

## Deaths: Final Data for 1999

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### Abstract

**Objectives**—This report presents final 1999 data on U.S. deaths and death rates according to demographic and medical characteristics. Trends and patterns in general mortality, life expectancy, and infant and maternal mortality are also described. A previous report presented preliminary mortality data for 1999.

**Methods**—In 1999 a total of 2,391,399 deaths were reported in the United States. This report presents tabulations of information reported on the death certificates 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. For the first time in a final mortality data report, age-adjusted death rates are based upon the year 2000 population and causes of death are processed in accordance with the *Tenth Revision of the International Classification of Diseases (ICD-10)*.

**Results**—The 1999 age-adjusted death rate for the United States was 881.9 deaths per 100,000 standard population, a 0.7 percent increase from the 1998 rate, and life expectancy at birth remained the same at 76.7 years. For all causes of death, age-specific death rates rose for those 45–54 years, 75–84 years, and 85 years and over and declined for a number of age groups including those 5–14 years, 55–64 years, and 65–74 years. Aortic aneurysm and dissection made its debut in the list of leading causes of death and atherosclerosis exited from the list. Heart disease and cancer continued to be the leading and second leading causes of death. The age-adjusted death rate for firearm injuries decreased for the sixth consecutive year, declining 6.2 percent between 1998 and 1999. The infant mortality rate, 7.1 infant deaths per 1,000 live births, was not statistically different from the rate in 1998.

**Conclusions**—Generally, mortality continued long-term trends. Life expectancy in 1999 was unchanged from 1998 despite a slight increase in the age-adjusted death rate from the record low achieved in 1998. Although statistically unchanged from 1998, the trend in infant mortality has been of a steady but slowing decline. Some mortality measures for women and persons 85 years and over worsened between 1998 and 1999.

**Keywords:** deaths • mortality • cause of death • life expectancy • vital statistics • ICD-10

### Highlights

#### Mortality experience in 1999

- In 1999 a total of 2,391,399 deaths occurred in the United States.
- The age-adjusted death rate, which eliminates the effects of the aging of the population, was 881.9 deaths per 100,000 U.S. standard population.
- Life expectancy at birth was 76.7 years.
- The leading causes of death in 1999 were as follows:

Diseases of heart (heart disease)  
Malignant neoplasms (cancer)  
Cerebrovascular diseases (stroke)  
Chronic lower respiratory diseases (chronic respiratory disease)  
Accidents (unintentional injuries)  
Diabetes mellitus (diabetes)  
Influenza and pneumonia (influenza and pneumonia)  
Alzheimer's disease

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Nephritis, nephrotic syndrome and nephrosis (kidney disease)  
 Septicemia (septicemia)  
 Intentional self-harm (suicide)  
 Chronic liver disease and cirrhosis (chronic liver disease)  
 Essential (primary) hypertension and hypertensive renal disease (hypertension)  
 Assault (homicide)  
 Aortic aneurysm and dissection (aortic aneurysm)

- In 1999 the infant mortality rate was 7.1 infant deaths per 1,000 live births.
- The leading causes of infant death were as follows:
  - Congenital malformations, deformations, and chromosomal abnormalities (congenital malformations)
  - Disorders relating to short gestation and low birth weight, not elsewhere classified (low birthweight)
  - Sudden infant death syndrome (SIDS)
  - Newborn affected by maternal complications of pregnancy (maternal complications)
  - Respiratory distress syndrome (RDS)
  - Newborn affected by complications of placenta, cord, and membranes (cord and placental complications)
  - Accidents (unintentional injuries)
  - Bacterial sepsis of newborn (bacterial sepsis)
  - Diseases of the circulatory system (circulatory diseases)
  - Atelectasis (atelectasis)

## Trends

- The age-adjusted death rate increased between 1998 and 1999; however, the 1999 rate is the second lowest rate ever.
- Life expectancy is 76.7 years, the same as the record high achieved in 1998. New record life expectancy levels were achieved by the total black population, white males, and black males. Life expectancy for women decreased for the first time since 1995 reflecting increases in mortality from chronic respiratory disease, diabetes, septicemia, and hypertension that were greater than decreases in other causes of death.
- Age-adjusted death rates decreased for 6 of the 15 leading causes of death and increased for 5 of the 15 leading causes of death. Decreasing trends for cancer, stroke, suicide, homicide, and firearm injuries continue. Increasing trends for chronic respiratory disease, diabetes, septicemia, and hypertension continue.
- Gaps between men and women continue to narrow with the age-adjusted death rates for men 1.4 times greater than women and life expectancy for men lagging behind that for women by 5.5 years.
- Gaps between the black and white population persist with age-adjusted death rates 1.3 times greater, infant mortality rates 2.5 times greater, and maternal mortality 3.8 times greater for the black population than that for the white population. Life expectancy for the white population exceeds that for the black population by 5.9 years continuing the trend toward convergence in life expectancy and age-adjusted death rates.
- Infant mortality rate continues to trend downward although single year changes have not been statistically different for several years.

## Technical changes

- Year 2000 Population Standard: Magnitude of age-adjusted death rates is much greater than in previous years' report because rates are calculated using a different standard population, with an older age structure. Trends are generally unaffected, but differentials in age-adjusted death rates between groups are affected by the change in standard population.
- ICD-10: new titles and codes are introduced with the implementation of a new cause-of-death classification, International Classification of Diseases (ICD-10). Breaks are created in the comparability of cause-of-death statistics because of coding and classification changes, but preliminary measurements of comparability between revisions are available. Leading causes of death are restructured with the implementation of ICD-10.

## Introduction

This report represents the release of final national mortality statistics for 1999 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 1999 were presented in the report *Deaths: Preliminary Data for 1999* using a 99-percent sample of 1999 U.S. deaths weighted to independent control totals (2). The findings in this report based on the final mortality file are generally consistent with those based on preliminary data; the final mortality file incorporates some modifications to the preliminary file as described in the [Technical notes](#). Separate companion reports present additional details on leading causes of death and geographic patterns of mortality (3,4).

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 (5). 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 *Tenth Revision, International Classification of Diseases (ICD-10)* (6). A discussion of the cause-of-death classification is provided below and 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 1998 to 1999 and differences in death rates across demographic groups in 1999 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 site, at <http://www.cdc.gov/nchs/about/major/dvs/mortdata.htm> and on the forthcoming CD-ROM entitled, *Vital Statistics of the United States, Mortality, 1999*. Availability of mortality microdata is described in the [Technical notes](#) of this report.

### Change in the population standard for age-adjusted death rates

This is the first report of final mortality statistics that uses the new standard population for age-adjusting death rates, the estimated year 2000 population, which replaces the prior standard, the estimated year 1940 population. The statistical consequences of the new standard are generally to increase the magnitude of rates and to affect differentials between groups and over time but not to alter trends (also see section on Computing rates in [Technical notes](#)) (7). Age-adjusted death rates using the year 2000 standard population for data years before 1999 are available on the NCHS Web page, at <http://www.cdc.gov/nchs/datawh/statab/unpubd/mortabs/hist-tabs.htm>.

### Introduction to the Tenth Revision (ICD-10)

Effective with data for 1999, causes of death are classified by the *Tenth Revision International Classification of Diseases* (ICD-10) (6), replacing the Ninth Revision (ICD-9) (8) used for 1979-98 data. This change has had several consequences: 1) new cause-of-death titles and corresponding cause-of-death codes; 2) breaks in comparability over time for cause-of-death statistics; and 3) restructuring of the leading causes of death.

Cause-of-death titles in ICD-10 differ in some cases from those in ICD-9 ([table I](#)). For 7 of the 15 leading causes of death the titles for ICD-10 are the same as for ICD-9. The 10 leading causes of infant death were also affected by the introduction of ICD-10. For 4 of the 10 leading causes of infant death ([table II](#)), the titles for ICD-10 are the same as for ICD-9.

Breaks in the comparability of some cause-of-death statistics result from changes in category titles, changes in the structure and content of the classification, and from changes in the coding rules used to select the underlying cause of death. The measures of comparison—the “comparability ratio”—for the causes of death shown in this report are published in a separate report (9) and are reproduced in [tables III](#) and [IV](#) in the [Technical notes](#) (for further discussion see section on Comparability between ICD-9 and ICD-10 for mortality in [Technical notes](#)). The measures of comparability are “preliminary” in that they are based on a large sample believed to be relatively

representative of the entire mortality file. Final comparability ratios will result from a study currently underway.

For two causes of death—Alzheimer’s disease and kidney disease—caution must be exercised in interpreting differences in mortality between 1998 and 1999 data due to possible underestimates of comparability ratios (see section on Selected causes of death with problems of interpretation in [Technical notes](#)). For three other causes of death, major breaks occurred in comparability between ICD-9 and ICD-10 ([table III](#)): septicemia had 19 percent more deaths assigned under ICD-10 than under ICD-9; hypertension, 12 percent more; and influenza and pneumonia, 30 percent fewer. Smaller discontinuities occurred for three additional leading causes of death. Stroke had an estimated 6 percent more deaths; chronic respiratory disease, 5 percent more; and chronic liver disease, 4 percent more. For the remaining 7 of the 15 leading causes of death, little or no change occurred in the number of deaths assigned in the successive revisions.

For two infant causes of death—atelectasis and SIDS—caution must be exercised in interpreting differences in mortality between 1998 and 1999 data due to possible limitations in the comparability ratio estimates (see section on Selected causes of death with problems of interpretation in [Technical notes](#)). For three of the leading causes of infant death, major breaks occurred in comparability between ICD-9 and ICD-10 ([table IV](#)): low birthweight had 11 percent more deaths assigned under ICD-10 than ICD-9; and circulatory diseases, 29 percent fewer. Smaller discontinuities occurred for four conditions: congenital malformations and bacterial sepsis each had an estimated 9 percent fewer deaths; Cord and placental complications, 5 percent more. The remaining leading causes of death had less than 2 percent change in the number of deaths assigned in the successive revisions.

In [tables 8](#) and [19-21](#) age-adjusted death rates by cause of death for 1999 are compared with the “comparability-modified” 1998 age-adjusted death rates. The comparability-modified rates are comparable quantitatively to the 1999 rates. Differences between the rates represent estimates of the true changes that occurred between 1998 and 1999, taking into account the break in comparability resulting from implementing the Tenth Revision of the ICD (for further discussion, see sections on Comparability between ICD-9 and ICD-10 for mortality and Random variation in [Technical notes](#)).

As a consequence of the major effort involved in implementing a new revision of the ICD, a number of States did not confirm cause of death for selected rare causes of death that normally are rigorously verified, such as Cholera or Exposure to radiation (see [Technical notes](#) on Rare causes of death).

## Results and discussion

### Deaths and death rates

In 1999 a total of 2,391,399 deaths were registered in the United States, 54,143 more than in 1998. The crude death rate for 1999, 877.0 deaths per 100,000 population, was 1.4 percent higher than the 1998 rate (864.7).

The age-adjusted death rate in 1999 was 881.9 deaths per 100,000 U.S. standard population, 0.7 percent higher than the record-low rate of 875.8 in 1998. 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 1983, 1985, 1988, 1993, and 1999, when influenza outbreaks contributed to increased mortality in the United States (10–13). Between 1980 and 1999 the age-adjusted death rate declined 15.1 percent ([figure 1](#) and [table 1](#)).

**Race**—The 1999 age-adjusted death rates for the major race groups were as follows: the rate for the white population was 860.7 deaths per 100,000 U.S. standard population; black population, 1,147.1; American Indian, 716.1; and Asian or Pacific Islander, 517.5. Rates for the American Indian and Asian or Pacific Islander populations should be interpreted with caution because of reporting problems on the death certificate and in population censuses and surveys. The net effect of the reporting problems is for the American Indian rate to be approximately 21 percent understated and the Asian or Pacific Islander rate to be approximately 11 percent understated (14).

In 1999 the age-adjusted death rate for males of all races was 1.4 times that for females ([table C](#)), less than in the previous year and continuing the convergence in mortality risk between males and females. During 1940–80 rates for males and females diverged as the rates for females declined more than for males (48.9 and 31.8 percent, respectively). However, since 1980, age-adjusted death rates have decreased considerably less for females than males (9.1 and 21.2 percent, respectively), with the result that the gap between male and female mortality is narrowing ([table 1](#)).

In 1999 the age-adjusted death rate for the black population was 1.3 times that for the white population ([table C](#)); that is, the average risk of death for the black population is about one-third higher than for the white population. The ratio was the same in 1998. For 1960–82 rates for the black and white populations declined by similar percents (22.6 and 26.5 percent, respectively). For 1982–88 rates diverged (15)

as they increased 5.2 percent for the black population and decreased 1.7 percent for the white population. Since 1988 rates between the two major race groups have converged slightly, as rates declined by 10.7 percent for the black and by 9.2 percent for the white population.

Between 1998 and 1999 age-adjusted death rates increased for two of the four major race-sex groups after record lows for all groups in 1998. The increases were 1.8 percent for black females (955.0) and 1.5 percent for white females (725.7) ([tables A and 1](#)). The 1999 rates for white and black males were not statistically different from the 1998 rates. Age-adjusted death rates declined most years between 1980 and 1999 for white males and females. The rate for white males last rose in 1993 while the previous increase for white females was in 1995. For black males age-adjusted death rates tended to decrease except for a period of increase between 1983 and 1988; rates for black females have tended to decrease but with considerable fluctuation from year to year.

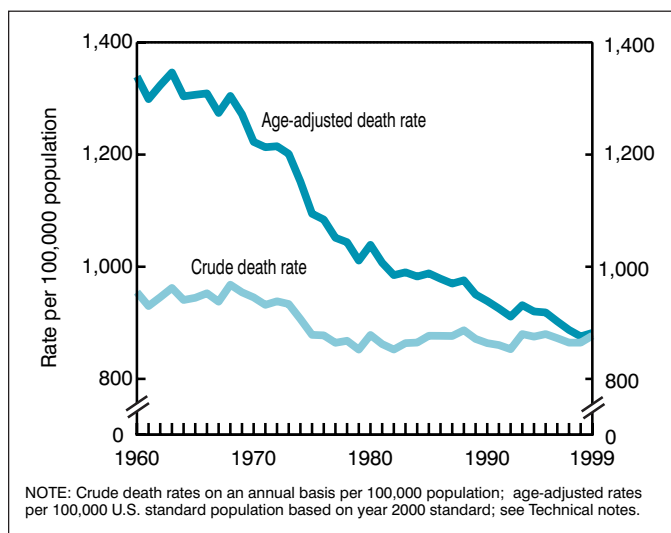
**Hispanic origin**—Problems of race and Hispanic-origin classification affect the level of Hispanic death rates and the relative levels compared with the non-Hispanic population (see [Technical notes](#)). Mortality of Hispanics is somewhat understated because of net underreporting of Hispanic origin on the death certificate. Hispanic origin on the death certificate may be underreported by an estimated 7 percent (14) (see [Technical notes](#)). Mitigating this somewhat is undercoverage of the Hispanic population in the census and in annual population estimates based on the census (14). Between 1998 and 1999 the age-adjusted death rate ([table B](#)) increased by 0.8 percent for the Hispanic, total non-Hispanic, and non-Hispanic white populations and by 1.2 percent for the non-Hispanic black population. However, the increase for the Hispanic population was not statistically significant.

Among Hispanic males the difference in age-adjusted death rates between 1998 and 1999 was not statistically significant ([table B](#)). For females the rate increased between 1998 and 1999 for the Hispanic population (2.5 percent).

In 1999 the age-adjusted death rate ([tables 3 and 4](#)), which controls for age-composition differences, was 31 percent lower for the Hispanic population than for the non-Hispanic white population and 49 percent lower than for the non-Hispanic black population. The large differences in mortality between the Hispanic and non-Hispanic populations is largely a function of the Hispanic population's lower age-specific death rates at older ages. 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 1.5 times that for females. The male-to-female ratio differed substantially by age, with Hispanic males experiencing rates more than two times those for Hispanic females for 10-year age groups in the range 15–54 years. The ratio ranged between 1.2 and 1.4 for ages under 15 years and between 1.1 and 1.9 for ages 55 years and over.

The age-adjusted death rates among the Hispanic subgroups ranged from a low of 555.5 for the Cuban population to a high of 829.9 for the Puerto Rican population. Differences between each subgroup, especially between each subgroup and the Puerto Rican population, were not statistically significant, likely a function of large variation in age-specific death rates for some of the Hispanic subgroups, reflecting their relatively small population sizes. Data aggregated over several years confirm differences among the Hispanic subgroups in mortality (16).



**Figure 1. Crude and age-adjusted death rates: United States, 1960–99**

**Table A. Percent change in death rates and age-adjusted death rates between 1998 and 1999 by age, race, and sex: United States**

[Age-adjusted death rates based on year 2000 U.S. standard population; see Technical notes]

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 . . . . .	1.4	0.6	2.2	1.5	0.8	2.3	1.1	0.3	2.0
Age-adjusted . . . . .	0.7	-0.3	1.5	0.7	-0.3	1.5	1.0	0.1	1.8
Under 1 year <sup>2</sup> . . . . .	-2.6	-2.0	-3.4	-3.8	-2.3	-5.5	-0.3	-1.4	0.9
1-4 years . . . . .	0.3	2.4	-1.9	2.0	4.3	-0.4	-4.4	-4.6	-4.5
5-14 years . . . . .	-3.5	-5.1	-0.6	-2.7	-4.2	-0.7	-2.4	-2.8	-2.2
15-24 years . . . . .	-1.3	-2.8	2.8	-1.2	-2.5	2.4	-2.7	-4.6	3.6
25-34 years . . . . .	-1.2	-1.0	-1.8	0.2	0.4	-0.2	-5.3	-4.8	-6.2
35-44 years . . . . .	-0.2	-0.7	0.7	0.0	-0.5	1.1	-1.5	-2.0	-0.8
45-54 years . . . . .	0.9	0.7	1.1	1.1	0.9	1.3	-0.1	-0.1	-0.2
55-64 years . . . . .	-0.9	-1.3	-0.2	-0.8	-1.3	-0.2	-1.2	-1.1	-1.3
65-74 years . . . . .	-0.4	-1.1	0.3	-0.6	-1.3	0.2	0.2	-0.1	0.3
75-84 years . . . . .	0.8	-0.3	1.7	0.8	-0.3	1.6	2.0	0.5	3.2
85 years and over . . . . .	2.4	1.0	3.0	2.4	0.9	3.0	4.5	3.3	5.0

<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).**Death rates by age and sex**

Between 1998 and 1999 age-specific death rates for the total population increased for age groups 45-54 years, 75-84 years, and 85 years and over but decreased for age groups under 1 year (see also Infant mortality), 5-14 years, 55-64 years, and 65-74 years (table A and figure 2). The largest decrease occurred for age group 5-14 years (3.5 percent), and the largest increase for the age group 85 years and over (2.4 percent).

The death rate for males declined between 1998 and 1999 for age groups 5-14 years, 15-24 years, 55-64 years, and 65-74 years, but increased for age group 85 years and over (table A). The largest decrease for males was for those aged 5-14 (5.1 percent), while the increase among 85 years and over was 1.0 percent. For females the death rate decreased (3.4 percent) for infants under 1 year but increased for age groups 75-84 years and 85 years and over. The largest increase for females was for those aged 85 years and over (3.0 percent).

**Table B. Percent change in death rates and age-adjusted death rates between 1998 and 1999 by age, Hispanic origin, race for non-Hispanic population, and sex: United States**

[Age-adjusted death rates based on year 2000 U.S. standard population. 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 on censuses and surveys; see Technical notes]

Age	All origins <sup>1</sup>			Hispanic			Non-Hispanic <sup>2</sup>			White non-Hispanic			Black non-Hispanic		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Percent change															
All ages:															
Crude . . . . .	1.4	0.6	2.2	1.8	0.4	3.6	1.7	0.9	2.4	1.8	1.0	2.5	1.3	0.4	2.2
Age adjusted . . . . .	0.7	-0.3	1.5	0.8	-1.0	2.5	0.8	-0.2	1.6	0.8	-0.2	1.5	1.2	0.2	2.0
Under 1 year <sup>3</sup> . . . . .	-2.6	-2.0	-3.4	-2.1	-3.4	-0.5	-2.5	-1.7	-3.6	-4.5	-2.3	-7.2	0.3	-0.9	1.8
1-4 years . . . . .	0.3	2.4	-1.9	5.6	3.6	8.0	-0.6	2.3	-4.0	1.0	3.5	-3.0	-4.5	-3.6	-5.5
5-14 years . . . . .	-3.5	-5.1	-0.6	-1.7	-4.0	2.1	-3.4	-5.0	-0.6	-2.8	-4.3	-0.7	-2.6	-3.5	-1.7
15-24 years . . . . .	-1.3	-2.8	2.8	-1.1	-3.0	7.1	-1.3	-2.6	2.2	-1.2	-2.5	1.7	-2.1	-3.9	3.5
25-34 years . . . . .	-1.2	-1.0	-1.8	1.7	2.2	1.6	-1.5	-1.4	-1.9	0.0	0.2	-0.2	-5.3	-4.9	-6.3
35-44 years . . . . .	-0.2	-0.7	0.7	0.7	-0.3	3.3	-0.2	-0.8	0.7	-0.1	-0.7	0.9	-1.3	-1.9	-0.5
45-54 years . . . . .	0.9	0.7	1.1	1.2	1.6	0.4	0.9	0.7	1.3	1.1	0.9	1.4	-0.0	-0.1	-0.0
55-64 years . . . . .	-0.9	-1.3	-0.2	-0.8	-0.4	-1.4	-0.8	-1.3	-0.1	-0.8	-1.3	-0.0	-1.1	-1.0	-1.1
65-74 years . . . . .	-0.4	-1.1	0.3	-2.2	-2.9	-1.3	-0.2	-0.9	0.5	-0.4	-1.1	0.4	0.4	0.1	0.6
75-84 years . . . . .	0.8	-0.3	1.7	1.4	-0.9	3.4	0.9	-0.2	1.8	0.8	-0.2	1.6	2.3	0.7	3.5
85 years and over . . . . .	2.4	1.0	3.0	3.4	-1.0	6.0	2.5	1.1	3.1	2.4	1.0	3.0	4.6	3.2	5.2

<sup>1</sup>All origins includes origin not stated; specified origins exclude origin not stated.<sup>2</sup>Includes races other than white and black.<sup>3</sup>Death rates for "Under 1 year" (based on population estimates) differ from infant mortality rates (based on live births).

