*	*	*	0.1
Machinery (E919) .....	0.4	*	*	0.1	0.2	0.3	0.4	0.5	0.6	0.9	0.9	0.7	0.3
Motor vehicle traffic, all (E810-E819, E958.5, E988.5) .....	15.7	4.2	4.1	4.6	26.5	18.0	15.3	14.1	14.7	18.0	28.0	30.7	15.3
Unintentional (E810-E819) <sup>1</sup> .....	15.6	4.2	4.1	4.5	26.4	17.9	15.2	14.0	14.6	18.0	27.9	30.6	15.2
Occupant (E810-E819 (.0,.1)) <sup>5</sup> ....	11.9	4.0	2.6	2.7	22.5	13.6	10.7	10.1	10.6	14.3	21.5	24.5	11.6
Motor cyclist (E810-E819 (.2,.3)) <sup>5</sup> .....	0.8	*	*	*	1.4	1.6	1.3	0.9	0.5	0.2	*	*	0.9
Pedal cyclist (E810-E819 (.6)) <sup>5</sup> ...	0.3	*	*	0.5	0.3	0.3	0.4	0.3	0.3	0.2	*	*	0.3
Pedestrian (E810-E819 (.7)) <sup>5</sup> .....	2.6	*	1.5	1.2	2.1	2.3	2.9	2.8	3.2	3.3	6.1	6.0	2.3
Unspecified (E810-E819 (.9)) <sup>5</sup> ....	...	...	...	...	...	...	...	...	...	...	...	...	...
Suicide (E958.5) .....	0.0	...	...	*	0.1	0.1	0.1	0.1	*	*	*	*	0.1
Undetermined (E988.5) .....	*	*	*	*	*	*	*	*	*	*	*	*	*
Pedal cyclist, other (E800-E807 (.3), E820-E825 (.6), E826 (.1,.9), E827-E829 (.1)) .....	0.1	*	*	0.1	*	0.1	0.1	0.1	*	*	*	*	0.1
Pedestrian, other (E800-E807 (.2), E820-E825 (.7), E826-E829 (.0)) ..	0.4	*	0.7	0.1	0.4	0.4	0.4	0.3	0.4	0.3	0.6	0.7	0.4

See footnotes at end of table.

**Table 19. Deaths, death rates, and age-adjusted death rates for injury deaths according to mechanism and intent of death: United States, 1998- Con.**

[Totals for selected causes of death differ from those shown in other tables that utilize standard mortality tabulation lists, see Technical notes. Rates per 100,000 in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes]

Mechanism and intent of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	All ages <sup>2</sup>	Under 1 year <sup>3</sup>	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	Age- adjusted rate <sup>4</sup>
	Rate												
Transportation, all other (E800-E807 (.0-.1,.8,.9), E820-E825 (.0-.5,.8,.9), E826 (.2-.8), E827-E829 (.2-.9), E831, E833-E845, E958.6, E988.6) .....	0.7	*	0.2	0.3	0.8	0.8	0.8	0.9	1.0	0.9	0.7	0.5	0.7
Unintentional (E800-E807 (.0-.1,.8,.9), E820-E825 (.0-.5,.8,.9), E826 (.2-.8), E827-E829 (.2-.9), E831, E833-E845) .....	0.7	*	0.2	0.3	0.8	0.8	0.8	0.9	1.0	0.9	0.7	0.5	0.7
Suicide (E958.6) .....	*	...	...	*	*	*	*	*	*	*	*	*	*
Undetermined (E988.6) .....	*	*	*	*	*	*	*	*	*	*	*	*	*
Natural/environmental (E900-E909, E928 (.0-.2), E958.3, E988.3) .....	0.6	*	0.2	0.1	0.2	0.3	0.4	0.6	0.8	1.0	2.2	5.3	0.4
Unintentional (E900-E909, E928 (.0-.2)) .....	0.6	*	0.2	0.1	0.2	0.3	0.4	0.6	0.8	1.0	2.2	5.2	0.4
Suicide (E958.3) .....	*	...	...	*	*	*	*	*	*	*	*	*	*
Undetermined (E988.3) .....	*	*	*	*	*	*	*	*	*	*	*	*	*
Poisoning (E850-E869, E950-E952, E962, E972, E980-E982) .....	6.8	*	0.3	0.1	3.6	9.1	15.3	11.6	5.2	3.4	4.5	6.1	6.3
Unintentional (E850-E869) .....	4.0	*	0.2	0.1	2.3	5.6	9.5	6.5	2.4	1.5	2.3	3.3	3.8
Suicide (E950-E952) .....	1.9	...	...	*	0.8	2.1	3.5	3.6	2.3	1.7	1.9	2.3	1.7
Homicide (E962) .....	0.0	*	*	*	*	*	*	*	*	*	*	*	*
Undetermined (E980-E982) .....	0.9	*	*	*	0.4	1.4	2.2	1.5	0.5	0.2	0.2	*	0.8
Other (E972) .....	*	*	*	*	*	*	*	*	*	*	*	*	*
Struck by/against (E916-E917, E960.0, E968.2, E973, E975) .....	0.5	*	0.2	0.1	0.5	0.5	0.6	0.7	0.7	0.7	0.9	1.2	0.5
Unintentional (E916-E917) .....	0.4	*	0.2	0.1	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.9	0.4
Homicide (E960.0, E968.2) .....	0.1	*	*	*	0.2	0.2	0.2	0.2	0.1	0.1	0.2	*	0.1
Other (E973, E975) .....	*	*	*	*	*	*	*	*	*	*	*	*	*
Suffocation (E911-E913, E953, E963, E983) .....	4.1	11.8	1.2	0.9	3.4	4.3	4.2	3.4	3.0	4.9	10.9	30.0	3.5
Unintentional (E911-E913) .....	1.7	10.0	1.0	0.3	0.3	0.5	0.7	0.9	1.4	3.1	8.7	26.4	1.1
Suicide (E953) .....	2.1	...	...	0.4	2.8	3.4	3.2	2.3	1.5	1.5	2.0	3.3	2.1
Homicide (E963) .....	0.2	1.0	0.1	0.1	0.2	0.4	0.3	0.2	0.1	0.2	0.3	*	0.2
Undetermined (E983) .....	0.0	0.8	*	0.1	*	*	*	*	*	*	*	*	*
Other specified (classifiable and not elsewhere classifiable) and unspecified (E846-E848, E887, E914-E915, E918, E921, E923, E925-E927, E928 (.8,.9), E929, E955 (.5,.9), E958 (.0,.4,.8,.9), E959, E960.1, E965 (.5-.9), E967, E968 (.4,.8,.9), E969, E971, E976-E978, E985.5, E988 (.0,.4,.8,.9), E989-E999) .....	4.6	8.3	2.1	0.5	1.8	2.6	3.2	3.0	3.4	6.1	19.4	81.4	3.0
Unintentional (E846-E848, E887, E914-E915, E918, E921, E923, E925-E927, E928 (.8-.9), E929) ....	3.3	0.7	0.4	0.2	0.7	1.0	1.3	1.6	2.3	5.1	17.9	79.6	1.7
Suicide (E955 (.5,.9), E958 (.0,.4,.8,.9), E959) .....	0.2	...	...	*	0.2	0.3	0.3	0.3	0.2	0.2	0.2	*	0.2
Homicide (E960.1, E965 (.5-.9), E967, E968 (.4,.8,.9), E969) .....	1.0	6.7	1.7	0.2	0.8	1.0	1.2	0.9	0.7	0.7	1.0	0.9	0.9
Undetermined (E985.5, E988 (.0,.4,.8,.9), E989) .....	0.2	0.9	*	*	0.1	0.1	0.3	0.2	0.2	0.1	0.3	0.7	0.1
Other (E971, E976-E978, E990-E996, E997, E998-E999) .....	0.0	*	*	*	*	*	0.1	*	*	*	*	*	*

- Quantity zero.

\* Figure does not meet standards of reliability or precision; see Technical notes.

... Category not applicable.

0.0 Quantity more than zero but less than 0.05.

<sup>1</sup> Includes deaths from causes not shown separately; see Technical notes.

<sup>2</sup> Figures for age not stated included in "All ages" but not distributed among age groups.

<sup>3</sup> Death rates for "Under 1 year" (based on population estimates) differ from infant mortality rates (based on live births); see Technical notes.

<sup>4</sup> For method of computation, see Technical notes.

<sup>5</sup> In the rate calculations, the 4th digit .9 codes for unspecified person were proportionately distributed according to the known distribution of occupant, motorcyclist, pedal cyclist, and pedestrian deaths in each age group. For method of computation, see Technical notes.



**Table 20. Number of deaths, death rates, and age-adjusted death rates for drug-induced causes, by race and sex: United States, 1979-98**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. For listing of drug-induced causes, see Technical notes]

Year	All races			White			All other					
	Both sexes	Male	Female	Both sexes	Male	Female	Total			Black		
							Both sexes	Male	Female	Both sexes	Male	Female
Number												
1998	16,926	11,462	5,464	13,811	9,273	4,538	3,115	2,189	926	2,831	1,998	833
1997	15,973	10,991	4,982	12,863	8,821	4,042	3,110	2,170	940	2,816	1,988	828
1996	14,843	10,093	4,750	11,903	8,061	3,842	2,940	2,032	908	2,682	1,876	806
1995	14,218	9,909	4,309	11,173	7,730	3,443	3,045	2,179	866	2,800	2,011	789
1994	13,923	9,491	4,432	10,895	7,339	3,556	3,028	2,152	876	2,780	1,995	785
1993	13,275	9,052	4,223	10,394	7,005	3,389	2,881	2,047	834	2,688	1,924	764
1992	11,703	7,766	3,937	9,360	6,124	3,236	2,343	1,642	701	2,148	1,533	615
1991	10,388	6,593	3,795	8,204	5,129	3,075	2,184	1,464	720	2,037	1,385	652
1990	9,463	5,897	3,566	7,603	4,646	2,957	1,860	1,251	609	1,703	1,155	548
1989	10,710	6,895	3,815	8,336	5,249	3,087	2,374	1,646	728	2,236	1,570	666
1988	10,917	7,004	3,913	8,409	5,234	3,175	2,508	1,770	738	2,395	1,700	695
1987	9,796	6,146	3,650	7,547	4,600	2,947	2,249	1,546	703	2,101	1,465	636
1986	9,976	6,284	3,692	7,948	4,885	3,063	2,028	1,399	629	1,906	1,335	571
1985	8,663	5,342	3,321	6,946	4,172	2,774	1,717	1,170	547	1,600	1,107	493
1984	7,892	4,640	3,252	6,309	3,587	2,722	1,583	1,053	530	1,480	997	483
1983	7,492	4,145	3,347	6,187	3,378	2,809	1,305	767	538	1,194	724	470
1982	7,310	4,130	3,180	5,991	3,251	2,740	1,319	879	440	1,212	822	390
1981	7,106	3,835	3,271	5,863	3,042	2,821	1,243	793	450	1,152	751	401
1980	6,900	3,771	3,129	5,814	3,088	2,726	1,086	683	403	1,006	648	358
1979	7,101	3,656	3,445	6,116	3,077	3,039	985	579	406	897	540	357
Rate												
1998	6.3	8.7	4.0	6.2	8.5	4.0	6.6	9.7	3.7	8.2	12.2	4.6
1997	6.0	8.4	3.6	5.8	8.1	3.6	6.7	9.8	3.9	8.3	12.3	4.6
1996	5.6	7.8	3.5	5.4	7.5	3.4	6.5	9.3	3.8	8.0	11.8	4.6
1995	5.4	7.7	3.2	5.1	7.2	3.1	6.8	10.2	3.7	8.4	12.8	4.5
1994	5.3	7.5	3.3	5.0	6.9	3.2	6.9	10.3	3.8	8.5	12.9	4.6
1993	5.1	7.2	3.2	4.8	6.7	3.1	6.7	10.0	3.7	8.4	12.6	4.5
1992	4.6	6.2	3.0	4.4	5.9	3.0	5.6	8.2	3.2	6.8	10.2	3.7
1991	4.1	5.4	2.9	3.9	5.0	2.9	5.3	7.4	3.3	6.5	9.4	4.0
1990	3.8	4.9	2.8	3.6	4.5	2.8	4.6	6.6	2.9	5.6	8.0	3.4
1989	4.3	5.7	3.0	4.0	5.2	2.9	6.0	8.8	3.5	7.4	11.0	4.2
1988	4.5	5.9	3.1	4.1	5.2	3.0	6.5	9.7	3.7	8.1	12.1	4.4
1987	4.0	5.2	2.9	3.7	4.6	2.8	6.0	8.6	3.6	7.2	10.6	4.1
1986	4.2	5.4	3.0	3.9	4.9	2.9	5.5	8.0	3.3	6.6	9.8	3.7
1985	3.6	4.6	2.7	3.4	4.2	2.7	4.8	6.8	2.9	5.6	8.2	3.3
1984	3.3	4.0	2.7	3.1	3.7	2.6	4.5	6.3	2.9	5.2	7.5	3.2
1983	3.2	3.6	2.8	3.1	3.5	2.8	3.8	4.7	3.0	4.3	5.5	3.2
1982	3.2	3.7	2.7	3.0	3.4	2.7	3.9	5.5	2.5	4.4	6.3	2.7
1981	3.1	3.4	2.8	3.0	3.2	2.8	3.8	5.1	2.6	4.2	5.9	2.8
1980	3.0	3.4	2.7	3.0	3.3	2.7	3.4	4.5	2.4	3.8	5.1	2.5
1979	3.2	3.4	3.0	3.2	3.3	3.1	3.2	4.0	2.5	3.4	4.3	2.6
Age-adjusted rate <sup>1</sup>												
1998	5.9	8.2	3.6	5.8	8.0	3.6	6.4	9.7	3.5	8.1	12.4	4.4
1997	5.6	7.9	3.3	5.4	7.6	3.3	6.5	9.8	3.7	8.2	12.6	4.4
1996	5.2	7.3	3.2	5.0	6.9	3.1	6.3	9.5	3.6	8.0	12.2	4.4
1995	5.1	7.3	3.0	4.8	6.8	2.8	6.7	10.4	3.5	8.5	13.3	4.4
1994	5.0	7.0	3.0	4.7	6.5	2.9	6.8	10.5	3.7	8.6	13.4	4.4
1993	4.8	6.8	3.0	4.5	6.2	2.8	6.6	10.0	3.6	8.3	13.0	4.4
1992	4.3	5.9	2.8	4.1	5.5	2.7	5.5	8.3	3.1	6.8	10.6	3.6
1991	3.8	5.0	2.7	3.6	4.6	2.6	5.2	7.5	3.2	6.6	9.7	3.9
1990	3.6	4.6	2.6	3.3	4.2	2.5	4.6	6.7	2.8	5.7	8.4	3.4
1989	4.1	5.4	2.8	3.7	4.8	2.6	6.0	8.9	3.4	7.5	11.4	4.1
1988	4.2	5.6	2.9	3.8	4.9	2.7	6.6	10.0	3.6	8.3	12.9	4.4
1987	3.8	5.0	2.7	3.4	4.3	2.5	6.0	9.0	3.5	7.4	11.3	4.1
1986	4.0	5.2	2.8	3.7	4.7	2.7	5.6	8.4	3.2	6.9	10.5	3.7
1985	3.5	4.5	2.6	3.3	4.0	2.5	4.9	7.2	2.9	5.9	8.9	3.3
1984	3.2	3.9	2.6	3.0	3.5	2.5	4.6	6.7	2.9	5.5	8.2	3.3
1983	3.1	3.6	2.6	3.0	3.3	2.5	4.0	5.1	3.0	4.6	6.1	3.3
1982	3.1	3.6	2.6	2.9	3.3	2.5	4.1	5.8	2.6	4.7	6.9	2.8
1981	3.1	3.4	2.7	2.9	3.1	2.7	4.0	5.5	2.7	4.6	6.6	2.9
1980	3.0	3.4	2.6	2.9	3.2	2.6	3.7	4.9	2.5	4.1	5.8	2.7
1979	3.1	3.4	2.9	3.1	3.2	3.0	3.4	4.3	2.6	3.7	4.9	2.7

<sup>1</sup> For method of computation, see Technical notes.

**Table 21. Number of deaths, death rates, and age-adjusted death rates for alcohol-induced causes, by race and sex: United States, 1979-98**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. For listing of alcohol-induced causes, see Technical notes]

Year	All races						All other					
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Number												
1998 .....	19,515	14,758	4,757	15,962	12,150	3,812	3,553	2,608	945	2,832	2,113	719
1997 .....	19,576	14,755	4,821	15,962	12,110	3,852	3,614	2,645	969	2,954	2,196	758
1996 .....	19,770	14,926	4,844	15,868	12,057	3,811	3,902	2,869	1,033	3,224	2,400	824
1995 .....	20,231	15,443	4,788	15,991	12,338	3,653	4,240	3,105	1,135	3,538	2,614	924
1994 .....	20,163	15,293	4,870	15,853	12,154	3,699	4,310	3,139	1,171	3,648	2,700	948
1993 .....	19,557	14,873	4,684	15,293	11,716	3,577	4,264	3,157	1,107	3,663	2,759	904
1992 .....	19,568	14,926	4,642	15,143	11,701	3,442	4,425	3,225	1,200	3,809	2,800	1,009
1991 .....	19,233	14,467	4,766	14,825	11,286	3,539	4,408	3,181	1,227	3,883	2,816	1,067
1990 .....	19,757	14,842	4,915	14,904	11,334	3,570	4,853	3,508	1,345	4,337	3,172	1,165
1989 .....	19,810	14,960	4,850	14,832	11,307	3,525	4,978	3,653	1,325	4,400	3,263	1,137
1988 .....	18,872	14,206	4,666	14,035	10,681	3,354	4,837	3,525	1,312	4,294	3,159	1,135
1987 .....	17,819	13,461	4,358	13,361	10,172	3,189	4,458	3,289	1,169	4,055	3,028	1,027
1986 .....	17,425	12,986	4,439	13,198	9,864	3,334	4,227	3,122	1,105	3,853	2,862	991
1985 .....	17,741	13,216	4,525	13,216	9,922	3,294	4,525	3,294	1,231	4,114	3,030	1,084
1984 .....	17,606	12,995	4,611	13,384	9,986	3,398	4,222	3,009	1,213	3,776	2,710	1,066
1983 .....	17,400	12,812	4,588	13,288	9,863	3,425	4,112	2,949	1,163	3,708	2,668	1,040
1982 .....	17,541	12,903	4,638	13,527	10,042	3,485	4,014	2,861	1,153	3,603	2,573	1,030
1981 .....	18,660	13,600	5,060	14,199	10,441	3,758	4,461	3,159	1,302	4,000	2,858	1,142
1980 .....	19,765	14,447	5,318	14,815	10,936	3,879	4,950	3,511	1,439	4,451	3,170	1,281
1979 .....	18,951	13,788	5,163	14,334	10,513	3,821	4,617	3,275	1,342	4,132	2,953	1,179
Rate												
1998 .....	7.2	11.2	3.4	7.2	11.1	3.4	7.5	11.6	3.8	8.2	12.9	4.0
1997 .....	7.3	11.3	3.5	7.2	11.1	3.4	7.8	12.0	4.0	8.7	13.6	4.3
1996 .....	7.5	11.5	3.6	7.2	11.2	3.4	8.6	13.2	4.3	9.6	15.1	4.7
1995 .....	7.7	12.0	3.6	7.3	11.5	3.3	9.5	14.6	4.9	10.7	16.6	5.3
1994 .....	7.7	12.0	3.7	7.3	11.5	3.4	9.8	15.0	5.1	11.2	17.4	5.5
1993 .....	7.6	11.8	3.5	7.1	11.1	3.3	9.9	15.4	4.9	11.4	18.1	5.3
1992 .....	7.7	12.0	3.6	7.1	11.2	3.2	10.5	16.0	5.5	12.0	18.7	6.1
1991 .....	7.6	11.8	3.7	7.0	10.9	3.3	10.7	16.1	5.7	12.5	19.1	6.5
1990 .....	7.9	12.2	3.9	7.1	11.1	3.4	12.1	18.4	6.4	14.2	22.0	7.3
1989 .....	8.0	12.4	3.8	7.1	11.1	3.3	12.7	19.5	6.5	14.6	22.9	7.2
1988 .....	7.7	11.9	3.7	6.8	10.6	3.2	12.6	19.3	6.5	14.4	22.5	7.2
1987 .....	7.4	11.4	3.5	6.5	10.2	3.0	11.9	18.4	6.0	13.8	21.8	6.6
1986 .....	7.3	11.1	3.6	6.5	9.9	3.2	11.5	17.8	5.8	13.3	20.9	6.5
1985 .....	7.5	11.4	3.7	6.5	10.1	3.2	12.6	19.3	6.5	14.4	22.4	7.2
1984 .....	7.5	11.3	3.8	6.7	10.2	3.3	12.0	18.0	6.6	13.4	20.3	7.2
1983 .....	7.4	11.3	3.8	6.7	10.1	3.4	12.0	18.0	6.5	13.3	20.3	7.1
1982 .....	7.6	11.5	3.9	6.8	10.4	3.4	11.9	17.9	6.5	13.1	19.8	7.1
1981 .....	8.1	12.2	4.3	7.2	10.9	3.7	13.6	20.2	7.6	14.7	22.3	8.0
1980 .....	8.7	13.1	4.6	7.6	11.5	3.9	15.6	23.3	8.6	16.7	25.2	9.1
1979 .....	8.4	12.6	4.5	7.4	11.1	3.8	15.0	22.4	8.3	15.7	23.7	8.5
Age-adjusted rate <sup>1</sup>												
1998 .....	6.1	9.7	2.8	5.8	9.3	2.7	7.7	12.7	3.7	8.5	14.5	3.8
1997 .....	6.3	9.9	2.9	6.0	9.4	2.7	8.1	13.4	3.9	9.2	15.6	4.2
1996 .....	6.4	10.2	3.0	6.0	9.5	2.8	9.0	14.7	4.3	10.2	17.2	4.7
1995 .....	6.7	10.8	3.0	6.2	9.9	2.7	10.1	16.7	4.8	11.5	19.4	5.3
1994 .....	6.8	10.9	3.1	6.2	9.9	2.7	10.6	17.3	5.2	12.2	20.4	5.6
1993 .....	6.7	10.8	3.0	6.1	9.7	2.7	10.8	17.8	5.0	12.5	21.3	5.5
1992 .....	6.8	11.0	3.1	6.1	9.9	2.6	11.6	18.9	5.6	13.4	22.3	6.3
1991 .....	6.8	10.9	3.2	6.0	9.7	2.7	11.8	19.2	5.9	13.9	22.9	6.8
1990 .....	7.2	11.4	3.4	6.2	9.9	2.8	13.6	22.0	6.8	16.1	26.6	7.7
1989 .....	7.3	11.7	3.4	6.2	9.9	2.8	14.3	23.3	6.9	16.6	27.7	7.8
1988 .....	7.1	11.3	3.3	5.9	9.5	2.7	14.3	23.2	7.0	16.6	27.3	7.9
1987 .....	6.8	10.9	3.2	5.8	9.2	2.6	13.5	22.2	6.5	15.9	26.7	7.3
1986 .....	6.7	10.6	3.3	5.7	9.0	2.7	13.1	21.6	6.2	15.3	25.5	7.1
1985 .....	7.0	11.0	3.4	5.8	9.2	2.8	14.6	23.5	7.2	16.8	27.7	8.0
1984 .....	7.0	10.9	3.5	5.9	9.3	2.9	14.0	22.2	7.3	15.7	25.4	8.0
1983 .....	7.0	10.9	3.5	6.0	9.3	2.9	14.0	22.3	7.3	15.8	25.4	8.0
1982 .....	7.2	11.2	3.6	6.2	9.7	3.0	14.2	22.4	7.4	15.7	25.1	8.1
1981 .....	7.8	12.0	4.1	6.6	10.2	3.3	16.3	25.6	8.7	17.9	28.5	9.3
1980 .....	8.4	13.0	4.3	6.9	10.8	3.5	18.8	29.5	10.0	20.4	32.4	10.6
1979 .....	8.2	12.6	4.3	6.8	10.6	3.5	18.1	28.3	9.7	19.2	30.4	10.1

<sup>1</sup> For method of computation, see Technical notes.