**Table C. Percent of total deaths, death rates, age-adjusted death rates for 1999, percent change in age-adjusted death rates from 1998 to 1999 and ratio of age-adjusted death rates by race and sex for the 15 leading causes of death for the total population in 1999: United States**

[Death rates on an annual basis per 100,000 population; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes]

Rank <sup>1</sup>	Cause of death (Based on the <i>Tenth Revision International Classification of Diseases, 1992</i> )	Number	Percent of total deaths	1999 crude death rate	Age-adjusted death rate				
					1999	Percent change <sup>2</sup>		Ratio	
						1998	1998 to 1999	Male to female	Black to white
...	All causes	2,391,399	100.0	877.0	881.9	0.7	1.4	1.3	0.7
1	Diseases of heart . . . . . I00–I09,I11,I13,I51	725,192	30.3	265.9	267.8	–0.3	1.5	1.3	0.7
2	Malignant neoplasms . . . . . C00–C97	549,838	23.0	201.6	202.7	–0.5	1.5	1.3	0.6
3	Cerebrovascular diseases . . . . . I60–I69	167,366	7.0	61.4	61.8	–1.9	1.0	1.4	0.7
4	Chronic lower respiratory diseases . . . . . J40–J47	124,181	5.2	45.5	45.8	4.1	1.5	0.7	0.4
5	Accidents (unintentional injuries) . . . . . V01–X59,Y85–Y86	97,860	4.1	35.9	35.9	–0.6	2.2	1.1	0.9
6	Diabetes mellitus . . . . . E10–E14	68,399	2.9	25.1	25.2	3.3	1.2	2.2	1.5
7	Influenza and pneumonia . . . . . J10–J18	63,730	2.7	23.4	23.6	–2.5	1.3	1.1	0.7
8	Alzheimer's disease . . . . . G30	44,536	1.9	16.3	16.5	<sup>3</sup> 23.1	0.8	0.7	0.4
9	Nephritis, nephrotic syndrome and nephrosis . . . . . N00–N07,N17–N19,N25–N27	35,525	1.5	13.0	13.1	<sup>3</sup> 8.3	1.4	2.5	0.9
10	Septicemia . . . . . A40–A41	30,680	1.3	11.3	11.3	6.6	1.2	2.5	0.8
11	Intentional self-harm (suicide) . . . . . X60–X84,Y87.0	29,199	1.2	10.7	10.7	–5.3	4.4	0.5	0.5
12	Chronic liver disease and cirrhosis . . . . . K70,K73–K74	26,259	1.1	9.6	9.7	–1.0	2.2	1.1	1.7
13	Essential (primary) hypertension and hypertensive renal disease . . . . . I10,I12	16,968	0.7	6.2	6.3	5.0	1.0	3.0	1.0
14	Assault (homicide) . . . . . X85–Y09,Y87.1	16,889	0.7	6.2	6.2	–4.6	3.2	5.4	2.9
15	Aortic aneurysm and dissection . . . . . I71	15,807	0.7	5.8	5.8	–4.9	2.3	0.8	0.4
...	All other causes . . . . . Residual	378,970	15.8	139.0	...	...	...	...	...

– Quantity zero.

... Category not applicable.

<sup>1</sup>Rank based on number of deaths; see Technical notes.<sup>2</sup>Percent change is based on a comparison of the 1999 age-adjusted death rate with the 1998 comparability-modified, age-adjusted death rate. See Technical notes.<sup>3</sup>Percent change is not reliable because of problems in measuring comparability, see Technical notes.

**Race**—Among white males age-specific death rates were lower in 1999 than in 1998 for age groups 15–24 years, 55–64 years, 65–74 years, but increased for age 85 years and over (0.9 percent). The largest decrease was for age group 15–24 years (2.5 percent). For black males the death rate declined for age groups 15–24 years and 25–34 years, but increased 3.3 percent for those aged 85 years and over. The largest decrease was for those aged 25–34 (4.8 percent). For white females the rate decreased for under 1 year (5.5 percent) and increased for the age groups 75–84 years (1.6 percent) and 85 years and over (3.0 percent). The rate for black females decreased for age 25–34 years (6.2 percent) while the rate increased for age groups 75–84 and 85 years and over, with the largest increase for those aged 85 years and over (5.0 percent).

**Hispanic origin**—Between 1998 and 1999 (table B) the age-specific death rate declined for age group 65–74 years (2.2 percent) and increased for age group 85 years and over (3.4 percent). Among Hispanic males age-specific death rates decreased for age group 65–74 years (2.9 percent). For Hispanic females the death rate increased for age groups 75–84 and 85 years and over, 3.4 and 6.0 percent, respectively.

### Expectation of life at birth and at specified ages

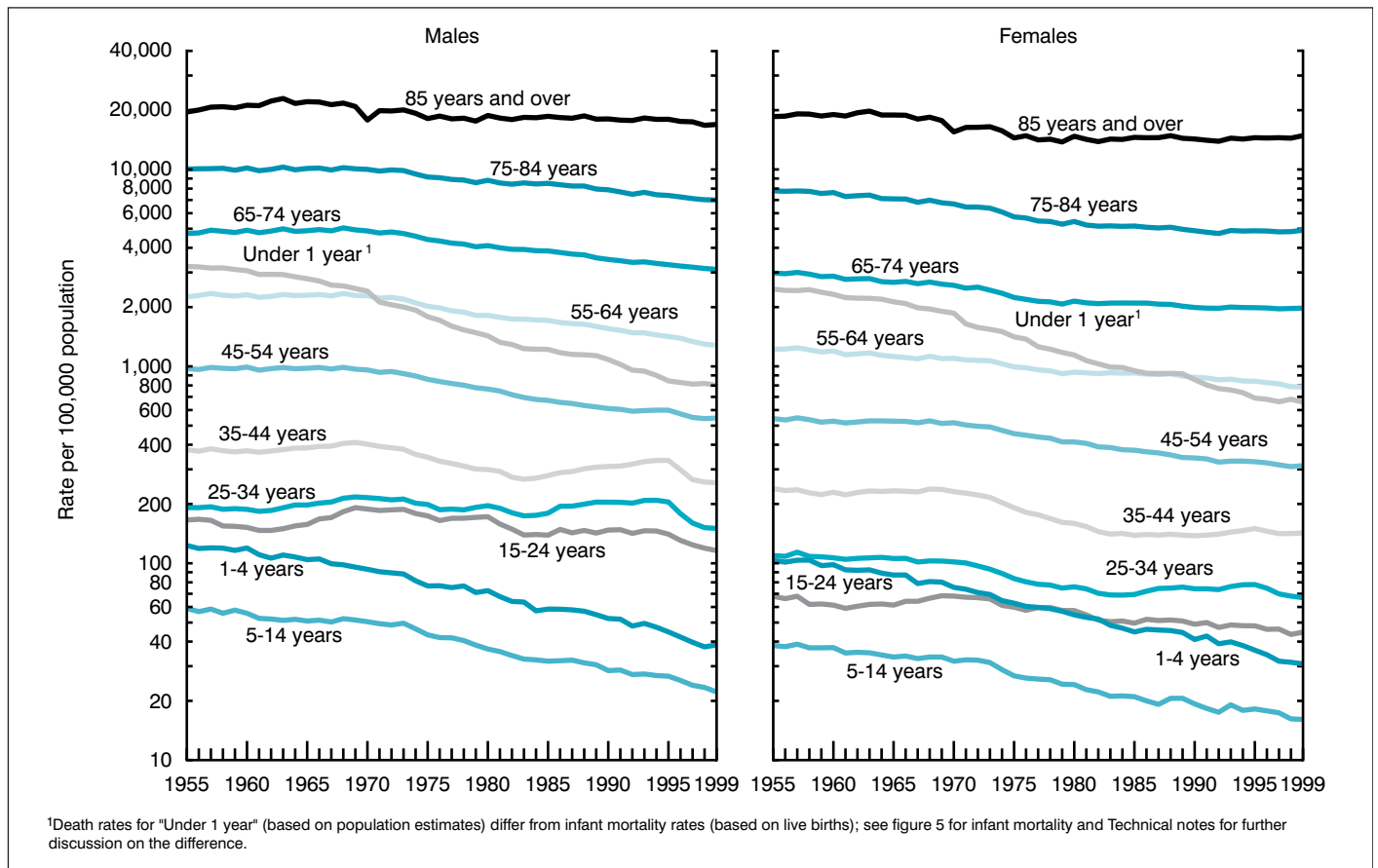
Life expectancy at birth represents the average number of years that a group of infants would live if the infants were to experience throughout life the age-specific death rates present at birth. The life table methodology used to calculate the life expectancies shown in this report was revised beginning with the 1997 data year (see

**Technical notes**). The new methodology provides values similar to the method used prior to 1997 but is more comparable to decennial life table methods, provides more accurate estimates, and provides more age detail. In 1999 life expectancy at birth remained at the record high of 76.7 years (tables 5–7), the same as in 1998. The stability in life expectancy between 1998 and 1999 follows five consecutive years of improvement and a general upward trend in U.S. life expectancy observed throughout the 20th century.

In 1999 life expectancy for females was 79.4 years, a 0.1-year decrease from 1998, while for males it was 73.9 years, a 0.1-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 5.7 years in 1998 to 5.5 years in 1999.

Between 1998 and 1999 life expectancy increased 0.1 year for the black population to a record high of 71.4 years. Life expectancy did not change for the white population. The difference in life expectancy between the white and black populations was 5.9 years, 0.1 year less than in 1998. 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. Since then the gap has gradually narrowed.

Among the four race-sex groups (figure 3), white females continued to have the highest life expectancy at birth (79.9 years), followed by black females (74.7 years), white males (74.6 years), and black males (67.8 years). Record high life expectancies were reached for white and black males. Life expectancy for black males declined every year from 1984 to 1989 then resumed the long-term trend of increase from 1990 to 1992 and 1994 to 1999 (table 7). For white females life



**Figure 2. Death rates by age and sex: United States, 1955-99**

expectancy increased most years from 1970 to 1998, when it reached a record high of 80.0 years. In 1999 life expectancy for white females fell below this high by 0.1 year. Between 1988 and 1992 and between 1995 and 1998, life expectancy for black females increased. In 1999 life expectancy for black females declined as it did for white females by 0.1 year. Between 1998 and 1999 the largest gain was for black males (0.2 years), followed by white males (0.1).

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 1999, 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 17.7 more years for a total of 82.7 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 5 and 6).

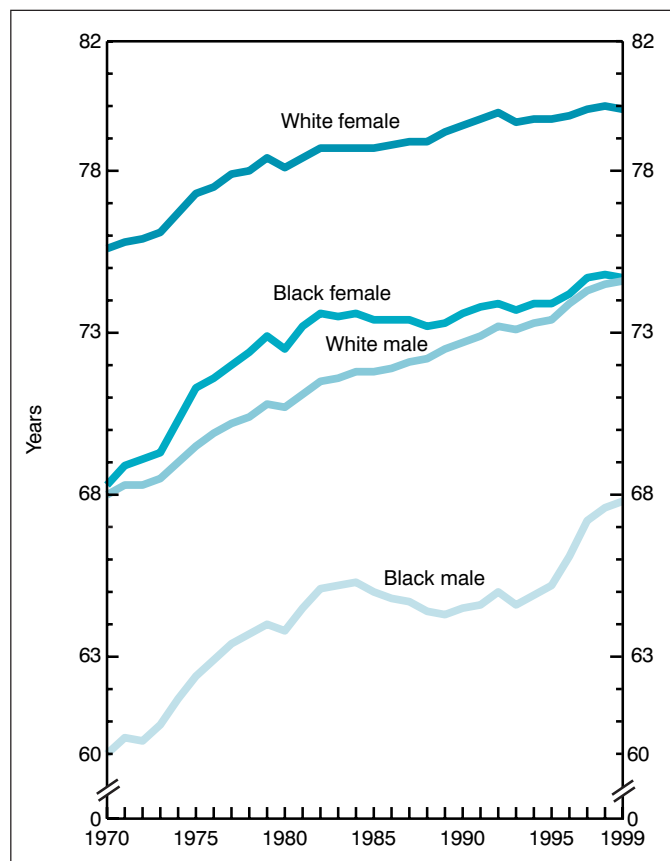
### Leading causes of death

The 15 leading causes of death in 1999 accounted for 84.2 percent of all deaths in the United States (table C). (Causes of death are ranked according to number of deaths. For ranking procedures, see Technical notes.) In order, the 15 leading causes in 1999 were 1) heart disease, 2) cancer, 3) stroke, 4) chronic respiratory disease, 5) unintentional injuries, 6) diabetes, 7) influenza and pneumonia, 8)

Alzheimer's disease, 9) kidney disease, 10) septicemia, 11) suicide, 12) chronic liver disease, 13) hypertension, 14) homicide, and 15) aortic aneurysm.

The introduction of ICD-10 affects ranking of leading causes of death. In 1999, 14 of the 15 causes remained among the leading causes (see section on Tabulation lists and cause-of-death ranking in Technical notes) as published in 1998 using ICD-9 (10), but the ranking changed as follows: diabetes increased in rank from 7th to 6th; influenza and pneumonia dropped from 6th to 7th; Alzheimer's disease rose from 12th to 8th; suicide dropped from 8th to 11th; septicemia rose from 11th to 10th; chronic liver disease dropped from 10th to 12th; hypertension rose from 15th to 13th; and homicide dropped from 13th to 14th. Atherosclerosis had been on the leading cause list for at least four decades before falling from among the 15 leading causes in 1999. New among the 15 leading causes in 1999 was aortic aneurysm as the 15th leading cause.

Two factors explain the changes in rank order between 1998 and 1999. First, introduction of a new cause-of-death classification, and second, differences in mortality levels between 1998 and 1999. The changes in the classification of diseases and the coding rules for selecting the underlying cause of death between ICD-9 and ICD-10 (see section on Tabulation lists and cause-of-death ranking in Technical notes) had substantial impact. This impact is evident in comparing 1998 counts with 1998 comparability-modified counts (data not shown). ICD-10 did not affect the ranking of the first five leading causes of death (9) but affected the ranking for diabetes, influenza and pneumonia,



**Figure 3. Life expectancy by sex: United States, 1970–99**

Alzheimer's disease, suicide, and chronic liver disease. Changes in the tabulation list used to rank causes explain the entry of aortic aneurysm among the leading causes of death.

The differences in mortality levels between 1998 and 1999 also influenced changes in ranking. This influence can be determined by comparing 1999 counts with 1998 comparability-modified counts (data not shown). The first nine leading causes of death in 1999 were the same as in comparability-modified 1998 data. Suicide dropped in rank from 10th to 11th; septicemia increased from 11th to 10th; homicide dropped from 13th to 14th; aortic aneurysm dropped from 14th to 15th; and hypertension rose from 15th to 13th.

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

Overall, mortality between 1998 and 1999 increased only slightly in the United States. This reflected offsetting influences of increases for a number of leading causes of death, almost entirely compensated for by decreases in other causes of death.

Among the leading causes of death, age-adjusted death rates for six of the 15 leading causes decreased from 1998 to 1999 (table C). The rate for cancer, the second leading cause of death, declined by 0.5 percent from the comparability-modified rate of 201.7 in 1998. Cancer mortality has shown a gradual but consistently downward trend

since 1993. The rate for stroke, the third leading cause of death, declined by 1.9 percent between 1998 and 1999. Stroke generally declined between 1950 and 1992, increased 2.9 percent between 1992 and 1995, and has declined since 1995. Influenza and pneumonia, the seventh leading cause, decreased 2.5 percent from 1997, also a year in which influenza outbreaks occurred (10); however, influenza outbreaks in 1999 (11–13) had important impacts upon certain groups such as black females. Suicide, the 11th leading cause of death, decreased for the 6th consecutive year, declining 5.3 percent between 1998 and 1999. Homicide, the 14th leading cause, continued a generally downward trend observed since 1991, declining 4.6 percent between 1998 and 1999. This follows a 31.6 percent decline from 1992 to 1998; between 1987 and 1991 homicide mortality rose 22 percent. Aortic aneurysm, the 15th leading cause of death, decreased by 4.9 percent; this condition had generally been increasing.

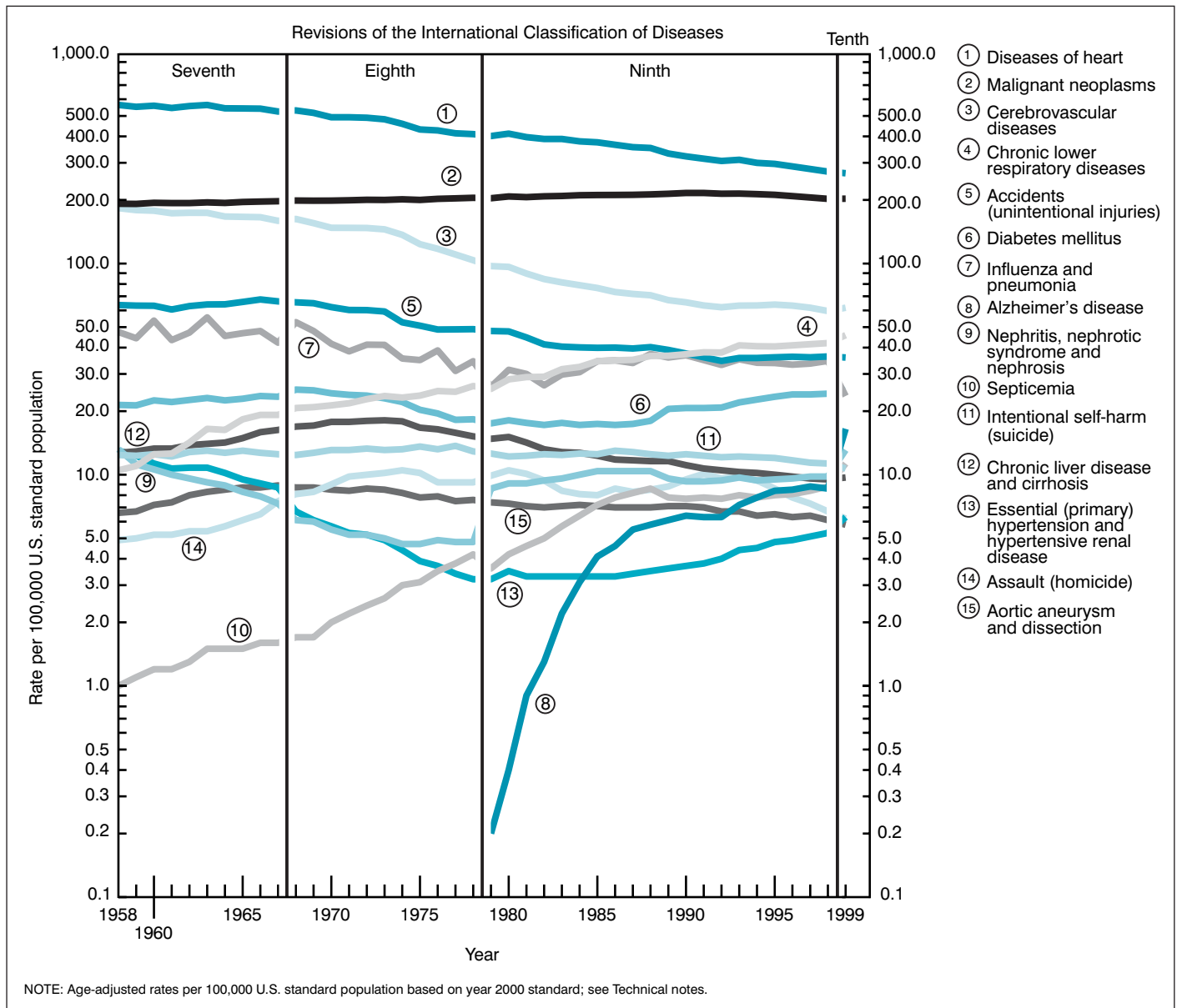
Age-adjusted death rates increased for 5 of the 15 leading causes from 1998 to 1999. The fourth leading cause, Chronic respiratory disease, increased 4.1 percent. Chronic respiratory disease has shown a continuous increasing trend since 1995. The sixth leading cause, diabetes, increased 3.3 percent. Between 1986 and 1998 diabetes mortality increased. 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 (17). Kidney disease, the ninth leading cause, increased 8.3 percent; however, this increase is believed to be overstated (see section on Selected causes of death with problems of interpretation in [Technical notes](#)). Kidney disease increased since 1994. The 10th leading cause, septicemia, has generally increased since 1994, and increased 6.6 percent between 1998 and 1999. Hypertension, the 13th leading cause, increased 5.0 percent between 1998 and 1999, continuing a generally increasing trend since 1984.

Age-adjusted death rates for three leading causes of death, heart disease (the leading cause), unintentional injuries (5th), and chronic liver disease (12th) did not change significantly between 1998 and 1999. The large increase (23.1 percent) for Alzheimer's disease, the eighth leading cause of death, between 1998 and 1999 may be spurious. The estimated increase would be eliminated if the comparability ratio is understated as it is believed to be (see section on Selected causes of death with problems of interpretation in [Technical notes](#)).

Even though mortality from Human immunodeficiency virus disease (HIV disease) has not been on the list of 15 leading causes of death since 1997 (18), it is still considered a major public health problem. In 1999 a total of 14,802 persons died from HIV disease. The age-adjusted death rate declined for the fourth consecutive year, decreasing 3.6 percent from 1998 to 1999. The rate of decline in mortality from this cause slowed considerably.

Changes in mortality levels by age and cause influence life expectancy. Life expectancy at birth remained unchanged between 1998 and 1999 (76.7 years) because the decreases in mortality from cancer, heart disease, stroke, suicide, and homicide were completely offset by increases in mortality from chronic respiratory disease, diabetes, septicemia, and hypertension. (For discussion of contribution to the change in life expectancy, see [Technical notes](#).) For males life expectancy improved from 73.8 years in 1998 to 73.9 years in 1999 primarily because of decreases in mortality from heart disease, cancer, stroke, suicide, and homicide, despite increases in mortality from chronic respiratory disease, septicemia, and diabetes. For females life





**Figure 4. Age-adjusted death rates for the 15 leading causes of death: United States, 1958–99**

expectancy decreased by 0.1 years between 1998 and 1999 due to increasing mortality from chronic respiratory disease, diabetes, septicemia, and hypertension; but improvements were made for stroke, cancer, suicide, and homicide.

The relative risk of death in one population 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 12 of the leading causes of death (table C), with 8 rates for males at least 1.5 times those for females. The largest ratio (4.4) was for suicide. Other large ratios were homicide (3.2), aortic aneurysm (2.3), accidents (2.2), chronic liver disease (2.2), heart disease (1.5), cancer (1.5), and chronic respiratory disease (1.5).

The gap in life expectancy between males and females narrowed from 5.7 years in 1998 to 5.5 years in 1999. This narrowing was due to greater improvements in mortality for males for heart disease, cancer, suicide, and homicide.

Rates for the black population compared with the white population were at least 1.5 times greater for five of the leading causes of death

(table C). The largest ratio was for homicide (5.4). Other causes for which the ratio was large include hypertension (3.0), septicemia (2.5), kidney disease (2.5), and diabetes (2.2). For four of the leading causes, age-adjusted rates were lower for the black than the white population: the smallest was for suicide (0.5).

The gap in life expectancy between blacks and whites narrowed from 6.0 years in 1998 to 5.9 years in 1999. This narrowing was due to greater improvements in mortality for blacks for homicide, cancer, stroke and HIV disease.

Rates for the Hispanic population were greater than the non-Hispanic white population for three causes: homicide (2.9), chronic liver disease (1.7), and diabetes (1.5). For eight of the leading causes, age-adjusted rates for the Hispanic population were 0.7 times that for the non-Hispanic white population or less. The smallest ratios were for chronic respiratory disease, aortic aneurysm, and Alzheimer's disease (0.4). Other causes for which the ratio was small include suicide (0.5), cancer (0.6), and heart disease, stroke, and influenza and pneumonia (0.7).

Leading causes of death for the total population and for specific subpopulations are examined in a separate report on leading causes by age, race, ethnicity, and sex (3).

### Firearm mortality

In 1999 a total of 28,874 persons died from firearm injuries in the United States (tables 17 and 19). This number was 5.7 percent lower than the comparability-modified 30,625 deaths in 1998. Firearm suicide and homicide, the two major component causes, accounted for 57.5 and 37.5 percent, respectively, of all firearm injury deaths in 1999. The other components—firearm accidents, firearm injuries of undetermined intent, and legal intervention involving firearms—account for 2.9, 1.1, and 1.0 percent, respectively. Among those aged 19 years and under, the number of firearm deaths was 10.7 percent lower than in 1998. Despite the decrease, in 1999 children under 20 years accounted for 11.7 percent of all firearm deaths.

Of the firearm injury deaths in 1999, 62.1 percent were white males, 21.4 percent were black males, 11.1 percent were white females, and 2.9 percent were black females. The largest number of firearm deaths for males were for the age group 20-24 years; the largest number of firearm deaths for females were for the age group 35-39 years. Although the number of firearm deaths was highest for white males, age-adjusted death rates for firearm injuries were greatest for black males, followed by white males, black females, and white females. Over the age of 50, age-specific death rates for firearm injury with the exception of age group 55-59 years were highest for white males (table 18).

Between 1998 and 1999 age-specific death rates for firearm injuries declined for all age groups. The largest decline in firearm mortality between 1998 and 1999 was 26.1 percent for the age group 10-14 years.

In 1999 the age-adjusted death rate for firearm injuries was 10.6 deaths per 100,000 U.S. standard population, 6.2 percent lower than the rate of 11.3 in 1998. The rate decreased by 6.5 percent for black males, 6.3 percent for white males, and 6.7 for white females. The change for black females was not statistically significant. In 1999 the rate for males was 6.3 times that for females, and the rate for the black population was 2.0 that of the white population.

The age-adjusted death rate decreased 9.3 percent for firearm homicide, 6.2 percent for firearm suicide, and remained the same for firearm accidents between 1998 and 1999. In 1999 age-specific death rates for firearm homicide were highest for the age group 20-24 years. Black males aged 20-24 years had the highest rate at 100.8 per 100,000 population. The highest rate for suicide by firearms was 43.5 for white males 85 years and over.

### Drug-induced mortality

In 1999 a total of 19,102 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 1998 and 1999 the age-adjusted death rate for drug-induced causes decreased 6.7 percent from the

comparability-modified 7.5 deaths per 100,000 U.S. standard population to 7.0. In 1999 the rate for males was 2.2 times that of females, and the rate for the black population was 1.4 times that of the white population.

### Alcohol-induced mortality

In 1999 a total of 19,171 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 remained unchanged at 7.1 deaths per 100,000 U.S. standard population between 1998 (comparability-modified data) and 1999. In 1999 the rate for males was 3.6 times the rate for females, and the rate for the black population was 1.4 times that of the white population.

### Marital status

Among those aged 15 years and over, the number of deaths in 1999 of persons who were married was 947,981; widowed, 913,912; never married, 234,167; and divorced, 244,739 (table 22) (see Technical notes). For the total population, but not for males and females separately, those never married had the highest age-adjusted death rate, followed by divorced, widowed, and married persons, respectively. The never-married group had an age-adjusted death rate 67 percent higher than the ever married and 2.2 times the rate for the currently married. Rates for widowed and divorced persons were 81 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 years, widowed persons had the highest death rates; but beginning at age 35, 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 43 percent greater among the never married to 83 percent greater among the currently married in 1999. Married and widowed black persons had significantly higher age-adjusted death rates than white persons, with rates 42 percent and 14 percent higher, respectively. Differences between black and white never married and divorced persons were not statistically significant.

### 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 46 reporting States and the District of Columbia, a total of 213,929 decedents aged 25-64 years completed 12 years of education, compared with 149,346 who completed 13 years or more and 111,037 who 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 585.3 per 100,000 U.S. standard population—23.3

percent higher than the rate of 474.5 for those with 12 years of education and 2.7 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 5,651 deaths were reported on death certificates due to injuries at work ([table 24](#)). Rates were lowest for age groups 15-24 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 5.0 deaths per 100,000 U.S. standard population compared with 0.4 for females, resulting in a mortality ratio of 12.5. The age-adjusted rate for the white population (2.7) was 3.8 percent higher than the rate for the black population (2.6). The male-to-female ratios for the white and black populations were 12.5 and 10.4, respectively.

In 1998 and 1999 the age-adjusted death rate for injury at work was 2.6 deaths per 100,000 U.S. standard population ([tables 24](#) and [25](#)). The rate increased by 2.0 percent for males and decreased by 20 percent for females. However, these changes were not statistically significant. Between 1998 and 1999 the age-adjusted death rate for injury-at-work remained at 2.7 percent for the white population. The 8.3-percent increase for the black population was not statistically significant.

### State of residence

Mortality varies considerably by State ([table 26](#)). The State with the highest mortality was Mississippi with a rate 21 percent above the national average and the State with the lowest rate was Hawaii with a rate 23 percent below the national average. The rate for the District of Columbia was 1,082 deaths per 100,000 standard population, 23 percent above the national average; however, the District of

Columbia, as a city, is not comparable with the States. Variations in mortality by State are associated with differences in socioeconomic status, race, and ethnic composition as well as differences in risk for specific causes of death (19). Geographic variation will be examined in more detail in a separate report (4).

### Infant mortality

In 1999 a total of 27,937 deaths occurred in children under 1 year ([table D](#)), 434 fewer than in 1998. The infant mortality rate of 7.1 infant deaths per 1,000 live births, although the lowest rate ever recorded for the United States, was not statistically different from the rate in 1998 ([figure 5](#) and [table 27](#)). In contrast, the decrease in the infant death rate mentioned under Death rates by age and sex was statistically significant (for a discussion of the differences between infant death rates and infant mortality rates, see Infant mortality in [Technical notes](#)). The mortality rate for white infants decreased to 5.8 in 1999, whereas the rate for black infants was not statistically different from 1998 (14.3 in 1998 and 14.6 in 1999). Race cited on the death certificate is considered relatively accurate for white and black infants (14). However, for other race groups race may be misreported on the death certificate; consequently, infant mortality by race for these population groups is better measured using data from the linked file of live births and infant deaths (20).

The ratio of the black-to-white infant mortality rates was 2.5 in 1999 compared with 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 to 1990 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 population declined 23.7 percent and for the black population by 18.9 percent.

Between 1998 and 1999 the neonatal mortality rate (deaths to infants age 0-27 days per 1,000 live births) decreased for all races (4.7) and for white neonates (3.9) ([table 27](#)). For black neonates the rate (9.8) did not change significantly from 1998. The postneonatal mortality rate (deaths to infants age 28 days-1 year per 1,000 live births) declined for all races combined and for white postneonates, but the rate for black postneonates (4.8) did not change from 1998.

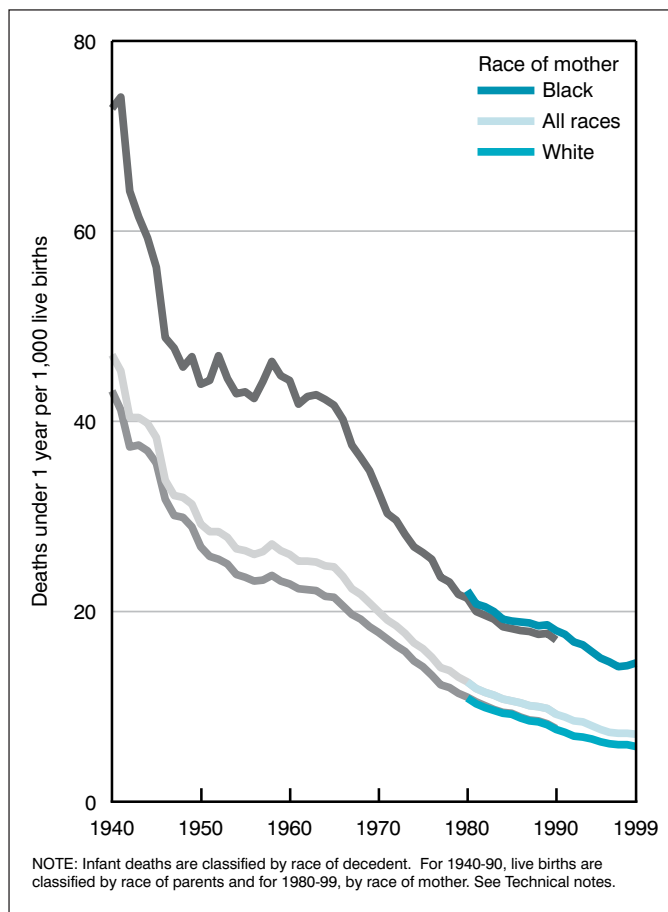
The 10 leading causes of infant death in 1999 accounted for 67.6 percent of all infant deaths in the United States ([table E](#)). In order,

**Table D. Number of infant, neonatal, and postneonatal deaths and mortality rates, by race and sex: United States, 1999**

[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. For infant mortality rates by Hispanic origin or by detailed race, refer to data from the linked file of live births and infant deaths; see [Technical notes](#)]

Race and sex	Infant		Neonatal		Postneonatal	
	Number	Rate	Number	Rate	Number	Rate
All races <sup>1</sup>	27,937	705.6	18,728	473.0	9,209	232.6
Male	15,646	771.9	10,355	510.9	5,291	261.0
Female	12,291	636.0	8,373	433.3	3,918	202.7
White	18,067	576.8	12,164	388.3	5,903	188.4
Male	10,197	635.1	6,734	419.4	3,463	215.7
Female	7,870	515.4	5,430	355.6	2,440	159.8
Black	8,822	1,455.8	5,920	976.9	2,902	478.9
Male	4,897	1,591.6	3,297	1,071.6	1,600	520.0
Female	3,925	1,315.8	2,623	879.3	1,302	436.5

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



**Figure 5. Infant mortality rates by race: United States, 1940-99**

the 10 leading causes were: 1) congenital malformations, 2) low birth weight, 3) SIDS, 4) maternal complications, 5) RDS, 6) cord and placental complications, 7) unintentional injuries, 8) bacterial sepsis, 9) circulatory diseases, and 10) atelectasis.

Introduction of ICD-10 affects ranking of leading causes of infant death. Seven of the 10 causes from 1998 (10) remained among the leading causes in 1999. The rankings did not change for the first six leading causes of death while unintentional injuries rose from eighth to seventh leading cause. The remaining three causes (bacterial sepsis, circulatory diseases, and atelectasis) are new entries.

Changes in rank order between 1998 and 1999 reflect the transition from ICD-9 to ICD-10 and differences in mortality levels between 1998 and 1999. Comparing the number of deaths in 1998 with the comparability-modified 1998 deaths (data not shown) reveals the effect of the changes in the cause-of-death classification (see section on Tabulation lists and cause-of-death ranking in [Technical notes](#)). The entry of bacterial sepsis, circulatory diseases, and atelectasis among the leading causes all reflect changes in the list used to rank order causes under the new classification (ICD-10) (see section on Cause of death classification in [Technical notes](#)). ICD-10 also affects the ranking of cord and placental complications and unintentional injuries.

Differences in mortality levels between 1998 and 1999 also influenced the ranking. This influence is evident in the comparison of 1999 counts with 1998 comparability-modified counts (data not shown). The first 7 and 10th leading causes of death in 1999 are the same as in comparability-modified 1998 data. Circulatory disease dropped in rank from eighth to ninth and bacterial sepsis rose from ninth to eighth.

No change in rates by cause of death among the 10 leading causes was statistically significant. Changes in mortality for atelectasis are not believed to be reliable (see section on Selected causes of death with problems of interpretation).

*Hispanic infant mortality*—The infant mortality rate was 5.8 deaths to Hispanic infants and non-Hispanic white infants under 1 year of age per 1,000 live births in the United States (data not shown). Infant

**Table E. Number of infant deaths, percent of total infant deaths, and infant mortality rates for 1999, and percent change in infant mortality rates from 1998 to 1999 for the 10 leading causes of infant death in 1999: United States**

[Rates are infant deaths per 100,000 live births; see Technical notes]

Rank order <sup>1</sup>	Cause of death (Based on the Tenth Revision International Classification of Diseases, 1992)	Number	Percent of total deaths	Rate	Percent change <sup>2</sup> from 1998 to 1999
...	All causes	27,937	100.0	705.6	-2.0
1	Congenital malformations, deformations and chromosomal abnormalities. . . . . Q00-Q99	5,473	19.6	138.2	-3.2
2	Disorders relating to short gestation and low birthweight, not elsewhere classified . . . P07	4,392	15.7	110.9	-3.5
3	Sudden infant death syndrome . . . . . R95	2,648	9.5	66.9	<sup>3</sup> -9.9
4	Newborn affected by maternal complications of pregnancy. . . . . P01	1,399	5.0	35.3	0.7
5	Respiratory distress syndrome . . . . . P22	1,110	4.0	28.0	-16.8
6	Newborn affected by complications of placenta, cord, and membranes . . . . . P02	1,025	3.7	25.9	1.5
7	Accidents (unintentional injuries) . . . . . V01-X59	845	3.0	21.3	13.5
8	Bacterial sepsis of newborn . . . . . P36	691	2.5	17.5	2.1
9	Diseases of the circulatory system . . . . . I00-199	667	2.4	16.8	-6.4
10	Atelectasis . . . . . P28.0-P28.1	647	2.3	16.3	<sup>3</sup> 45.9
...	All other causes . . . . . Residual	9,040	32.4	228.3	...

... Category not applicable.

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

<sup>2</sup>Percent change is based on a comparison of the 1999 infant mortality rate with the 1998 comparability-modified infant mortality rate. See Technical notes.

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, 20) (see [Technical notes](#)).

### Maternal mortality

In 1999 a total of 391 women were reported to have died of maternal causes ([table 30](#)). The number of maternal deaths is highly variable from one year to the next, but the change in the number of maternal deaths between 1998 and 1999 also reflects the consequences of implementing ICD-10, which assigned to maternal deaths those deaths aggravated by pregnancy, previously assigned to other conditions (see section on Maternal mortality in [Technical notes](#)). The break in comparability for maternal mortality has not been quantified yet. As in previous years, the number of maternal deaths does not include all deaths occurring to pregnant women, but only to those deaths reported on the death certificate and assigned to those causes related to or aggravated by pregnancy or pregnancy management (ICD-10 codes O00-O95, O98-O99, and A34). Further, the number excludes deaths occurring more than 42 days after the termination of pregnancy and deaths of pregnant women due to external causes (unintentional injuries, homicides, and suicides) (6).

The maternal mortality rate for 1999 was 9.9 deaths per 100,000 live births. Black women have a substantially higher risk of maternal death than white women. In 1999 the maternal mortality rate for black women was 25.4, 3.7 times the rate of 6.8 for white women.

New categories are provided in ICD-10 (6) to capture deaths related to or aggravated by pregnancy or pregnancy management, but which occur more than 42 days after the termination of pregnancy. In 1999 a total of 15 deaths were reported with 5 late maternal deaths occurring more than 42 days but less than 1 year after delivery and 10 deaths occurring more than a year after delivery from obstetric complications of pregnancy, labor, and puerperium, or from interventions and treatment.

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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 1980-1999**

[Crude rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 on 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															
1999	2,391,399	1,175,460	1,215,939	2,061,348	1,005,335	1,056,013	285,064	145,703	139,361	11,312	6,092	5,220	33,675	18,330	15,345
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	2,658	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															
1999	877.0	882.0	872.2	917.7	911.2	924.1	817.7	880.0	761.3	471.8	513.3	431.2	311.2	352.7	272.8
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 1980-1999 - Con.**

[Crude rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 on 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>														
1999	881.9	1,061.8	743.6	860.7	1,035.8	725.7	1,147.1	1,412.5	955.0	716.1	842.0	608.5	517.5	640.6	424.0
1998	875.8	1,064.6	732.7	854.7	1,038.5	715.1	1,135.7	1,410.6	938.2	705.2	856.7	582.2	516.8	642.3	420.4
1997	887.3	1,090.5	736.3	864.9	1,062.5	718.3	1,151.5	1,446.7	940.7	711.6	880.3	574.0	533.9	671.1	429.7
1996	902.4	1,117.5	742.8	877.6	1,086.1	723.3	1,188.7	1,513.9	956.3	702.6	838.5	590.5	539.7	678.0	433.2
1995	918.5	1,150.3	748.2	890.0	1,112.7	726.6	1,224.5	1,582.3	970.1	716.5	864.2	592.8	616.0	788.1	488.4
1994	920.2	1,160.9	745.0	891.6	1,123.4	723.5	1,224.6	1,589.8	965.0	708.6	882.5	567.7	607.6	775.7	480.6
1993	931.5	1,181.8	751.0	902.0	1,143.0	728.9	1,247.2	1,629.3	977.7	740.8	925.9	596.6	603.4	769.0	475.2
1992	910.9	1,161.2	731.2	882.9	1,125.6	709.5	1,216.9	1,591.4	954.4	709.7	899.2	560.3	558.5	698.3	445.3
1991	925.5	1,182.6	741.6	897.0	1,146.4	719.8	1,237.9	1,622.0	968.0	710.5	889.0	567.7	558.3	697.9	444.4
1990	938.7	1,202.8	750.9	909.8	1,165.9	728.8	1,250.3	1,644.5	975.1	716.3	916.2	561.8	582.0	716.4	469.3
1989	950.5	1,215.0	761.8	920.2	1,176.6	738.8	1,275.5	1,670.1	998.1	761.6	999.8	586.3	581.3	729.6	458.4
1988	975.7	1,250.7	781.0	947.6	1,215.9	759.1	1,284.3	1,677.6	1,006.8	718.6	917.4	563.6	584.2	732.0	451.0
1987	970.0	1,246.1	774.2	943.4	1,213.4	753.3	1,263.1	1,650.3	989.7	719.8	899.3	583.7	577.3	732.4	448.1
1986	978.6	1,261.7	778.7	952.8	1,230.5	758.1	1,266.7	1,650.1	994.4	720.8	926.7	549.3	576.4	730.5	445.4
1985	988.1	1,278.1	784.5	963.6	1,249.8	764.3	1,261.2	1,634.5	994.4	731.7	926.1	577.2	586.5	755.4	456.7
1984	982.5	1,271.4	779.8	959.7	1,245.9	760.7	1,236.7	1,600.8	976.9	761.7	946.0	567.9	574.4	724.7	443.1
1983	990.0	1,284.5	783.3	967.3	1,259.4	763.9	1,240.5	1,600.7	980.7	757.3	945.0	605.5	565.1	718.8	428.8
1982	985.0	1,279.9	776.6	963.6	1,255.9	758.7	1,221.3	1,580.4	960.1	757.0	940.1	604.4	550.4	738.2	410.3
1981	1,007.1	1,308.2	792.7	984.0	1,282.2	773.6	1,258.4	1,626.6	986.6	784.6	1,030.2	588.0	544.7	710.3	405.3
1980	1,039.1	1,348.1	817.9	1,012.7	1,317.6	796.1	1,314.8	1,697.8	1,033.3	867.0	1,111.5	662.4	589.9	786.5	425.9
1970	1,222.6	1,542.1	971.4	1,193.3	1,513.7	944.0	1,518.1	1,873.9	1,228.7	---	---	---	---	---	---
1960	1,339.2	1,609.0	1,105.3	1,311.3	1,586.0	1,074.4	1,577.5	1,811.1	1,369.7	---	---	---	---	---	---
1950	1,446.0	1,674.2	1,236.0	1,410.8	1,642.5	1,198.0	---	---	---	---	---	---	---	---	---
1940	1,785.0	1,976.0	1,599.4	1,735.3	1,925.2	1,550.4	---	---	---	---	---	---	---	---	---

--- Data not available.