**Table 22. Number of deaths, death rates, and age-adjusted death rates for ages 15 years and over, by race, sex, and marital status: United States, 1998**

[Rates per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population, see Technical notes]

Race, sex, and marital status	15 years and over <sup>1</sup>	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75 years and over	Age-adjusted rate <sup>2</sup>
	Number								
All races <sup>3</sup> , both sexes .....	2,295,432	30,627	42,516	88,866	146,479	233,724	458,982	1,294,238	...
Never married .....	228,256	27,564	23,212	29,041	24,379	21,115	30,032	72,913	...
Ever married .....	2,057,746	2,952	18,958	58,929	120,657	211,014	426,920	1,218,316	...
Married .....	938,920	2,502	13,922	37,647	77,097	137,143	257,114	413,495	...
Widowed .....	885,535	85	353	1,748	6,134	25,716	113,308	738,191	...
Divorced .....	233,291	365	4,683	19,534	37,426	48,155	56,498	66,630	...
Not stated .....	9,430	111	346	896	1,443	1,595	2,030	3,009	...
All races <sup>3</sup> , male .....	1,133,544	22,717	29,215	57,139	91,727	140,134	259,343	533,269	...
Never married .....	136,428	20,782	17,216	21,038	16,932	13,992	19,012	27,456	...
Ever married .....	990,341	1,847	11,725	35,364	73,605	124,853	238,754	504,193	...
Married .....	646,916	1,583	8,709	22,328	47,638	88,473	174,415	303,770	...
Widowed .....	216,243	52	158	643	2,049	7,249	32,812	173,280	...
Divorced .....	127,182	212	2,858	12,393	23,918	29,131	31,527	27,143	...
Not stated .....	6,775	88	274	737	1,190	1,289	1,577	1,620	...
All races <sup>3</sup> , female .....	1,161,888	7,910	13,301	31,727	54,752	93,590	199,639	760,969	...
Never married .....	91,828	6,782	5,996	8,003	7,447	7,123	11,020	45,457	...
Ever married .....	1,067,405	1,105	7,233	23,565	47,052	86,161	188,166	714,123	...
Married .....	292,004	919	5,213	15,319	29,459	48,670	82,699	109,725	...
Widowed .....	669,292	33	195	1,105	4,085	18,467	80,496	564,911	...
Divorced .....	106,109	153	1,825	7,141	13,508	19,024	24,971	39,487	...
Not stated .....	2,655	23	72	159	253	306	453	1,389	...
White, both sexes .....	1,987,872	22,296	30,080	65,347	112,156	189,312	394,664	1,174,017	...
Never married .....	172,279	19,730	14,744	18,040	15,696	14,692	23,850	65,527	...
Ever married .....	1,808,930	2,487	15,104	46,709	95,497	173,514	369,362	1,106,257	...
Married .....	830,710	2,089	10,876	29,689	62,002	115,772	228,854	381,428	...
Widowed .....	783,282	65	245	1,101	3,923	18,837	92,976	666,135	...
Divorced .....	194,938	333	3,983	15,919	29,572	38,905	47,532	58,694	...
Not stated .....	6,663	79	232	598	963	1,106	1,452	2,233	...
White, male .....	974,249	16,379	20,987	42,967	70,912	114,411	225,304	483,289	...
Never married .....	100,594	14,760	11,394	13,898	11,321	9,975	15,239	24,007	...
Ever married .....	868,878	1,554	9,401	28,559	58,785	103,537	208,944	458,098	...
Married .....	573,388	1,320	6,834	17,746	38,162	74,454	155,199	279,673	...
Widowed .....	189,484	40	116	443	1,333	5,316	27,079	155,157	...
Divorced .....	106,006	194	2,451	10,370	19,290	23,767	26,666	23,268	...
Not stated .....	4,777	65	192	510	806	899	1,121	1,184	...
White, female .....	1,013,623	5,917	9,093	22,380	41,244	74,901	169,360	690,728	...
Never married .....	71,685	4,970	3,350	4,142	4,375	4,717	8,611	41,520	...
Ever married .....	940,052	933	5,703	18,150	36,712	69,977	160,418	648,159	...
Married .....	257,322	769	4,042	11,943	23,840	41,318	73,655	101,755	...
Widowed .....	593,798	25	129	658	2,590	13,521	65,897	510,978	...
Divorced .....	88,932	139	1,532	5,549	10,282	15,138	20,866	35,426	...
Not stated .....	1,886	14	40	88	157	207	331	1,049	...
Black, both sexes .....	266,409	7,159	10,804	21,005	30,265	38,813	55,607	102,756	...
Never married .....	51,161	6,755	7,564	10,295	8,143	5,980	5,740	6,684	...
Ever married .....	212,639	376	3,133	10,431	21,681	32,365	49,317	95,336	...
Married .....	87,661	330	2,452	6,641	12,463	17,634	22,996	25,145	...
Widowed .....	90,041	19	90	586	2,026	6,254	18,115	62,951	...
Divorced .....	34,937	27	591	3,204	7,192	8,477	8,206	7,240	...
Not stated .....	2,609	28	107	279	441	468	550	736	...
Black, male .....	136,558	5,522	7,142	12,590	18,360	22,390	29,274	41,280	...
Never married .....	32,491	5,257	5,146	6,611	5,255	3,726	3,471	3,025	...
Ever married .....	102,177	245	1,920	5,765	12,749	18,287	25,367	37,844	...
Married .....	59,343	218	1,535	3,794	7,851	11,590	15,695	18,660	...
Widowed .....	23,566	11	33	181	669	1,778	5,209	15,685	...
Divorced .....	19,268	16	352	1,790	4,229	4,919	4,463	3,499	...
Not stated .....	1,890	20	76	214	356	377	436	411	...
Black, female .....	129,851	1,637	3,662	8,415	11,905	16,423	26,333	61,476	...
Never married .....	18,670	1,498	2,418	3,684	2,888	2,254	2,269	3,659	...
Ever married .....	110,462	131	1,213	4,666	8,932	14,078	23,950	57,492	...
Married .....	28,318	112	917	2,847	4,612	6,044	7,301	6,485	...
Widowed .....	66,475	8	57	405	1,357	4,476	12,906	47,266	...
Divorced .....	15,669	11	239	1,414	2,963	3,558	3,743	3,741	...
Not stated .....	719	8	31	65	85	91	114	325	...

See footnotes at end of table.

**Table 22. Number of deaths, death rates, and age-adjusted death rates for ages 15 years and over, by marital status, race and sex: United States, 1998 - Con.**

[Rates per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population, see Technical notes]

Race, sex, and marital status	15 years and over <sup>1</sup>	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75 years and over	Age-adjusted rate <sup>2</sup>
	Rate								
All races <sup>3</sup> , both sexes .....	1,081.9	82.3	109.6	199.6	423.5	1,030.7	2,495.1	8,086.0	812.4
Never married .....	389.6	84.2	171.2	420.2	871.6	1,840.3	4,021.5	10,379.8	1,302.7
Ever married .....	1,339.8	65.7	75.2	156.7	379.6	980.2	2,419.0	7,961.1	764.9
Married .....	787.7	60.8	62.0	120.2	303.1	821.9	2,115.9	5,896.7	615.1
Widowed .....	6,010.3	*	326.2	436.7	715.7	1,409.1	2,874.5	9,733.4	1,137.0
Divorced .....	1,187.2	101.2	177.7	332.1	681.4	1,595.5	3,633.1	9,424.5	1,142.0
All races <sup>3</sup> , male .....	1,108.1	119.3	151.7	258.5	542.8	1,296.9	3,143.7	8,964.2	987.6
Never married .....	428.1	119.4	222.5	510.2	1,138.3	2,396.2	5,891.9	12,851.3	1,720.2
Ever married .....	1,406.2	112.7	101.8	196.7	477.6	1,221.4	3,012.0	8,791.2	916.6
Married .....	1,091.3	105.5	84.2	146.7	369.2	1,021.7	2,665.6	7,378.5	769.1
Widowed .....	8,024.4	*	*	649.3	1,261.7	2,524.8	4,506.3	12,458.3	1,781.1
Divorced .....	1,504.2	155.2	248.5	465.5	1,019.0	2,283.9	4,808.4	11,936.0	1,551.3
All races <sup>3</sup> , female .....	1,057.5	43.5	68.1	141.5	309.6	788.4	1,967.7	7,566.6	665.1
Never married .....	343.7	44.3	103.0	287.1	568.7	1,264.2	2,598.4	9,299.5	946.8
Ever married .....	1,283.6	38.8	52.8	120.0	287.3	762.0	1,935.5	7,463.5	640.7
Married .....	487.3	35.2	43.0	95.1	235.0	606.4	1,474.5	3,789.7	429.8
Widowed .....	5,559.4	*	235.0	366.8	588.1	1,200.8	2,504.8	9,121.4	984.8
Divorced .....	947.7	68.2	122.8	221.8	429.5	1,091.6	2,776.3	8,233.6	860.6
White, both sexes .....	1,122.7	75.4	96.4	177.6	382.7	969.5	2,441.8	8,118.0	782.7
Never married .....	388.0	77.0	150.8	375.6	744.8	1,701.1	3,909.9	10,625.7	1,239.1
Ever married .....	1,363.6	62.8	70.4	146.0	351.1	929.8	2,374.9	7,990.2	745.1
Married .....	799.9	57.7	56.8	110.6	281.5	784.3	2,085.1	5,879.2	598.2
Widowed .....	6,277.5	*	285.5	373.8	609.7	1,335.6	2,839.0	9,862.0	1,079.1
Divorced .....	1,193.4	102.3	179.6	327.2	652.6	1,562.3	3,649.4	9,736.7	1,143.1
White, male .....	1,133.6	107.6	133.9	232.7	489.6	1,215.5	3,082.3	8,980.9	949.0
Never married .....	406.5	107.2	195.6	455.2	955.2	2,176.7	5,695.0	12,962.7	1,617.1
Ever married .....	1,419.8	107.4	95.4	185.3	442.1	1,156.3	2,967.2	8,816.2	892.5
Married .....	1,106.1	99.9	77.1	135.7	341.0	969.8	2,626.4	7,352.2	747.0
Widowed .....	8,500.6	*	*	564.9	1,118.8	2,599.2	4,542.0	12,865.2	1,724.4
Divorced .....	1,487.5	156.8	254.4	459.5	970.8	2,215.5	4,970.7	12,501.1	1,565.6
White, female .....	1,112.4	41.2	58.5	122.0	278.3	740.6	1,912.9	7,606.7	641.0
Never married .....	364.7	41.9	84.8	236.7	474.4	1,163.6	2,514.9	9,622.6	899.7
Ever married .....	1,315.4	37.1	49.2	109.4	264.1	720.8	1,884.8	7,494.0	623.2
Married .....	494.8	33.4	39.3	86.8	220.1	583.2	1,453.8	3,791.5	418.6
Widowed .....	5,794.0	*	*	304.4	494.0	1,121.3	2,460.0	9,209.2	929.5
Divorced .....	965.8	68.9	122.2	212.7	404.1	1,068.0	2,724.1	8,501.9	854.6
Black, both sexes .....	1,047.2	126.5	201.9	377.8	808.9	1,704.2	3,338.1	8,657.2	1,149.6
Never married .....	464.4	127.2	264.8	567.3	1,373.5	2,343.7	5,121.9	*	1,589.9
Ever married .....	1,474.2	108.7	125.6	278.5	688.6	1,600.3	3,174.0	8,560.8	1,046.5
Married .....	893.4	103.4	114.1	235.3	578.3	1,432.2	2,889.6	7,392.5	920.4
Widowed .....	4,888.8	*	*	*	1,227.4	1,831.6	3,346.4	9,181.3	1,420.6
Divorced .....	1,261.3	*	181.0	383.3	868.3	1,885.1	3,788.4	*	1,206.6
Black, male .....	1,159.5	194.6	282.0	483.1	1,082.6	2,269.3	4,186.0	9,863.6	1,449.9
Never married .....	597.7	194.1	375.9	725.2	1,959.9	3,331.3	*	*	2,300.7
Ever married .....	1,611.4	190.0	165.0	340.2	892.9	2,090.4	3,871.5	9,566.0	1,279.5
Married .....	1,223.8	179.5	152.3	280.4	722.1	1,805.9	3,579.0	9,379.4	1,154.0
Widowed .....	6,009.6	*	*	*	*	*	4,780.2	9,872.1	*
Divorced .....	1,752.5	*	229.1	547.8	1,399.4	3,002.3	4,142.7	*	1,595.1
Black, female .....	950.4	58.0	130.0	284.9	582.0	1,272.2	2,724.6	8,000.1	922.7
Never married .....	334.6	57.5	162.6	407.8	889.3	1,572.8	*	*	1,094.4
Ever married .....	1,366.6	60.4	91.2	227.5	519.1	1,226.7	2,665.5	8,007.0	873.2
Married .....	570.6	56.7	80.4	193.8	431.9	1,025.3	2,043.4	4,592.9	641.6
Widowed .....	4,585.6	*	*	*	1,070.4	1,643.9	2,985.1	8,972.9	1,257.9
Divorced .....	938.0	*	138.3	277.8	563.2	1,244.7	3,437.8	*	957.7

\* Figure does not meet standards of reliability or precision, see Technical notes.

.. Category not applicable.

<sup>1</sup> Excludes figures for age not stated.<sup>2</sup> Calculated based on ages 25 years and over. For method of computation, see Technical notes.<sup>3</sup> Includes races other than white and black.

**Table 23. Number of deaths, death rates, and age-adjusted death rates for ages 25-64 years, by educational attainment and sex: Total of 46 reporting States and the District of Columbia, 1998**

[Rates per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. For rates, the definition of educational attainment differs for the numerator and denominator; see Technical notes]

Years of school completed and sex	25-64 years <sup>1</sup>	25-34 years	35-44 years	45-54 years	55-64 years	Age-adjusted rate <sup>2</sup>
Number						
Both sexes .....	483,114	40,066	83,907	138,255	220,886	...
Under 12 years .....	110,572	9,442	17,555	26,561	57,014	...
12 years .....	209,049	17,988	37,891	58,129	95,041	...
13 years or more .....	144,423	11,191	25,146	48,065	60,021	...
Not stated .....	19,070	1,445	3,315	5,500	8,810	...
Male .....	300,439	27,579	53,976	86,642	132,242	...
Under 12 years .....	70,894	6,794	11,847	17,275	34,978	...
12 years .....	127,515	12,690	25,010	35,845	53,970	...
13 years or more .....	89,189	7,077	14,819	29,721	37,572	...
Not stated .....	12,841	1,018	2,300	3,801	5,722	...
Female .....	182,675	12,487	29,931	51,613	88,644	...
Under 12 years .....	39,678	2,648	5,708	9,286	22,036	...
12 years .....	81,534	5,298	12,881	22,284	41,071	...
13 years or more .....	55,234	4,114	10,327	18,344	22,449	...
Not stated .....	6,229	427	1,015	1,699	3,088	...
Rate <sup>3</sup>						
Both sexes .....	361.5	108.6	198.1	422.4	1,020.6	354.2
Under 12 years .....	623.6	209.6	353.4	665.1	1,336.4	538.3
12 years .....	470.7	155.0	263.9	558.9	1,181.2	445.6
13 years or more .....	202.0	53.8	109.2	262.1	643.2	213.1
Male .....	457.1	150.4	256.4	540.8	1,282.3	454.0
Under 12 years .....	777.0	280.6	439.0	855.2	1,763.1	698.7
12 years .....	597.8	207.9	346.9	791.9	1,545.9	599.5
13 years or more .....	252.9	72.1	133.0	313.6	776.7	259.3
Female .....	269.0	67.3	140.4	308.9	782.3	259.6
Under 12 years .....	460.9	127.1	251.5	470.5	965.6	377.6
12 years .....	353.3	96.3	180.2	379.3	901.7	315.9
13 years or more .....	152.5	37.5	86.8	207.1	499.5	165.5

... Category not applicable.

<sup>1</sup> Excludes figures for age not stated.

<sup>2</sup> Calculated based on ages 25-64 years. For method of computation, see Technical notes.

<sup>3</sup> Excludes education not stated.



**Table 24. Number of deaths, death rates, and age-adjusted death rates for ages 15 years and over, by injury at work, race, and sex: United States, 1998**

[Rates per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes]

Race and sex	15 years and over <sup>1</sup>	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65 years and over	Age- adjusted rate <sup>2</sup>
	Number							
All races <sup>3</sup> , both sexes .....	5,543	522	1,074	1,341	1,131	794	681	...
Male .....	5,036	486	994	1,201	1,035	736	584	...
Female .....	507	36	80	140	96	58	97	...
White, both sexes .....	4,804	472	907	1,141	957	690	637	...
Male .....	4,366	445	837	1,025	873	640	546	...
Female .....	438	27	70	116	84	50	91	...
Black, both sexes .....	587	36	127	171	138	79	36	...
Male .....	535	31	121	150	129	74	30	...
Female .....	52	5	6	21	9	5	6	...
	Rate							
All races <sup>3</sup> , both sexes .....	2.6	1.4	2.8	3.0	3.3	3.5	2.0	2.6
Male .....	4.9	2.6	5.2	5.4	6.1	6.8	4.1	4.8
Female .....	0.5	0.2	0.4	0.6	0.5	0.5	0.5	0.4
White, both sexes .....	2.7	1.6	2.9	3.1	3.3	3.5	2.1	2.7
Male .....	5.1	2.9	5.3	5.6	6.0	6.8	4.3	5.0
Female .....	0.5	0.2	0.5	0.6	0.6	0.5	0.5	0.5
Black, both sexes .....	2.3	0.6	2.4	3.1	3.7	3.5	1.3	2.3
Male .....	4.5	1.1	4.8	5.8	7.6	7.5	2.7	4.6
Female .....	0.4	*	*	0.7	*	*	*	0.4

... Category not applicable.

\* Figure does not meet standards of reliability or precision; see Technical notes.

<sup>1</sup> Excludes figures for age not stated.<sup>2</sup> Calculated based on ages 15 years and over. For method of computation, see Technical notes.<sup>3</sup> Includes races other than white and black.

**Table 25. Number of deaths, death rates, and age-adjusted death rates for injury at work, by race and sex: United States, 1993-98**

[Includes ages 15 years and over. Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. For discussion of injury at work, see Technical notes]

Year	All races						All other					
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	Number											
1998 .....	5,543	5,036	507	4,804	4,366	438	739	670	69	587	535	52
1997 .....	5,666	5,144	522	4,785	4,352	433	881	792	89	684	626	58
1996 .....	5,778	5,280	498	4,940	4,535	405	838	745	93	649	582	67
1995 .....	5,872	5,334	538	5,007	4,550	457	865	784	81	692	627	65
1994 .....	5,987	5,425	562	5,103	4,642	461	884	783	101	710	632	78
1993 .....	5,847	5,352	495	4,979	4,581	398	868	771	97	677	608	69
	Rate											
1998 .....	2.6	4.9	0.5	2.7	5.1	0.5	2.1	4.1	0.4	2.3	4.5	0.4
1997 .....	2.7	5.1	0.5	2.7	5.1	0.5	2.6	5.0	0.5	2.7	5.4	0.4
1996 .....	2.8	5.3	0.5	2.8	5.4	0.5	2.5	4.8	0.5	2.6	5.1	0.5
1995 .....	2.9	5.4	0.5	2.9	5.4	0.5	2.6	5.1	0.5	2.9	5.6	0.5
1994 .....	2.9	5.6	0.5	3.0	5.6	0.5	2.8	5.2	0.6	3.0	5.8	0.6
1993 .....	2.9	5.5	0.5	2.9	5.6	0.5	2.8	5.3	0.6	2.9	5.6	0.5
	Age-adjusted rate <sup>1</sup>											
1998 .....	2.6	4.8	0.4	2.7	5.0	0.5	2.1	4.1	0.4	2.3	4.6	0.4
1997 .....	2.7	5.0	0.5	2.7	5.0	0.5	2.6	5.0	0.5	2.7	5.5	0.4
1996 .....	2.8	5.2	0.4	2.8	5.3	0.4	2.5	4.8	0.5	2.6	5.2	0.5
1995 .....	2.8	5.3	0.5	2.9	5.4	0.5	2.7	5.3	0.5	2.9	5.8	0.5
1994 .....	2.9	5.5	0.5	3.0	5.5	0.5	2.8	5.3	0.6	3.0	5.9	0.6
1993 .....	2.9	5.5	0.5	2.9	5.5	0.4	2.8	5.3	0.6	2.9	5.8	0.5

<sup>1</sup> Calculated based on ages 15 years and over. For method of computation, see Technical notes.