<sup>1</sup> For 1940-91 includes deaths among races not shown separately; see Other races and race not stated in the Technical notes for information for 1992 to present.

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

<sup>3</sup> Includes 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, 1999**

[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 on 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 .....	2,391,399	1,175,460	1,215,939	2,061,348	1,005,335	1,056,013	285,064	145,703	139,361	11,312	6,092	5,220	33,675	18,330	15,345
Under 1 year .....	27,937	15,646	12,291	18,067	10,197	7,870	8,822	4,897	3,925	343	180	163	705	372	333
1 - 4 years .....	5,249	2,975	2,274	3,690	2,084	1,606	1,311	746	565	82	48	34	166	97	69
5 - 9 years .....	3,474	1,964	1,510	2,450	1,376	1,074	880	519	361	48	21	27	96	48	48
10 - 14 years .....	4,121	2,528	1,593	3,043	1,852	1,191	909	577	332	57	34	23	112	65	47
15 - 19 years .....	13,778	9,780	3,998	10,355	7,222	3,133	2,849	2,157	692	245	179	66	329	222	107
20 - 24 years .....	16,878	12,634	4,244	11,997	8,981	3,016	4,217	3,191	1,026	295	217	78	369	245	124
25 - 29 years .....	17,703	12,542	5,161	12,569	9,015	3,554	4,444	3,073	1,371	281	180	101	409	274	135
30 - 34 years .....	23,363	15,734	7,629	16,831	11,534	5,297	5,671	3,650	2,021	364	238	126	497	312	185
35 - 39 years .....	36,804	23,681	13,123	27,024	17,792	9,232	8,663	5,171	3,492	453	293	160	664	425	239
40 - 44 years .....	52,452	33,437	19,015	38,583	25,122	13,461	12,378	7,396	4,982	574	352	222	917	567	350
45 - 49 years .....	68,120	43,303	24,817	50,895	32,778	18,117	15,304	9,392	5,912	628	415	213	1,293	718	575
50 - 54 years .....	84,854	52,356	32,498	66,116	41,130	24,986	16,455	9,906	6,549	700	430	270	1,583	890	693
55 - 59 years .....	104,884	63,441	41,443	83,876	51,133	32,743	18,359	10,751	7,608	783	452	331	1,866	1,105	761
60 - 64 years .....	134,095	79,283	54,812	109,706	65,404	44,302	21,117	12,018	9,099	891	468	423	2,381	1,393	988
65 - 69 years .....	186,695	107,529	79,166	157,260	91,520	65,740	25,461	13,862	11,599	1,037	558	479	2,937	1,589	1,348
70 - 74 years .....	265,905	147,391	118,514	230,177	128,922	101,255	30,661	15,732	14,929	1,127	590	537	3,940	2,147	1,793
75 - 79 years .....	338,349	174,853	163,496	299,701	155,859	143,842	32,927	15,873	17,054	1,151	587	564	4,570	2,534	2,036
80 - 84 years .....	360,241	166,117	194,124	326,788	151,591	175,197	28,274	11,966	16,308	913	400	513	4,266	2,160	2,106
85 years and over .....	646,141	209,989	436,152	591,949	191,610	400,339	46,285	14,768	31,517	1,339	449	890	6,568	3,162	3,406
Not stated .....	356	277	79	271	213	58	77	58	19	1	1	-	7	5	2
	Rate														
All ages <sup>3</sup> .....	877.0	882.0	872.2	917.7	911.2	924.1	817.7	880.0	761.3	471.8	513.3	431.2	311.2	352.7	272.8
Under 1 year <sup>4</sup> .....	731.4	801.5	658.1	596.8	658.1	532.6	1,551.1	1,694.0	1,403.3	806.3	839.5	772.5	388.6	403.4	373.4
1 - 4 years .....	34.7	38.5	30.8	30.7	33.9	27.4	58.9	66.0	51.5	51.4	59.4	43.1	23.0	26.6	19.4
5 - 9 years .....	17.4	19.2	15.5	15.6	17.1	14.0	28.0	32.5	23.3	21.9	18.9	25.0	11.0	10.6	11.3
10 - 14 years .....	21.1	25.3	16.7	19.8	23.5	15.9	29.4	36.8	21.9	22.9	26.9	18.8	13.6	15.4	11.7
15 - 19 years .....	69.8	96.3	41.7	66.2	89.5	41.3	93.6	139.3	46.3	104.4	151.8	56.5	40.0	53.4	26.3
20 - 24 years .....	93.6	137.6	48.0	83.5	121.8	43.1	156.4	239.3	75.3	151.8	221.7	80.9	48.1	64.5	32.0
25 - 29 years .....	97.2	138.5	56.4	86.7	123.7	49.3	170.2	246.1	100.6	145.4	181.7	107.3	45.5	65.5	28.0
30 - 34 years .....	118.4	161.0	76.6	105.7	144.5	66.7	212.0	290.5	142.4	201.3	258.1	142.2	52.7	71.2	36.6
35 - 39 years .....	163.2	211.1	115.8	146.0	191.3	100.3	298.5	378.9	227.2	243.8	314.2	172.8	69.6	93.3	48.0
40 - 44 years .....	235.5	302.9	169.3	209.2	271.9	146.2	450.0	573.9	340.8	331.9	414.8	252.1	101.7	132.9	73.7
45 - 49 years .....	351.9	455.8	251.8	314.1	407.3	222.1	683.3	915.6	487.0	438.3	596.8	288.9	168.5	200.6	140.4
50 - 54 years .....	516.0	654.6	384.7	470.8	595.5	350.1	974.3	1,307.0	703.5	621.0	794.1	460.9	263.4	318.3	215.6
55 - 59 years .....	814.6	1,026.1	619.2	757.2	950.6	574.6	1,424.0	1,905.6	1,049.3	937.6	1,145.1	751.5	439.0	552.8	338.0
60 - 64 years .....	1,275.4	1,595.9	988.3	1,211.4	1,510.1	937.6	2,000.0	2,667.9	1,503.0	1,379.3	1,553.3	1,227.2	706.2	892.1	545.9
65 - 69 years .....	1,976.2	2,479.5	1,549.1	1,920.4	2,410.3	1,496.9	2,722.6	3,464.9	2,167.6	2,071.8	2,471.2	1,743.5	1,074.9	1,358.4	862.7
70 - 74 years .....	3,031.6	3,816.5	2,414.2	2,962.4	3,740.4	2,342.1	4,124.9	5,116.9	3,425.2	2,785.7	3,246.0	2,410.1	1,812.5	2,394.6	1,403.9
75 - 79 years .....	4,616.3	5,719.8	3,826.7	4,551.6	5,647.4	3,760.8	5,903.6	7,297.1	5,012.6	3,666.0	4,358.5	3,145.7	2,933.9	3,828.0	2,273.1
80 - 84 years .....	7,478.2	9,156.8	6,464.2	7,459.1	9,163.1	6,425.3	8,533.4	10,335.9	7,565.3	4,770.9	5,165.3	4,502.8	4,979.3	5,957.6	4,261.6
85 years and over .....	15,476.1	16,931.3	14,861.2	15,688.0	17,202.1	15,053.8	14,787.7	16,047.8	14,262.9	6,569.8	6,946.2	6,395.1	9,596.9	11,343.5	8,396.6

- Quantity zero.

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

<sup>2</sup> Includes 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 and death rates by Hispanic origin, race for non-Hispanic population, age, and sex: United States, 1999**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 on censuses and surveys; see Technical notes]

	All origins <sup>1</sup>			Hispanic			Non-Hispanic <sup>2</sup>			Non-Hispanic White			Non-Hispanic Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	Number														
All ages .....	2,391,399	1,175,460	1,215,939	103,740	57,991	45,749	2,279,325	1,112,718	1,166,607	1,953,197	944,913	1,008,284	281,979	143,883	138,096
Under 1 year .....	27,937	15,646	12,291	4,412	2,411	2,001	23,126	12,998	10,128	13,553	7,718	5,835	8,589	4,765	3,824
1 - 4 years .....	5,249	2,975	2,274	882	481	401	4,343	2,479	1,864	2,819	1,605	1,214	1,283	734	549
5 - 9 years .....	3,474	1,964	1,510	464	266	198	3,001	1,692	1,309	1,990	1,115	875	869	508	361
10 - 14 years .....	4,121	2,528	1,593	550	326	224	3,559	2,193	1,366	2,498	1,528	970	902	573	329
15 - 19 years .....	13,778	9,780	3,998	1,871	1,432	439	11,861	8,323	3,538	8,490	5,799	2,691	2,813	2,133	680
20 - 24 years .....	16,878	12,634	4,244	2,634	2,115	519	14,182	10,474	3,708	9,378	6,878	2,500	4,167	3,153	1,014
25 - 29 years .....	17,703	12,542	5,161	2,527	1,956	571	15,091	10,525	4,566	10,048	7,056	2,992	4,390	3,038	1,352
30 - 34 years .....	23,363	15,734	7,629	2,870	2,128	742	20,380	13,522	6,858	13,938	9,393	4,545	5,602	3,595	2,007
35 - 39 years .....	36,804	23,681	13,123	3,624	2,601	1,023	32,997	20,947	12,050	23,345	15,144	8,201	8,563	5,104	3,459
40 - 44 years .....	52,452	33,437	19,015	4,174	2,875	1,299	47,952	30,325	17,627	34,285	22,147	12,138	12,207	7,280	4,927
45 - 49 years .....	68,120	43,303	24,817	4,767	3,213	1,554	62,981	39,813	23,168	45,974	29,448	16,526	15,131	9,266	5,865
50 - 54 years .....	84,854	52,356	32,498	5,109	3,284	1,825	79,321	48,754	30,567	60,834	37,703	23,131	16,246	9,760	6,486
55 - 59 years .....	104,884	63,441	41,443	5,495	3,409	2,086	98,934	59,720	39,214	78,170	47,570	30,600	18,176	10,627	7,549
60 - 64 years .....	134,095	79,283	54,812	6,824	4,081	2,743	126,725	74,820	51,905	102,623	61,122	41,501	20,887	11,866	9,021
65 - 69 years .....	186,695	107,529	79,166	8,843	5,026	3,817	177,240	102,119	75,121	148,130	86,299	61,831	25,217	13,720	11,497
70 - 74 years .....	265,905	147,391	118,514	10,358	5,757	4,601	254,712	141,091	113,621	219,360	122,856	96,504	30,350	15,539	14,811
75 - 79 years .....	338,349	174,853	163,496	11,081	5,860	5,221	326,279	168,453	157,826	288,018	149,671	138,347	32,618	15,706	16,912
80 - 84 years .....	360,241	166,117	194,124	9,831	4,457	5,374	349,451	161,229	188,222	316,326	146,857	169,469	28,016	11,846	16,170
85 years and over .....	646,141	209,989	436,152	17,358	6,253	11,105	627,035	203,128	423,907	573,327	184,938	388,389	45,895	14,628	31,267
Not stated .....	356	277	79	66	60	6	155	113	42	91	66	25	58	42	16
	Rate														
All ages <sup>3</sup> .....	877.0	882.0	872.2	331.0	367.9	293.7	944.4	946.9	942.0	996.3	984.7	1,007.4	852.1	918.0	792.8
Under 1 year <sup>4</sup> .....	731.4	801.5	658.1	611.5	655.3	565.9	746.4	820.5	668.9	572.7	636.5	505.6	1,623.6	1,773.3	1,469.1
1 - 4 years .....	34.7	38.5	30.8	32.1	34.3	29.8	35.1	39.2	30.8	29.7	32.9	26.2	61.8	69.8	53.7
5 - 9 years .....	17.4	19.2	15.5	14.3	16.1	12.5	18.0	19.8	16.1	15.6	17.0	14.1	29.3	33.8	24.8
10 - 14 years .....	21.1	25.3	16.7	20.1	23.3	16.7	21.2	25.5	16.7	19.3	23.1	15.4	30.8	38.6	22.8
15 - 19 years .....	69.8	96.3	41.7	67.3	99.1	32.9	69.9	95.6	42.8	64.7	85.9	42.3	97.3	145.2	47.8
20 - 24 years .....	93.6	137.6	48.0	97.9	151.6	40.1	92.5	134.5	49.1	78.8	112.9	43.0	163.0	249.7	78.4
25 - 29 years .....	97.2	138.5	56.4	98.3	148.3	45.6	96.5	136.0	57.8	82.6	116.0	49.2	177.4	257.1	104.5
30 - 34 years .....	118.4	161.0	76.6	107.9	154.7	57.7	119.4	161.1	79.1	103.2	139.5	67.1	222.1	304.9	149.5
35 - 39 years .....	163.2	211.1	115.8	140.3	195.8	81.5	165.3	211.9	119.6	144.5	187.1	101.7	311.6	396.8	236.7
40 - 44 years .....	235.5	302.9	169.3	192.8	262.6	121.4	238.5	305.0	173.5	208.0	268.6	147.4	466.2	596.0	352.7
45 - 49 years .....	351.9	455.8	251.8	287.6	392.4	185.2	355.9	458.6	256.9	312.7	403.1	223.4	706.9	948.9	503.9

See footnotes at end of table.

**Table 3. Number of deaths and death rates by Hispanic origin, race for non-Hispanic population, age, and sex: United States, 1999-Con.**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 on censuses and surveys; see Technical notes]

	All origins <sup>1</sup>			Hispanic			Non-Hispanic <sup>2</sup>			Non-Hispanic White			Non-Hispanic Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	Rate														
50 - 54 years .....	516.0	654.6	384.7	406.4	542.6	280.0	522.2	659.4	392.1	471.6	593.3	353.5	1,004.9	1,349.2	726.1
55 - 59 years .....	814.6	1,026.1	619.2	589.4	780.8	420.9	828.4	1,039.3	632.8	764.4	955.2	583.3	1,470.9	1,970.2	1,084.2
60 - 64 years .....	1,275.4	1,595.9	988.3	913.8	1,195.0	676.9	1,297.5	1,617.3	1,009.7	1,225.8	1,521.3	953.0	2,060.8	2,748.4	1,550.5
65 - 69 years .....	1,976.2	2,479.5	1,549.1	1,444.8	1,841.1	1,125.8	2,006.1	2,512.9	1,574.4	1,942.0	2,433.4	1,515.0	2,802.3	3,567.2	2,231.3
70 - 74 years .....	3,031.6	3,816.5	2,414.2	2,115.3	2,704.7	1,662.1	3,075.7	3,866.4	2,452.8	2,997.8	3,780.8	2,372.3	4,227.5	5,236.8	3,516.5
75 - 79 years .....	4,616.3	5,719.8	3,826.7	3,154.8	3,913.0	2,591.2	4,675.7	5,794.2	3,876.8	4,602.0	5,712.0	3,802.6	6,031.7	7,455.4	5,123.2
80 - 84 years .....	7,478.2	9,156.8	6,464.2	4,838.3	5,696.6	4,300.9	7,573.7	9,288.0	6,539.8	7,546.5	9,286.8	6,492.2	8,702.5	10,546.4	7,714.4
85 years and over .....	15,476.1	16,931.3	14,861.2	9,175.7	9,842.3	8,838.7	15,731.3	17,262.4	15,090.0	15,945.8	17,539.1	15,284.6	15,015.8	16,321.0	14,474.3

<sup>1</sup> All origins includes origin not stated; specified origins exclude origin not stated.  
<sup>2</sup> Includes races other than white and black.  
<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 4. Number of deaths and death rates by age, and age-adjusted death rates, according to specified Hispanic origin, race for non-Hispanic population, and sex: United States, 1999**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 on censuses and surveys; see Technical notes]

Hispanic origin, race for non-Hispanic population, and sex	All ages	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 .....	2,391,399	27,937	5,249	7,595	30,656	41,066	89,256	152,974	238,979	452,600	698,590	646,141	356	...
Male .....	1,175,460	15,646	2,975	4,492	22,414	28,276	57,118	95,659	142,724	254,920	340,970	209,989	277	...
Female .....	1,215,939	12,291	2,274	3,103	8,242	12,790	32,138	57,315	96,255	197,680	357,620	436,152	79	...
Hispanic .....	103,740	4,412	882	1,014	4,505	5,397	7,798	9,876	12,319	19,201	20,912	17,358	66	...
Male .....	57,991	2,411	481	592	3,547	4,084	5,476	6,497	7,490	10,783	10,317	6,253	60	...
Female .....	45,749	2,001	401	422	958	1,313	2,322	3,379	4,829	8,418	10,595	11,105	6	...
Mexican .....	57,425	3,159	637	697	3,156	3,452	4,430	5,483	6,662	10,668	10,847	8,214	20	...
Male .....	33,099	1,721	353	417	2,524	2,679	3,179	3,619	3,990	5,908	5,533	3,156	20	...
Female .....	24,326	1,438	284	280	632	773	1,251	1,864	2,672	4,760	5,314	5,058	-	...
Puerto Rican .....	13,909	426	71	99	414	681	1,320	1,788	2,070	2,592	2,577	1,870	1	...
Male .....	7,807	225	43	54	300	463	873	1,230	1,343	1,443	1,189	644	-	...
Female .....	6,102	201	28	45	114	218	447	558	727	1,149	1,388	1,226	1	...
Cuban .....	11,029	66	12	21	64	117	319	513	1,071	2,127	3,204	3,507	8	...
Male .....	5,561	34	5	13	44	87	236	354	690	1,349	1,603	1,141	5	...
Female .....	5,468	32	7	8	20	30	83	159	381	778	1,601	2,366	3	...
Central and South American .....	9,064	295	73	97	484	700	876	1,021	1,186	1,601	1,526	1,203	2	...
Male .....	4,708	156	36	58	377	530	584	605	668	760	589	343	2	...
Female .....	4,356	139	37	39	107	170	292	416	518	841	937	860	-	...
Other and unknown Hispanic .....	12,313	466	89	100	387	447	853	1,071	1,330	2,213	2,758	2,564	35	...
Male .....	6,816	275	44	50	302	325	604	689	799	1,323	1,403	969	33	...
Female .....	5,497	191	45	50	85	122	249	382	531	890	1,355	1,595	2	...
Non-Hispanic <sup>3</sup> .....	2,279,325	23,126	4,343	6,560	26,043	35,471	80,949	142,302	225,659	431,952	675,730	627,035	155	...
Male .....	1,112,718	12,998	2,479	3,885	18,797	24,047	51,272	88,567	134,540	243,210	329,682	203,128	113	...
Female .....	1,166,607	10,128	1,864	2,675	7,246	11,424	29,677	53,735	91,119	188,742	346,048	423,907	42	...
White .....	1,953,197	13,553	2,819	4,488	17,868	23,986	57,630	106,808	180,793	367,490	604,344	573,327	91	...
Male .....	944,913	7,718	1,605	2,643	12,677	16,449	37,291	67,151	108,692	209,155	296,528	184,938	66	...
Female .....	1,008,284	5,835	1,214	1,845	5,191	7,537	20,339	39,657	72,101	158,335	307,816	388,389	25	...
Black .....	281,979	8,589	1,283	1,771	6,980	9,992	20,770	31,377	39,063	55,567	60,634	45,895	58	...
Male .....	143,883	4,765	734	1,081	5,286	6,633	12,384	19,026	22,493	29,259	27,552	14,628	42	...
Female .....	138,096	3,824	549	690	1,694	3,359	8,386	12,351	16,570	26,308	33,082	31,267	16	...
Not stated <sup>4</sup> .....	8,334	399	24	21	108	198	509	796	1,001	1,447	1,948	1,748	135	...
Male .....	4,751	237	15	15	70	145	370	595	694	927	971	608	104	...
Female .....	3,583	162	9	6	38	53	139	201	307	520	977	1,140	31	...
Rate <sup>5,6</sup>														
All origins .....	877.0	731.4	34.7	19.2	81.2	108.3	199.2	427.3	1,021.8	2,484.3	5,751.3	15,476.1	...	881.9
Male .....	882.0	801.5	38.5	22.2	115.9	150.2	256.7	546.7	1,280.0	3,109.3	6,999.8	16,931.3	...	1,061.8
Female .....	872.2	658.1	30.8	16.1	44.7	66.9	142.5	313.1	786.5	1,972.9	4,915.4	14,861.1	...	743.6
Hispanic .....	331.0	611.5	32.1	16.9	82.4	103.2	164.2	338.8	733.7	1,742.8	3,771.8	9,175.2	...	601.0
Male .....	367.9	655.3	34.3	19.4	124.9	151.6	226.0	456.3	962.6	2,219.4	4,525.1	9,842.3	...	736.0
Female .....	293.7	565.9	29.8	14.4	36.4	51.8	99.9	226.7	536.0	1,366.8	3,245.6	8,838.0	...	490.1
Mexican .....	280.3	616.7	32.1	16.7	83.3	98.5	151.4	321.0	721.0	1,784.4	3,711.1	*	...	595.3
Male .....	313.8	659.2	35.4	19.4	125.9	145.7	207.7	412.8	885.9	2,172.7	4,171.0	*	...	694.1
Female .....	244.7	572.4	28.8	13.9	35.4	46.4	89.7	224.2	564.1	1,460.5	3,329.0	*	...	503.2
Puerto Rican .....	472.3	*	30.7	18.2	81.9	150.9	300.3	562.7	1,072.2	2,036.3	*	*	...	829.9
Male .....	550.0	*	*	19.2	121.5	219.5	429.3	825.3	*	*	*	*	...	*
Female .....	399.9	*	*	17.1	44.1	90.7	189.2	330.7	709.8	*	*	*	...	*

See footnotes at end of table.

**Table 4. Number of deaths and death rates by age, and age-adjusted death rates, according to specified Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 on censuses and surveys; see Technical notes]

Hispanic origin, race for non-Hispanic population, and sex	All ages	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>
Rate <sup>5,6</sup>														
Hispanic - Con.														
Cuban .....	820.4	*	*	*	47.0	66.7	153.1	302.0	616.9	1,467.3	3,280.6	*	...	555.5
Male .....	859.7	*	*	*	*	*	210.6	*	*	*	*	*	...	721.7
Female .....	783.9	*	*	*	*	*	*	*	*	*	*	*	...	437.2
Other Hispanic <sup>7</sup> .....	325.9	574.5	34.0	17.3	83.7	104.3	147.1	291.0	647.9	1,646.4	4,190.6	*	...	559.5
Male .....	366.2	*	31.0	19.6	129.9	153.1	205.9	409.7	973.0	*	*	*	...	738.2
Female .....	288.8	*	37.5	15.2	37.1	54.0	90.5	198.0	441.6	1,218.9	*	*	...	441.5
Non-Hispanic <sup>3</sup> .....														
Male .....	944.4	746.4	35.1	19.6	80.6	108.5	202.0	432.7	1,039.4	2,523.6	5,829.1	15,731.3	...	894.9
Female .....	946.9	820.5	39.2	22.6	114.0	149.1	258.5	551.0	1,297.1	3,153.3	7,100.4	17,262.3	...	1,076.6
White .....	942.0	668.9	30.8	16.4	45.8	68.9	146.7	319.6	803.7	2,007.1	4,979.7	15,090.0	...	756.0
Male .....	996.3	572.7	29.7	17.5	71.4	93.4	176.6	387.0	972.1	2,458.9	5,783.1	15,945.8	...	869.4
Female .....	984.7	636.5	32.9	20.1	98.7	128.4	228.2	491.6	1,208.0	3,077.6	7,057.5	17,539.1	...	1,045.1
Black .....	1,007.4	505.6	26.2	14.8	42.6	58.6	124.8	284.5	751.0	1,942.9	4,926.2	15,284.6	...	734.9
Male .....	852.1	1,623.6	61.8	30.1	128.2	200.0	387.0	835.2	1,736.7	3,434.7	7,028.3	15,015.7	...	1,177.0
Female .....	918.0	1,773.3	69.8	36.2	193.5	281.0	493.8	1,119.2	2,316.1	4,294.3	8,530.2	16,320.6	...	1,451.0
Male .....	792.8	1,469.1	53.7	23.8	62.4	127.4	293.4	600.4	1,296.5	2,809.3	6,129.5	14,474.3	...	979.3

... Category not applicable.  
 - Quantity zero.  
 \* Figure does not meet standards of reliability or precision; see Technical notes.  
<sup>1</sup> Death rates for "Under 1 year" (based on population estimates) differ from infant mortality rates (based on live births); see Technical notes.  
<sup>2</sup> For method of computation, see Technical notes.  
<sup>3</sup> Includes races other than white and black.  
<sup>4</sup> Includes deaths for which Hispanic origin was not reported on the death certificate.  
<sup>5</sup> Figures for age not stated are included in "All ages" but not distributed among age groups.  
<sup>6</sup> All origins includes origin not stated; specified origins exclude origin not stated.  
<sup>7</sup> Includes Central and South American and Other and unknown Hispanic.

**Table 5. Abridged life table for the total population, 1999**[For explanation of the columns of the life table, see *United States Abridged Life Tables, 1998*, National Vital Statistics Reports, Volume 48, Number 18]

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)
$x$ to $x + n$	$nq_x$	$l_x$	$n^d x$	$n^L x$	$T_x$	$o e_x$
0-1 .....	0.00706	100,000	706	99,384	7,672,728	76.7
1-5 .....	0.00138	99,294	137	396,850	7,573,344	76.3
5-10 .....	0.00088	99,157	87	495,553	7,176,494	72.4
10-15 .....	0.00105	99,070	104	495,154	6,680,941	67.4
15-20 .....	0.00349	98,966	345	494,048	6,185,787	62.5
20-25 .....	0.00467	98,621	461	491,972	5,691,739	57.7
25-30 .....	0.00485	98,160	476	489,624	5,199,767	53.0
30-35 .....	0.00589	97,684	575	487,046	4,710,143	48.2
35-40 .....	0.00811	97,109	788	483,681	4,223,097	43.5
40-45 .....	0.01174	96,321	1,131	478,946	3,739,416	38.8
45-50 .....	0.01753	95,190	1,669	472,027	3,260,470	34.3
50-55 .....	0.02564	93,521	2,398	461,981	2,788,443	29.8
55-60 .....	0.04028	91,123	3,670	447,053	2,326,462	25.5
60-65 .....	0.06212	87,453	5,433	424,515	1,879,409	21.5
65-70 .....	0.09432	82,020	7,736	391,815	1,454,894	17.7
70-75 .....	0.14115	74,284	10,485	346,326	1,063,079	14.3
75-80 .....	0.20804	63,799	13,273	286,913	716,753	11.2
80-85 .....	0.31784	50,526	16,059	213,410	429,840	8.5
85-90 .....	0.46485	34,467	16,022	131,252	216,430	6.3
90-95 .....	0.61935	18,445	11,424	61,192	85,178	4.6
95-100 .....	0.75858	7,021	5,326	19,623	23,986	3.4
100 and over .....	1.00000	1,695	1,695	4,363	4,363	2.6

**Table 6. Life expectancy at selected ages by race and sex: United States, 1999**

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	73.9	79.4	77.3	74.6	79.9	71.4	67.8	74.7
1 .....	76.3	73.5	78.9	76.8	74.1	79.3	71.5	67.9	74.7
5 .....	72.4	69.6	75.0	72.9	70.2	75.4	67.6	64.1	70.9
10 .....	67.4	64.7	70.0	67.9	65.2	70.5	62.7	59.2	66.0
15 .....	62.5	59.8	65.1	63.0	60.3	65.5	57.8	54.3	61.0
20 .....	57.7	55.0	60.2	58.2	55.6	60.6	53.1	49.6	56.2
25 .....	53.0	50.4	55.4	53.4	50.9	55.8	48.5	45.2	51.4
30 .....	48.2	45.7	50.5	48.6	46.2	50.9	43.9	40.7	46.6
35 .....	43.5	41.1	45.7	43.9	41.5	46.1	39.3	36.3	41.9
40 .....	38.8	36.5	41.0	39.2	36.9	41.3	34.8	31.9	37.4
45 .....	34.2	32.0	36.3	34.6	32.4	36.6	30.6	27.8	33.0
50 .....	29.8	27.7	31.7	30.1	28.0	32.0	26.6	24.0	28.7
55 .....	25.5	23.5	27.3	25.7	23.8	27.5	22.8	20.4	24.7
60 .....	21.5	19.6	23.1	21.6	19.8	23.2	19.3	17.2	20.9
65 .....	17.7	16.1	19.1	17.8	16.1	19.2	16.0	14.3	17.3
70 .....	14.3	12.8	15.4	14.4	12.9	15.5	13.0	11.6	14.0
75 .....	11.2	10.0	12.1	11.2	10.0	12.1	10.4	9.2	11.1
80 .....	8.5	7.5	9.1	8.5	7.5	9.0	8.2	7.2	8.6
85 .....	6.3	5.5	6.6	6.2	5.4	6.6	6.2	5.6	6.5
90 .....	4.6	4.1	4.8	4.5	4.0	4.7	4.8	4.4	4.8
95 .....	3.4	3.0	3.5	3.2	2.9	3.3	3.6	3.5	3.6
100 .....	2.6	2.4	2.6	2.3	2.2	2.4	2.8	2.8	2.7

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

**Table 7. Life expectancy at birth by race and sex: United States, 1940, 1950, 1960, 1970 and 1975-99**

Year	All races <sup>1</sup>			White			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
1999 .....	76.7	73.9	79.4	77.3	74.6	79.9	71.4	67.8	74.7
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 8. Death rates by age and age-adjusted death rates for the 15 leading causes of death in 1999: United States, 1998, modified 1998, and 1999**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992) 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>All causes</b>													
1999	877.0	731.4	34.7	19.2	81.2	108.3	199.2	427.3	1,021.8	2,484.3	5,751.3	15,476.1	881.9
1998 (modified) <sup>4</sup>	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	875.8
1998 <sup>5</sup>	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	875.8
<b>Diseases of heart (I00-I09,I11,I13,I20-I51)</b>													
1999	265.9	13.7	1.2	0.7	2.8	8.1	30.3	97.7	274.3	709.5	1,861.8	6,032.5	267.8
1998 (modified) <sup>4</sup>	264.4	15.9	1.4	0.8	2.8	8.2	30.1	100.0	282.8	725.1	1,870.4	5,924.3	268.5
1998 <sup>5</sup>	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	272.4
<b>Malignant neoplasms (C00-C97)</b>													
1999	201.6	1.8	2.8	2.6	4.6	10.6	37.3	130.4	380.8	836.2	1,340.0	1,796.7	202.7
1998 (modified) <sup>4</sup>	201.7	2.1	2.4	2.6	4.6	11.4	38.5	133.2	386.4	847.0	1,335.3	1,761.3	203.8
1998 <sup>5</sup>	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	202.4
<b>Cerebrovascular diseases (I60-I69)</b>													
1999	61.4	2.7	0.3	0.2	0.5	1.5	5.7	15.5	41.3	132.2	472.8	1,606.7	61.8
1998 (modified) <sup>4</sup>	61.9	8.3	0.4	0.2	0.5	1.8	6.2	17.5	45.0	137.4	481.0	1,582.6	63.0
1998 <sup>5</sup>	58.5	7.8	0.4	0.2	0.5	1.7	5.9	16.5	42.5	129.8	454.3	1,494.7	59.5
<b>Chronic lower respiratory diseases (J40-J47)</b>													
1999	45.5	0.9	0.4	0.4	0.6	0.9	2.0	8.7	48.3	179.2	400.4	642.7	45.8
1998 (modified) <sup>4</sup>	43.6	1.0	0.3	0.4	0.6	0.8	2.1	8.6	46.9	177.1	383.2	596.4	44.0
1998 <sup>5</sup>	41.6	1.0	0.3	0.4	0.6	0.8	2.0	8.2	44.8	169.0	365.7	569.2	42.0
<b>Accidents (unintentional injuries) (V01-X59,Y85-Y86)</b>													
1999	35.9	22.1	12.6	7.8	36.2	31.3	34.0	32.5	31.1	45.1	101.1	280.9	35.9
1998 (modified) <sup>4</sup>	36.0	19.7	12.9	8.5	36.8	31.7	34.6	31.7	31.5	45.5	101.3	272.8	36.1
1998 <sup>5</sup>	34.9	19.1	12.5	8.2	35.7	30.8	33.6	30.8	30.6	44.2	98.3	264.7	35.0
<b>Diabetes mellitus (E10-E14)</b>													
1999	25.1	*	*	0.1	0.4	1.5	4.3	13.2	38.9	92.8	179.1	315.6	25.2
1998 (modified) <sup>4</sup>	24.2	*	*	0.1	0.4	1.6	4.2	12.8	38.7	90.3	173.2	297.3	24.4
1998 <sup>5</sup>	24.0	*	*	0.1	0.4	1.6	4.2	12.7	38.4	89.6	171.8	294.9	24.2
<b>Influenza and pneumonia (J10-J18)</b>													
1999	23.4	8.4	0.9	0.2	0.5	0.9	2.4	4.7	11.2	37.7	158.0	748.0	23.6
1998 (modified) <sup>4</sup>	23.7	8.2	0.7	0.2	0.4	1.0	2.2	4.4	11.9	41.8	168.5	742.8	24.2
1998 <sup>5</sup>	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	34.6
<b>Alzheimer's disease (G30)</b>													
1999	16.3	*	*	*	*	*	*	0.2	1.9	17.6	130.4	598.3	16.5
1998 (modified) <sup>4,6</sup>	13.1	*	*	*	*	*	*	0.2	1.7	16.2	108.8	465.3	13.4
1998 <sup>5</sup>	8.4	*	*	*	*	*	*	0.1	1.1	10.4	70.0	299.5	8.6
<b>Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27)</b>													
1999	13.0	4.3	*	0.1	0.2	0.7	1.6	4.1	12.2	37.6	98.2	267.5	13.1
1998 (modified) <sup>4,6</sup>	12.0	4.6	*	0.1	0.1	0.5	1.2	3.3	9.9	32.0	93.4	267.6	12.1
1998 <sup>5</sup>	9.7	3.7	*	0.1	0.1	0.4	1.0	2.7	8.0	26.0	75.8	217.2	9.8
<b>Septicemia (A40-A41)</b>													
1999	11.3	7.4	0.6	0.2	0.3	0.7	1.8	4.7	11.6	31.6	79.9	219.5	11.3
1998 (modified) <sup>4</sup>	10.5	6.8	0.7	0.1	0.4	0.8	1.8	4.3	11.0	29.0	74.3	209.5	10.6
1998 <sup>5</sup>	8.8	5.7	0.6	0.1	0.3	0.7	1.5	3.6	9.2	24.3	62.2	175.3	8.9
<b>Intentional self-harm (suicide) (X60-X84,Y87.0)</b>													
1999	10.7	*	*	0.6	10.3	13.5	14.4	14.2	12.4	13.6	18.3	19.2	10.7
1998 (modified) <sup>4</sup>	11.3	*	*	0.8	11.1	13.7	15.3	14.7	13.1	14.0	19.6	20.9	11.3
1998 <sup>5</sup>	11.3	*	*	0.8	11.1	13.8	15.4	14.8	13.1	14.1	19.7	21.0	11.3
<b>Chronic liver disease and cirrhosis (K70,K73-K74)</b>													
1999	9.6	*	*	*	0.1	1.1	7.4	17.8	24.1	31.0	32.1	23.1	9.7
1998 (modified) <sup>4</sup>	9.6	*	*	*	0.1	1.3	7.9	17.2	24.2	31.8	32.1	22.7	9.8
1998 <sup>5</sup>	9.3	*	*	*	0.1	1.3	7.6	16.6	23.3	30.7	31.0	21.9	9.5
<b>Essential (primary) hypertension and hypertensive renal disease (I10,I12)</b>													
1999	6.2	*	*	*	*	0.2	0.7	2.2	5.6	15.4	43.8	151.3	6.3
1998 (modified) <sup>4</sup>	5.9	*	*	*	*	0.1	0.6	1.9	5.6	15.2	42.9	143.7	6.0
1998 <sup>5</sup>	5.3	*	*	*	*	0.1	0.5	1.7	5.0	13.6	38.3	128.4	5.4

See footnotes at end of table.

**Table 8. Death rates by age and age-adjusted death rates for the 15 leading causes of death in 1999: United States, 1998, modified 1998, and 1999 - Con.**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992) 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	
Assault (homicide) (X85-Y09,Y87.1)													
1999 .....	6.2	8.7	2.5	1.1	13.2	11.2	7.2	4.7	3.1	2.6	2.5	2.4	6.2
1998 (modified) <sup>4</sup> .....	6.6	8.5	2.6	1.2	14.6	11.5	7.7	4.9	3.3	2.5	2.7	2.4	6.5
1998 <sup>5</sup> .....	6.6	8.5	2.6	1.2	14.6	11.5	7.7	4.9	3.3	2.5	2.7	2.4	6.5
Aortic aneurysm and dissection (I71)													
1999 .....	5.8	*	*	*	0.1	0.2	0.7	1.8	6.1	22.0	48.9	79.9	5.8
1998 (modified) <sup>4</sup> .....	6.0	*	*	*	0.1	0.3	0.7	1.7	6.4	23.5	51.6	79.9	6.1
1998 <sup>5</sup> .....	6.0	*	*	*	0.1	0.3	0.7	1.7	6.4	23.5	51.5	79.8	6.1

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

. 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> For method of computation, see Technical notes.

<sup>4</sup> Age-specific and age-adjusted rates were modified with the comparability ratios shown in table III of the Technical notes.

<sup>5</sup> The 1998 cause-of-death data are tabulated using ICD-9 codes that approximate ICD-10 categories as shown in table III of the Technical notes.

<sup>6</sup> For a discussion of 1998-1999 comparisons, see Technical notes.

**Table 9. Number of deaths from 113 selected causes by age: United States, 1999**

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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 .....	2,391,399	27,937	5,249	7,595	30,656	41,066	89,256	152,974	238,979	452,600	698,590	646,141	356
Salmonella infections (A01-A02) .....	38	3	-	-	2	-	2	2	3	7	12	7	-
Shigellosis and amebiasis (A03,A06) .....	10	-	1	1	-	-	1	-	1	1	1	4	-
Certain other intestinal infections (A04,A07-A09) .....	1,108	12	8	3	5	6	7	23	49	176	390	429	-
Tuberculosis (A16-A19) .....	930	2	2	3	11	19	57	106	130	173	253	173	1
Respiratory tuberculosis (A16) .....	764	1	1	1	8	14	45	76	109	139	216	153	1
Other tuberculosis (A17-A19) .....	166	1	1	2	3	5	12	30	21	34	37	20	-
Whooping cough (A37) .....	7	7	-	-	-	-	-	-	-	-	-	-	-
Scarlet fever and erysipelas (A38,A46) .....	5	-	-	-	-	-	-	-	-	2	1	2	-
Meningococcal infection (A39) .....	227	32	30	25	39	23	27	17	4	9	13	8	-
Septicemia (A40-A41) .....	30,680	283	87	77	121	275	812	1,685	2,714	5,750	9,710	9,166	-
Syphilis (A50-A53) .....	33	2	-	-	-	1	1	5	4	6	10	4	-
Acute poliomyelitis (A80) .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Arthropod-borne viral encephalitis (A83-A84,A85.2) .....	3	-	-	-	-	-	-	-	-	2	-	1	-
Measles (B05) .....	2	1	-	-	-	-	-	-	1	-	-	-	-
Viral hepatitis (B15-B19) .....	4,853	2	3	3	14	88	722	1,506	786	881	651	197	-
Human immunodeficiency virus (HIV) disease (B20-B24) .....	14,802	14	24	66	198	2,729	6,232	3,907	1,149	398	70	14	1
Malaria (B50-B54) .....	7	1	-	-	-	2	1	-	1	2	-	-	-
Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44, A48-A49,A54-A79,A81-A82,A85.0-A85.1,A85.8, A86-B04,B06-B09,B25-B49,B55-B99) .....	7,279	203	81	79	90	242	545	836	898	1,443	1,739	1,123	-
Malignant neoplasms (C00-C97) .....	549,838	68	418	1,012	1,724	4,005	16,732	46,681	89,067	152,338	162,770	75,014	9
Malignant neoplasms of lip, oral cavity and pharynx (C00-C14) .....	7,486	-	2	6	27	43	291	1,061	1,616	1,896	1,744	800	-
Malignant neoplasm of esophagus (C15) .....	11,918	-	-	-	-	37	293	1,262	2,531	3,694	2,986	1,114	1
Malignant neoplasm of stomach (C16) .....	12,711	-	-	1	13	136	505	1,101	1,860	3,152	3,860	2,083	-
Malignant neoplasms of colon, rectum and anus (C18-C21) .....	57,155	1	-	1	49	283	1,333	4,057	7,967	14,249	17,929	11,286	-
Malignant neoplasms of liver and intrahepatic bile ducts (C22) .....	12,382	8	29	11	43	78	444	1,492	2,091	3,491	3,425	1,270	-
Malignant neoplasm of pancreas (C25) .....	29,082	1	-	-	3	55	594	2,353	4,707	8,293	8,933	4,142	1
Malignant neoplasm of larynx (C32) .....	3,815	-	-	-	-	6	78	405	904	1,239	892	291	-
Malignant neoplasms of trachea, bronchus and lung (C33-C34) .....	152,156	-	-	5	20	179	2,724	11,434	29,344	51,848	44,261	12,339	2
Malignant melanoma of skin (C43) .....	7,215	1	-	1	39	194	625	1,120	1,263	1,652	1,639	681	-
Malignant neoplasm of breast (C50) .....	41,528	-	1	1	13	439	2,741	6,174	7,399	9,109	9,651	6,000	-
Malignant neoplasm of cervix uteri (C53) .....	4,205	-	-	-	12	217	699	914	769	696	568	329	1
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) .....	6,468	-	-	-	2	23	142	468	1,019	1,807	2,008	999	-
Malignant neoplasm of ovary (C56) .....	13,627	-	1	2	27	77	496	1,549	2,426	3,612	3,875	1,562	-
Malignant neoplasm of prostate (C61) .....	31,729	1	-	-	1	2	33	374	1,946	7,316	13,435	8,620	1
Malignant neoplasms of kidney and renal pelvis (C64-C65) .....	11,116	2	19	33	17	54	342	1,147	2,111	3,076	3,010	1,305	-
Malignant neoplasm of bladder (C67) .....	11,911	-	-	1	1	16	100	463	1,244	2,923	4,317	2,845	1
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) .....	12,765	10	113	308	218	444	1,065	1,880	2,453	3,119	2,492	663	-
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) .....	56,318	30	137	351	720	960	1,913	3,950	7,554	14,332	18,089	8,282	-
Hodgkin's disease (C81) .....	1,403	-	1	9	94	148	165	165	178	283	262	98	-
Non-Hodgkin's lymphoma (C82-C85) .....	22,802	2	16	37	144	289	789	1,741	3,154	5,848	7,554	3,228	-
Leukemia (C91-C95) .....	21,014	27	119	305	482	500	799	1,370	2,516	5,012	6,460	3,424	-
Multiple myeloma and immunoproliferative neoplasms (C88,C90) .....	11,016	-	-	-	-	22	156	665	1,694	3,172	3,788	1,519	-
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) .....	83	1	1	-	-	1	4	9	12	17	25	13	-

See footnotes at end of table.