**Table 26. Number of deaths, death rates, and age-adjusted death rates for major causes of death for the United States, each division, each State, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 1998**[Rates per 100,000 population in each area; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. Numbers after causes of death are categories of the *Ninth Revision, International Classification of Diseases, 1975*. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Area	All causes			Human immunodeficiency virus infection (*042-*044)			Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208)			Diabetes mellitus (250)		
	Number	Rate	Age-adjusted rate <sup>1</sup>	Number	Rate	Age-adjusted rate <sup>1</sup>	Number	Rate	Age-adjusted rate <sup>1</sup>	Number	Rate	Age-adjusted rate <sup>1</sup>
United States .....	2,337,256	864.7	471.7	13,426	5.0	4.6	541,532	200.3	123.6	64,751	24.0	13.6
New England .....	121,129	901.9	429.0	441	3.3	2.9	29,963	223.1	125.8	3,059	22.8	11.5
Maine .....	12,135	975.3	462.4	15	*	*	2,919	234.6	130.8	333	26.8	13.7
New Hampshire .....	9,495	801.2	440.0	13	*	*	2,434	205.4	134.2	266	22.4	12.8
Vermont .....	4,948	837.4	434.4	6	*	*	1,213	205.3	124.9	133	22.5	12.0
Massachusetts .....	55,237	898.6	421.9	213	3.5	3.1	13,811	224.7	126.1	1,402	22.8	11.6
Rhode Island .....	9,604	971.6	433.5	26	2.6	2.3	2,480	250.9	132.0	261	26.4	12.6
Connecticut .....	29,710	907.4	425.6	168	5.1	4.7	7,106	217.0	119.1	664	20.3	9.8
Middle Atlantic .....	354,930	926.9	454.6	3,408	8.9	8.1	84,767	221.4	123.9	9,433	24.6	12.6
New York .....	156,619	861.7	443.5	2,195	12.1	11.0	36,914	203.1	119.8	3,606	19.8	10.8
New Jersey .....	71,611	882.5	445.3	730	9.0	8.0	18,032	222.2	126.8	2,320	28.6	15.2
Pennsylvania .....	126,700	1,055.7	475.4	483	4.0	3.8	29,821	248.5	127.8	3,507	29.2	13.5
East North Central .....	394,955	893.7	480.6	1,137	2.6	2.4	92,537	209.4	128.2	11,333	25.6	14.2
Ohio .....	105,891	944.7	489.8	220	2.0	1.9	24,946	222.5	131.5	3,455	30.8	16.6
Indiana .....	53,477	906.5	496.5	98	1.7	1.6	12,652	214.5	133.4	1,426	24.2	13.4
Illinois .....	104,480	867.4	480.5	488	4.1	3.8	24,637	204.5	128.4	2,740	22.7	12.8
Michigan .....	85,160	867.5	484.6	271	2.8	2.5	19,398	197.6	124.7	2,435	24.8	14.2
Wisconsin .....	45,947	879.6	433.9	60	1.1	1.1	10,904	208.7	121.3	1,277	24.4	12.6
West North Central .....	172,669	923.6	446.5	268	1.4	1.4	38,855	207.8	119.7	4,523	24.2	12.3
Minnesota .....	37,195	787.1	394.5	55	1.2	1.1	8,798	186.2	112.7	1,097	23.2	12.2
Iowa .....	28,362	990.8	421.6	9	*	*	6,429	224.6	117.4	657	23.0	10.2
Missouri .....	55,070	1,012.6	511.1	146	2.7	2.6	12,338	226.9	132.9	1,394	25.6	13.6
North Dakota .....	5,920	927.5	414.8	2	*	*	1,339	209.8	113.3	190	29.8	13.3
South Dakota .....	6,867	930.3	442.6	6	*	*	1,564	211.9	116.7	206	27.9	14.9
Nebraska .....	15,198	914.0	431.9	24	1.4	1.4	3,277	197.1	114.0	338	20.3	10.3
Kansas .....	24,057	915.0	447.8	26	1.0	1.0	5,110	194.4	112.9	641	24.4	12.6
South Atlantic .....	451,319	922.1	495.0	4,078	8.3	7.8	105,184	214.9	127.1	12,303	25.1	13.9
Delaware .....	6,578	884.6	496.9	55	7.4	6.6	1,652	222.2	138.9	232	31.2	16.8
Maryland .....	42,059	819.1	494.8	502	9.8	8.7	10,199	198.6	131.3	1,444	28.1	17.1
District of Columbia .....	6,054	1,157.3	684.8	250	47.8	41.3	1,357	259.4	154.3	193	36.9	20.7
Virginia .....	54,446	801.7	480.0	307	4.5	4.0	12,891	189.8	126.8	1,332	19.6	12.3
West Virginia .....	20,767	1,146.6	547.9	20	1.1	1.0	4,724	260.8	139.1	723	39.9	18.9
North Carolina .....	67,993	901.0	518.6	436	5.8	5.4	15,357	203.5	128.6	1,966	26.1	15.6
South Carolina .....	34,827	907.9	550.8	270	7.0	6.5	7,705	200.9	130.5	990	25.8	16.2
Georgia .....	60,428	790.7	539.8	692	9.1	8.2	13,128	171.8	129.8	1,389	18.2	12.8
Florida .....	158,167	1,060.4	458.4	1,546	10.4	10.2	38,171	255.9	122.6	4,034	27.0	12.3
East South Central .....	163,044	989.9	561.7	624	3.8	3.6	36,503	221.6	139.0	4,387	26.6	15.4
Kentucky .....	37,832	961.1	533.6	78	2.0	1.9	8,875	225.5	141.9	1,093	27.8	15.4
Tennessee .....	53,415	983.6	557.0	231	4.3	3.9	11,990	220.8	138.9	1,347	24.8	14.5
Alabama .....	43,950	1,009.9	565.9	175	4.0	3.8	9,680	222.4	135.6	1,312	30.1	16.8
Mississippi .....	27,847	1,011.8	606.6	140	5.1	5.0	5,958	216.5	141.3	635	23.1	14.5
West South Central .....	244,381	814.2	503.8	1,450	4.8	4.7	54,743	182.4	125.7	8,295	27.6	17.8
Arkansas .....	27,510	1,083.8	551.0	66	2.6	2.6	5,961	234.8	133.2	648	25.5	13.4
Louisiana .....	40,337	923.3	575.2	361	8.3	8.2	9,358	214.2	143.9	1,826	41.8	25.8
Oklahoma .....	33,929	1,013.8	529.5	85	2.5	2.6	7,109	212.4	126.4	927	27.7	15.5
Texas .....	142,605	721.7	475.3	938	4.7	4.6	32,315	163.5	120.2	4,894	24.8	17.1
Mountain .....	125,124	744.2	449.1	375	2.2	2.2	27,685	164.7	108.7	3,249	19.3	12.1
Montana .....	7,981	906.5	449.9	7	*	*	1,825	207.3	112.2	197	22.4	11.2
Idaho .....	9,155	745.1	424.4	13	*	*	2,089	170.0	110.4	238	19.4	11.9
Wyoming .....	3,853	801.2	464.8	2	*	*	845	175.7	112.3	115	23.9	13.0
Colorado .....	26,640	670.9	419.0	84	2.1	1.9	5,814	146.4	101.9	566	14.3	9.5
New Mexico .....	12,907	743.1	457.5	41	2.4	2.4	2,741	157.8	104.3	422	24.3	15.1
Arizona .....	38,300	820.4	461.7	138	3.0	2.9	8,477	181.6	110.6	1,010	21.6	13.1
Utah .....	11,824	563.1	404.5	17	*	*	2,371	112.9	93.5	469	22.3	16.4
Nevada .....	14,464	828.0	539.1	73	4.2	3.9	3,523	201.7	133.9	232	13.3	8.6
Pacific .....	309,705	712.9	425.6	1,645	3.8	3.5	71,295	164.1	112.3	8,169	18.8	12.1
Washington .....	42,706	750.6	423.2	116	2.0	1.9	10,277	180.6	117.9	1,199	21.1	12.7
Oregon .....	29,383	895.3	451.4	57	1.7	1.6	6,970	212.4	123.4	858	26.1	13.7
California .....	226,954	694.8	425.4	1,444	4.4	4.1	51,428	157.4	110.6	5,846	17.9	12.0
Alaska .....	2,571	418.7	441.9	6	*	*	651	106.0	116.6	64	10.4	11.5
Hawaii .....	8,091	678.2	370.1	22	1.8	1.8	1,969	165.0	100.5	202	16.9	9.9
Puerto Rico <sup>2</sup> .....	29,865	774.3	553.0	644	16.7	17.4	4,704	122.0	89.3	2,411	62.5	44.3
Virgin Islands <sup>2</sup> .....	615	519.5	453.0	4	*	*	122	103.1	87.6	45	38.0	32.4
Guam <sup>2</sup> .....	632	423.9	480.1	2	*	*	88	59.0	71.0	36	24.1	29.1
American Samoa <sup>2</sup> .....	243	391.3	521.6	-	*	*	38	61.2	88.5	21	33.8	49.5
Northern Marianas <sup>2</sup> .....	162	243.2	551.0	-	*	*	28	42.0	125.2	4	*	*

See footnotes at end of table.

**Table 26. Number of deaths, death rates, and age-adjusted death rates for major causes of death for the United States, each division, each State, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 1998 - Con.**[Rates per 100,000 population in each area; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. Numbers after causes of death are categories of the *Ninth Revision, International Classification of Diseases, 1975*. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Area	Alzheimer's disease (331.0)			Diseases of heart (390-398,402,404-429)			Cerebrovascular diseases (430-438)			Pneumonia and influenza (480-487)		
	Number	Rate	Age- adjusted rate <sup>1</sup>	Number	Rate	Age- adjusted rate <sup>1</sup>	Number	Rate	Age- adjusted rate <sup>1</sup>	Number	Rate	Age- adjusted rate <sup>1</sup>
United States .....	22,725	8.4	2.6	724,859	268.2	126.6	158,448	58.6	25.1	91,871	34.0	13.2
New England .....	1,421	10.6	2.9	36,545	272.1	111.4	7,596	56.6	20.0	5,484	40.8	12.6
Maine .....	161	12.9	3.3	3,562	286.3	118.1	788	63.3	22.6	468	37.6	12.2
New Hampshire .....	126	10.6	3.4	2,833	239.1	114.8	618	52.1	20.5	277	23.4	8.5
Vermont .....	68	11.5	3.5	1,434	242.7	105.2	330	55.8	23.2	237	40.1	13.5
Massachusetts .....	677	11.0	3.1	16,007	260.4	106.6	3,322	54.0	18.6	2,895	47.1	14.1
Rhode Island .....	127	12.8	2.5	3,070	310.6	117.7	591	59.8	20.0	382	38.6	11.6
Connecticut .....	262	8.0	2.2	9,639	294.4	115.9	1,947	59.5	20.9	1,225	37.4	11.4
Middle Atlantic .....	2,277	5.9	1.7	124,328	324.7	132.9	20,094	52.5	20.7	13,743	35.9	12.7
New York .....	673	3.7	1.1	59,531	327.5	138.8	7,776	42.8	18.3	6,853	37.7	14.1
New Jersey .....	650	8.0	2.4	23,384	288.2	121.4	4,094	50.4	21.1	2,356	29.0	10.7
Pennsylvania .....	954	7.9	2.0	41,413	345.1	132.3	8,224	68.5	23.5	4,534	37.8	12.1
East North Central .....	3,917	8.9	2.7	124,344	281.4	132.6	27,199	61.5	25.7	14,575	33.0	12.8
Ohio .....	1,032	9.2	2.7	33,355	297.6	136.5	6,719	59.9	24.3	3,789	33.8	12.6
Indiana .....	587	10.0	3.2	16,483	279.4	134.5	3,892	66.0	28.1	1,822	30.9	12.2
Illinois .....	1,120	9.3	3.0	32,816	272.4	131.5	7,172	59.5	25.4	3,974	33.0	13.4
Michigan .....	664	6.8	2.3	28,005	285.3	138.8	5,768	58.8	25.9	3,083	31.4	13.0
Wisconsin .....	514	9.8	2.7	13,685	262.0	112.9	3,648	69.8	26.0	1,907	36.5	11.8
West North Central .....	1,886	10.1	2.7	52,274	279.6	116.6	12,952	69.3	24.5	7,340	39.3	12.1
Minnesota .....	460	9.7	2.9	9,372	198.3	88.4	2,858	60.5	21.9	1,412	29.9	9.2
Iowa .....	325	11.4	2.6	9,148	319.6	117.4	2,208	77.1	23.1	1,364	47.7	12.6
Missouri .....	518	9.5	2.7	17,968	330.4	142.7	3,898	71.7	27.3	2,422	44.5	14.9
North Dakota .....	57	8.9	2.1	1,738	272.3	107.5	461	72.2	22.5	257	40.3	11.2
South Dakota .....	73	9.9	2.4	2,108	285.6	114.3	538	72.9	24.3	285	38.6	11.9
Nebraska .....	203	12.2	3.2	4,733	284.7	111.5	1,158	69.6	25.2	610	36.7	11.2
Kansas .....	250	9.5	2.7	7,207	274.1	114.8	1,831	69.6	24.7	990	37.7	11.8
South Atlantic .....	4,411	9.0	2.7	137,033	280.0	129.9	30,935	63.2	26.9	15,000	30.6	12.1
Delaware .....	56	7.5	2.6	1,917	257.8	127.4	367	49.4	23.2	248	33.4	14.2
Maryland .....	362	7.0	2.5	11,939	232.5	124.2	2,636	51.3	25.1	1,641	32.0	14.3
District of Columbia ...	40	7.6	2.0	1,662	317.7	161.5	315	60.2	28.4	204	39.0	15.6
Virginia .....	555	8.2	3.1	16,022	235.9	128.0	3,820	56.2	27.2	2,048	30.2	13.4
West Virginia .....	145	8.0	2.3	6,883	380.0	160.9	1,215	67.1	24.7	697	38.5	13.6
North Carolina .....	748	9.9	3.4	19,489	258.3	132.9	5,439	72.1	33.1	2,692	35.7	15.3
South Carolina .....	305	8.0	2.9	10,026	261.4	143.0	2,900	75.6	37.0	1,095	28.5	13.2
Georgia .....	600	7.9	3.4	17,964	235.1	147.2	4,158	54.4	31.6	2,264	29.6	15.9
Florida .....	1,600	10.7	2.3	51,131	342.8	118.0	10,085	67.6	22.0	4,111	27.6	8.7
East South Central .....	1,527	9.3	3.1	51,459	312.4	156.4	11,191	67.9	31.0	6,306	38.3	15.6
Kentucky .....	427	10.8	3.6	11,924	302.9	148.7	2,488	63.2	27.6	1,474	37.4	14.8
Tennessee .....	445	8.2	2.7	16,516	304.1	153.5	3,958	72.9	32.6	2,243	41.3	16.8
Alabama .....	454	10.4	3.4	13,480	309.7	152.3	2,929	67.3	30.6	1,518	34.9	13.8
Mississippi .....	201	7.3	2.7	9,539	346.6	181.4	1,816	66.0	33.4	1,071	38.9	17.2
West South Central .....	2,570	8.6	3.3	74,412	247.9	136.1	16,998	56.6	28.1	8,148	27.1	12.5
Arkansas .....	231	9.1	2.7	8,461	333.3	147.6	2,355	92.8	35.3	1,101	43.4	15.6
Louisiana .....	435	10.0	3.8	11,866	271.6	150.0	2,526	57.8	30.0	1,105	25.3	11.5
Oklahoma .....	292	8.7	2.7	11,297	337.6	150.8	2,290	68.4	27.7	1,348	40.3	14.9
Texas .....	1,612	8.2	3.4	42,788	216.5	127.9	9,827	49.7	26.4	4,594	23.2	11.7
Mountain .....	1,543	9.2	3.2	32,888	195.6	103.8	8,111	48.2	22.6	4,724	28.1	12.5
Montana .....	107	12.2	3.0	2,006	227.8	100.2	579	65.8	23.2	372	42.3	13.2
Idaho .....	117	9.5	3.2	2,422	197.1	96.8	704	57.3	24.7	376	30.6	11.7
Wyoming .....	43	8.9	3.4	1,051	218.5	111.6	289	60.1	26.2	150	31.2	12.9
Colorado .....	376	9.5	3.6	6,644	167.3	92.9	1,740	43.8	21.8	1,037	26.1	12.0
New Mexico .....	138	7.9	2.8	3,221	185.4	96.6	719	41.4	19.6	455	26.2	11.6
Arizona .....	487	10.4	3.1	10,543	225.8	109.2	2,472	52.9	22.5	1,444	30.9	13.1
Utah .....	161	7.7	3.5	2,881	137.2	87.4	796	37.9	22.0	487	23.2	12.2
Nevada .....	114	6.5	2.7	4,120	235.8	139.7	812	46.5	25.3	403	23.1	12.8
Pacific .....	3,173	7.3	2.6	91,576	210.8	109.4	23,372	53.8	25.5	16,551	38.1	16.0
Washington .....	605	10.6	3.5	11,517	202.4	100.7	3,428	60.3	25.6	1,714	30.1	11.7
Oregon .....	409	12.5	3.6	7,290	222.1	96.5	2,621	79.9	29.0	1,016	31.0	10.5
California .....	2,091	6.4	2.3	69,747	213.5	113.1	16,512	50.5	25.0	13,378	41.0	17.7
Alaska .....	14	*	*	564	91.9	96.5	153	24.9	25.2	52	8.5	8.4
Hawaii .....	54	4.5	1.4	2,458	206.0	100.4	658	55.2	24.1	391	32.8	13.3
Puerto Rico <sup>2</sup> .....	583	15.1	7.8	7,017	181.9	117.7	1,797	46.6	28.8	1,234	32.0	19.2
Virgin Islands <sup>2</sup> .....	2	*	*	179	151.2	127.3	37	31.3	25.6	13	*	*
Guam <sup>2</sup> .....	2	*	*	150	100.6	119.5	54	36.2	42.5	23	15.4	16.9
American Samoa <sup>2</sup> .....	-	*	*	50	80.5	117.3	17	*	*	9	*	*
Northern Marianas <sup>2</sup> .....	-	*	*	32	48.0	124.5	13	*	*	4	*	*

See footnotes at end of table.

**Table 26. Number of deaths, death rates, and age-adjusted death rates for major causes of death for the United States, each division, each State, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 1998 - Con.**[Rates per 100,000 population in each area; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. Numbers after causes of death are categories of the *Ninth Revision, International Classification of Diseases, 1975*. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Area	Chronic obstructive pulmonary diseases and allied conditions (490-496)			Chronic liver disease and cirrhosis (571)			Nephritis, nephrotic syndrome, and nephrosis (580-589)			Accidents and adverse effects (E800-E949)		
	Number	Rate	Age-adjusted rate <sup>1</sup>	Number	Rate	Age-adjusted rate <sup>1</sup>	Number	Rate	Age-adjusted rate <sup>1</sup>	Number	Rate	Age-adjusted rate <sup>1</sup>
United States .....	112,584	41.7	21.3	25,192	9.3	7.2	26,182	9.7	4.4	97,835	36.2	30.1
New England .....	5,834	43.4	19.4	1,216	9.1	6.5	1,666	12.4	5.1	3,652	27.2	20.2
Maine .....	769	61.8	26.9	103	8.3	5.7	170	13.7	5.1	448	36.0	27.1
New Hampshire .....	572	48.3	26.1	105	8.9	6.6	70	5.9	2.6	343	28.9	23.3
Vermont .....	250	42.3	21.8	45	7.6	5.3	41	6.9	3.6	216	36.6	29.2
Massachusetts .....	2,546	41.4	18.4	575	9.4	6.8	920	15.0	6.0	1,336	21.7	15.5
Rhode Island .....	454	45.9	19.1	101	10.2	7.1	94	9.5	3.3	242	24.5	17.3
Connecticut .....	1,243	38.0	16.0	287	8.8	6.2	371	11.3	4.7	1,067	32.6	24.5
Middle Atlantic .....	14,820	38.7	17.5	3,357	8.8	6.2	4,605	12.0	4.9	11,464	29.9	23.4
New York .....	6,430	35.4	17.1	1,531	8.4	6.3	1,609	8.9	3.8	4,676	25.7	20.4
New Jersey .....	2,794	34.4	15.6	735	9.1	6.5	1,085	13.4	5.7	2,215	27.3	21.7
Pennsylvania .....	5,596	46.6	19.1	1,091	9.1	5.9	1,911	15.9	5.9	4,573	38.1	29.2
East North Central .....	18,583	42.0	21.5	3,875	8.8	6.7	5,432	12.3	5.5	14,693	33.2	27.2
Ohio .....	5,404	48.2	23.6	964	8.6	6.2	1,344	12.0	5.2	3,546	31.6	24.9
Indiana .....	2,762	46.8	24.6	472	8.0	6.1	801	13.6	5.9	2,199	37.3	30.7
Illinois .....	4,542	37.7	19.9	1,080	9.0	7.1	1,580	13.1	6.1	3,891	32.3	27.5
Michigan .....	3,813	38.8	20.7	972	9.9	7.9	1,130	11.5	5.3	3,133	31.9	27.2
Wisconsin .....	2,062	39.5	18.5	387	7.4	5.4	577	11.0	4.5	1,924	36.8	27.7
West North Central .....	8,480	45.4	21.4	1,298	6.9	5.2	2,084	11.1	4.1	7,761	41.5	31.7
Minnesota .....	1,745	36.9	17.9	290	6.1	4.8	497	10.5	4.0	1,728	36.6	26.4
Iowa .....	1,439	50.3	21.0	208	7.3	4.7	192	6.7	2.4	1,094	38.2	27.6
Missouri .....	2,725	50.1	24.4	393	7.2	5.5	693	12.7	5.0	2,455	45.1	35.8
North Dakota .....	272	42.6	18.3	51	8.0	5.8	82	12.8	4.2	296	46.4	34.0
South Dakota .....	317	42.9	18.7	75	10.2	8.3	94	12.7	4.0	360	48.8	39.8
Nebraska .....	784	47.2	21.8	91	5.5	4.3	177	10.6	3.8	676	40.7	31.6
Kansas .....	1,198	45.6	22.3	190	7.2	5.7	349	13.3	5.1	1,152	43.8	34.9
South Atlantic .....	21,524	44.0	21.4	4,863	9.9	7.3	4,719	9.6	4.4	19,182	39.2	32.7
Delaware .....	327	44.0	21.2	73	9.8	7.2	107	14.4	6.7	289	38.9	31.8
Maryland .....	1,708	33.3	18.1	438	8.5	6.7	447	8.7	4.8	1,398	27.2	22.2
District of Columbia ...	158	30.2	15.7	69	13.2	10.5	84	16.1	7.5	207	39.6	31.5
Virginia .....	2,481	36.5	20.8	527	7.8	6.0	774	11.4	6.0	2,334	34.4	27.7
West Virginia .....	1,146	63.3	27.6	219	12.1	8.0	312	17.2	6.6	840	46.4	37.1
North Carolina .....	3,204	42.5	23.3	700	9.3	7.0	703	9.3	4.3	3,278	43.4	36.9
South Carolina .....	1,568	40.9	23.8	375	9.8	7.6	332	8.7	4.9	1,803	47.0	41.2
Georgia .....	2,744	35.9	23.8	579	7.6	6.4	801	10.5	6.3	3,156	41.3	35.9
Florida .....	8,188	54.9	20.2	1,883	12.6	8.5	1,159	7.8	2.8	5,877	39.4	33.3
East South Central .....	7,730	46.9	25.3	1,505	9.1	7.0	2,002	12.2	5.7	8,262	50.2	42.8
Kentucky .....	1,963	49.9	26.7	331	8.4	6.3	522	13.3	6.3	1,715	43.6	36.9
Tennessee .....	2,641	48.6	26.3	541	10.0	7.6	391	7.2	3.5	2,627	48.4	40.9
Alabama .....	1,985	45.6	23.6	400	9.2	6.7	690	15.9	7.1	2,204	50.6	43.2
Mississippi .....	1,141	41.5	23.8	233	8.5	7.0	399	14.5	7.0	1,716	62.4	54.4
West South Central .....	11,163	37.2	22.0	2,846	9.5	7.8	2,485	8.3	4.2	12,257	40.8	36.0
Arkansas .....	1,244	49.0	23.6	203	8.0	5.9	386	15.2	6.1	1,287	50.7	42.3
Louisiana .....	1,566	35.8	20.9	379	8.7	6.9	622	14.2	7.6	1,939	44.4	39.9
Oklahoma .....	1,750	52.3	26.4	302	9.0	7.0	456	13.6	5.3	1,610	48.1	39.5
Texas .....	6,603	33.4	21.1	1,962	9.9	8.5	1,021	5.2	2.8	7,421	37.6	33.7
Mountain .....	7,716	45.9	25.9	1,820	10.8	8.9	1,318	7.8	4.0	7,395	44.0	38.0
Montana .....	505	57.4	26.7	80	9.1	6.8	90	10.2	4.1	461	52.4	42.1
Idaho .....	540	43.9	25.1	87	7.1	6.0	94	7.7	3.8	571	46.5	39.4
Wyoming .....	240	49.9	28.4	65	13.5	10.9	23	4.8	2.3	231	48.0	42.5
Colorado .....	1,836	46.2	28.5	348	8.8	7.1	273	6.9	3.6	1,530	38.5	32.8
New Mexico .....	764	44.0	23.7	268	15.4	13.0	131	7.5	3.7	996	57.3	51.2
Arizona .....	2,401	51.4	25.4	586	12.6	10.1	370	7.9	3.8	2,228	47.7	40.7
Utah .....	483	23.0	17.3	116	5.5	5.5	113	5.4	3.3	713	34.0	30.6
Nevada .....	947	54.2	32.1	270	15.5	12.6	224	12.8	7.4	665	38.1	35.1
Pacific .....	16,734	38.5	21.6	4,412	10.2	8.6	1,871	4.3	2.3	13,169	30.3	26.4
Washington .....	2,403	42.2	22.9	463	8.1	6.6	248	4.4	1.9	1,950	34.3	28.5
Oregon .....	1,612	49.1	23.8	318	9.7	6.9	209	6.4	2.4	1,405	42.8	34.9
California .....	12,341	37.8	21.5	3,512	10.8	9.4	1,295	4.0	2.2	9,264	28.4	25.2
Alaska .....	112	18.2	20.8	50	8.1	8.0	12	*	*	251	40.9	40.7
Hawaii .....	266	22.3	10.8	69	5.8	4.0	107	9.0	4.6	299	25.1	21.0
Puerto Rico <sup>2</sup> .....	1,369	35.5	21.3	829	21.5	19.4	528	13.7	9.3	1,364	35.4	32.4
Virgin Islands <sup>2</sup> .....	12	*	*	9	*	*	5	*	*	37	31.3	30.9
Guam <sup>2</sup> .....	32	21.5	25.0	18	*	*	7	*	*	51	34.2	36.9
American Samoa <sup>2</sup> .....	14	*	*	-	*	*	6	*	*	15	*	*
Northern Marianas <sup>2</sup> .....	3	*	*	4	*	*	1	*	*	17	*	*

See footnotes at end of table.

**Table 26. Number of deaths, death rates, and age-adjusted death rates for major causes of death for the United States, each division, each State, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 1998 - Con.**

[Rates per 100,000 population in each area; age-adjusted rates per 100,000 U.S. standard population; see Technical notes. Numbers after causes of death are categories of the *Ninth Revision, International Classification of Diseases, 1975*. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Area	Motor vehicle accidents (E810-E825)			Suicide (E950-E959)			Homicide and legal intervention (E960-E978)			Injury by firearms (E922, E955.0-E955.4, E965.0-E965.4, E970, E985.0-E985.4)		
	Number	Rate	Age-adjusted rate <sup>1</sup>	Number	Rate	Age-adjusted rate <sup>1</sup>	Number	Rate	Age-adjusted rate <sup>1</sup>	Number	Rate	Age-adjusted rate <sup>1</sup>
United States .....	43,501	16.1	15.6	30,575	11.3	10.4	18,272	6.8	7.3	30,708	11.4	11.3
New England .....	1,314	9.8	9.5	1,285	9.6	8.8	350	2.6	2.9	721	5.4	5.3
Maine .....	180	14.5	13.4	196	15.8	14.5	28	2.3	2.4	122	9.8	9.2
New Hampshire .....	140	11.8	11.9	154	13.0	12.7	19	*	*	88	7.4	7.3
Vermont .....	82	13.9	13.4	86	14.6	12.9	10	*	*	63	10.7	9.6
Massachusetts .....	485	7.9	7.7	506	8.2	7.5	124	2.0	2.3	220	3.6	3.5
Rhode Island .....	86	8.7	8.7	86	8.7	8.1	24	2.4	2.8	38	3.8	3.9
Connecticut .....	341	10.4	10.1	257	7.8	7.2	145	4.4	5.1	190	5.8	6.3
Middle Atlantic .....	4,130	10.8	10.2	3,315	8.7	7.9	1,944	5.1	5.7	2,748	7.2	7.4
New York .....	1,686	9.3	8.7	1,364	7.5	6.9	974	5.4	5.9	1,109	6.1	6.4
New Jersey .....	783	9.6	9.3	581	7.2	6.4	333	4.1	4.5	392	4.8	4.9
Pennsylvania .....	1,661	13.8	13.3	1,370	11.4	10.4	637	5.3	6.1	1,247	10.4	10.4
East North Central .....	6,245	14.1	13.8	4,406	10.0	9.2	2,937	6.6	7.3	4,605	10.4	10.5
Ohio .....	1,451	12.9	12.8	1,108	9.9	9.0	446	4.0	4.3	969	8.6	8.1
Indiana .....	1,046	17.7	17.4	699	11.8	11.1	410	7.0	7.3	764	13.0	12.8
Illinois .....	1,521	12.6	12.6	1,036	8.6	8.1	1,113	9.2	10.5	1,324	11.0	11.8
Michigan .....	1,472	15.0	14.5	969	9.9	9.1	774	7.9	8.4	1,097	11.2	11.2
Wisconsin .....	755	14.5	13.9	594	11.4	10.7	194	3.7	4.0	451	8.6	8.5
West North Central .....	3,462	18.5	17.8	2,202	11.8	11.2	849	4.5	4.9	1,844	9.9	9.8
Minnesota .....	674	14.3	13.6	459	9.7	9.4	119	2.5	2.7	306	6.5	6.5
Iowa .....	462	16.1	15.2	329	11.5	10.7	67	2.3	2.5	195	6.8	6.6
Missouri .....	1,147	21.1	20.6	698	12.8	12.1	428	7.9	8.5	730	13.4	13.5
North Dakota .....	118	18.5	18.2	72	11.3	10.6	11	*	*	46	7.2	6.5
South Dakota .....	165	22.4	22.4	115	15.6	15.4	10	*	*	78	10.6	10.2
Nebraska .....	346	20.8	19.6	204	12.3	11.6	56	3.4	3.7	162	9.7	9.6
Kansas .....	550	20.9	20.1	325	12.4	11.9	158	6.0	6.6	327	12.4	12.6
South Atlantic .....	9,398	19.2	18.6	5,967	12.2	10.9	4,142	8.5	9.0	6,651	13.6	13.4
Delaware .....	116	15.6	15.2	68	9.1	8.0	30	4.0	4.1	54	7.3	6.4
Maryland .....	647	12.6	12.3	497	9.7	8.9	580	11.3	12.6	677	13.2	14.1
District of Columbia .....	56	10.7	9.8	43	8.2	7.3	219	41.9	46.7	166	31.7	37.5
Virginia .....	942	13.9	13.2	827	12.2	11.0	446	6.6	6.7	872	12.8	12.3
West Virginia .....	375	20.7	20.2	232	12.8	11.5	89	4.9	5.0	235	13.0	11.9
North Carolina .....	1,672	22.2	21.9	857	11.4	10.4	672	8.9	9.4	1,064	14.1	13.9
South Carolina .....	992	25.9	25.2	449	11.7	10.7	354	9.2	9.6	595	15.5	15.3
Georgia .....	1,657	21.7	21.0	822	10.8	10.0	669	8.8	8.9	1,086	14.2	14.0
Florida .....	2,941	19.7	19.0	2,172	14.6	12.6	1,083	7.3	8.0	1,902	12.8	12.2
East South Central .....	4,112	25.0	24.3	2,168	13.2	12.1	1,560	9.5	9.7	2,842	17.3	16.7
Kentucky .....	823	20.9	20.2	526	13.4	11.8	253	6.4	6.5	587	14.9	13.7
Tennessee .....	1,223	22.5	22.1	744	13.7	12.6	492	9.1	9.5	941	17.3	16.9
Alabama .....	1,103	25.3	24.6	569	13.1	12.0	457	10.5	10.9	819	18.8	18.4
Mississippi .....	963	35.0	34.3	329	12.0	11.5	358	13.0	13.2	495	18.0	18.0
West South Central .....	6,209	20.7	20.3	3,428	11.4	10.9	2,515	8.4	8.8	4,166	13.9	13.9
Arkansas .....	680	26.8	26.0	344	13.6	13.1	234	9.2	10.0	439	17.3	17.5
Louisiana .....	983	22.5	22.1	480	11.0	10.4	596	13.6	14.5	833	19.1	19.4
Oklahoma .....	777	23.2	22.5	471	14.1	13.1	232	6.9	7.3	456	13.6	13.2
Texas .....	3,769	19.1	18.9	2,133	10.8	10.3	1,453	7.4	7.6	2,438	12.3	12.3
Mountain .....	3,356	20.0	19.6	2,891	17.2	16.2	1,116	6.6	7.1	2,584	15.4	15.0
Montana .....	219	24.9	23.6	158	17.9	16.3	27	3.1	3.3	118	13.4	12.0
Idaho .....	269	21.9	21.3	201	16.4	15.2	34	2.8	2.7	160	13.0	11.9
Wyoming .....	135	28.1	27.6	87	18.1	16.8	19	*	*	71	14.8	13.9
Colorado .....	663	16.7	16.8	611	15.4	14.2	188	4.7	5.2	449	11.3	10.8
New Mexico .....	385	22.2	22.3	297	17.1	16.4	168	9.7	10.3	288	16.6	16.8
Arizona .....	941	20.2	19.8	804	17.2	16.0	444	9.5	10.5	887	19.0	19.0
Utah .....	395	18.8	18.3	336	16.0	16.6	64	3.0	3.1	242	11.5	11.7
Nevada .....	349	20.0	20.0	397	22.7	21.2	172	9.8	10.6	369	21.1	21.1
Pacific .....	5,275	12.1	11.9	4,913	11.3	10.4	2,859	6.6	7.0	4,547	10.5	10.4
Washington .....	750	13.2	13.1	708	12.4	11.4	235	4.1	4.4	545	9.6	9.1
Oregon .....	550	16.8	16.3	545	16.6	14.8	146	4.4	4.7	442	13.5	12.4
California .....	3,779	11.6	11.3	3,415	10.5	9.6	2,401	7.4	7.9	3,402	10.4	10.5
Alaska .....	72	11.7	12.0	129	21.0	22.1	49	8.0	8.1	118	19.2	19.9
Hawaii .....	124	10.4	10.6	116	9.7	9.2	28	2.3	2.5	40	3.4	3.2
Puerto Rico <sup>2</sup> .....	562	14.6	14.1	321	8.3	8.0	804	20.8	21.6	795	20.6	21.3
Virgin Islands <sup>2</sup> .....	21	17.7	18.0	6	*	*	25	21.1	24.2	22	18.6	21.3
Guam <sup>2</sup> .....	30	20.1	22.1	32	21.5	24.8	12	*	*	13	*	*
American Samoa <sup>2</sup> .....	3	*	*	1	*	*	-	*	*	-	*	*
Northern Marianas <sup>2</sup> .....	8	*	*	6	*	*	1	*	*	2	*	*

\* Figure does not meet standards of reliability or precision; see Technical notes.

- Quantity zero.

<sup>1</sup> Death rates are affected by the population composition of the area. Age-adjusted death rates should be used for comparisons between areas; for method of computation, see Technical notes.

<sup>2</sup> Age-adjusted death rates for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas are calculated using different age groups in the weighting procedure; see Technical notes.



**Table 27. Infant, neonatal, and postneonatal mortality rates by race and sex: United States, 1940, 1950, 1960, 1970, and 1975-98**

[Rates are infant (under 1 year), neonatal (under 28 days), and postneonatal (28 days-11 months) deaths per 1,000 live births in specified group. Beginning in 1980, race for live births is tabulated according to race of mother; see Technical notes]

Year	All races						All other					
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Infant mortality rate												
Race of mother <sup>1</sup>												
1998 .....	7.2	7.8	6.5	6.0	6.5	5.4	11.9	13.0	10.8	14.3	15.7	12.8
1997 .....	7.2	8.0	6.5	6.0	6.7	5.4	11.8	12.8	10.7	14.2	15.5	12.8
1996 .....	7.3	8.0	6.6	6.1	6.7	5.4	12.2	13.3	11.0	14.7	16.0	13.3
1995 .....	7.6	8.3	6.8	6.3	7.0	5.6	12.6	13.5	11.6	15.1	16.3	13.9
1994 .....	8.0	8.8	7.2	6.6	7.2	5.9	13.5	14.8	12.1	15.8	17.5	14.1
1993 .....	8.4	9.3	7.4	6.8	7.6	6.0	14.1	15.6	12.5	16.5	18.3	14.7
1992 .....	8.5	9.4	7.6	6.9	7.7	6.1	14.4	15.7	13.1	16.8	18.4	15.3
1991 .....	8.9	10.0	7.8	7.3	8.3	6.3	15.1	16.5	13.6	17.6	19.4	15.7
1990 .....	9.2	10.3	8.1	7.6	8.5	6.6	15.5	17.0	14.0	18.0	19.6	16.2
1989 .....	9.8	10.8	8.8	8.1	9.0	7.1	16.3	17.6	15.0	18.6	20.0	17.2
1988 .....	10.0	11.0	8.9	8.4	9.4	7.3	16.1	17.3	14.8	18.5	20.0	17.0
1987 .....	10.1	11.2	8.9	8.5	9.5	7.5	16.5	18.1	14.8	18.8	20.6	16.8
1986 .....	10.4	11.5	9.1	8.8	9.9	7.7	16.7	18.5	14.9	18.9	20.9	16.8
1985 .....	10.6	11.9	9.3	9.2	10.4	7.9	16.8	18.3	15.3	19.0	20.8	17.2
1984 .....	10.8	11.9	9.6	9.3	10.4	8.2	17.1	18.4	15.7	19.2	20.7	17.6
1983 .....	11.2	12.3	10.0	9.6	10.7	8.5	17.8	19.4	16.1	20.0	22.0	18.0
1982 .....	11.5	12.8	10.2	9.9	11.1	8.7	18.3	20.1	16.5	20.5	22.5	18.4
1981 .....	11.9	13.1	10.7	10.3	11.5	9.1	18.8	20.4	17.2	20.8	22.5	19.0
1980 .....	12.6	13.9	11.2	10.9	12.1	9.5	20.2	21.9	18.4	22.2	24.2	20.2
Race of child <sup>2</sup>												
1980 .....	12.6	13.9	11.2	11.0	12.3	9.6	19.1	20.7	17.5	21.4	23.3	19.4
1979 .....	13.1	14.5	11.6	11.4	12.8	9.9	19.8	21.5	18.1	21.8	23.7	19.8
1978 .....	13.8	15.3	12.2	12.0	13.4	10.6	21.1	23.1	18.9	23.1	25.4	20.8
1977 .....	14.1	15.8	12.4	12.3	13.9	10.7	21.7	23.7	19.6	23.6	25.9	21.3
1976 .....	15.2	16.8	13.6	13.3	14.8	11.7	23.5	25.5	21.4	25.5	27.8	23.2
1975 .....	16.1	17.9	14.2	14.2	15.9	12.3	24.2	26.2	22.2	26.2	28.3	24.0
1970 .....	20.0	22.4	17.5	17.8	20.0	15.4	30.9	34.2	27.5	32.6	36.2	29.0
1960 .....	26.0	29.3	22.6	22.9	26.0	19.6	43.2	47.9	38.5	44.3	49.1	39.4
1950 .....	29.2	32.8	25.5	26.8	30.2	23.1	44.5	48.9	39.9	43.9	48.3	39.4
1940 .....	47.0	52.5	41.3	43.2	48.3	37.8	73.8	82.2	65.2	72.9	81.1	64.6
Neonatal mortality rate												
Race of mother <sup>1</sup>												
1998 .....	4.8	5.2	4.4	4.0	4.3	3.6	7.9	8.6	7.2	9.5	10.5	8.6
1997 .....	4.8	5.2	4.3	4.0	4.4	3.6	7.7	8.4	7.1	9.4	10.1	8.6
1996 .....	4.8	5.2	4.3	4.0	4.3	3.6	7.9	8.6	7.1	9.6	10.4	8.7
1995 .....	4.9	5.4	4.4	4.1	4.5	3.6	8.1	8.7	7.5	9.8	10.6	9.0
1994 .....	5.1	5.6	4.6	4.2	4.5	3.8	8.6	9.5	7.7	10.2	11.3	9.1
1993 .....	5.3	5.7	4.8	4.3	4.6	3.9	9.0	9.9	8.1	10.7	11.8	9.6
1992 .....	5.4	5.8	4.9	4.3	4.7	4.0	9.2	10.0	8.3	10.8	11.8	9.8
1991 .....	5.6	6.2	5.0	4.5	5.0	4.0	9.5	10.5	8.5	11.2	12.6	9.9
1990 .....	5.8	6.5	5.2	4.8	5.4	4.2	9.9	10.8	8.9	11.6	12.7	10.4
1989 .....	6.2	6.8	5.6	5.1	5.7	4.6	10.3	11.1	9.5	11.9	12.8	11.0
1988 .....	6.3	6.9	5.7	5.3	5.8	4.7	10.3	11.2	9.4	12.1	13.1	10.9
1987 .....	6.5	7.1	5.8	5.4	6.0	4.8	10.7	11.7	9.6	12.3	13.5	11.1
1986 .....	6.7	7.4	6.0	5.7	6.3	5.1	10.8	11.8	9.7	12.3	13.6	11.0
1985 .....	7.0	7.8	6.1	6.0	6.8	5.2	11.0	12.0	10.0	12.6	13.8	11.4
1984 .....	7.0	7.7	6.3	6.1	6.7	5.4	10.9	11.7	10.1	12.3	13.2	11.4
1983 .....	7.3	8.0	6.5	6.3	7.0	5.6	11.4	12.5	10.3	12.9	14.2	11.6
1982 .....	7.7	8.5	6.9	6.7	7.4	5.9	12.0	13.2	10.9	13.6	14.9	12.3
1981 .....	8.0	8.8	7.2	7.0	7.7	6.2	12.5	13.5	11.5	14.0	15.2	12.8
1980 .....	8.5	9.3	7.6	7.4	8.2	6.5	13.2	14.3	12.1	14.6	15.9	13.3
Race of child <sup>2</sup>												
1980 .....	8.5	9.3	7.6	7.5	8.3	6.6	12.5	13.5	11.5	14.1	15.3	12.8
1979 .....	8.9	9.8	7.9	7.9	8.8	6.9	12.9	13.9	11.8	14.3	15.5	13.1
1978 .....	9.5	10.5	8.4	8.4	9.3	7.4	14.0	15.5	12.4	15.5	17.2	13.7
1977 .....	9.9	11.0	8.7	8.7	9.8	7.6	14.7	16.0	13.3	16.1	17.6	14.5
1976 .....	10.9	12.0	9.7	9.7	10.7	8.5	16.3	17.7	14.9	17.9	19.5	16.3
1975 .....	11.6	12.9	10.2	10.4	11.7	9.0	16.8	18.2	15.3	18.3	19.8	16.8
1970 .....	15.1	17.0	13.1	13.8	15.5	11.9	21.4	23.9	18.9	22.8	25.4	20.1
1960 .....	18.7	21.2	16.1	17.2	19.7	14.7	26.9	30.0	23.6	27.8	31.1	24.5
1950 .....	20.5	23.3	17.5	19.4	22.2	16.4	27.5	30.8	24.2	27.8	31.1	24.4
1940 .....	28.8	32.6	24.7	27.2	30.9	23.3	39.7	44.9	34.5	39.9	44.8	34.9

See footnotes at end of table.