**Table 9. Number of deaths from 113 selected causes by age: United States, 1999 - Con.**

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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 other and unspecified malignant neoplasms (C17,C23-C24,C26-C31,C37-C41,C44-C49,C51-C52,C57-C60,C62-C63,C66,C68-C69,C73-C80,C97) .....	66,251	14	116	291	519	762	2,314	5,477	9,863	16,834	19,656	10,403	2
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	13,227	58	63	101	98	171	342	662	1,133	2,684	4,472	3,443	-
Anemias (D50-D64) .....	4,503	12	30	53	121	160	194	232	231	486	1,164	1,820	-
Diabetes mellitus (E10-E14) .....	68,399	2	8	32	155	582	1,942	4,735	9,097	16,908	21,757	13,178	3
Nutritional deficiencies (E40-E64) .....	4,289	9	2	1	8	12	64	106	170	429	1,248	2,240	-
Malnutrition (E40-E46) .....	3,985	7	2	1	7	11	61	99	154	407	1,159	2,077	-
Other nutritional deficiencies (E50-E64) .....	304	2	-	-	1	1	3	7	16	22	89	163	-
Meningitis (G00,G03) .....	850	116	45	27	41	48	76	108	90	115	122	62	-
Parkinson's disease (G20-G21) .....	14,593	1	-	-	2	2	5	43	242	2,020	7,110	5,168	-
Alzheimer's disease (G30) .....	44,536	-	-	-	1	-	7	60	448	3,204	15,836	24,980	-
Major cardiovascular diseases (I00-I78) .....	950,314	644	234	354	1,315	3,873	17,010	42,512	77,833	163,428	302,552	340,510	49
Diseases of heart (I00-I09,I11,I13,I20-I51) .....	725,192	524	183	277	1,069	3,066	13,600	34,994	64,167	129,253	226,152	251,860	47
Acute rheumatic fever and chronic rheumatic heart diseases (I00-I09) .....	3,676	6	1	5	13	42	124	245	411	854	1,227	748	-
Hypertensive heart disease (I11) .....	22,702	1	-	-	33	210	964	1,930	2,537	3,517	5,830	7,679	1
Hypertensive heart and renal disease (I13) .....	3,327	-	-	2	6	21	114	156	262	470	1,087	1,209	-
Ischemic heart diseases (I20-I25) .....	529,659	27	5	22	137	1,014	7,751	24,775	48,377	98,840	169,296	179,376	39
Acute myocardial infarction (I21-I22) .....	199,454	13	2	11	60	434	3,249	10,823	21,406	41,441	64,711	57,297	7
Other acute ischemic heart diseases (I24) .....	3,232	3	1	1	3	6	81	252	448	674	855	908	-
Other forms of chronic ischemic heart disease (I20,I25) .....	326,973	11	2	10	74	574	4,421	13,700	26,523	56,725	103,730	121,171	32
Atherosclerotic cardiovascular disease, so described (I25.0) .....	71,926	-	1	1	13	160	1,488	4,737	8,383	13,395	20,321	23,403	24
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9) .....	255,047	11	1	9	61	414	2,933	8,963	18,140	43,330	83,409	97,768	8
Other heart diseases (I26-I51) .....	165,828	490	177	248	880	1,779	4,647	7,888	12,580	25,572	48,712	62,848	7
Acute and subacute endocarditis (I33) .....	1,116	2	1	-	7	30	114	143	171	240	289	119	-
Diseases of pericardium and acute myocarditis (I30-I31,I40) .....	890	27	25	21	32	50	114	105	125	146	160	85	-
Heart failure (I50) .....	54,913	11	10	12	31	65	272	782	2,107	6,524	16,771	28,327	1
All other forms of heart disease (I26-I28,I34-I38,I42-I49,I51) .....	108,909	450	141	215	810	1,634	4,147	6,858	10,177	18,662	31,492	34,317	6
Essential (primary) hypertension and hypertensive renal disease (I10,I12) .....	16,968	3	3	1	13	78	313	799	1,318	2,799	5,324	6,317	-
Cerebrovascular diseases (I60-I69) .....	167,366	103	46	65	182	580	2,574	5,563	9,652	24,092	57,427	67,080	2
Atherosclerosis (I70) .....	14,979	2	-	-	2	8	45	185	486	1,476	4,385	8,390	-
Other diseases of circulatory system (I71-I78) .....	25,809	12	2	11	49	141	478	971	2,210	5,808	9,264	6,863	-
Aortic aneurysm and dissection (I71) .....	15,807	1	1	3	31	93	329	638	1,437	4,001	5,936	3,337	-
Other diseases of arteries, arterioles and capillaries (I72-I78) .....	10,002	11	1	8	18	48	149	333	773	1,807	3,328	3,526	-
Other disorders of circulatory system (I80-I99) .....	4,025	23	1	2	30	93	271	378	445	692	1,117	972	1
Influenza and pneumonia (J10-J18) .....	63,730	320	130	93	179	339	1,063	1,697	2,625	6,861	19,192	31,229	2
Influenza (J10-J11) .....	1,665	13	12	11	11	9	16	26	71	164	451	881	-
Pneumonia (J12-J18) .....	62,065	307	118	82	168	330	1,047	1,671	2,554	6,697	18,741	30,348	2
Other acute lower respiratory infections (J20-J22) .....	540	63	25	5	5	4	11	15	21	35	107	249	-
Acute bronchitis and bronchiolitis (J20-J21) .....	388	62	24	4	5	3	10	14	18	29	69	150	-
Unspecified acute lower respiratory infection (J22) .....	152	1	1	1	-	1	1	1	3	6	38	99	-
Chronic lower respiratory diseases (J40-J47) .....	124,181	36	54	139	209	330	890	3,110	11,297	32,644	48,635	26,833	4
Bronchitis, chronic and unspecified (J40-J42) .....	1,172	20	19	4	7	11	18	38	97	173	339	446	-
Emphysema (J43) .....	17,787	1	-	1	1	9	97	468	2,019	5,656	6,955	2,580	-
Asthma (J45-J46) .....	4,657	5	27	126	182	262	447	607	583	773	925	720	-
Other chronic lower respiratory diseases (J44,J47) .....	100,565	10	8	8	19	48	328	1,997	8,598	26,042	40,416	23,087	4
Pneumoconiosis and chemical effects (J60-J66,J68) .....	1,113	-	3	-	1	-	7	15	57	274	503	253	-
Pneumonitis due to solids and liquids (J69) .....	15,268	16	12	16	32	78	166	284	586	1,754	5,030	7,294	-

See footnotes at end of table.

**Table 9. Number of deaths from 113 selected causes by age: United States, 1999 - Con.**

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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
Other diseases of respiratory system (J00-J06,J30-J39, J67,J70-J98) .....	25,031	252	91	76	115	257	576	1,219	2,260	5,409	8,646	6,130	-
Peptic ulcer (K25-K28) .....	4,604	2	2	-	2	21	123	255	422	836	1,500	1,439	2
Diseases of appendix (K35-K38) .....	390	3	2	26	5	6	24	49	48	69	96	62	-
Hernia (K40-K46) .....	1,464	44	3	2	3	16	39	55	107	215	451	529	-
Chronic liver disease and cirrhosis (K70,K73-K74) .....	26,259	5	2	2	26	407	3,302	6,368	5,637	5,642	3,901	965	2
Alcoholic liver disease (K70) .....	11,958	-	-	-	8	259	2,186	3,802	2,859	1,935	789	118	2
Other chronic liver disease and cirrhosis (K73-K74) .....	14,301	5	2	2	18	148	1,116	2,566	2,778	3,707	3,112	847	-
Cholelithiasis and other disorders of gallbladder (K80-K82) .....	2,830	2	-	1	10	16	59	124	203	475	948	992	-
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) .....	35,525	166	15	31	72	252	707	1,480	2,864	6,841	11,927	11,170	-
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01,N04) .....	182	3	2	5	2	5	5	11	16	37	62	34	-
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (N02-N03,N05-N07,N26) .....	589	-	1	1	7	15	28	44	60	101	200	132	-
Renal failure (N17-N19) .....	34,719	163	12	25	63	230	673	1,422	2,784	6,697	11,652	10,998	-
Other disorders of kidney (N25,N27) .....	35	-	-	-	-	2	1	3	4	6	13	6	-
Infections of kidney (N10-N12,N13.6,N15.1) .....	846	3	1	1	4	9	28	55	59	133	242	311	-
Hyperplasia of prostate (N40) .....	430	-	-	-	-	-	-	1	13	47	160	209	-
Inflammatory diseases of female pelvic organs (N70-N76) .....	108	2	1	-	3	6	12	6	13	15	32	18	-
Pregnancy, childbirth and the puerperium (O00-O99) .....	406	...	...	-	97	181	121	7	...	...	...	...	-
Pregnancy with abortive outcome (O00-O07) .....	31	...	...	-	8	15	8	-	...	...	...	...	-
Other complications of pregnancy, childbirth and the puerperium (O10-O99) .....	375	...	...	-	89	166	113	7	...	...	...	...	-
Certain conditions originating in the perinatal period (P00-P96) .....	14,259	14,084	92	43	16	7	3	2	3	2	1	1	5
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) .....	10,393	5,473	549	428	434	465	552	647	557	469	491	326	2
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	26,672	3,538	236	137	609	1,095	2,062	2,151	1,860	2,698	4,413	7,798	75
All other diseases (Residual) .....	171,683	1,148	647	921	1,771	3,062	7,989	12,383	14,390	25,165	45,598	58,599	10
Accidents (unintentional injuries) (V01-X59,Y85-Y86) .....	97,860	845	1,898	3,091	13,656	11,890	15,231	11,639	7,285	8,208	12,282	11,729	106
Transport accidents (V01-V99,Y85) .....	46,423	189	712	1,975	10,689	7,434	7,553	5,645	3,812	3,579	3,468	1,330	37
Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5,V81.0-V81.1, V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8, V89.0,V89.2) .....	42,401	184	650	1,771	10,128	6,778	6,738	4,972	3,370	3,276	3,243	1,261	30
Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V11, V15-V18,V19.3,V19.8-V19.9,V80.0-V80.2, V80.6-V80.9,V81.2-V81.9,V82.2-V82.9,V87.9, V88.9,V89.1,V89.3,V89.9) .....	2,118	4	48	128	362	317	408	304	182	145	159	54	7
Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) .....	1,904	1	14	76	199	339	407	369	260	158	66	15	-
Nontransport accidents (W00-X59,Y86) .....	51,437	656	1,186	1,116	2,967	4,456	7,678	5,994	3,473	4,629	8,814	10,399	69
Falls (W00-W19) .....	13,162	12	55	53	242	343	645	824	887	1,663	3,856	4,578	4
Accidental discharge of firearms (W32-W34) .....	824	-	12	76	251	143	136	92	48	33	23	10	-
Accidental drowning and submersion (W65-W74) .....	3,529	68	490	369	647	446	475	370	219	185	158	68	34
Accidental exposure to smoke, fire and flames (X00-X09) .....	3,348	41	302	262	201	282	421	368	319	416	487	245	4
Accidental poisoning and exposure to noxious substances (X40-X49) .....	12,186	12	34	40	964	2,355	4,549	2,844	668	300	265	143	12

See footnotes at end of table.

Table 9. Number of deaths from 113 selected causes by age: United States, 1999 - Con.

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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
Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86) .....	18,388	523	293	316	662	887	1,452	1,496	1,332	2,032	4,025	5,355	15
Intentional self-harm (suicide) (X60-X84,Y87.0) .....	29,199	...	...	244	3,901	5,106	6,466	5,081	2,896	2,471	2,217	801	16
Intentional self-harm (suicide) by discharge of firearms (X72-X74) .....	16,599	...	...	103	2,315	2,621	3,097	2,677	1,860	1,791	1,606	524	5
Intentional self-harm (suicide) by other and unspecified means and their sequelae (X60-X71,X75-X84, Y87.0) .....	12,600	...	...	141	1,586	2,485	3,369	2,404	1,036	680	611	277	11
Assault (homicide) (X85-Y09,Y87.1) .....	16,889	331	376	432	4,998	4,231	3,206	1,668	722	473	304	99	49
Assault (homicide) by discharge of firearms (X93-X95) .....	10,828	8	50	224	4,038	3,048	1,868	893	373	193	95	23	15
Assault (homicide) by other and unspecified means and their sequelae (X85-X92,X96-Y09,Y87.1) .....	6,061	323	326	208	960	1,183	1,338	775	349	280	209	76	34
Legal intervention (Y35,Y89.0) .....	398	-	-	1	67	136	121	50	20	2	1	-	-
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) ...	3,917	55	43	49	430	743	1,295	793	222	114	96	58	19
Discharge of firearms, undetermined intent (Y22-Y24) ..	324	-	3	12	127	51	57	28	14	15	13	4	-
Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2, Y89.9) .....	3,593	55	40	37	303	692	1,238	765	208	99	83	54	19
Operations of war and their sequelae (Y36,Y89.1) .....	23	-	-	-	-	-	1	2	1	8	8	3	-
Complications of medical and surgical care (Y40-Y84,Y88) .....	2,823	54	30	18	36	78	152	214	315	586	811	529	-

- Quantity zero.

... Category not applicable.

NOTE: Complete confirmation of deaths from selected causes of death, considered to be of public health concern, were not provided by the following States--California, Florida, Illinois, Indiana, Kentucky, Maine, Michigan, Missouri, New Jersey, New York City, North Carolina, Ohio, Pennsylvania, Rhode Island, Washington, and West Virginia; see Technical notes.

**Table 10. Death rates for 113 selected causes by age: United States, 1999**

[Rates per 100,000 population in specified group]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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 .....	877.0	731.4	34.7	19.2	81.2	108.3	199.2	427.3	1,021.8	2,484.3	5,751.3	15,476.1
Salmonella infections (A01-A02) .....	0.0	*	*	*	*	*	*	*	*	*	*	*
Shigellosis and amebiasis (A03,A06) .....	*	*	*	*	*	*	*	*	*	*	*	*
Certain other intestinal infections (A04,A07-A09) .....	0.4	*	*	*	*	*	*	0.1	0.2	1.0	3.2	10.3
Tuberculosis (A16-A19) .....	0.3	*	*	*	*	*	0.1	0.3	0.6	0.9	2.1	4.1
Respiratory tuberculosis (A16) .....	0.3	*	*	*	*	*	0.1	0.2	0.5	0.8	1.8	3.7
Other tuberculosis (A17-A19) .....	0.1	*	*	*	*	*	*	0.1	0.1	0.2	0.3	0.5
Whooping cough (A37) .....	*	*	*	*	*	*	*	*	*	*	*	*
Scarlet fever and erysipelas (A38,A46) .....	*	*	*	*	*	*	*	*	*	*	*	*
Meningococcal infection (A39) .....	0.1	0.8	0.2	0.1	0.1	0.1	0.1	*	*	*	*	*
Septicemia (A40-A41) .....	11.3	7.4	0.6	0.2	0.3	0.7	1.8	4.7	11.6	31.6	79.9	219.5
Syphilis (A50-A53) .....	0.0	*	*	*	*	*	*	*	*	*	*	*
Acute poliomyelitis (A80) .....	*	*	*	*	*	*	*	*	*	*	*	*
Arthropod-borne viral encephalitis (A83-A84,A85.2) .....	*	*	*	*	*	*	*	*	*	*	*	*
Measles (B05) .....	*	*	*	*	*	*	*	*	*	*	*	*
Viral hepatitis (B15-B19) .....	1.8	*	*	*	*	0.2	1.6	4.2	3.4	4.8	5.4	4.7
Human immunodeficiency virus (HIV) disease (B20-B24) .....	5.4	*	0.2	0.2	0.5	7.2	13.9	10.9	4.9	2.2	0.6	*
Malaria (B50-B54) .....	*	*	*	*	*	*	*	*	*	*	*	*
Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44, A48-A49,A54-A79,A81-A82,A85.0-A85.1,A85.8, A86-B04,B06-B09,B25-B49,B55-B99) .....	2.7	5.3	0.5	0.2	0.2	0.6	1.2	2.3	3.8	7.9	14.3	26.9
Malignant neoplasms (C00-C97) .....	201.6	1.8	2.8	2.6	4.6	10.6	37.3	130.4	380.8	836.2	1,340.0	1,796.7
Malignant neoplasms of lip, oral cavity, and pharynx (C00-C14) .....	2.7	*	*	*	0.1	0.1	0.6	3.0	6.9	10.4	14.4	19.2
Malignant neoplasm of esophagus (C15) .....	4.4	*	*	*	*	0.1	0.7	3.5	10.8	20.3	24.6	26.7
Malignant neoplasm of stomach (C16) .....	4.7	*	*	*	*	0.4	1.1	3.1	8.0	17.3	31.8	49.9
Malignant neoplasms of colon, rectum and anus (C18-C21) .....	21.0	*	*	*	0.1	0.7	3.0	11.3	34.1	78.2	147.6	270.3
Malignant neoplasms of liver and intrahepatic bile ducts (C22) .....	4.5	*	0.2	*	0.1	0.2	1.0	4.2	8.9	19.2	28.2	30.4
Malignant neoplasm of pancreas (C25) .....	10.7	*	*	*	*	0.1	1.3	6.6	20.1	45.5	73.5	99.2
Malignant neoplasm of larynx (C32) .....	1.4	*	*	*	*	*	0.2	1.1	3.9	6.8	7.3	7.0
Malignant neoplasm of trachea, bronchus and lung (C33-C34) .....	55.8	*	*	*	0.1	0.5	6.1	31.9	125.5	284.6	364.4	295.5
Malignant melanoma of skin (C43) .....	2.6	*	*	*	0.1	0.5	1.4	3.1	5.4	9.1	13.5	16.3
Malignant neoplasm of breast (C50) .....	15.2	*	*	*	*	1.2	6.1	17.2	31.6	50.0	79.5	143.7
Malignant neoplasm of cervix uteri (C53) .....	1.5	*	*	*	*	0.6	1.6	2.6	3.3	3.8	4.7	7.9
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) .....	2.4	*	*	*	*	0.1	0.3	1.3	4.4	9.9	16.5	23.9
Malignant neoplasm of ovary (C56) .....	5.0	*	*	*	0.1	0.2	1.1	4.3	10.4	19.8	31.9	37.4
Malignant neoplasm of prostate (C61) .....	11.6	*	*	*	*	*	0.1	1.0	8.3	40.2	110.6	206.5
Malignant neoplasms of kidney and renal pelvis (C64-C65) .....	4.1	*	*	0.1	*	0.1	0.8	3.2	9.0	16.9	24.8	31.3
Malignant neoplasm of bladder (C67) .....	4.4	*	*	*	*	*	0.2	1.3	5.3	16.0	35.5	68.1
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) .....	4.7	*	0.7	0.8	0.6	1.2	2.4	5.3	10.5	17.1	20.5	15.9
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) .....	20.7	0.8	0.9	0.9	1.9	2.5	4.3	11.0	32.3	78.7	148.9	198.4
Hodgkin's disease (C81) .....	0.5	*	*	*	0.2	0.4	0.4	0.5	0.8	1.6	2.2	2.3
Non-Hodgkin's lymphoma (C82-C85) .....	8.4	*	*	0.1	0.4	0.8	1.8	4.9	13.5	32.1	62.2	77.3
Leukemia (C91-C95) .....	7.7	0.7	0.8	0.8	1.3	1.3	1.8	3.8	10.8	27.5	53.2	82.0
Multiple myeloma and immunoproliferative neoplasms (C88,C90) .....	4.0	*	*	*	*	0.1	0.3	1.9	7.2	17.4	31.2	36.4
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) .....	0.0	*	*	*	*	*	*	*	*	*	0.2	*

See footnotes at end of table.