**Table 27. Infant, neonatal, and postneonatal mortality rates by race and sex: United States, 1940, 1950, 1960, 1970, and 1975-98 - Con.**

[Rates are infant (under 1 year), neonatal (under 28 days), and postneonatal (28 days-11 months) deaths per 1,000 live births in specified group. Beginning in 1980, race for live births is tabulated according to race of mother; see Technical notes]

Year	All races						All other					
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Postneonatal mortality rate												
Race of mother <sup>1</sup>												
1998 .....	2.4	2.6	2.2	2.0	2.2	1.8	4.0	4.4	3.6	4.8	5.2	4.3
1997 .....	2.5	2.8	2.1	2.0	2.3	1.8	4.0	4.5	3.6	4.8	5.3	4.2
1996 .....	2.5	2.8	2.2	2.1	2.4	1.8	4.3	4.7	3.9	5.1	5.6	4.6
1995 .....	2.7	3.0	2.4	2.2	2.5	1.9	4.5	4.8	4.1	5.3	5.7	4.8
1994 .....	2.9	3.2	2.6	2.4	2.7	2.1	4.9	5.3	4.4	5.6	6.2	5.0
1993 .....	3.1	3.5	2.6	2.5	2.9	2.1	5.1	5.7	4.4	5.8	6.6	5.1
1992 .....	3.1	3.5	2.7	2.6	3.0	2.2	5.2	5.7	4.8	6.0	6.5	5.5
1991 .....	3.4	3.8	2.9	2.8	3.2	2.3	5.6	6.0	5.1	6.3	6.8	5.8
1990 .....	3.4	3.8	3.0	2.8	3.1	2.4	5.7	6.2	5.1	6.4	6.9	5.9
1989 .....	3.6	4.0	3.1	2.9	3.4	2.5	6.0	6.5	5.5	6.7	7.2	6.2
1988 .....	3.6	4.0	3.2	3.1	3.5	2.6	5.7	6.1	5.4	6.5	6.9	6.1
1987 .....	3.6	4.1	3.2	3.1	3.5	2.6	5.8	6.3	5.2	6.4	7.1	5.8
1986 .....	3.6	4.1	3.1	3.1	3.5	2.6	5.9	6.6	5.2	6.6	7.3	5.8
1985 .....	3.7	4.2	3.2	3.2	3.6	2.7	5.8	6.3	5.3	6.4	7.0	5.8
1984 .....	3.8	4.2	3.3	3.2	3.7	2.8	6.2	6.7	5.6	6.8	7.5	6.2
1983 .....	3.9	4.3	3.4	3.3	3.7	2.9	6.4	7.0	5.8	7.0	7.8	6.3
1982 .....	3.8	4.3	3.3	3.2	3.7	2.8	6.3	6.9	5.6	6.9	7.6	6.1
1981 .....	3.9	4.3	3.5	3.4	3.8	2.9	6.3	6.8	5.8	6.8	7.4	6.3
1980 .....	4.1	4.6	3.6	3.5	3.9	3.0	7.0	7.6	6.3	7.6	8.3	6.9
Race of child <sup>2</sup>												
1980 .....	4.1	4.6	3.6	3.5	4.0	3.0	6.6	7.2	6.0	7.3	7.9	6.6
1979 .....	4.2	4.7	3.7	3.5	4.0	3.0	6.9	7.6	6.3	7.5	8.2	6.7
1978 .....	4.3	4.7	3.9	3.6	4.0	3.2	7.0	7.6	6.5	7.6	8.2	7.0
1977 .....	4.2	4.8	3.7	3.6	4.1	3.1	7.0	7.7	6.3	7.6	8.3	6.8
1976 .....	4.3	4.8	3.8	3.6	4.1	3.2	7.2	7.8	6.5	7.6	8.4	6.9
1975 .....	4.5	4.9	4.0	3.8	4.2	3.3	7.5	8.0	6.9	7.9	8.5	7.2
1970 .....	4.9	5.4	4.4	4.0	4.4	3.5	9.5	10.3	8.6	9.9	10.8	8.9
1960 .....	7.3	8.1	6.5	5.7	6.3	4.9	16.4	17.8	14.8	16.5	18.0	14.9
1950 .....	8.7	9.4	8.0	7.4	8.0	6.7	16.9	18.1	15.7	16.1	17.2	15.0
1940 .....	18.3	19.9	16.6	16.0	17.5	14.5	34.1	37.3	30.7	33.0	36.4	29.7

<sup>1</sup> Infant deaths based on race of child as stated on the death certificate; live births based on race of mother as stated on the birth certificate; see Technical notes.

<sup>2</sup> Infant deaths based on race of child as stated on the death certificate; live births based on race of parents as stated on the birth certificate; see Technical notes.

**Table 28. Number of infant, neonatal, and postneonatal deaths, percent of total deaths, mortality rates and percent change in mortality rates from 1997 to 1998 and 1979 to 1998 for the 10 leading causes of infant death in 1998 by race: United States**

[Rates are infant (under 1 year), neonatal (under 28 days), and postneonatal (28 days-11 months) deaths per 100,000 live births in specified group. Deaths based on race of decedent; live births based on race of mother; see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on Ninth Revision, International Classification of Diseases, 1975)	Number	Percent of total deaths	Rate	Percent change <sup>2</sup> from--	
					1997 to 1998	1979 to 1998
INFANT MORTALITY						
...	All races <sup>3</sup> , all causes .....	28,371	100.0	719.8	-0.4	-44.9
1	Congenital anomalies (740-759) .....	6,212	21.9	157.6	-1.0	-38.3
2	Disorders relating to short gestation and unspecified low birthweight (765) .....	4,101	14.5	104.0	2.9	4.0
3	Sudden infant death syndrome (798.0) .....	2,822	9.9	71.6	-7.1	-52.6
4	Newborn affected by maternal complications of pregnancy (761) .....	1,343	4.7	34.1	6.2	-26.5
5	Respiratory distress syndrome (769) .....	1,295	4.6	32.9	-1.8	-78.9
6	Newborn affected by complications of placenta, cord, and membranes (762) .....	961	3.4	24.4	-1.2	-12.2
7	Infections specific to the perinatal period (771) .....	815	2.9	20.7	3.5	-26.3
8	Accidents and adverse effects (E800-E949) .....	754	2.7	19.1	-3.0	-38.2
9	Intrauterine hypoxia and birth asphyxia (768) .....	461	1.6	11.7	0.9	-70.7
10	Pneumonia and influenza (480-487) .....	441	1.6	11.2	3.7	-65.3
...	White, all causes .....	18,561	100.0	595.1	-1.4	-47.9
1	Congenital anomalies (740-759) .....	4,794	25.8	153.7	-1.7	-40.8
2	Disorders relating to short gestation and unspecified low birthweight (765) .....	2,250	12.1	72.1	6.7	-4.6
3	Sudden infant death syndrome (798.0) .....	1,801	9.7	57.7	-9.8	-53.5
4	Respiratory distress syndrome (769) .....	832	4.5	26.7	0.0	-81.2
5	Newborn affected by maternal complications of pregnancy (761) .....	823	4.4	26.4	1.5	-30.3
6	Newborn affected by complications of placenta, cord, and membranes (762) .....	621	3.3	19.9	-4.3	-25.5
7	Infections specific to the perinatal period (771) .....	537	2.9	17.2	3.6	-32.3
8	Accidents and adverse effects (E800-E949) .....	511	2.8	16.4	-2.4	-38.1
9	Intrauterine hypoxia and birth asphyxia (768) .....	321	1.7	10.3	-1.0	-70.0
10	Pneumonia and influenza (480-487) .....	255	1.4	8.2	-4.7	-67.2
...	Black, all causes .....	8,726	100.0	1,430.7	1.0	-34.3
1	Disorders relating to short gestation and unspecified low birthweight (765) .....	1,713	19.6	280.9	-3.3	23.7
2	Congenital anomalies (740-759) .....	1,161	13.3	190.4	1.5	-23.3
3	Sudden infant death syndrome (798.0) .....	910	10.4	149.2	-2.5	-47.1
4	Newborn affected by maternal complications of pregnancy (761) .....	468	5.4	76.7	9.9	-13.7
5	Respiratory distress syndrome (769) .....	428	4.9	70.2	-5.4	-70.6
6	Newborn affected by complications of placenta, cord, and membranes (762) .....	307	3.5	50.3	3.3	39.0
7	Infections specific to the perinatal period (771) .....	252	2.9	41.3	4.0	-6.8
8	Accidents and adverse effects (E800-E949) .....	223	2.6	36.6	-0.5	-31.6
9	Pneumonia and influenza (480-487) .....	148	1.7	24.3	3.4	-64.5
10	Intrauterine hypoxia and birth asphyxia (768) .....	125	1.4	20.5	5.1	-69.5

See footnotes at end of table.

**Table 28. Number of infant, neonatal, and postneonatal deaths, percent of total deaths, mortality rates and percent change in mortality rates from 1997 to 1998 and 1979 to 1998 for the 10 leading causes of infant death in 1998 by race: United States - Con.**

[Rates are infant (under 1 year), neonatal (under 28 days), and postneonatal (28 days-11 months) deaths per 100,000 live births in specified group. Deaths based on race of decedent; live births based on race of mother; see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on Ninth Revision, International Classification of Diseases, 1975)	Number	Percent of total deaths	Rate	Percent change <sup>2</sup> from--	
					1997 to 1998	1979 to 1998
NEONATAL MORTALITY						
...	All races <sup>3</sup> , all causes .....	18,918	100.0	480.0	0.6	-45.9
1	Congenital anomalies (740-759) .....	4,495	23.8	114.0	-1.1	-37.6
2	Disorders relating to short gestation and unspecified low birthweight (765) .....	4,050	21.4	102.8	3.2	3.5
3	Newborn affected by maternal complications of pregnancy (761) .....	1,336	7.1	33.9	6.3	-26.3
4	Respiratory distress syndrome (769) .....	1,209	6.4	30.7	-2.8	-79.3
5	Newborn affected by complications of placenta, cord, and membranes (762) .....	949	5.0	24.1	-1.2	-12.4
6	Infections specific to the perinatal period (771) .....	770	4.1	19.5	2.6	-28.0
7	Intrauterine hypoxia and birth asphyxia (768) .....	424	2.2	10.8	-0.9	-71.8
8	Neonatal hemorrhage (772) .....	329	1.7	8.3	-4.6	-68.6
9	Sudden infant death syndrome (798.0) .....	188	1.0	4.8	2.1	-59.7
10	Birth trauma (767) .....	184	1.0	4.7	0.0	-85.2
...	White, all causes .....	12,406	100.0	397.8	-0.4	-49.5
1	Congenital anomalies (740-759) .....	3,514	28.3	112.7	-2.6	-40.2
2	Disorders relating to short gestation and unspecified low birthweight (765) .....	2,222	17.9	71.2	7.4	-5.1
3	Newborn affected by maternal complications of pregnancy (761) .....	818	6.6	26.2	1.6	-30.5
4	Respiratory distress syndrome (769) .....	788	6.4	25.3	0.4	-81.3
5	Newborn affected by complications of placenta, cord, and membranes (762) .....	612	4.9	19.6	-3.9	-26.0
6	Infections specific to the perinatal period (771) .....	506	4.1	16.2	2.5	-34.1
7	Intrauterine hypoxia and birth asphyxia (768) .....	297	2.4	9.5	-2.1	-71.2
8	Neonatal hemorrhage (772) .....	220	1.8	7.1	-4.1	-70.3
9	Birth trauma (767) .....	132	1.1	4.2	-6.7	-85.2
10	Sudden infant death syndrome (798.0) .....	123	1.0	3.9	0.0	-60.2
...	Black, all causes .....	5,824	100.0	954.9	1.6	-33.3
1	Disorders relating to short gestation and unspecified low birthweight (765) .....	1,693	29.1	277.6	-3.5	23.1
2	Congenital anomalies (740-759) .....	798	13.7	130.8	4.7	-20.5
3	Newborn affected by maternal complications of pregnancy (761) .....	466	8.0	76.4	9.6	-12.8
4	Respiratory distress syndrome (769) .....	388	6.7	63.6	-9.1	-71.7
5	Newborn affected by complications of placenta, cord, and membranes (762) .....	304	5.2	49.8	3.1	39.9
6	Infections specific to the perinatal period (771) .....	240	4.1	39.4	5.6	-7.5
7	Intrauterine hypoxia and birth asphyxia (768) .....	113	1.9	18.5	1.6	-71.4
8	Neonatal hemorrhage (772) .....	99	1.7	16.2	1.3	-60.5
9	Sudden infant death syndrome (798.0) .....	56	1.0	9.2	4.5	-57.8
10	Newborn affected by maternal conditions which may be unrelated to present pregnancy (760) .....	52	0.9	8.5	0.0	23.2

See footnotes at end of table.

**Table 28. Number of infant, neonatal, and postneonatal deaths, percent of total deaths, mortality rates and percent change in mortality rates from 1997 to 1998 and 1979 to 1998 for the 10 leading causes of infant death in 1998 by race: United States - Con.**

[Rates are infant (under 1 year), neonatal (under 28 days), and postneonatal (28 days-11 months) deaths per 100,000 live births in specified group. Deaths based on race of decedent; live births based on race of mother; see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on Ninth Revision, International Classification of Diseases, 1975)	Number	Percent of total deaths	Rate	Percent change <sup>2</sup> from--	
					1997 to 1998	1979 to 1998
POSTNEONATAL MORTALITY						
...	All races <sup>3</sup> , all causes .....	9,453	100.0	239.8	-2.2	-42.9
1	Sudden infant death syndrome (798.0) .....	2,634	27.9	66.8	-7.7	-52.0
2	Congenital anomalies (740-759) .....	1,717	18.2	43.6	-0.7	-39.9
3	Accidents and adverse effects (E800-E949) .....	672	7.1	17.0	-2.9	-40.1
4	Pneumonia and influenza (480-487) .....	352	3.7	8.9	7.2	-63.5
5	Homicide (E960-E969) .....	279	3.0	7.1	-1.4	86.8
6	Septicemia (038) .....	216	2.3	5.5	7.8	-26.7
7	Respiratory distress syndrome (769) .....	86	0.9	2.2	15.8	-72.5
8	Meningitis (320-322) .....	80	0.8	2.0	0.0	-76.5
9	Bronchitis and bronchiolitis (466,490-491) .....	67	0.7	1.7	-37.0	-58.5
10	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	63	0.7	1.6	-23.8	-44.8
...	White, all causes .....	6,155	100.0	197.4	-3.3	-44.2
1	Sudden infant death syndrome (798.0) .....	1,678	27.3	53.8	-10.3	-53.0
2	Congenital anomalies (740-759) .....	1,280	20.8	41.0	1.0	-42.2
3	Accidents and adverse effects (E800-E949) .....	444	7.2	14.2	-2.7	-41.8
4	Pneumonia and influenza (480-487) .....	193	3.1	6.2	-3.1	-65.9
5	Homicide and legal intervention (E960-E969) .....	163	2.6	5.2	-5.5	100.0
6	Septicemia (038) .....	121	2.0	3.9	-4.9	-31.6
7	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	57	0.9	1.8	-14.3	-40.0
8	Meningitis (320-322) .....	45	0.7	1.4	-6.7	-78.1
9	Respiratory distress syndrome (769) .....	44	0.7	1.4	-6.7	-80.3
10	Bronchitis and bronchiolitis (466,490-491) .....	43	0.7	1.4	-39.1	-60.0
...	Black, all causes .....	2,902	100.0	475.8	-0.2	-36.3
1	Sudden infant death syndrome (798.0) .....	854	29.4	140.0	-2.9	-46.2
2	Congenital anomalies (740-759) .....	363	12.5	59.5	-5.1	-28.8
3	Accidents and adverse effects (E800-E949) .....	211	7.3	34.6	2.7	-29.4
4	Pneumonia and influenza (480-487) .....	126	4.3	20.7	8.9	-61.7
5	Homicide and legal intervention (E960-E969) .....	108	3.7	17.7	8.6	82.5
6	Septicemia (038) .....	81	2.8	13.3	17.7	-19.9
7	Respiratory distress syndrome (769) .....	40	1.4	6.6	57.1	-50.4
8	Meningitis (320-322) .....	32	1.1	5.2	36.8	-70.6
9	Gastritis, duodenitis, and noninfective enteritis and colitis (535,555-558) .....	22	0.8	3.6	12.5	-71.4
10	Disorders relating to short gestation and unspecified low birthweight (765) .....	20	0.7	3.3	17.9	106.3

...Category not applicable.

<sup>1</sup> Rank based on number of deaths; see Technical notes.

<sup>2</sup> Percent change based on rates between two time periods.

<sup>3</sup> Includes races other than white and black.

**Table 29. Number of infant deaths and infant mortality rates for the 10 leading causes of infant death, by Hispanic origin and race for non-Hispanic population: United States, 1998**

[Rates are infant deaths (under 1 year) per 100,000 live births in specified group. Race and Hispanic origin are reported separately on the birth and death certificates. Persons of Hispanic origin may be of any race. Data for Hispanic persons are not tabulated separately by race; data for non-Hispanic persons are tabulated by race. Data for Hispanic origin should be interpreted with caution because of inconsistencies between reporting Hispanic origin on birth and death certificates; see Technical notes. National linked files should be used to measure infant mortality for specific Hispanic subgroups]

Rank <sup>1</sup>	Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	Number	Rate
Hispanic			
...	All causes .....	4,371	595.0
1	Congenital anomalies (740-759) .....	1,110	151.1
2	Disorders relating to short gestation and unspecified low birthweight (765) .....	583	79.4
3	Sudden infant death syndrome (798.0) .....	288	39.2
4	Respiratory distress syndrome (769) .....	205	27.9
5	Newborn affected by maternal complications of pregnancy (761) .....	175	23.8
6	Newborn affected by complications of placenta, cord, and membranes (762) .....	139	18.9
7	Infections specific to the perinatal period (771) .....	133	18.1
8	Accidents and adverse effects (E800-E949) .....	123	16.7
9	Pneumonia and influenza (480-487) .....	84	11.4
10	Neonatal hemorrhage (772) .....	57	7.8
...	All other causes (Residual) .....	1,474	200.6
Total non-Hispanic <sup>2</sup>			
...	All causes .....	23,563	745.9
1	Congenital anomalies (740-759) .....	5,029	159.2
2	Disorders relating to short gestation and unspecified low birthweight (765) .....	3,426	108.5
3	Sudden infant death syndrome (798.0) .....	2,521	79.8
4	Newborn affected by maternal complications of pregnancy (761) .....	1,143	36.2
5	Respiratory distress syndrome (769) .....	1,067	33.8
6	Newborn affected by complications of placenta, cord, and membranes (762) .....	806	25.5
7	Infections specific to the perinatal period (771) .....	668	21.1
8	Accidents and adverse effects (E800-E949) .....	628	19.9
9	Intrauterine hypoxia and birth asphyxia (768) .....	393	12.4
10	Pneumonia and influenza (480-487) .....	353	11.2
...	All other causes (Residual) .....	7,529	238.3
White non-Hispanic			
...	All causes .....	14,105	597.3
1	Congenital anomalies (740-759) .....	3,664	155.2
2	Disorders relating to short gestation and unspecified low birthweight (765) .....	1,621	68.6
3	Sudden infant death syndrome (798.0) .....	1,528	64.7
4	Newborn affected by maternal complications of pregnancy (761) .....	647	27.4
5	Respiratory distress syndrome (769) .....	619	26.2
6	Newborn affected by complications of placenta, cord, and membranes (762) .....	479	20.3
7	Infections specific to the perinatal period (771) .....	401	17.0
8	Accidents and adverse effects (E800-E949) .....	392	16.6
9	Intrauterine hypoxia and birth asphyxia (768) .....	263	11.1
10	Pneumonia and influenza (480-487) .....	173	7.3
...	All other causes (Residual) .....	4,318	182.9
Black non-Hispanic			
...	All causes .....	8,447	1,424.1
1	Disorders relating to short gestation and unspecified low birthweight (765) .....	1,676	282.6
2	Congenital anomalies (740-759) .....	1,120	188.8
3	Sudden infant death syndrome (798.0) .....	895	150.9
4	Newborn affected by maternal complications of pregnancy (761) .....	448	75.5
5	Respiratory distress syndrome (769) .....	413	69.6
6	Newborn affected by complications of placenta, cord, and membranes (762) .....	297	50.1
7	Infections specific to the perinatal period (771) .....	244	41.1
8	Accidents and adverse effects (E800-E949) .....	216	36.4
9	Pneumonia and influenza (480-487) .....	144	24.3
10	Homicide (E960-E969) .....	116	19.6
10	Intrauterine hypoxia and birth asphyxia (768) .....	116	19.6
...	All other causes (Residual) .....	2,762	465.7

... Category not applicable.

<sup>1</sup> Rank based on number of deaths; see Technical notes.

<sup>2</sup> Includes races other than white and black.