**Table 10. Death rates for 113 selected causes by age: United States, 1999 - Con.**

[Rates per 100,000 population in specified group]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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 other and unspecified malignant neoplasms (C17,C23-C24,C26-C31,C37-C41,C44-C49,C51-C52,C57-C60,C62-C63,C66,C68-C69,C73-C80,C97) .....	24.3	*	0.8	0.7	1.4	2.0	5.2	15.3	42.2	92.4	161.8	249.2
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	4.9	1.5	0.4	0.3	0.3	0.5	0.8	1.8	4.8	14.7	36.8	82.5
Anemias (D50-D64) .....	1.7	*	0.2	0.1	0.3	0.4	0.4	0.6	1.0	2.7	9.6	43.6
Diabetes mellitus (E10-E14) .....	25.1	*	*	0.1	0.4	1.5	4.3	13.2	38.9	92.8	179.1	315.6
Nutritional deficiencies (E40-E64) .....	1.6	*	*	*	*	*	0.1	0.3	0.7	2.4	10.3	53.7
Malnutrition (E40-E46) .....	1.5	*	*	*	*	*	0.1	0.3	0.7	2.2	9.5	49.7
Other nutritional deficiencies (E50-E64) .....	0.1	*	*	*	*	*	*	*	*	0.1	0.7	3.9
Meningitis (G00,G03) .....	0.3	3.0	0.3	0.1	0.1	0.1	0.2	0.3	0.4	0.6	1.0	1.5
Parkinson's disease (G20-G21) .....	5.4	*	*	*	*	*	*	0.1	1.0	11.1	58.5	123.8
Alzheimer's disease (G30) .....	16.3	*	*	*	*	*	*	0.2	1.9	17.6	130.4	598.3
Major cardiovascular diseases (I00-I78) .....	348.5	16.9	1.5	0.9	3.5	10.2	38.0	118.7	332.8	897.1	2,490.8	8,155.8
Diseases of heart (I00-I09,I11,I13,I20-I51) .....	265.9	13.7	1.2	0.7	2.8	8.1	30.3	97.7	274.3	709.5	1,861.8	6,032.5
Acute rheumatic fever and chronic rheumatic heart disease (I00-I09) .....	1.3	*	*	*	*	0.1	0.3	0.7	1.8	4.7	10.1	17.9
Hypertensive heart disease (I11) .....	8.3	*	*	*	0.1	0.6	2.2	5.4	10.8	19.3	48.0	183.9
Hypertensive heart and renal disease (I13) .....	1.2	*	*	*	*	0.1	0.3	0.4	1.1	2.6	8.9	29.0
Ischemic heart disease (I20-I25) .....	194.2	0.7	*	0.1	0.4	2.7	17.3	69.2	206.8	542.5	1,393.8	4,296.3
Acute myocardial infarction (I21-I22) .....	73.1	*	*	*	0.2	1.1	7.3	30.2	91.5	227.5	532.7	1,372.4
Other acute ischemic heart diseases (I24) .....	1.2	*	*	*	*	*	0.2	0.7	1.9	3.7	7.0	21.7
Other forms of chronic ischemic heart disease (I20,I25) .....	119.9	*	*	*	0.2	1.5	9.9	38.3	113.4	311.4	854.0	2,902.2
Atherosclerotic cardiovascular disease, so described (I25.0) .....	26.4	*	*	*	*	0.4	3.3	13.2	35.8	73.5	167.3	560.5
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9) .....	93.5	*	*	*	0.2	1.1	6.5	25.0	77.6	237.8	686.7	2,341.7
Other heart diseases (I26-I51) .....	60.8	12.8	1.2	0.6	2.3	4.7	10.4	22.0	53.8	140.4	401.0	1,505.3
Acute and subacute endocarditis (I33) .....	0.4	*	*	*	*	0.1	0.3	0.4	0.7	1.3	2.4	2.9
Diseases of pericardium and acute myocarditis (I30-I31,I40) .....	0.3	0.7	0.2	0.1	0.1	0.1	0.3	0.3	0.5	0.8	1.3	2.0
Heart failure (I50) .....	20.1	*	*	*	0.1	0.2	0.6	2.2	9.0	35.8	138.1	678.5
All other forms of heart disease (I26-I28,I34-I38,I42-I49,I51) .....	39.9	11.8	0.9	0.5	2.1	4.3	9.3	19.2	43.5	102.4	259.3	821.9
Essential (primary) hypertension and hypertensive renal disease (I10,I12) .....	6.2	*	*	*	*	0.2	0.7	2.2	5.6	15.4	43.8	151.3
Cerebrovascular diseases (I60-I69) .....	61.4	2.7	0.3	0.2	0.5	1.5	5.7	15.5	41.3	132.2	472.8	1,606.7
Atherosclerosis (I70) .....	5.5	*	*	*	*	*	0.1	0.5	2.1	8.1	36.1	201.0
Other diseases of circulatory system (I71-I78) .....	9.5	*	*	*	0.1	0.4	1.1	2.7	9.4	31.9	76.3	164.4
Aortic aneurysm and dissection (I71) .....	5.8	*	*	*	0.1	0.2	0.7	1.8	6.1	22.0	48.9	79.9
Other diseases of arteries, arterioles and capillaries (I72-I78) .....	3.7	*	*	*	*	0.1	0.3	0.9	3.3	9.9	27.4	84.5
Other disorders of circulatory system (I80-I99) .....	1.5	0.6	*	*	0.1	0.2	0.6	1.1	1.9	3.8	9.2	23.3
Influenza and pneumonia (J10-J18) .....	23.4	8.4	0.9	0.2	0.5	0.9	2.4	4.7	11.2	37.7	158.0	748.0
Influenza (J10-J11) .....	0.6	*	*	*	*	*	*	0.1	0.3	0.9	3.7	21.1
Pneumonia (J12-J18) .....	22.8	8.0	0.8	0.2	0.4	0.9	2.3	4.7	10.9	36.8	154.3	726.9
Other acute lower respiratory infections (J20-J22) .....	0.2	1.6	0.2	*	*	*	*	*	0.1	0.2	0.9	6.0
Acute bronchitis and bronchiolitis (J20-J21) .....	0.1	1.6	0.2	*	*	*	*	*	*	0.2	0.6	3.6
Unspecified acute lower respiratory infection (J22) .....	0.1	*	*	*	*	*	*	*	*	*	0.3	2.4
Chronic lower respiratory diseases (J40-J47) .....	45.5	0.9	0.4	0.4	0.6	0.9	2.0	8.7	48.3	179.2	400.4	642.7
Bronchitis, chronic and unspecified (J40-J42) .....	0.4	0.5	*	*	*	*	*	0.1	0.4	0.9	2.8	10.7
Emphysema (J43) .....	6.5	*	*	*	*	*	0.2	1.3	8.6	31.0	57.3	61.8
Asthma (J45-J46) .....	1.7	*	0.2	0.3	0.5	0.7	1.0	1.7	2.5	4.2	7.6	17.2
Other chronic lower respiratory diseases (J44,J47) .....	36.9	*	*	*	*	0.1	0.7	5.6	36.8	142.9	332.7	553.0
Pneumoconioses and chemical effects (J60-J66,J68) .....	0.4	*	*	*	*	*	*	*	0.2	1.5	4.1	6.1
Pneumonitis due to solids and liquids (J69) .....	5.6	*	*	*	0.1	0.2	0.4	0.8	2.5	9.6	41.4	174.7

See footnotes at end of table.



**Table 10. Death rates for 113 selected causes by age: United States, 1999 - Con.**

[Rates per 100,000 population in specified group]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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
Other diseases of respiratory system (J00-J06,J30-J39, J67,J70-J98) .....	9.2	6.6	0.6	0.2	0.3	0.7	1.3	3.4	9.7	29.7	71.2	146.8
Peptic ulcer (K25-K28) .....	1.7	*	*	*	*	0.1	0.3	0.7	1.8	4.6	12.3	34.5
Diseases of appendix (K35-K38) .....	0.1	*	*	0.1	*	*	0.1	0.1	0.2	0.4	0.8	1.5
Hernia (K40-K46) .....	0.5	1.2	*	*	*	*	0.1	0.2	0.5	1.2	3.7	12.7
Chronic liver disease and cirrhosis (K70,K73-K74) .....	9.6	*	*	*	0.1	1.1	7.4	17.8	24.1	31.0	32.1	23.1
Alcoholic liver disease (K70) .....	4.4	*	*	*	*	0.7	4.9	10.6	12.2	10.6	6.5	2.8
Other chronic liver disease and cirrhosis (K73-K74) .....	5.2	*	*	*	*	0.4	2.5	7.2	11.9	20.3	25.6	20.3
Cholelithiasis and other disorders of gallbladder (K80-K82) .....	1.0	*	*	*	*	*	0.1	0.3	0.9	2.6	7.8	23.8
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) .....	13.0	4.3	*	0.1	0.2	0.7	1.6	4.1	12.2	37.6	98.2	267.5
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01,N04) .....	0.1	*	*	*	*	*	*	*	*	0.2	0.5	0.8
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (N02-N03,N05-N07,N26) .....	0.2	*	*	*	*	*	0.1	0.1	0.3	0.6	1.6	3.2
Renal failure (N17-N19) .....	12.7	4.3	*	0.1	0.2	0.6	1.5	4.0	11.9	36.8	95.9	263.4
Other disorders of kidney (N25,N27) .....	0.0	*	*	*	*	*	*	*	*	*	*	*
Infections of kidney (N10-N12,N13.6,N15.1) .....	0.3	*	*	*	*	*	0.1	0.2	0.3	0.7	2.0	7.4
Hyperplasia of prostate (N40) .....	0.2	*	*	*	*	*	*	*	*	0.3	1.3	5.0
Inflammatory diseases of female pelvic organs (N70-N76) .....	0.0	*	*	*	*	*	*	*	*	*	0.3	*
Pregnancy, childbirth and the puerperium (O00-O99) .....	0.1	...	...	*	0.3	0.5	0.3	*	...	...	...	...
Pregnancy with abortive outcome (O00-O07) .....	0.0	...	...	*	*	*	*	*	...	...	...	...
Other complications of pregnancy, childbirth and the puerperium (O10-O99) .....	0.1	...	...	*	0.2	0.4	0.3	*	...	...	...	...
Certain conditions originating in the perinatal period (P00-P96) .....	5.2	368.7	0.6	0.1	*	*	*	*	*	*	*	*
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) .....	3.8	143.3	3.6	1.1	1.1	1.2	1.2	1.8	2.4	2.6	4.0	7.8
Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	9.8	92.6	1.6	0.3	1.6	2.9	4.6	6.0	8.0	14.8	36.3	186.8
All other diseases (Residual) .....	63.0	30.1	4.3	2.3	4.7	8.1	17.8	34.6	61.5	138.1	375.4	1,403.5
Accidents (unintentional injuries) (V01-X59,Y85-Y86) .....	35.9	22.1	12.6	7.8	36.2	31.3	34.0	32.5	31.1	45.1	101.1	280.9
Transport accidents (V01-V99,Y85) .....	17.0	4.9	4.7	5.0	28.3	19.6	16.9	15.8	16.3	19.6	28.6	31.9
Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5,V81.0-V81.1, V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8, V89.0,V89.2) .....	15.5	4.8	4.3	4.5	26.8	17.9	15.0	13.9	14.4	18.0	26.7	30.2
Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V11, V15-V18,V19.3,V19.8-V19.9,V80.0-V80.2, V80.6-V80.9,V81.2-V81.9,V82.2-V82.9,V87.9, V88.9,V89.1,V89.3,V89.9) .....	0.8	*	0.3	0.3	1.0	0.8	0.9	0.8	0.8	0.8	1.3	1.3
Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) .....	0.7	*	*	0.2	0.5	0.9	0.9	1.0	1.1	0.9	0.5	*
Nontransport accidents (W00-X59,Y86) .....	18.9	17.2	7.8	2.8	7.9	11.7	17.1	16.7	14.8	25.4	72.6	249.1
Falls (W00-W19) .....	4.8	*	0.4	0.1	0.6	0.9	1.4	2.3	3.8	9.1	31.7	109.7
Accidental discharge of firearms (W32-W34) .....	0.3	*	*	0.2	0.7	0.4	0.3	0.3	0.2	0.2	0.2	*
Accidental drowning and submersion (W65-W74) .....	1.3	1.8	3.2	0.9	1.7	1.2	1.1	1.0	0.9	1.0	1.3	1.6
Accidental exposure to smoke, fire and flames (X00-X09) .....	1.2	1.1	2.0	0.7	0.5	0.7	0.9	1.0	1.4	2.3	4.0	5.9
Accidental poisoning and exposure to noxious substances (X40-X49) .....	4.5	*	0.2	0.1	2.6	6.2	10.2	7.9	2.9	1.6	2.2	3.4

See footnotes at end of table.

**Table 10. Death rates for 113 selected causes by age: United States, 1999 - Con.**

[Rates per 100,000 population in specified group]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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
Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86) .....	6.7	13.7	1.9	0.8	1.8	2.3	3.2	4.2	5.7	11.2	33.1	128.3
Intentional self-harm (suicide) (X60-X84,Y87.0) .....	10.7	...	...	0.6	10.3	13.5	14.4	14.2	12.4	13.6	18.3	19.2
Intentional self-harm (suicide) by discharge of firearms (X72-X74) .....	6.1	...	...	0.3	6.1	6.9	6.9	7.5	8.0	9.8	13.2	12.6
Intentional self-harm (suicide) by other and unspecified means and their sequelae (X60-X71,X75-X84, Y87.0) .....	4.6	...	...	0.4	4.2	6.6	7.5	6.7	4.4	3.7	5.0	6.6
Assault (homicide) (X85-Y09,Y87.1) .....	6.2	8.7	2.5	1.1	13.2	11.2	7.2	4.7	3.1	2.6	2.5	2.4
Assault (homicide) by discharge of firearms (X93-X95) .....	4.0	*	0.3	0.6	10.7	8.0	4.2	2.5	1.6	1.1	0.8	0.6
Assault (homicide) by other and unspecified means and their sequelae (X85-X92,X96-Y09,Y87.1) .....	2.2	8.5	2.2	0.5	2.5	3.1	3.0	2.2	1.5	1.5	1.7	1.8
Legal intervention (Y35,Y89.0) .....	0.1	*	*	*	0.2	0.4	0.3	0.1	0.1	*	*	*
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) ...	1.4	1.4	0.3	0.1	1.1	2.0	2.9	2.2	0.9	0.6	0.8	1.4
Discharge of firearms, undetermined intent (Y22-Y24) ..	0.1	*	*	*	0.3	0.1	0.1	0.1	*	*	*	*
Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2, Y89.9) .....	1.3	1.4	0.3	0.1	0.8	1.8	2.8	2.1	0.9	0.5	0.7	1.3
Operations of war and their sequelae (Y36,Y89.1) .....	0.0	*	*	*	*	*	*	*	*	*	*	*
Complications of medical and surgical care (Y40-Y84,Y88) .....	1.0	1.4	0.2	*	0.1	0.2	0.3	0.6	1.3	3.2	6.7	12.7

0.0 Quantity more than zero but less than 0.05.

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

... 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.

NOTE: Complete confirmation of deaths from selected causes of death, considered to be of public health concern, were not provided by the following States--California, Florida, Illinois, Indiana, Kentucky, Maine, Michigan, Missouri, New Jersey, New York City, North Carolina, Ohio, Pennsylvania, Rhode Island, Washington, and West Virginia; see Technical notes.

**Table 11. Number of deaths from 113 selected causes by race and sex: United States, 1999**

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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	2,391,399	1,175,460	1,215,939	2,061,348	1,005,335	1,056,013	330,051	170,125	159,926	285,064	145,703	139,361
Salmonella infections (A01-A02)	38	21	17	32	16	16	6	5	1	4	3	1
Shigellosis and amebiasis (A03,A06)	10	6	4	10	6	4	-	-	-	-	-	-
Certain other intestinal infections (A04,A07-A09)	1,108	420	688	1,026	389	637	82	31	51	74	25	49
Tuberculosis (A16-A19)	930	584	346	564	348	216	366	236	130	245	159	86
Respiratory tuberculosis (A16)	764	486	278	472	296	176	292	190	102	199	126	73
Other tuberculosis (A17-A19)	166	98	68	92	52	40	74	46	28	46	33	13
Whooping cough (A37)	7	1	6	6	1	5	1	-	1	1	-	1
Scarlet fever and erysipelas (A38,A46)	5	-	5	4	-	4	1	-	1	1	-	1
Meningococcal infection (A39)	227	101	126	184	79	105	43	22	21	39	20	19
Septicemia (A40-A41)	30,680	13,395	17,285	24,287	10,489	13,798	6,393	2,906	3,487	5,826	2,623	3,203
Syphilis (A50-A53)	33	13	20	20	8	12	13	5	8	12	5	7
Acute poliomyelitis (A80)	-	-	-	-	-	-	-	-	-	-	-	-
Arthropod-borne viral encephalitis (A83-A84,A85.2)	3	3	-	3	3	-	-	-	-	-	-	-
Measles (B05)	2	-	2	1	-	1	1	-	1	1	-	1
Viral hepatitis (B15-B19)	4,853	3,043	1,810	3,835	2,436	1,399	1,018	607	411	731	443	288
Human immunodeficiency virus (HIV) disease (B20-B24)	14,802	11,234	3,568	6,752	5,613	1,139	8,050	5,621	2,429	7,893	5,493	2,400
Malaria (B50-B54)	7	4	3	4	3	1	3	1	2	3	1	2
Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44,A48-A49,A54-A79,A81-A82,A85.0-A85.1,A85.8,A86-B04,B06-B09,B25-B49,B55-B99)	7,279	3,655	3,624	5,794	2,910	2,884	1,485	745	740	1,260	624	636
Malignant neoplasms (C00-C97)	549,838	285,832	264,006	477,238	247,396	229,842	72,600	38,436	34,164	61,951	32,850	29,101
Malignant neoplasms of lip, oral cavity, and pharynx (C00-C14)	7,486	4,944	2,542	6,116	3,955	2,161	1,370	989	381	1,145	828	317
Malignant neoplasm of esophagus (C15)	11,918	9,094	2,824	10,079	7,740	2,339	1,839	1,354	485	1,648	1,203	445
Malignant neoplasm of stomach (C16)	12,711	7,459	5,252	9,779	5,786	3,993	2,932	1,673	1,259	2,203	1,263	940
Malignant neoplasms of colon, rectum and anus (C18-C21)	57,155	28,240	28,915	49,374	24,539	24,835	7,781	3,701	4,080	6,777	3,196	3,581
Malignant neoplasms of liver and intrahepatic bile ducts (C22)	12,382	7,689	4,693	9,986	6,151	3,835	2,396	1,538	858	1,507	947	560
Malignant neoplasm of pancreas (C25)	29,082	14,176	14,906	25,086	12,273	12,813	3,996	1,903	2,093	3,391	1,611	1,780
Malignant neoplasm of larynx (C32)	3,815	2,992	823	3,106	2,419	687	709	573	136	663	536	127
Malignant neoplasm of trachea, bronchus and lung (C33-C34)	152,156	89,453	62,703	133,752	77,846	55,906	18,404	11,607	6,797	15,963	10,135	5,828
Malignant melanoma of skin (C43)	7,215	4,529	2,686	7,086	4,459	2,627	129	70	59	96	48	48
Malignant neoplasm of breast (C50)	41,528	384	41,144	35,385	312	35,073	6,143	72	6,071	5,425	67	5,358
Malignant neoplasm of cervix uteri (C53)	4,205	...	4,205	3,229	...	3,229	976	...	976	838	...	838
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55)	6,468	...	6,468	5,386	...	5,386	1,082	...	1,082	987	...	987
Malignant neoplasm of ovary (C56)	13,627	...	13,627	12,302	...	12,302	1,325	...	1,325	1,079	...	1,079
Malignant neoplasm of prostate (C61)	31,729	31,729	...	26,005	26,005	...	5,724	5,724	...	5,357	5,357	...
Malignant neoplasms of kidney and renal pelvis (C64-C65)	11,116	6,867	4,249	9,878	6,112	3,766	1,238	755	483	1,035	622	413
Malignant neoplasm of bladder (C67)	11,911	8,105	3,806	10,863	7,520	3,343	1,048	585	463	918	496	422
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72)	12,765	7,001	5,764	11,819	6,492	5,327	946	509	437	764	404	360
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96)	56,318	29,721	26,597	50,189	26,558	23,631	6,129	3,163	2,966	5,088	2,590	2,498
Hodgkin's disease (C81)	1,403	785	618	1,263	708	555	140	77	63	128	75	53
Non-Hodgkin's lymphoma (C82-C85)	22,802	11,794	11,008	20,941	10,768	10,173	1,861	1,026	835	1,443	786	657
Leukemia (C91-C95)	21,014	11,519	9,495	18,899	10,395	8,504	2,115	1,124	991	1,708	892	816
Multiple myeloma and immunoproliferative neoplasms (C88,C90)	11,016	5,584	5,432	9,010	4,651	4,359	2,006	933	1,073	1,803	834	969

See footnotes at end of table.

**Table 11. Number of deaths from 113 selected causes by race and sex: United States, 1999 - Con.**

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) .....	83	39	44	76	36	40	7	3	4	6	3	3
All other and unspecified malignant neoplasms (C17, C23-C24, C26-C31, C37-C41, C44-C49, C51-C52, C57-C60, C62-C63, C66, C68-C69, C73-C80, C97) .....	66,251	33,449	32,802	57,818	29,229	28,589	8,433	4,220	4,213	7,067	3,547	3,520
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	13,227	6,520	6,707	11,849	5,891	5,958	1,378	629	749	1,173	521	652
Anemias (D50-D64) .....	4,503	1,746	2,757	3,393	1,244	2,149	1,110	502	608	1,019	457	562
Diabetes mellitus (E10-E14) .....	68,399	31,150	37,249	54,599	25,545	29,054	13,800	5,605	8,195	11,927	4,759	7,168
Nutritional deficiencies (E40-E64) .....	4,289	1,486	2,803	3,628	1,199	2,429	661	287	374	589	250	339
Malnutrition (E40-E46) .....	3,985	1,371	2,614	3,368	1,100	2,268	617	271	346	547	234	313
Other nutritional deficiencies (E50-E64) .....	304	115	189	260	99	161	44	16	28	42	16	26
Meningitis (G00, G03) .....	850	442	408	601	308	293	249	134	115	222	121	101
Parkinson's disease (G20-G21) .....	14,593	8,262	6,331	13,886	7,880	6,006	707	382	325	507	270	237
Alzheimer's disease (G30) .....	44,536	13,391	31,145	41,877	12,585	29,292	2,659	806	1,853	2,342	692	1,650
Major cardiovascular diseases (I00-I78) .....	950,314	441,827	508,487	829,464	384,572	444,892	120,850	57,255	63,595	104,693	48,578	56,115
Diseases of heart (I00-I09, I11, I13, I20-I51) .....	725,192	351,617	373,575	635,118	307,585	327,533	90,074	44,032	46,042	78,574	37,576	40,998
Acute rheumatic fever and chronic rheumatic heart disease (I00-I09) .....	3,676	1,042	2,634	3,302	933	2,369	374	109	265	275	88	187
Hypertensive heart disease (I11) .....	22,702	9,316	13,386	16,646	6,499	10,147	6,056	2,817	3,239	5,619	2,606	3,013
Hypertensive heart and renal disease (I13) .....	3,327	1,390	1,937	2,235	906	1,329	1,092	484	608	1,000	434	566
Ischemic heart disease (I20-I25) .....	529,659	267,268	262,391	469,149	237,193	231,956	60,510	30,075	30,435	51,995	25,104	26,891
Acute myocardial infarction (I21-I22) .....	199,454	104,169	95,285	177,075	93,189	83,886	22,379	10,980	11,399	19,276	9,186	10,090
Other acute ischemic heart diseases (I24) .....	3,232	1,665	1,567	2,752	1,389	1,363	480	276	204	431	248	183
Other forms of chronic ischemic heart disease (I20, I25) .....	326,973	161,434	165,539	289,322	142,615	146,707	37,651	18,819	18,832	32,288	15,670	16,618
Atherosclerotic cardiovascular disease, so described (I25.0) .....	71,926	36,633	35,293	59,711	29,977	29,734	12,215	6,656	5,559	10,823	5,815	5,008
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9) .....	255,047	124,801	130,246	229,611	112,638	116,973	25,436	12,163	13,273	21,465	9,855	11,610
Other heart diseases (I26-I51) .....	165,828	72,601	93,227	143,786	62,054	81,732	22,042	10,547	11,495	19,685	9,344	10,341
Acute and subacute endocarditis (I33) .....	1,116	639	477	879	509	370	237	130	107	210	117	93
Diseases of pericardium and acute myocarditis (I30-I31, I40) .....	890	442	448	703	351	352	187	91	96	160	77	83
Heart failure (I50) .....	54,913	20,755	34,158	49,317	18,469	30,848	5,596	2,286	3,310	4,998	2,021	2,977
All other forms of heart disease (I26-I28, I34-I38, I42-I49, I51) .....	108,909	50,765	58,144	92,887	42,725	50,162	16,022	8,040	7,982	14,317	7,129	7,188
Essential (primary) hypertension and hypertensive renal disease (I10, I12) .....	16,968	6,488	10,480	12,830	4,744	8,086	4,138	1,744	2,394	3,732	1,565	2,167
Cerebrovascular diseases (I60-I69) .....	167,366	64,485	102,881	144,827	54,867	89,960	22,539	9,618	12,921	18,884	7,894	10,990
Atherosclerosis (I70) .....	14,979	5,443	9,536	13,737	4,932	8,805	1,242	511	731	1,069	432	637
Other diseases of circulatory system (I71-I78) .....	25,809	13,794	12,015	22,952	12,444	10,508	2,857	1,350	1,507	2,434	1,111	1,323
Aortic aneurysm and dissection (I71) .....	15,807	9,615	6,192	14,336	8,817	5,519	1,471	798	673	1,181	619	562
Other diseases of arteries, arterioles and capillaries (I72-I78) .....	10,002	4,179	5,823	8,616	3,627	4,989	1,386	552	834	1,253	492	761
Other disorders of circulatory system (I80-I99) .....	4,025	1,714	2,311	3,345	1,399	1,946	680	315	365	616	282	334
Influenza and pneumonia (J10-J18) .....	63,730	27,718	36,012	56,694	24,281	32,413	7,036	3,437	3,599	5,876	2,825	3,051
Influenza (J10-J11) .....	1,665	602	1,063	1,574	569	1,005	91	33	58	66	24	42
Pneumonia (J12-J18) .....	62,065	27,116	34,949	55,120	23,712	31,408	6,945	3,404	3,541	5,810	2,801	3,009
Other acute lower respiratory infections (J20-J22) .....	540	196	344	462	156	306	78	40	38	64	30	34
Acute bronchitis and bronchiolitis (J20-J21) .....	388	154	234	320	119	201	68	35	33	55	26	29
Unspecified acute lower respiratory infection (J22) .....	152	42	110	142	37	105	10	5	5	9	4	5
Chronic lower respiratory diseases (J40-J47) .....	124,181	62,415	61,766	114,735	57,000	57,735	9,446	5,415	4,031	7,915	4,500	3,415
Bronchitis, chronic and unspecified (J40-J42) .....	1,172	498	674	1,056	440	616	116	58	58	89	44	45
Emphysema (J43) .....	17,787	9,480	8,307	16,674	8,754	7,920	1,113	726	387	930	598	332

See footnotes at end of table.