**Table 30. Number of infant deaths and infant mortality rates for 61 selected causes and Human immunodeficiency virus infection, by race: United States, 1998**

[Rates are infant deaths (under 1 year) per 100,000 live births in specified group. Infant deaths based on race of decedent; live births based on race of mother. For explanation of asterisks preceding cause-of-death categories, see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	Number			Rate		
	All races <sup>1</sup>	White	Black	All races <sup>1</sup>	White	Black
All causes .....	28,371	18,561	8,726	719.8	595.1	1,430.7
Certain intestinal infections (008-009) .....	229	127	97	5.8	4.1	15.9
Whooping cough (033) .....	4	4	-	*	*	*
Meningococcal infection (036) .....	23	19	2	0.6	*	*
Septicemia (038) .....	216	121	81	5.5	3.9	13.3
Viral diseases (045-079) .....	98	63	28	2.5	2.0	4.6
Congenital syphilis (090) .....	2	-	2	*	*	*
Remainder of infectious and parasitic diseases (001,007,010-032,034-035,037,039-041,*042-*044,080-088,091-139) .....	176	113	59	4.5	3.6	9.7
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208) .....	78	68	8	2.0	2.2	*
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature (210-239) .....	60	44	14	1.5	1.4	*
Diseases of thymus gland (254) .....	1	-	1	*	*	*
Cystic fibrosis (277.0) .....	12	11	1	*	*	*
Diseases of blood and blood-forming organs (280-289) .....	94	55	31	2.4	1.8	5.1
Meningitis (320-322) .....	107	66	38	2.7	2.1	6.2
Other diseases of nervous system and sense organs (323-389) .....	340	268	65	8.6	8.6	10.7
Acute upper respiratory infections (460-465) .....	9	8	1	*	*	*
Bronchitis and bronchiolitis (466,490-491) .....	71	43	22	1.8	1.4	3.6
Pneumonia and influenza (480-487) .....	441	255	148	11.2	8.2	24.3
Pneumonia (480-486) .....	435	251	147	11.0	8.0	24.1
Influenza (487) .....	6	4	1	*	*	*
Remainder of diseases of respiratory system (470-478,492-519) .....	297	196	88	7.5	6.3	14.4
Hernia of abdominal cavity and intestinal obstruction without mention of hernia (550-553,560) .....	69	41	24	1.8	1.3	3.9
Gastritis, duodenitis, and noninfective enteritis and colitis (535,555-558) .....	76	44	28	1.9	1.4	4.6
Remainder of diseases of digestive system (520-534,536-543,562-579) .....	185	126	54	4.7	4.0	8.9
Congenital anomalies (740-759) .....	6,212	4,794	1,161	157.6	153.7	190.4
Anencephalus and similar anomalies (740) .....	296	248	33	7.5	8.0	5.4
Spina bifida (741) .....	41	39	2	1.0	1.3	*
Congenital hydrocephalus (742.3) .....	122	82	33	3.1	2.6	5.4
Other congenital anomalies of central nervous system and eye (742.0-742.2,742.4-742.9,743) .....	301	226	54	7.6	7.2	8.9
Congenital anomalies of heart (745-746) .....	1,769	1,387	313	44.9	44.5	51.3
Other congenital anomalies of circulatory system (747) .....	315	224	75	8.0	7.2	12.3
Congenital anomalies of respiratory system (748) .....	950	715	210	24.1	22.9	34.4
Congenital anomalies of digestive system (749-751) .....	104	76	23	2.6	2.4	3.8
Congenital anomalies of genitourinary system (752-753) .....	364	288	63	9.2	9.2	10.3
Congenital anomalies of musculoskeletal system (754-756) .....	447	351	81	11.3	11.3	13.3
Down's syndrome (758.0) .....	121	107	11	3.1	3.4	*
Other chromosomal anomalies (758.1-758.9) .....	822	640	150	20.9	20.5	24.6
All other and unspecified congenital anomalies (744,757,759) .....	560	411	113	14.2	13.2	18.5
Certain conditions originating in the perinatal period (760-779) .....	13,294	8,043	4,796	337.3	257.9	786.4
Newborn affected by maternal conditions which may be unrelated to present pregnancy (760) .....	158	97	58	4.0	3.1	9.5
Newborn affected by maternal complications of pregnancy (761) .....	1,343	823	468	34.1	26.4	76.7
Newborn affected by complications of placenta, cord, and membranes (762) .....	961	621	307	24.4	19.9	50.3
Newborn affected by other complications of labor and delivery (763) .....	91	58	23	2.3	1.9	3.8
Slow fetal growth and fetal malnutrition (764) .....	38	26	11	1.0	0.8	*
Disorders relating to short gestation and unspecified low birthweight (765) .....	4,101	2,250	1,713	104.0	72.1	280.9
Disorders relating to long gestation and high birthweight (766) .....	1	-	1	*	*	*
Birth trauma (767) .....	194	139	46	4.9	4.5	7.5
Intrauterine hypoxia and birth asphyxia (768) .....	461	321	125	11.7	10.3	20.5
Fetal distress in liveborn infant (768.2-768.4) .....	122	99	20	3.1	3.2	3.3
Birth asphyxia (768.5-768.9) .....	339	222	105	8.6	7.1	17.2
Respiratory distress syndrome (769) .....	1,295	832	428	32.9	26.7	70.2
Other respiratory conditions of newborn (770) .....	1,702	1,015	622	43.2	32.5	102.0
Infections specific to the perinatal period (771) .....	815	537	252	20.7	17.2	41.3
Neonatal hemorrhage (772) .....	334	222	102	8.5	7.1	16.7
Hemolytic disease of newborn, due to isoimmunization, and other perinatal jaundice (773-774) .....	34	24	10	0.9	0.8	*
Syndrome of "infant of a diabetic mother" and neonatal diabetes mellitus (775.0-775.1) .....	11	5	6	*	*	*
Hemorrhagic disease of newborn (776.0) .....	4	1	3	*	*	*
All other and ill-defined conditions originating in the perinatal period (775.2-775.9,776.1-779) .....	1,751	1,072	621	44.4	34.4	101.8
Symptoms, signs, and ill-defined conditions (780-799) .....	3,658	2,315	1,198	92.8	74.2	196.4
Sudden infant death syndrome (798.0) .....	2,822	1,801	910	71.6	57.7	149.2
Symptoms, signs, and all other ill-defined conditions (780-797,798.1-799) .....	836	514	288	21.2	16.5	47.2
Accidents and adverse effects (E800-E949) .....	754	511	223	19.1	16.4	36.6
Inhalation and ingestion of food or other object causing obstruction of respiratory tract or suffocation (E911-E912) .....	64	47	16	1.6	1.5	*
Accidental mechanical suffocation (E913) .....	312	201	100	7.9	6.4	16.4
Other accidental causes and adverse effects (E800-E910,E914-E949) .....	378	263	107	9.6	8.4	17.5
Homicide (E960-E969) .....	322	188	123	8.2	6.0	20.2
Child battering and other maltreatment (E967) .....	114	65	46	2.9	2.1	7.5
Other homicide (E960-E966,E968-E969) .....	208	123	77	5.3	3.9	12.6
All other causes (Residual) .....	1,543	1,038	433	39.1	33.3	71.0
Human immunodeficiency virus infection <sup>2</sup> (*042-*044) .....	14	5	9	*	*	*

- Quantity zero.

\* Figure does not meet standards of reliability or precision; see Technical notes.

<sup>1</sup> Includes races other than white and black.

<sup>2</sup> Included in "Remainder of infectious and parasitic diseases" shown above.

**Table 31. Number of infant and neonatal deaths and mortality rates, by race for the United States, each division, each State, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, and by sex for the United States, 1998**

[Rates are infant deaths (under 1 year) per 1,000 live births in specified group. Infant deaths based on race of decedent; live births based on race of mother. See Technical notes]

Sex and area	Infant deaths						Neonatal deaths					
	All races <sup>1</sup>		White		Black		All races <sup>1</sup>		White		Black	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
United States .....	28,371	7.2	18,561	6.0	8,726	14.3	18,918	4.8	12,406	4.0	5,824	9.5
Male .....	15,786	7.8	10,327	6.5	4,883	15.7	10,498	5.2	6,878	4.3	3,258	10.5
Female .....	12,585	6.5	8,234	5.4	3,843	12.8	8,420	4.4	5,528	3.6	2,566	8.6
New England .....	1,007	5.8	806	5.3	182	12.5	750	4.3	603	4.0	134	9.2
Maine .....	87	6.3	85	6.4	2	*	58	4.2	56	4.2	2	*
New Hampshire .....	63	4.4	60	4.3	2	*	49	3.4	46	3.3	2	*
Vermont .....	46	7.0	44	6.8	1	*	38	5.8	37	5.7	-	*
Massachusetts .....	416	5.1	341	4.9	65	8.3	316	3.9	258	3.7	51	6.5
Rhode Island .....	88	7.0	68	6.2	17	*	65	5.2	53	4.8	11	*
Connecticut .....	307	7.0	208	5.6	95	17.4	224	5.1	153	4.2	68	12.5
Middle Atlantic .....	3,400	6.6	2,118	5.4	1,185	12.3	2,400	4.6	1,531	3.9	798	8.3
New York .....	1,623	6.3	980	5.3	591	10.9	1,151	4.5	716	3.8	400	7.3
New Jersey .....	734	6.4	428	5.0	274	12.8	518	4.5	306	3.6	188	8.8
Pennsylvania .....	1,043	7.1	710	5.8	320	15.4	731	5.0	509	4.2	210	10.1
East North Central .....	4,996	8.0	3,286	6.5	1,626	16.5	3,336	5.4	2,240	4.4	1,044	10.6
Ohio .....	1,221	8.0	888	7.0	323	14.2	820	5.4	612	4.8	203	8.9
Indiana .....	649	7.6	482	6.5	160	17.3	439	5.2	322	4.3	111	12.0
Illinois .....	1,539	8.4	901	6.4	614	17.2	1,020	5.6	629	4.5	375	10.5
Michigan .....	1,098	8.2	668	6.3	407	16.8	713	5.3	430	4.1	268	11.0
Wisconsin .....	489	7.2	347	6.0	122	18.7	344	5.1	247	4.2	87	13.3
West North Central .....	1,813	7.0	1,398	6.2	314	15.4	1,188	4.6	932	4.1	201	9.9
Minnesota .....	386	5.9	294	5.1	49	13.4	263	4.0	204	3.6	32	8.7
Iowa .....	246	6.6	218	6.2	20	18.3	170	4.6	151	4.3	13	*
Missouri .....	577	7.7	382	6.1	191	16.8	373	4.9	247	4.0	124	10.9
North Dakota .....	68	8.6	58	8.2	-	*	43	5.4	39	5.5	-	*
South Dakota .....	94	9.1	63	7.5	2	*	47	4.6	35	4.2	1	*
Nebraska .....	172	7.3	143	6.7	24	19.4	114	4.8	94	4.4	16	*
Kansas .....	270	7.0	240	7.0	28	10.0	178	4.6	162	4.7	15	*
South Atlantic .....	5,707	8.3	2,885	6.0	2,741	14.6	3,904	5.7	1,913	4.0	1,936	10.3
Delaware .....	102	9.6	53	6.9	49	18.7	73	6.9	32	4.2	41	15.6
Maryland .....	616	8.6	233	5.2	367	15.3	449	6.2	170	3.8	266	11.1
District of Columbia .....	96	12.5	8	*	85	15.5	55	7.2	5	*	47	8.6
Virginia .....	722	7.7	386	5.7	328	14.9	509	5.4	261	3.8	244	11.1
West Virginia .....	166	8.0	158	8.0	8	*	95	4.6	88	4.4	7	*
North Carolina .....	1,038	9.3	514	6.5	497	17.6	720	6.4	346	4.4	356	12.6
South Carolina .....	515	9.6	206	6.0	306	16.2	362	6.7	133	3.9	228	12.1
Georgia .....	1,035	8.5	470	6.0	553	13.4	706	5.8	311	4.0	388	9.4
Florida .....	1,417	7.2	857	5.9	548	12.3	935	4.8	567	3.9	359	8.1
East South Central .....	2,112	8.9	1,170	6.8	925	15.1	1,378	5.8	727	4.2	638	10.4
Kentucky .....	409	7.5	332	6.8	75	15.4	265	4.9	218	4.5	45	9.3
Tennessee .....	635	8.2	375	6.3	253	15.0	434	5.6	245	4.1	183	10.8
Alabama .....	633	10.2	318	7.7	311	15.5	414	6.7	188	4.5	222	11.1
Mississippi .....	435	10.1	145	6.3	286	14.8	265	6.2	76	3.3	188	9.7
West South Central .....	3,543	7.2	2,428	6.1	1,028	12.8	2,228	4.5	1,542	3.9	633	7.9
Arkansas .....	329	8.9	215	7.6	112	14.0	202	5.5	134	4.7	68	8.5
Louisiana .....	609	9.1	219	5.7	385	14.0	396	5.9	144	3.8	251	9.1
Oklahoma .....	420	8.5	316	8.1	65	13.5	267	5.4	204	5.2	40	8.3
Texas .....	2,185	6.4	1,678	5.8	466	11.6	1,363	4.0	1,060	3.6	274	6.8
Mountain .....	1,906	6.9	1,599	6.5	154	17.6	1,183	4.3	1,004	4.1	100	11.4
Montana .....	80	7.4	68	7.2	1	*	45	4.2	40	4.2	1	*
Idaho .....	140	7.2	134	7.1	2	*	89	4.6	84	4.5	2	*
Wyoming .....	45	7.2	34	5.8	2	*	28	4.5	21	3.6	1	*
Colorado .....	399	6.7	346	6.4	46	16.0	264	4.4	231	4.3	31	10.8
New Mexico .....	197	7.2	159	6.9	9	*	120	4.4	98	4.3	6	*
Arizona .....	590	7.5	469	6.9	53	20.0	376	4.8	308	4.5	37	13.9
Utah .....	255	5.6	243	5.7	2	*	161	3.6	154	3.6	-	*
Nevada .....	200	7.0	146	6.0	39	17.3	100	3.5	68	2.8	22	9.8
Pacific .....	3,887	5.8	2,871	5.3	571	13.7	2,551	3.8	1,914	3.5	340	8.1
Washington .....	455	5.7	358	5.2	42	13.5	287	3.6	225	3.3	27	8.7
Oregon .....	245	5.4	221	5.3	13	*	143	3.2	131	3.1	6	*
California .....	3,007	5.8	2,239	5.3	505	13.7	2,003	3.8	1,525	3.6	303	8.2
Alaska .....	59	5.9	31	4.7	6	*	29	2.9	19	*	-	*
Hawaii .....	121	6.9	22	5.3	5	*	89	5.1	14	*	4	*
Puerto Rico .....	636	10.5	619	11.1	13	*	466	7.7	459	8.2	4	*
Virgin Islands .....	20	11.1	2	*	18	*	15	*	1	*	14	*
Guam .....	34	7.9	1	*	-	*	17	*	-	*	-	*
American Samoa .....	27	16.0	-	*	-	*	16	*	-	*	-	*
Northern Marianas .....	13	*	-	*	-	*	11	*	-	*	-	*

\* Figure does not meet standards of reliability or precision; see Technical notes.

- Quantity zero.

<sup>1</sup> Includes races other than white and black.

**Table 32. Number of maternal deaths and maternal mortality rates for selected causes, by race: United States, 1998**

[Maternal deaths are those assigned to Complications of pregnancy, childbirth, and the puerperium, categories 630-676 of the Ninth Revision, International Classification of Diseases, 1975. Rates per 100,000 live births in specified group; see Technical notes]

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	Number				Rate			
	All races	White	All other		All races	White	All other	
			Total	Black			Total	Black
Complications of pregnancy, childbirth, and the puerperium (630-676) ....	281	158	123	104	7.1	5.1	14.9	17.1
Pregnancy with abortive outcome (630-638) .....	32	15	17	14	0.8	*	*	*
Ectopic pregnancy (633) .....	19	7	12	9	*	*	*	*
Spontaneous abortion (634) .....	2	2	-	-	*	*	*	*
Legally induced abortion (635) .....	6	3	3	3	*	*	*	*
Illegally induced abortion (636) .....	-	-	-	-	*	*	*	*
Other pregnancy with abortive outcome (630-632,637-638) .....	5	3	2	2	*	*	*	*
Direct obstetric causes (640-646,651-676) .....	229	129	100	85	5.8	4.1	12.2	13.9
Hemorrhage of pregnancy and childbirth (640-641,666) .....	24	16	8	5	0.6	*	*	*
Toxemia of pregnancy (642.4-642.9,643) .....	47	23	24	22	1.2	0.7	2.9	3.6
Obstructed labor (660) .....	-	-	-	-	*	*	*	*
Complications of the puerperium (670-676) .....	99	60	39	35	2.5	1.9	4.7	5.7
Major puerperal infections (670) .....	6	4	2	2	*	*	*	*
Venous complications in pregnancy and the puerperium (671) .....	3	3	-	-	*	*	*	*
Obstetrical pulmonary embolism (673) .....	43	32	11	9	1.1	1.0	*	*
Other and unspecified complications of the puerperium, not elsewhere classified (674) .....	46	21	25	23	1.2	0.7	3.0	3.8
All other complications of the puerperium (672,675-676) .....	1	-	1	1	*	*	*	*
Other direct obstetric causes (642.0-642.3,644-646,651-659,661-665,667-669) .....	59	30	29	23	1.5	1.0	3.5	3.8
Indirect obstetric causes (647-648) .....	20	14	6	5	0.5	*	*	*
Delivery in a completely normal case (650) .....	-	-	-	-	*	*	*	*

\* Figure does not meet standards of reliability or precision; see Technical notes.  
 - Quantity zero.

## Technical notes

### Nature and sources of data

Data in this report are based on information from all death certificates filed in the 50 States and the District of Columbia. The U.S. Standard Certificate of Death—which is used as a model by the States—was last revised in 1989; for additional details see the 1989 revision of the U.S. standard certificates and reports (16) and Technical Appendix of *Vital Statistics of the United States, 1989*, Volume II, Mortality, part A (17).

Mortality statistics are based on information coded by the States and provided to the National Center for Health Statistics (NCHS) through the Vital Statistics Cooperative Program (VSCP) and from copies of the original certificates received by NCHS from the State registration offices. In 1998 all the States and the District of Columbia participated in this program and submitted part or all of the mortality data for 1998 in electronic data files to NCHS. The 43 States in the VSCP that submitted precoded medical (cause of death) data for all deaths are Alabama, Alaska, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Indiana, Iowa, Kansas, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York State (excluding New York City), North Carolina, North Dakota, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, Wisconsin, and Wyoming. Of these 43 States, Maine and Montana contracted with a private company to provide precoded medical data to NCHS. The remaining seven States, New York City, and the District of Columbia submitted copies of the original certificates from which NCHS coded the medical data. For 1998 all States submitted precoded demographic data for all deaths.

Data for the entire United States refer to events occurring within the United States. Data shown for geographic areas are by place of residence. Beginning with 1970 mortality statistics for the United States exclude deaths of nonresidents of the United States. All data exclude fetal deaths.

Mortality statistics for Puerto Rico, Virgin Islands, American Samoa, and Northern Marianas (shown for the first time in this report) exclude deaths of nonresidents of Puerto Rico, Virgin Islands, American Samoa, and Northern Marianas, respectively. For Guam, however, mortality statistics exclude deaths that occurred to a resident of any place other than Guam or the United States.

### Race

*Quality of race data*—A number of studies have been conducted on the reliability of race reported on the death certificate by comparing race on the death certificate with that reported on another data collection instrument, such as the census or a survey. Differences may arise because of differences in who provides race information on the compared records. Race information on the death certificate is reported by the funeral director as provided by an informant or in the absence of an informant, on the basis of observation. In contrast, race on the census or on the Current Population Survey (CPS) is obtained while the individual is alive and is self-reported or reported by another member of the household familiar with the individual and, therefore,

may be considered more valid. A high level of agreement between the death certificate and the census or survey report is essential to assure unbiased death rates by race.

Studies (18–19) show that a person self-reported as American Indian or Asian on census or survey records was sometimes reported as white on the death certificate. The net effect of misclassification is an underestimation of deaths and death rates for races other than white and black. In addition, undercoverage of minority groups in the census and resultant population estimates, introduces biases into death rates by race (3,10,20). Estimates of the approximate effect of the combined bias due to race misclassification on death certificates and underenumeration on the 1990 census are as follows: white, –1.0 percent; black, –5.0; American Indian, +20.6; Asian or Pacific Islander, +10.7 (10).

*Other races and race not stated*—Beginning in 1992 all records coded as “Other races” (0.02 percent of the total deaths in 1998) were assigned to the specified race of the previous record. Records for which race was unknown, not stated, or not classifiable (0.08 percent) were assigned the racial designation of the previous record.

*Infant and maternal mortality rates*—For 1989–98, as in previous years, infant and maternal deaths continue to be tabulated by the race of the decedent. However, beginning with the 1989 data year, the method of tabulating live births by race was changed from race of parents to race of mother as stated on the birth certificate. This change affects infant and maternal mortality rates because live births are the denominators of these rates (21,22). To improve continuity and ease of interpretation, trend data by race in this report have been retabulated by race of mother for all years beginning with the 1980 data year.

Quantitatively, the change in the basis for tabulating live births by race results in more white births and fewer black births and births of other races. Consequently, infant and maternal mortality rates under the new tabulating procedure tend to be about 2 percent lower for white infants and about 5 percent higher for black infants than when they are computed by the previous method of tabulating live births by race of parents. Rates for most other minority races also are higher when computed by race of mother (17,22).

Infant mortality rates for specified race are biased because of inconsistencies in reporting race between the birth and death certificates for the same infant. Infant mortality rates by specified race are less subject to reporting bias when based on the linked file of infant deaths and live births (14). The linked file computes infant mortality rates using the race of the mother from the birth certificate in the numerator and denominator. Race information on the birth certificate is considered to be more accurate than that on the death certificate because, on the birth certificate, race is generally reported by the mother at the time of delivery. Estimates of reporting bias have been made by comparing rates based on the linked files with those in which the race of infant death is based on information from the death certificate (10,17).

### Hispanic origin

Mortality data for the Hispanic-origin population are based on deaths to residents of all 50 States and the District of Columbia. Data year 1997 was the first year that mortality data for the Hispanic population were available for the entire United States.

Infant mortality rates for the Hispanic-origin population are based on numbers of resident infant deaths reported to be of Hispanic origin and numbers of resident live births by Hispanic origin of mother for the United States. In computing infant mortality rates, deaths and live births

of unknown origin are not distributed among the specified Hispanic and non-Hispanic groups. The percent of infant deaths of unknown origin was 1.5 and the percent of live births to mothers of unknown origin was 1.2 for the United States for 1998.

Small numbers of infant deaths for specific Hispanic-origin groups result in infant mortality rates subject to relatively large random variation (see "Random variation"). Infant mortality rates by Hispanic origin are less subject to reporting bias when based on linked files of infant deaths and live births (14).

*Quality of Hispanic origin data*—The National Longitudinal Mortality Study (NLMS) examined the reliability of Hispanic origin reported on 43,520 death certificates with that reported on a total of 12 Current Population Surveys conducted by the U.S. Bureau of the Census for the years 1979–85 (10). In this study, agreement—on a record-by-record basis—was 89.7 percent for any report of Hispanic origin. The ratio of deaths for CPS divided by deaths for death certificate was 1.07 percent indicating net underreporting of Hispanic origin on death certificates as compared with self-reports on the surveys. The sample was too small to assess the reliability of specified Hispanic groups. Death rates for the Hispanic-origin population are also affected by undercoverage of this population group in the census and resultant population estimates; the estimated net correction, taking into account both sources of bias, is 1.6 percent (10,20).

### Cause-of-death classification

The mortality statistics presented here were compiled in accordance with the World Health Organization (WHO) regulations, which specify that member nations classify causes of death by the current *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*, which is the Ninth Revision of the *International Classification of Diseases* (ICD–9) (4). Causes of death for 1979–98 were classified according to the manual. For earlier years causes of death were classified according to the revisions then in use—1968–78, Eighth Revision, adapted for use in the United States; 1958–67, Seventh Revision; and 1949–57, Sixth Revision. Changes in classification of causes of death due to these revisions may result in discontinuities in cause-of-death trends. Consequently, cause-of-death comparisons among revisions require consideration of comparability ratios and, where available, estimates of their standard errors. Comparability ratios between the Eighth and Ninth Revisions, between the Seventh and Eighth Revisions, and between the Sixth and Seventh Revisions may be found in other NCHS reports (23–25).

Besides providing the classification, WHO regulations specify the format of the medical cause of death on the death certificate, provide definitions, and define the procedures to be used in coding cause of death. Cause-of-death data presented in this publication were coded by procedures outlined in annual issues of the *NCHS Instruction Manual* (26–28).

Before data for 1968, mortality medical data were based on manual coding of an underlying cause of death for each certificate in accordance with WHO rules. Effective with data year 1968, NCHS converted to computerized coding of the underlying cause and manual coding of all causes (multiple causes) on the death certificate. In this system, called "Automated Classification of Medical Entities" (ACME) (29), multiple cause codes serve as inputs to the computer software that employs WHO rules to select the underlying cause. Many States have

implemented ACME and provide multiple cause and underlying cause data to NCHS in electronic form; for those States that have not, NCHS coded the mortality medical data using ACME.

The ACME system is used to select the underlying cause of death for all death certificates in the United States. In addition, NCHS has developed two computer systems as inputs to ACME. Beginning with 1990 data, the Mortality Medical Indexing, Classification, and Retrieval system (MICAR) (30,31), was introduced to automate coding multiple causes of death. In addition, MICAR provides more detailed information on the conditions reported on death certificates than is available through the International Classification of Diseases (ICD) code structure. Beginning with data year 1993, SuperMICAR, an enhancement of the MICAR system, was introduced. SuperMICAR allows for literal entry of the multiple cause-of-death text as reported by the certifier. This information is then automatically processed by the MICAR and ACME computer systems. Records that cannot be automatically processed by MICAR or SuperMICAR are manually multiple-cause coded and then further processed through ACME.

For 1998 approximately 36 percent of the Nation's death records were multiple-cause coded using SuperMICAR, and 64 percent using MICAR only. This represents data from 25 States that were coded by SuperMICAR and data from 25 States, the District of Columbia, and New York City that were coded by MICAR.

In this report tabulations of cause-of-death statistics are based solely on the underlying cause of death. The underlying cause is defined by WHO as the disease or injury that initiated the sequence of events leading directly to death or as the circumstances of the accident or violence that produced the fatal injury (4). It is selected from the conditions entered by the physician in the cause-of-death section of the death certificate. When more than one cause or condition is entered by the physician, the underlying cause is determined by the sequence of conditions on the certificate, provisions of the ICD, and associated selection rules and modifications. Generally, more medical information is reported on death certificates than is directly reflected in the underlying cause of death. This is captured in NCHS multiple cause-of-death statistics (32–34).

### Codes for HIV infection

Beginning with data for 1987, NCHS introduced categories \*042–\*044 for classifying and coding Human immunodeficiency virus (HIV) infection. The asterisks before the category numbers indicate that they are not part of the *Ninth Revision, International Classification of Diseases* (ICD–9). Deaths classified to HIV infection are included, but not shown separately, in the category "All other infectious and parasitic diseases" in the List of 72 Selected Causes of Death and in the category "Remainder of infectious and parasitic diseases" in the List of 61 Selected Causes of Infant Deaths. Before 1987 deaths involving HIV infection were classified to "Deficiency of cell-mediated immunity" (ICD–9 No. 279.1), contained in the category "All other diseases"; to "Pneumocystosis" (ICD–9 No. 136.3), contained in the category "All other infectious and parasitic diseases"; to "Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues"; and to a number of other causes. As a consequence, cause-of-death data for HIV infection beginning with 1987 are not strictly comparable with data for previous years.



## Alzheimer's disease deaths

Beginning with data year 1979, WHO introduced a separate category for Alzheimer's disease in the ICD-9 (331.0). Alzheimer's mortality is believed to be underreported. Research shows that a substantial number of death certificates for persons diagnosed with dementia do not mention the condition. Underreporting is believed to be due to failure to report a condition considered to contribute to death, judgment that this condition did not contribute to death, or failure to diagnose the condition (35).

## Codes for firearm deaths

Causes of death attributable to firearm mortality include ICD-9 No. E922, Accident caused by firearm missile; Nos. E955.0–E955.4, Suicide and self-inflicted injury by firearms; E965.0–E965.4 and E970, Assault by firearms and legal intervention; and E985.0–E985.4, Injury by firearms, undetermined whether accidentally or purposely inflicted. Deaths from injury by firearms exclude deaths due to explosives and other causes indirectly related to firearms.

## Injury mortality by mechanism and intent

Injury mortality data are presented using an alternative framework (table 19) (11). In this framework causes-of-injury deaths are organized principally by mechanism (for example, firearm or poisoning), and secondarily by manner, or "intent" of death (for example, unintentional, suicide, and homicide) (11,13).

In addition, the number of deaths for selected causes in this framework may differ from those shown in tables that use the standard mortality tabulation lists. Following WHO conventions, standard mortality tabulations (table 10) present external causes of death (ICD-9 Nos. E800–E999). In contrast, the alternative framework (table 19) excludes deaths classified to Misadventures during medical care, abnormal reactions, and late complications (Nos. E870–E879) and to Drugs, medicaments, and biological substances causing adverse effects in therapeutic use (Nos. E930–E949).

## Codes for drug-induced deaths

Causes of death attributable to drug-induced mortality include ICD-9 No. 292, Drug psychoses; No. 304, Drug dependence; Nos. 305.2–305.9, Nondependent use of drugs not including alcohol and tobacco; Nos. E850–E858, Accidental poisoning by drugs, medicaments, and biologicals; Nos. E950.0–E950.5, Suicide by drugs, medicaments, and biologicals; No. E962.0, Assault from poisoning by drugs and medicaments; and Nos. E980.0–E980.5, Poisoning by drugs, medicaments, and biologicals, undetermined whether accidentally or purposely inflicted. Drug-induced causes exclude accidents, homicides, and other causes indirectly related to drug use. Also excluded are newborn deaths associated with mother's drug use.

## Codes for alcohol-induced deaths

Causes of death attributable to alcohol-induced mortality include ICD-9 No. 291, Alcoholic psychoses; No. 303, Alcohol dependence syndrome; No. 305.0, Nondependent abuse of alcohol; No. 357.5, Alcoholic polyneuropathy; No. 425.5, Alcoholic cardiomyopathy; No. 535.3, Alcoholic gastritis; Nos. 571.0–571.3, Chronic liver disease and cirrhosis, specified as alcoholic; No. 790.3, Excessive blood level of

alcohol; and No. E860, Accidental poisoning by alcohol, not elsewhere classified. Alcohol-induced causes exclude accidents, homicides, and other causes indirectly related to alcohol use. This category also excludes newborn deaths associated with maternal alcohol use.

## Quality of reporting and processing cause of death

One index of the quality of reporting causes of death is the proportion of death certificates coded to ICD-9; Chapter XVI; Symptoms, signs, and ill-defined conditions (ICD-9 Nos. 780–799). Although deaths occur for which the underlying causes are impossible to determine, this proportion indicates the care and consideration given to the certification by the medical certifier. This proportion also may be used as a rough measure of the specificity of the medical diagnoses made by the certifier in various areas. In 1998, 1.11 percent of all reported deaths in the United States were assigned to Symptoms, signs, and ill-defined conditions. The percent of deaths from this cause for all ages combined generally has remained stable since 1990.

## Cause-of-death rankings

The cause-of-death rankings figure 4 and tables B, 7, 8, and 9 is based on numbers of deaths assigned to categories in the List of 72 Selected Causes of Death, HIV infection (ICD-9 Nos. \*042–\*044), and Alzheimer's disease (ICD-9 No. 331.0). HIV infection and Alzheimer's disease were added to the list of rankable causes effective with data years 1987 and 1994. The cause-of-death ranking for infants in tables 28 and 29 is based on numbers of deaths assigned to categories in the List of 61 Selected Causes of Infant Death and HIV infection. HIV infection was added to the list of rankable causes of infant death beginning with the 1994 data year.

The group titles Major cardiovascular diseases and Symptoms, signs, and ill-defined conditions are not ranked from the List of 72 Selected Causes; Certain conditions originating in the perinatal period and Symptoms, signs, and ill-defined conditions are not ranked from the List of 61 Selected Causes of Infant Death. In addition, category titles that begin with the words "Other" and "All other" are not ranked to determine the leading causes of death. When one of the titles that represents a subtotal is ranked (for example, Tuberculosis), its component parts are not ranked (in this case, Tuberculosis of respiratory system and Other tuberculosis).

## Marital status

Age-specific and age-adjusted death rates by marital status are shown in table 22. Mortality data by marital status is generally of high quality. A study of death certificate data using the 1986 National Mortality Followback Survey showed a high level of consistency in reporting marital status (19). Age-adjusted death rates by marital status were computed based on the age-specific rates and the standard population for ages 25 years and over. While age-specific death rates by marital status are shown for the age group 15–24 years, they are not included in the computation of the age-adjusted rate because of their high variability, particularly among the widowed population. Also, the age groups 75–84 and 85 years and over are combined due to high variability in death rates in the 85 year and over age group, particularly for the never married population.



## Educational attainment

Beginning with the 1989 data year, an item indicating decedent's educational attainment was added to the certificates of numerous States. Mortality data on educational attainment for 1998 are based on deaths to residents of the 46 States and the District of Columbia whose data were approximately 80 percent or more complete on a place-of-occurrence basis. Data for Kentucky were excluded using this criterion. Data for Georgia, Rhode Island, and South Dakota were excluded because the item was not on their certificates.

Age-specific and age-adjusted death rates by educational attainment are shown in [table 23](#). Age-adjusted death rates by educational attainment were computed based on the age-specific rates and the standard population for ages 25–64 years. Data for age groups 65 years and over are not shown because reporting quality is poorer at older than younger ages (36).

Rates by educational attainment are affected by differences in the measuring of education for the numerator and the denominator. The numerator is based on number of years of education completed as reported on the death certificate whereas the denominator is based on highest degree completed as reported on census surveys (37).

## Injury at work

Information on deaths attributed to injury at work is derived from a separate item on the death certificate that asks the medical certifier whether the death resulted from an injury sustained at work. The item is on the death certificate of all States. Number of deaths, age-specific rates, and age-adjusted rates for injury at work are shown in [tables 24](#) and [25](#). Deaths and age-specific death rates for injury at work are shown for ages 15 years and over. Age-adjusted death rates for injury at work were computed using age-specific death rates and the standard population for ages 15 years and over.

## Life tables

The life table provides a comprehensive measure of the effect of mortality on life expectancy. It is composed of sets of values showing the mortality experience of a hypothetical group of infants born at the same time and subject throughout their lifetime to the age-specific mortality rates of a particular time period, usually a given year. Beginning with 1997 data, the life table methodology was changed from previous annual reports. Previously, U.S. life tables were abridged and constructed by reference to a standard table (38). In addition, the age range for these life tables was limited to 5-year age groups ending with the age group 85 years and over.

The revised life table methodology used to construct complete life tables by single years of age that extend to age 100 (39) is similar to that of the decennial life tables (40). The advantages of the new methodology are its comparability with the decennial life tables, increased accuracy, and greater age detail. A comparison of the two methods shows small differences in resulting values for life expectancy (39). Although the new method produces complete life tables, that is, by single years of age, life table data in this report are summarized in 5-year age groupings. The life table by single-year groupings will be available on the NCHS Web site.

An abridgement of the complete life table (39) is shown in [table 4](#). To calculate the probability of dying at each age, the methodology uses vital statistics death rates for ages under 85 years and mortality data

from the Medicare program for ages over 85 years. Medicare data was used to model the probability of dying at ages 85 and above since it has been shown to be significantly more reliable than vital statistics data at the oldest ages (41).

## Population bases for computing rates

The population used for computing death rates in this report (furnished by the U.S. Bureau of the Census) represents the population residing in the specified area. Death rates for the United States for 1998 are based on population estimates as of July 1, 1998, shown in table I by 10-year age groups and available by 5-year age groups on the mortality Web site at <http://www.cdc.gov/nchs/about/major/dvs/mortdata.htm> (42). The estimates are based on the 1990 census level counts. The 1990 census level counts by race were modified to be consistent with U.S. Office of Management and Budget categories and historical categories for death data (43). The population estimates for Mexicans, Puerto Ricans, Cubans, and Other Hispanics, shown in [table II](#), and the population estimates by marital status, shown in [table III](#), are based on the Current Population Survey adjusted to resident population control totals (44) for the United States and, as such, are subject to sampling variation (see "Random variation").

Population estimates by educational attainment, shown in [table IV](#), are also based on the Current Population Survey (44) adjusted to resident population control totals for 46 States and the District of Columbia and are also subject to sampling variation (see "Random variation").

Population estimates for each State, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, shown in [table V](#), are based on demographic analysis and, therefore, are not subject to sampling variation (45–50).

## Computation of rates

Rates in this report are on an annual basis and, except for infant and maternal mortality rates, are per 100,000 estimated population in a specified group or area. Comparisons made in the text among rates, unless otherwise specified, are statistically significant at the 0.05 level of significance. Lack of comment in the text about any two rates does not mean that the difference was tested and found not to be significant at this level.

Infant mortality rates are the most commonly used index for measuring the risk of dying during the first year of life. They are calculated by dividing the number of infant deaths in a calendar year by the number of live births registered for the same period and are presented as rates per 1,000 or per 100,000 live births. Infant mortality rates use the number of live births in the denominator to approximate the population at risk of dying before the first birthday.

In contrast to infant mortality rates based on live births, infant death rates are based on the estimated population under 1 year of age. Infant death rates that appear in tabulations of age-specific death rates are calculated by dividing the number of infant deaths in a calendar year by the midyear population of infants under 1 year of age (estimated from births occurring in the 12-month period ending with June) and are presented as rates per 100,000 population in this age group. Because of differences in the denominators, infant death rates may differ from infant mortality rates.

**Table I. Estimated population by 10-year age groups, specified race and sex: United States, 1998**

Age	All races			White			Black			American Indian			Asian or Pacific Islander		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total . . . . .	270,298,524	132,046,327	138,252,197	223,000,729	109,489,380	113,511,349	34,430,569	16,340,144	18,090,425	2,359,946	1,168,063	1,191,883	10,507,280	5,048,740	5,458,540
Under 1 year . . . . .	3,776,389	1,929,312	1,847,077	2,993,441	1,532,601	1,460,840	560,713	284,257	276,456	40,887	20,523	20,364	181,348	91,931	89,417
1-4 years . . . . .	15,189,749	7,766,906	7,422,843	12,058,700	6,179,436	5,879,264	2,266,865	1,149,017	1,117,848	158,834	80,347	78,487	705,350	358,106	347,244
5-14 years . . . . .	39,162,670	20,049,815	19,112,855	30,888,905	15,837,445	15,051,460	6,163,075	3,129,876	3,033,199	467,205	237,357	229,848	1,643,485	845,137	798,348
15-24 years . . . . .	37,213,461	19,041,676	18,171,785	29,585,814	15,216,360	14,369,454	5,657,569	2,837,578	2,819,991	417,828	210,333	207,495	1,552,250	777,405	774,845
25-34 years . . . . .	38,774,410	19,253,781	19,520,629	31,214,801	15,674,723	15,540,078	5,350,677	2,532,970	2,817,707	374,030	191,401	182,629	1,834,902	854,687	980,215
35-44 years . . . . .	44,519,859	22,100,716	22,419,143	36,803,959	18,462,662	18,341,297	5,560,042	2,606,046	2,953,996	354,710	175,300	179,410	1,801,148	856,708	944,440
45-54 years . . . . .	34,584,884	16,899,961	17,684,923	29,304,560	14,482,806	14,821,754	3,741,307	1,695,906	2,045,401	246,705	119,238	127,467	1,292,312	602,011	690,301
55-64 years . . . . .	22,675,970	10,805,710	11,870,260	19,525,861	9,412,546	10,113,315	2,277,556	986,656	1,290,900	143,166	67,323	75,843	729,387	339,185	390,202
65-74 years . . . . .	18,395,293	8,249,573	10,145,720	16,162,872	7,309,489	8,853,383	1,665,816	699,329	966,487	89,129	40,070	49,059	477,476	200,685	276,791
75-84 years . . . . .	11,952,189	4,761,418	7,190,771	10,795,975	4,315,539	6,480,436	880,778	328,656	552,122	48,512	20,173	28,339	226,924	97,050	129,874
85 years and over . . . . .	4,053,650	1,187,459	2,866,191	3,665,841	1,065,773	2,600,068	306,171	89,853	216,318	18,940	5,998	12,942	62,698	25,835	36,863

SOURCE: U.S. Bureau of the Census, unpublished file NESTV98.

**Table II. Estimated population by 10-year age groups, according to specified Hispanic origin, race for non-Hispanic population, and sex: United States, 1998**

Hispanic origin, race for non-Hispanic population, and sex	Total	Under 1 year	1-4 years	5-14 years	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75-84 years	85 years and over
All origins . . . . .	270,298,539	3,776,389	15,189,758	39,162,658	37,213,472	38,774,396	44,519,870	34,584,884	22,675,978	18,395,298	11,952,196	4,053,640
Male . . . . .	132,046,342	1,929,313	7,766,913	20,049,805	19,041,697	19,253,771	22,100,717	16,899,954	10,805,718	8,249,575	4,761,426	1,187,453
Female . . . . .	138,252,197	1,847,076	7,422,845	19,112,853	18,171,775	19,520,625	22,419,153	17,684,930	11,870,260	10,145,723	7,190,770	2,866,187
Hispanic . . . . .	30,250,248	699,651	2,693,403	5,730,559	5,298,315	5,175,699	4,547,721	2,744,642	1,597,474	1,064,696	521,071	177,017
Male . . . . .	15,233,361	356,944	1,376,359	2,925,880	2,751,048	2,681,642	2,319,861	1,339,193	741,370	470,120	211,497	59,447
Female . . . . .	15,016,887	342,707	1,317,044	2,804,679	2,547,267	2,494,057	2,227,860	1,405,449	856,104	594,576	309,574	117,570
Mexican . . . . .	19,522,181	491,118	1,912,707	3,999,205	3,591,587	3,399,915	2,726,398	1,614,204	862,888	586,858	263,574	73,727
Male . . . . .	10,035,790	243,721	973,334	2,044,044	1,901,360	1,805,979	1,405,385	820,296	415,431	274,226	116,879	35,135
Female . . . . .	9,486,391	247,397	939,373	1,955,161	1,690,227	1,593,936	1,321,013	793,908	447,457	312,632	146,695	38,592
Puerto Rican . . . . .	3,018,584	60,401	264,342	546,103	508,667	459,638	459,610	299,949	206,709	128,348	60,392	24,425
Male . . . . .	1,437,771	32,624	139,792	277,354	248,259	198,822	221,618	141,896	90,168	53,755	25,050	8,433
Female . . . . .	1,580,813	27,777	124,550	268,749	260,408	260,816	237,992	158,053	116,541	74,593	35,342	15,992
Cuban . . . . .	1,322,312	25,529	58,818	137,443	124,593	190,782	212,772	138,848	158,189	145,900	92,293	37,145
Male . . . . .	638,113	7,992	28,279	76,123	58,320	92,777	113,243	72,411	76,411	69,566	36,074	6,917
Female . . . . .	684,199	17,537	30,539	61,320	66,273	98,005	99,529	66,437	81,778	76,334	56,219	30,228
Other Hispanic <sup>1</sup> . . . . .	6,387,171	122,603	457,536	1,047,808	1,073,468	1,125,364	1,148,941	691,641	369,688	203,590	104,812	41,720
Male . . . . .	3,121,687	72,607	234,954	528,359	543,109	584,064	579,615	304,590	159,360	72,573	33,494	8,962
Female . . . . .	3,265,484	49,996	222,582	519,449	530,359	541,300	569,326	387,051	210,328	131,017	71,318	32,758
Non-Hispanic <sup>2</sup> . . . . .	240,048,291	3,076,738	12,496,355	33,432,099	31,915,157	33,598,697	39,972,149	31,840,242	21,078,504	17,330,602	11,431,125	3,876,623
Male . . . . .	116,812,981	1,572,369	6,390,554	17,123,925	16,290,649	16,572,129	19,780,856	15,560,761	10,064,348	7,779,455	4,549,929	1,128,006
Female . . . . .	123,235,310	1,504,369	6,105,801	16,308,174	15,624,508	17,026,568	20,191,293	16,279,481	11,014,156	9,551,147	6,881,196	2,748,617
White . . . . .	195,439,555	2,353,235	9,597,010	25,687,989	24,746,890	26,505,959	32,680,414	26,809,237	18,065,213	15,182,878	10,311,371	3,499,359
Male . . . . .	95,600,942	1,205,960	4,921,666	13,183,409	12,699,313	13,230,002	16,358,200	13,264,741	8,733,500	6,875,662	4,118,379	1,010,110
Female . . . . .	99,838,613	1,147,275	4,675,344	12,504,580	12,047,577	13,275,957	16,322,214	13,544,496	9,331,713	8,307,216	6,192,992	2,489,249
Black . . . . .	32,717,947	521,911	2,116,053	5,831,605	5,372,734	5,059,126	5,285,822	3,580,919	2,186,257	1,607,950	856,211	299,359
Male . . . . .	15,484,856	264,387	1,071,606	2,959,328	2,692,664	2,386,386	2,466,042	1,617,792	945,315	674,520	319,155	87,661
Female . . . . .	17,233,091	257,524	1,044,447	2,872,277	2,680,070	2,672,740	2,819,780	1,963,127	1,240,942	933,430	537,056	211,698

<sup>1</sup>Includes Central and South American and Other and unknown Hispanic.

<sup>2</sup>Includes races other than white and black.

SOURCE: Population estimates based on unpublished tabulations prepared by the Housing and Household Economic Statistics Division, U.S. Bureau of the Census.

**Table III. Estimated population for ages 15 years and over by marital status, 10-year age groups, race, and sex: United States, 1998**

Race, sex, and marital status	15 years and over	15-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75 years and over
All races <sup>1</sup>	212,169,758	37,213,481	38,774,401	44,519,868	34,584,873	22,675,998	18,395,294	16,005,843
Never married	58,585,532	32,723,148	13,557,460	6,911,379	2,796,960	1,147,345	746,788	702,452
Ever married	153,584,226	4,490,333	25,216,941	37,608,489	31,787,913	21,528,653	17,648,506	15,303,391
Married	119,199,312	4,112,242	22,472,789	31,326,470	25,438,511	16,685,453	12,151,555	7,012,292
Widowed	14,733,708	17,262	108,209	400,266	857,061	1,824,949	3,941,852	7,584,109
Divorced	19,651,206	360,829	2,635,943	5,881,753	5,492,341	3,018,251	1,555,099	706,990
All races <sup>1</sup> , male	102,300,237	19,041,674	19,253,750	22,100,714	16,899,941	10,805,719	8,249,573	5,948,866
Never married	31,871,070	17,402,597	7,737,377	4,123,377	1,487,481	583,913	322,682	213,643
Ever married	70,429,167	1,639,077	11,516,373	17,977,337	15,412,460	10,221,806	7,926,891	5,735,223
Married	59,279,391	1,500,455	10,341,101	15,215,736	12,902,898	8,659,171	6,543,094	4,116,936
Widowed	2,694,810	2,012	25,243	99,033	162,394	287,115	728,131	1,390,882
Divorced	8,454,966	136,610	1,150,029	2,662,568	2,347,168	1,275,520	655,666	227,405
All races <sup>1</sup> , female	109,869,521	18,171,807	19,520,651	22,419,154	17,684,932	11,870,279	10,145,721	10,056,977
Never married	26,714,462	15,320,551	5,820,083	2,788,002	1,309,479	563,432	424,106	488,809
Ever married	83,155,059	2,851,256	13,700,568	19,631,152	16,375,453	11,306,847	9,721,615	9,568,168
Married	59,919,921	2,611,787	12,131,688	16,110,734	12,535,613	8,026,282	5,608,461	2,895,356
Widowed	12,038,898	15,250	82,966	301,233	694,667	1,537,834	3,213,721	6,193,227
Divorced	11,196,240	224,219	1,485,914	3,219,185	3,145,173	1,742,731	899,433	479,585
White	177,059,707	29,585,823	31,214,788	36,803,961	29,304,556	19,525,888	16,162,863	14,461,828
Never married	44,399,167	25,623,124	9,774,939	4,803,488	2,107,274	863,667	609,989	616,686
Ever married	132,660,540	3,962,699	21,439,849	32,000,473	27,197,282	18,662,221	15,552,874	13,845,142
Married	103,847,826	3,623,327	19,136,669	26,840,330	22,022,597	14,761,668	10,975,486	6,487,749
Widowed	12,477,576	13,864	85,805	294,563	643,449	1,410,374	3,274,937	6,754,584
Divorced	16,335,138	325,508	2,217,375	4,865,580	4,531,236	2,490,179	1,302,451	602,809
White male	85,939,894	15,216,359	15,674,707	18,462,665	14,482,803	9,412,562	7,309,492	5,381,306
Never married	24,743,494	13,769,667	5,824,364	3,053,258	1,185,146	458,273	267,586	185,200
Ever married	61,196,400	1,446,692	9,850,343	15,409,407	13,297,657	8,954,289	7,041,906	5,196,106
Married	51,840,728	1,321,136	8,863,821	13,073,984	11,191,557	7,677,028	5,909,243	3,803,959
Widowed	2,229,063	1,827	22,939	78,417	119,144	204,523	596,194	1,206,019
Divorced	7,126,609	123,729	963,583	2,257,006	1,986,956	1,072,738	536,469	186,128
White female	91,119,813	14,369,464	15,540,081	18,341,296	14,821,753	10,113,326	8,853,371	9,080,522
Never married	19,655,673	11,853,457	3,950,575	1,750,230	922,128	405,394	342,403	431,486
Ever married	71,464,140	2,516,007	11,589,506	16,591,066	13,899,625	9,707,932	8,510,968	8,649,036
Married	52,007,098	2,302,191	10,272,848	13,766,346	10,831,040	7,084,640	5,066,243	2,683,790
Widowed	10,248,513	12,037	62,866	216,146	524,305	1,205,851	2,678,743	5,548,565
Divorced	9,208,529	201,779	1,253,792	2,608,574	2,544,280	1,417,441	765,982	416,681
Black	25,439,931	5,657,574	5,350,678	5,560,046	3,741,304	2,277,554	1,665,829	1,186,946
Never married	11,016,036	5,311,711	2,856,049	1,814,862	592,878	255,154	112,067	73,315
Ever married	14,423,895	345,863	2,494,629	3,745,184	3,148,426	2,022,400	1,553,762	1,113,631
Married	9,812,222	319,047	2,148,833	2,822,046	2,155,063	1,231,262	795,827	340,144
Widowed	1,841,767	1,576	19,363	87,339	165,067	341,452	541,325	685,645
Divorced	2,769,906	25,240	326,433	835,799	828,296	449,686	216,610	87,842
Black male	11,776,973	2,837,578	2,532,964	2,606,040	1,695,899	986,653	699,330	418,509
Never married	5,436,247	2,708,604	1,369,107	911,563	268,128	111,847	44,100	22,898
Ever married	6,340,726	128,974	1,163,857	1,694,477	1,427,771	874,806	655,230	395,611
Married	4,849,116	121,422	1,007,933	1,353,220	1,087,269	641,798	438,527	198,947
Widowed	392,136	-	2,304	14,516	38,294	69,169	108,971	158,882
Divorced	1,099,474	7,552	153,620	326,741	302,208	163,839	107,732	37,782
Black female	13,662,958	2,819,996	2,817,714	2,954,006	2,045,405	1,290,901	966,499	768,437
Never married	5,579,789	2,603,107	1,486,942	903,299	324,750	143,307	67,967	50,417
Ever married	8,083,169	216,889	1,330,772	2,050,707	1,720,655	1,147,594	898,532	718,020
Married	4,963,106	197,625	1,140,900	1,468,826	1,067,794	589,464	357,300	141,197
Widowed	1,449,631	1,576	17,059	72,823	126,773	272,283	432,354	526,763
Divorced	1,670,432	17,688	172,813	509,058	526,088	285,847	108,878	50,060

- Quantity zero.

<sup>1</sup>Includes races other than white and black.

SOURCE: Population estimates based on unpublished tabulations prepared by the Housing and Household Economic Statistics Division, U.S. Bureau of the Census.

Maternal mortality rates are computed on the basis of the number of live births. The maternal mortality rate indicates the likelihood of a pregnant woman dying of maternal causes. They are calculated by dividing the number of maternal deaths in a calendar year by the number of live births registered for the same period and are presented as rates per 100,000 live births. The number of live births used in the

denominator is an approximation of the population of pregnant women who are at risk of a maternal death.

Age-adjusted death rates are used to compare relative mortality risk across groups and over time. However, they should be viewed as a construct or an index rather than as direct or actual measures of mortality risk. Statistically, they are weighted averages of the age-

**Table IV. Estimated population for ages 25–64 years, by educational attainment and sex: Total of 46 reporting States and the District of Columbia, 1998**

Years of school completed and sex	25–64 years	25–34 years	35–44 years	45–54 years	55–64 years
Both sexes . . . . .	133,629,572	36,894,661	42,361,609	32,729,689	21,643,613
Under 12 years . . . . .	17,732,500	4,504,610	4,968,133	3,993,646	4,266,111
12 years . . . . .	44,409,249	11,603,379	14,359,018	10,400,745	8,046,107
13 or more years . . . . .	71,487,823	20,786,672	23,034,458	18,335,298	9,331,395
Male . . . . .	65,722,842	18,337,926	21,050,015	16,022,367	10,312,534
Under 12 years . . . . .	9,123,741	2,421,454	2,698,346	2,020,044	1,983,897
12 years . . . . .	21,331,025	6,104,462	7,209,059	4,526,339	3,491,165
13 or more years . . . . .	35,268,076	9,812,010	11,142,610	9,475,984	4,837,472
Female . . . . .	67,906,730	18,556,735	21,311,594	16,707,322	11,331,079
Under 12 years . . . . .	8,608,759	2,083,156	2,269,787	1,973,602	2,282,214
12 years . . . . .	23,078,224	5,498,917	7,149,959	5,874,406	4,554,942
13 or more years . . . . .	36,219,747	10,974,662	11,891,848	8,859,314	4,493,923

SOURCE: Population estimates based on unpublished tabulations prepared by the Housing and Household Economic Statistics Division, U.S. Bureau of the Census.

**Table V. Estimated population for the United States, each division, each State, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 1998**

Area	Total	Area	Total
United States . . . . .	270,298,524	East South Central . . . . .	16,471,211
New England . . . . .	13,429,862	Kentucky . . . . .	3,936,499
Maine . . . . .	1,244,250	Tennessee . . . . .	5,430,621
New Hampshire . . . . .	1,185,048	Alabama . . . . .	4,351,999
Vermont . . . . .	590,883	Mississippi . . . . .	2,752,092
Massachusetts . . . . .	6,147,132	West South Central . . . . .	30,013,597
Rhode Island . . . . .	988,480	Arkansas . . . . .	2,538,303
Connecticut . . . . .	3,274,069	Louisiana . . . . .	4,368,967
Middle Atlantic . . . . .	38,291,763	Oklahoma . . . . .	3,346,713
New York . . . . .	18,175,301	Texas . . . . .	19,759,614
New Jersey . . . . .	8,115,011	Mountain . . . . .	16,813,233
Pennsylvania . . . . .	12,001,451	Montana . . . . .	880,453
East North Central . . . . .	44,194,756	Idaho . . . . .	1,228,684
Ohio . . . . .	11,209,493	Wyoming . . . . .	480,907
Indiana . . . . .	5,899,195	Colorado . . . . .	3,970,971
Illinois . . . . .	12,045,326	New Mexico . . . . .	1,736,931
Michigan . . . . .	9,817,242	Arizona . . . . .	4,668,631
Wisconsin . . . . .	5,223,500	Utah . . . . .	2,099,758
West North Central . . . . .	18,694,626	Nevada . . . . .	1,746,898
Minnesota . . . . .	4,725,419	Pacific . . . . .	43,444,798
Iowa . . . . .	2,862,447	Washington . . . . .	5,689,263
Missouri . . . . .	5,438,559	Oregon . . . . .	3,281,974
North Dakota . . . . .	638,244	California . . . . .	32,666,550
South Dakota . . . . .	738,171	Alaska . . . . .	614,010
Nebraska . . . . .	1,662,719	Hawaii . . . . .	1,193,001
Kansas . . . . .	2,629,067	Puerto Rico . . . . .	3,857,070
South Atlantic . . . . .	48,944,678	Virgin Islands . . . . .	118,382
Delaware . . . . .	743,603	Guam . . . . .	149,101
Maryland . . . . .	5,134,808	American Samoa . . . . .	62,093
District of Columbia . . . . .	523,124	Northern Marianas . . . . .	66,611
Virginia . . . . .	6,791,345		
West Virginia . . . . .	1,811,156		
North Carolina . . . . .	7,546,493		
South Carolina . . . . .	3,835,962		
Georgia . . . . .	7,642,207		
Florida . . . . .	14,915,980		

SOURCE: U.S. Bureau of the Census, unpublished files STRES981.txt, PR98SYA.WK1, USVI.WK1, GUAM.WK1, ASAMOA.WK1, and CNMI.WK1.

specific death rates, where the weights represent the fixed population proportions by age (51). The age-adjusted rates presented in this report were computed by the direct method, that is, by applying the age-specific death rates for a given cause of death to the U.S. standard

population (relative age distribution of 1940 enumerated population of the United States). The standard population and corresponding weights used for computing age-adjusted rates and relative standard errors (RSE), excluding those by marital status, education, and injury at work, are shown in [table VI](#).

**Table VI. United States standard population: Numbers and proportions (weights)**

Age	Number	Weight ( $w$ )
All ages. . . . .	1,000,000	1.000000
Under 1 year. . . . .	15,343	0.015343
1-4 years. . . . .	64,718	0.064718
5-14 years. . . . .	170,355	0.170355
15-24 years. . . . .	181,677	0.181677
25-34 years. . . . .	162,066	0.162066
35-44 years. . . . .	139,237	0.139237
45-54 years. . . . .	117,811	0.117811
55-64 years. . . . .	80,294	0.080294
65-74 years. . . . .	48,426	0.048426
75-84 years. . . . .	17,303	0.017303
85 years and over. . . . .	2,770	0.002770

Age-adjusted rates by marital status were computed by applying the age-specific death rates to the U.S. standard population for ages 25 years and over. Although age-specific death rates by marital status are shown for the age group 15-24 years, they are not included in the calculation of age-adjusted rate because of their high variability, particularly among the widowed population. Also, the age groups 75-84 and 85 years and over are combined because of high variability in death rates in the 85 years and over age group, particularly for the never married population. The standard population and corresponding weights used for computing age-adjusted rates and relative standard errors by marital status are shown in [table VII](#).

Age-adjusted rates by educational attainment were computed by applying the age-specific death rates to the U.S. standard population for ages 25-64 years. Data for age groups 65 years and over are not shown because reporting quality is poorer for older than for younger ages (36). The standard population and corresponding weights used for computing age-adjusted rates and relative standard errors by education are shown in [table VIII](#).

**Table VII. United States standard population for ages 25 years and over: Numbers and proportions (weights)**

Age	Number	Weight ( $w$ )
25 years and over. . . . .	567,907	1.000000
25-34 years. . . . .	162,066	0.285374
35-44 years. . . . .	139,237	0.245176
45-54 years. . . . .	117,811	0.207448
55-64 years. . . . .	80,294	0.141386
65-74 years. . . . .	48,426	0.085271
75 years and over. . . . .	20,073	0.035346

**Table VIII. United States standard population for ages 25-64 years: Numbers and proportions (weights)**

Age	Number	Weight ( $w$ )
25-64 years. . . . .	499,408	1.000000
25-34 years. . . . .	162,066	0.324516
35-44 years. . . . .	139,237	0.278804
45-54 years. . . . .	117,811	0.235901
55-64 years. . . . .	80,294	0.160778

Age-adjusted rates for injury at work were computed by applying the age-specific death rates to the U.S. standard population for ages 15 years and over. The standard population and corresponding weights used for computing age-adjusted rates and relative standard errors for injury at work are shown in [table IX](#).

Age-adjusted rates for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas were computed by applying the age-specific death rates to the U.S. standard population. Age groups for 75 years and over were combined because population counts were unavailable by age group for ages over 75 years. The standard population and corresponding weights used for computing age-adjusted rates and relative standard errors for the territories are shown in [table X](#).

Using the same standard population, death rates for the total population and for each race-sex group were adjusted separately. The age-adjusted rates were based on 10-year age groups. It is important not to compare age-adjusted death rates with crude rates.

### Random variation

The mortality data in this report, with the exception of data for 1972, are not subject to sampling error. In 1972 mortality data were based on a 50-percent sample of deaths because of resource constraints. Mortality data, even based on complete counts, may be affected by random variation. When the number of events is small (perhaps less than 100) and the probability of such an event is small, considerable caution must be observed in interpreting the data. Such infrequent events may be assumed to follow a Poisson probability distribution. For this distribution, the relative standard error (RSE) is a measure of the variability. For computing RSE's in percent, this formula may be used for all tables except for the death rates shown in

**Table IX. United States standard population for ages 15 years and over: Numbers and proportions (weights)**

Age	Number	Weight ( $w$ )
15 years and over. . . . .	749,584	1.000000
15-24 years. . . . .	181,677	0.242370
25-34 years. . . . .	162,066	0.216208
35-44 years. . . . .	139,237	0.185752
45-54 years. . . . .	117,811	0.157169
55-64 years. . . . .	80,294	0.107118
65 years and over. . . . .	68,499	0.091383

**Table X. United States standard population: Numbers and proportions (weights)**

Age	Number	Weight ( $w$ )
All ages. . . . .	1,000,000	1.000000
Under 1 year. . . . .	15,343	0.015343
1-4 years. . . . .	64,718	0.064718
5-14 years. . . . .	170,355	0.170355
15-24 years. . . . .	181,677	0.181677
25-34 years. . . . .	162,066	0.162066
35-44 years. . . . .	139,237	0.139237
45-54 years. . . . .	117,811	0.117811
55-64 years. . . . .	80,294	0.080294
65-74 years. . . . .	48,426	0.048426
75 years and over. . . . .	20,073	0.020073



tables 3, 22, and 23 (see subsection below):

$$1. \text{ RSE}(D) = \text{RSE}(R) = 100 \sqrt{\frac{1}{D}}$$

where

$D$  = number of deaths  
 $R$  = rate

Beginning with 1989 data, an asterisk is shown in place of a rate based on fewer than 20 deaths, which is the equivalent of an  $\text{RSE}(R)$  of 23 percent or more. A  $\text{RSE}(R)$  of 23 percent is considered statistically unreliable. For age-adjusted death rates, this criterion was based on the sum of the age-specific deaths. This same procedure is used in this report except for the death rates shown in tables 3, 22, and 23 (see subsection below).

For tables showing the number of deaths ( $D$ ) (where  $D$  is 100 or more) the chances are 95 in 100 that

$$2. \quad D - 1.96 \cdot D \cdot \frac{\text{RSE}(D)}{100} \text{ and } D + 1.96 \cdot D \cdot \frac{\text{RSE}(D)}{100}$$

cover the "true" number of deaths. This is referred to as a 95-percent confidence interval. For computing 95-percent confidence intervals when  $D$  is less than 100 deaths, see the NCHS Web site at [www.cdc.gov/nchs/about/major/dvs/mortdata.htm](http://www.cdc.gov/nchs/about/major/dvs/mortdata.htm) and refer to "Technical Appendix from *Vital Statistics of the United States: Mortality, 1995*."

For tables showing a crude death rate ( $R$ ) or an age-specific death rate (based on 100 or more deaths) for the  $i$ th age group ( $R_i$ ), except the rates in tables 3, 22, and 23, the chances are 95 in 100 that the actual rate falls within the confidence interval as computed using the following formula:

$$3. \quad R - 1.96 \cdot R \cdot \frac{\text{RSE}(R)}{100} \text{ and } R + 1.96 \cdot R \cdot \frac{\text{RSE}(R)}{100}$$

For computing 95-percent confidence intervals for  $R$  when  $D$  is less than 100 deaths, see the website mentioned above.

For testing the difference between two rates ( $R_1$  and  $R_2$ , each based on 100 or more deaths), the following z-test may be used to define a significance test statistic:

$$4. \quad z = \frac{R_1 - R_2}{\sqrt{R_1^2 \left(\frac{\text{RSE}(R_1)}{100}\right)^2 + R_2^2 \left(\frac{\text{RSE}(R_2)}{100}\right)^2}}$$

If  $|z| \geq 1.96$ , then the difference is statistically significant at the 0.05 level and if  $z < 1.96$ , the difference is not significant. For computing statistical tests when  $R_1$  and/or  $R_2$  are based on less than 100 deaths, see the Web site mentioned above.

For tables showing an age-adjusted death rate ( $R'$ ), except the rates in tables 3, 22, and 23, the RSE's in formulas 3 and 4 above would be substituted by this formula:

$$5. \quad \text{RSE}(R') = 100 \frac{\sqrt{\sum \left\{ w_i^2 R_i^2 \left( \frac{1}{D_i} \right) \right\}}}{R'}$$

where

$R_i$  = age-specific rate for the  $i$ th age group  
 $w_i$  =  $i$ th age-specific U.S. standard population such that  $\sum(w_i) = 1.000000$  (see table VI and age-adjusted death rate under "Definition of terms")  
 $D_i$  = number of deaths for the  $i$ th age group

For tables showing an infant mortality rate (based on live births in the denominator), IMR, the RSE's in formulas 3 and 4 would be substituted by the following formula:

$$6. \quad \text{RSE}(IMR) = 100 \sqrt{\frac{1}{D} + \frac{1}{B}}$$

where

$B$  = number of live births

For tables showing a maternal mortality rate (based on live births in the denominator), the RSE's in formulas 3 and 4 would be substituted with formula 6.

Tables 3, 22, and 23—Rates for Mexicans, Puerto Ricans, Cubans, and Other Hispanics in table 3, rates by marital status in table 22, and rates by educational attainment in table 23 are based on population estimates derived from the U.S. Bureau of the Census' Current Population Survey and adjusted to resident population control totals. As a result, the rates are subject to the variability of the denominator as well as the numerator. For tables 3, 22, and 23 the following RSE formulas were used to determine a RSE of 23 percent or more for the purpose of showing the rate or an asterisk.

For crude,  $R$ , and age-specific death rates,  $R_i$ ,

$$7. \quad \text{RSE}(R) = 100 \sqrt{\left(\frac{1}{D}\right) + 0.67 \left(a + \frac{b}{P}\right)}$$

and for age-adjusted death rates,  $R'$ ,

$$8. \quad \text{RSE}(R') = 100 \frac{\sqrt{\sum \left\{ w_i^2 R_i^2 \left[ \left(\frac{1}{D_i}\right) + 0.67 \left(a + \frac{b}{P_i}\right) \right] \right\}}}{R'}$$

where

$D$  = number of deaths  
 $P$  = population estimate used for computing the rate (see table II for population estimates used for computing rates in table 3; see table III for population estimates used for computing rates in table 22; and see table IV for population estimates used for computing rates in table 23)  
 $D_i$  = number of deaths for the  $i$ th age group  
 $P_i$  = population estimate used for computing the  $i$ th age-specific death rate (see table II for population estimates used for computing rates in table 3; see table III for population estimates used for computing rates in table 22; and see table IV for population estimates used for computing rates in table 23)  
 $w_i$  = age-specific U.S. standard population such that  $\sum(w_i) = 1.000000$  (see table VI for weights ( $w_i$ ) used for computing age-adjusted rates in table 3; see table VII for weights used for computing age-adjusted rates in table 22; and see table VIII for weights used for computing age-adjusted rates in table 23)



$w_i^2$  = the square of the age-specific U.S. standard population

In [table 3](#), for all origins, total Hispanic, total non-Hispanic, non-Hispanic white, and non-Hispanic black populations,

$$a = 0.000000 \text{ and } b = 0$$

and for Mexican, Puerto Rican, Cuban, and Other Hispanic populations,

$$a = -0.000241 \text{ and } b = 7,486$$

In [table 22](#), for all marital status groups combined for all races, white, and black populations,

$$a = 0.000000 \text{ and } b = 0,$$

for each marital status group for all races and the white population,

$$a = -0.000019 \text{ and } b = 5,211,$$

and for each marital status group for the black population,

$$a = -0.000215 \text{ and } b = 7,486$$

In [table 23](#), for all education groups combined,

$$a = 0.000000 \text{ and } b = 0$$

and for each education group,

$$a = -0.000012 \text{ and } b = 2,369$$

The  $a$  and  $b$  parameters are averages of the 1997 and 1998 CPS standard error parameters (52,53).

To compute 95-percent confidence intervals and z-tests for the death rates (based on 100 or more deaths) shown in [tables 3, 22, and 23](#), the RSE formulas 7 and 8 may be substituted, as appropriate, for the RSE's used in formulas 3 and 4.

### Availability of mortality data

Mortality data are available in publications, unpublished tables, and electronic products as described on the mortality Web site at the following address: [www.cdc.gov/nchs/about/major/dvs/mortdata.htm](http://www.cdc.gov/nchs/about/major/dvs/mortdata.htm). The data are available on data tapes from the National Technical Information Service (NTIS) and on CD-ROM from NTIS and the Government Printing Office (GPO). Data are also available in the *Vital Statistics of the United States*, Mortality, and *Vital and Health Statistics*, Series 20 reports, and the *National Vital Statistics Reports* through NCHS.

### Definitions of terms

*Infant deaths*—Deaths of infants aged under 1 year.

*Neonatal deaths*—Deaths of infants aged 0–27 days.

*Postneonatal deaths*—Deaths of infants aged 28 days–1 year.

*Crude death rate*—Total deaths per 100,000 population for a specified period. The crude death rate represents the average chance of dying during a specified period for persons in the entire population.

*Age-specific death rate*—Deaths per 100,000 population in a specified age group, such as 1–4 years or 5–9 years for a specified period.

*Age-adjusted death rate*—The death rate used to make comparisons of relative mortality risks across groups and over time. This rate should be viewed as a construct or an index rather than as a direct or actual measure of mortality risk. Statistically, it is a weighted average of the age-specific death rates, where the weights represent the fixed population proportions by age (51).

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