**Table 11. Number of deaths from 113 selected causes by race and sex: United States, 1999 - Con.**

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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
Asthma (J45-J46) .....	4,657	1,620	3,037	3,328	1,046	2,282	1,329	574	755	1,145	481	664
Other chronic lower respiratory diseases (J44,J47) .....	100,565	50,817	49,748	93,677	46,760	46,917	6,888	4,057	2,831	5,751	3,377	2,374
Pneumoconioses and chemical effects (J60-J66,J68) .....	1,113	1,079	34	1,037	1,006	31	76	73	3	67	64	3
Pneumonitis due to solids and liquids (J69) .....	15,268	7,755	7,513	13,582	6,853	6,729	1,686	902	784	1,505	775	730
Other diseases of respiratory system (J00-J06,J30-J39, J67,J70-J98) .....	25,031	12,110	12,921	22,161	10,764	11,397	2,870	1,346	1,524	2,356	1,092	1,264
Peptic ulcer (K25-K28) .....	4,604	2,189	2,415	4,040	1,887	2,153	564	302	262	448	243	205
Diseases of appendix (K35-K38) .....	390	236	154	314	184	130	76	52	24	68	48	20
Hernia (K40-K46) .....	1,464	597	867	1,298	535	763	166	62	104	140	53	87
Chronic liver disease and cirrhosis (K70,K73-K74) .....	26,259	17,115	9,144	22,620	14,790	7,830	3,639	2,325	1,314	2,833	1,842	991
Alcoholic liver disease (K70) .....	11,958	8,922	3,036	10,041	7,602	2,439	1,917	1,320	597	1,466	1,018	448
Other chronic liver disease and cirrhosis (K73-K74) .....	14,301	8,193	6,108	12,579	7,188	5,391	1,722	1,005	717	1,367	824	543
Cholelithiasis and other disorders of gallbladder (K80-K82) .....	2,830	1,248	1,582	2,487	1,101	1,386	343	147	196	257	102	155
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) .....	35,525	17,016	18,509	28,041	13,632	14,409	7,484	3,384	4,100	6,711	3,008	3,703
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01,N04) .....	182	90	92	144	67	77	38	23	15	28	16	12
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (N02-N03,N05-N07,N26) .....	589	304	285	467	244	223	122	60	62	94	47	47
Renal failure (N17-N19) .....	34,719	16,611	18,108	27,407	13,312	14,095	7,312	3,299	4,013	6,577	2,943	3,634
Other disorders of kidney (N25,N27) .....	35	11	24	23	9	14	12	2	10	12	2	10
Infections of kidney (N10-N12,N13.6,N15.1) .....	846	263	583	749	232	517	97	31	66	85	29	56
Hyperplasia of prostate (N40) .....	430	430	...	390	390	...	40	40	...	38	38	...
Inflammatory diseases of female pelvic organs (N70-N76) .....	108	...	108	80	...	80	28	...	28	26	...	26
Pregnancy, childbirth and the puerperium (O00-O99) .....	406	...	406	220	...	220	186	...	186	162	...	162
Pregnancy with abortive outcome (O00-O07) .....	31	...	31	15	...	15	16	...	16	15	...	15
Other complications of pregnancy, childbirth and the puerperium (O10-O99) .....	375	...	375	205	...	205	170	...	170	147	...	147
Certain conditions originating in the perinatal period (P00-P96) .....	14,259	8,044	6,215	8,648	4,884	3,764	5,611	3,160	2,451	5,150	2,907	2,243
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) .....	10,393	5,346	5,047	8,297	4,269	4,028	2,096	1,077	1,019	1,720	899	821
Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	26,672	12,877	13,795	21,591	10,094	11,497	5,081	2,783	2,298	4,591	2,517	2,074
All other diseases (Residual) .....	171,683	69,784	101,899	148,614	59,336	89,278	23,069	10,448	12,621	20,325	9,071	11,254
Accidents (unintentional injuries) (V01-X59,Y85-Y86) .....	97,860	63,535	34,325	82,245	52,898	29,347	15,615	10,637	4,978	12,728	8,773	3,955
Transport accidents (V01-V99,Y85) .....	46,423	31,642	14,781	38,767	26,385	12,382	7,656	5,257	2,399	5,901	4,162	1,739
Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5,V81.0-V81.1, V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8, V89.0,V89.2) .....	42,401	28,552	13,849	35,343	23,763	11,580	7,058	4,789	2,269	5,470	3,821	1,649
Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V11, V15-V18,V19.3,V19.8-V19.9,V80.0-V80.2, V80.6-V80.9,V81.2-V81.9,V82.2-V82.9,V87.9, V88.9,V89.1,V89.3,V89.9) .....	2,118	1,559	559	1,755	1,281	474	363	278	85	253	196	57
Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) .....	1,904	1,531	373	1,669	1,341	328	235	190	45	178	145	33
Nontransport accidents (W00-X59,Y86) .....	51,437	31,893	19,544	43,478	26,513	16,965	7,959	5,380	2,579	6,827	4,611	2,216
Falls (W00-W19) .....	13,162	7,109	6,053	11,992	6,352	5,640	1,170	757	413	878	564	314
Accidental discharge of firearms (W32-W34) .....	824	707	117	649	554	95	175	153	22	156	135	21

See footnotes at end of table.

**Table 11. Number of deaths from 113 selected causes by race and sex: United States, 1999 - Con.**

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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
Accidental drowning and submersion (W65-W74) .....	3,529	2,794	735	2,715	2,120	595	814	674	140	634	530	104
Accidental exposure to smoke, fire and flames (X00-X09) .....	3,348	2,025	1,323	2,380	1,466	914	968	559	409	892	510	382
Accidental poisoning and exposure to noxious substances (X40-X49) .....	12,186	8,887	3,299	9,883	7,240	2,643	2,303	1,647	656	2,062	1,494	568
Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86) .....	18,388	10,371	8,017	15,859	8,781	7,078	2,529	1,590	939	2,205	1,378	827
Intentional self-harm (suicide) (X60-X84,Y87.0) .....	29,199	23,458	5,741	26,300	21,107	5,193	2,899	2,351	548	1,950	1,651	299
Intentional self-harm (suicide) by discharge of firearms (X72-X74) .....	16,599	14,479	2,120	15,135	13,167	1,968	1,464	1,312	152	1,125	1,018	107
Intentional self-harm (suicide) by other and unspecified means and their sequelae (X60-X71,X75-X84, Y87.0) .....	12,600	8,979	3,621	11,165	7,940	3,225	1,435	1,039	396	825	633	192
Assault (homicide) (X85-Y09,Y87.1) .....	16,889	12,785	4,104	8,628	6,162	2,466	8,261	6,623	1,638	7,648	6,214	1,434
Assault (homicide) by discharge of firearms (X93-X95) .....	10,828	8,944	1,884	4,918	3,820	1,098	5,910	5,124	786	5,577	4,883	694
Assault (homicide) by other and unspecified means and their sequelae (X85-X92,X96-Y09,Y87.1) .....	6,061	3,841	2,220	3,710	2,342	1,368	2,351	1,499	852	2,071	1,331	740
Legal intervention (Y35,Y89.0) .....	398	392	6	255	250	5	143	142	1	126	125	1
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) ...	3,917	2,692	1,225	3,122	2,105	1,017	795	587	208	696	523	173
Discharge of firearms, undetermined intent (Y22-Y24) ..	324	277	47	247	212	35	77	65	12	66	56	10
Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2, Y89.9) .....	3,593	2,415	1,178	2,875	1,893	982	718	522	196	630	467	163
Operations of war and their sequelae (Y36,Y89.1) .....	23	22	1	22	21	1	1	1	-	1	1	-
Complications of medical and surgical care (Y40-Y84,Y88) .....	2,823	1,308	1,515	2,314	1,078	1,236	509	230	279	449	197	252

- Quantity zero.  
 . . . Category not applicable.

NOTE: Complete confirmation of deaths from selected causes of death, considered to be of public health concern, were not provided by the following States--California, Florida, Illinois, Indiana, Kentucky, Maine, Michigan, Missouri, New Jersey, New York City, North Carolina, Ohio, Pennsylvania, Rhode Island, Washington, and West Virginia; see Technical notes.

**Table 12. Number of deaths from 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999**

[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 on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins			Hispanic			Non-Hispanic <sup>1</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All causes .....	2,391,399	1,175,460	1,215,939	103,740	57,991	45,749	2,279,325	1,112,718	1,166,607
Salmonella infections (A01-A02) .....	38	21	17	4	3	1	34	18	16
Shigellosis and amebiasis (A03,A06) .....	10	6	4	4	3	1	6	3	3
Certain other intestinal infections (A04,A07-A09) .....	1,108	420	688	34	17	17	1,071	403	668
Tuberculosis (A16-A19) .....	930	584	346	125	78	47	788	492	296
Respiratory tuberculosis (A16) .....	764	486	278	93	55	38	657	419	238
Other tuberculosis (A17-A19) .....	166	98	68	32	23	9	131	73	58
Whooping cough (A37) .....	7	1	6	3	-	3	4	1	3
Scarlet fever and erysipelas (A38,A46) .....	5	-	5	-	-	-	5	-	5
Meningococcal infection (A39) .....	227	101	126	27	11	16	198	89	109
Septicemia (A40-A41) .....	30,680	13,395	17,285	1,215	605	610	29,351	12,737	16,614
Syphilis (A50-A53) .....	33	13	20	5	1	4	27	11	16
Acute poliomyelitis (A80) .....	-	-	-	-	-	-	-	-	-
Arthropod-borne viral encephalitis (A83-A84,A85.2) .....	3	3	-	-	-	-	3	3	-
Measles (B05) .....	2	-	2	-	-	-	2	-	-
Viral hepatitis (B15-B19) .....	4,853	3,043	1,810	656	406	250	4,176	2,620	1,556
Human immunodeficiency virus (HIV) disease (B20-B24) .....	14,802	11,234	3,568	1,958	1,525	433	12,638	9,538	3,100
Malaria (B50-B54) .....	7	4	3	-	-	-	7	4	3
Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44,A48-A49, A54-A79,A81-A82,A85.0-A85.1, A85.8,A86-B04,B06-B09,B25-B49, B55-B99) .....	7,279	3,655	3,624	497	260	237	6,753	3,379	3,374
Malignant neoplasms (C00-C97) .....	549,838	285,832	264,006	20,233	10,668	9,565	528,218	274,419	253,799
Malignant neoplasms of lip, oral cavity and pharynx (C00-C14) .....	7,486	4,944	2,542	282	204	78	7,181	4,725	2,456
Malignant neoplasm of esophagus (C15) ...	11,918	9,094	2,824	367	294	73	11,520	8,775	2,745
Malignant neoplasm of stomach (C16) .....	12,711	7,459	5,252	1,055	607	448	11,615	6,827	4,788
Malignant neoplasms of colon, rectum and anus (C18-C21) .....	57,155	28,240	28,915	2,031	1,062	969	54,976	27,103	27,873
Malignant neoplasms of liver and intrahepatic bile ducts (C22) .....	12,382	7,689	4,693	1,084	688	396	11,265	6,976	4,289
Malignant neoplasm of pancreas (C25) .....	29,082	14,176	14,906	1,135	563	572	27,869	13,572	14,297
Malignant neoplasm of larynx (C32) .....	3,815	2,992	823	171	149	22	3,627	2,832	795
Malignant neoplasms of trachea, bronchus and lung (C33-C34) .....	152,156	89,453	62,703	3,545	2,373	1,172	148,206	86,822	61,384
Malignant melanoma of skin (C43) .....	7,215	4,529	2,686	133	79	54	7,062	4,438	2,624
Malignant neoplasm of breast (C50) .....	41,528	384	41,144	1,551	13	1,538	39,881	370	39,511
Malignant neoplasm of cervix uteri (C53) ...	4,205	...	4,205	378	...	378	3,817	...	3,817
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) .....	6,468	...	6,468	272	...	272	6,188	...	6,188
Malignant neoplasm of ovary (C56) .....	13,627	...	13,627	478	...	478	13,103	...	13,103
Malignant neoplasm of prostate (C61) .....	31,729	31,729	...	1,050	1,050	...	30,614	30,614	...
Malignant neoplasms of kidney and renal pelvis (C64-C65) .....	11,116	6,867	4,249	547	353	194	10,542	6,501	4,041
Malignant neoplasm of bladder (C67) .....	11,911	8,105	3,806	301	222	79	11,582	7,865	3,717
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) .....	12,765	7,001	5,764	568	293	275	12,173	6,696	5,477
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) .....	56,318	29,721	26,597	2,538	1,319	1,219	53,669	28,347	25,322
Hodgkin's disease (C81) .....	1,403	785	618	113	65	48	1,286	719	567
Non-Hodgkin's lymphoma (C82-C85) .....	22,802	11,794	11,008	958	493	465	21,792	11,271	10,521
Leukemia (C91-C95) .....	21,014	11,519	9,495	994	534	460	19,981	10,968	9,013
Multiple myeloma and immunoproliferative neoplasms (C88,C90) .....	11,016	5,584	5,432	468	225	243	10,532	5,352	5,180
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) .....	83	39	44	5	2	3	78	37	41
All other and unspecified malignant neoplasms (C17,C23-C24,C26-C31, C37-C41,C44-C49,C51-C52, C57-C60,C62-C63,C66,C68-C69, C73-C80,C97) .....	66,251	33,449	32,802	2,747	1,399	1,348	63,328	31,956	31,372
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	13,227	6,520	6,707	497	233	264	12,699	6,276	6,423
Anemias (D50-D64) .....	4,503	1,746	2,757	164	79	85	4,321	1,659	2,662
Diabetes mellitus (E10-E14) .....	68,399	31,150	37,249	5,182	2,335	2,847	63,017	28,719	34,298

See footnotes at end of table.

**Table 12. Number of deaths from 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[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 on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black			Origin not stated <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All causes .....	1,953,197	944,913	1,008,284	281,979	143,883	138,096	8,334	4,751	3,583
Salmonella infections (A01-A02) .....	28	13	15	4	3	1	-	-	-
Shigellosis and amebiasis (A03,A06) .....	6	3	3	-	-	-	-	-	-
Certain other intestinal infections (A04,A07-A09) .....	990	373	617	74	25	49	3	-	3
Tuberculosis (A16-A19) .....	430	263	167	239	154	85	17	14	3
Respiratory tuberculosis (A16) .....	371	234	137	194	122	72	14	12	2
Other tuberculosis (A17-A19) .....	59	29	30	45	32	13	3	2	1
Whooping cough (A37) .....	3	1	2	1	-	1	-	-	-
Scarlet fever and erysipelas (A38,A46) .....	4	-	4	1	-	1	-	-	-
Meningococcal infection (A39) .....	155	67	88	39	20	19	2	1	1
Septicemia (A40-A41) .....	23,023	9,863	13,160	5,772	2,594	3,178	114	53	61
Syphilis (A50-A53) .....	14	6	8	12	5	7	1	1	-
Acute poliomyelitis (A80) .....	-	-	-	-	-	-	-	-	-
Arthropod-borne viral encephalitis (A83-A84,A85.2) .....	3	3	-	-	-	-	-	-	-
Measles (B05) .....	1	-	1	1	-	1	-	-	-
Viral hepatitis (B15-B19) .....	3,176	2,026	1,150	718	433	285	21	17	4
Human immunodeficiency virus (HIV) disease (B20-B24) .....	4,744	4,043	701	7,751	5,377	2,374	206	171	35
Malaria (B50-B54) .....	4	3	1	3	1	2	-	-	-
Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44,A48-A49,A54-A79,A81-A82,A85.0-A85.1,A85.8,A86-B04,B06-B09,B25-B49,B55-B99) .....	5,288	2,644	2,644	1,247	617	630	29	16	13
Malignant neoplasms (C00-C97) .....	456,315	236,384	219,931	61,409	32,542	28,867	1,387	745	642
Malignant neoplasms of lip, oral cavity and pharynx (C00-C14) .....	5,826	3,746	2,080	1,131	819	312	23	15	8
Malignant neoplasm of esophagus (C15) .....	9,703	7,440	2,263	1,629	1,187	442	31	25	6
Malignant neoplasm of stomach (C16) .....	8,712	5,171	3,541	2,183	1,252	931	41	25	16
Malignant neoplasms of colon, rectum and anus (C18-C21) .....	47,275	23,446	23,829	6,709	3,160	3,549	148	75	73
Malignant neoplasms of liver and intrahepatic bile ducts (C22) .....	8,890	5,455	3,435	1,498	939	559	33	25	8
Malignant neoplasm of pancreas (C25) .....	23,903	11,684	12,219	3,368	1,601	1,767	78	41	37
Malignant neoplasm of larynx (C32) .....	2,924	2,263	661	657	532	125	17	11	6
Malignant neoplasms of trachea, bronchus and lung (C33-C34) .....	129,967	75,338	54,629	15,834	10,039	5,795	405	258	147
Malignant melanoma of skin (C43) .....	6,936	4,370	2,566	94	47	47	20	12	8
Malignant neoplasm of breast (C50) .....	33,790	299	33,491	5,386	67	5,319	96	1	95
Malignant neoplasm of cervix uteri (C53) .....	2,854	...	2,854	825	...	825	10	...	10
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) .....	5,114	...	5,114	980	...	980	8	...	8
Malignant neoplasm of ovary (C56) .....	11,795	...	11,795	1,065	...	1,065	46	...	46
Malignant neoplasm of prostate (C61) .....	24,936	24,936	...	5,315	5,315	...	65	65	...
Malignant neoplasms of kidney and renal pelvis (C64-C65) .....	9,319	5,754	3,565	1,028	618	410	27	13	14
Malignant neoplasm of bladder (C67) .....	10,548	7,290	3,258	906	487	419	28	18	10
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) .....	11,238	6,193	5,045	754	399	355	24	12	12
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) .....	47,608	25,219	22,389	5,038	2,566	2,472	111	55	56
Hodgkin's disease (C81) .....	1,149	643	506	125	74	51	4	1	3
Non-Hodgkin's lymphoma (C82-C85) .....	19,956	10,259	9,697	1,427	778	649	52	30	22
Leukemia (C91-C95) .....	17,885	9,853	8,032	1,694	887	807	39	17	22
Multiple myeloma and immunoproliferative neoplasms (C88,C90) .....	8,547	4,430	4,117	1,786	824	962	16	7	9
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) .....	71	34	37	6	3	3	-	-	-
All other and unspecified malignant neoplasms (C17,C23-C24,C26-C31,C37-C41,C44-C49,C51-C52,C57-C60,C62-C63,C66,C68-C69,C73-C80,C97) .....	54,977	27,780	27,197	7,009	3,514	3,495	176	94	82
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	11,335	5,653	5,682	1,161	516	645	31	11	20
Anemias (D50-D64) .....	3,222	1,162	2,060	1,010	453	557	18	8	10
Diabetes mellitus (E10-E14) .....	49,347	23,177	26,170	11,830	4,718	7,112	200	96	104

See footnotes at end of table.



**Table 12. Number of deaths from 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[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 on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins			Hispanic			Non-Hispanic <sup>1</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Nutritional deficiencies (E40-E64) .....	4,289	1,486	2,803	138	54	84	4,142	1,428	2,714
Malnutrition (E40-E46) .....	3,985	1,371	2,614	132	50	82	3,844	1,317	2,527
Other nutritional deficiencies (E50-E64) .....	304	115	189	6	4	2	298	111	187
Meningitis (G00,G03) .....	850	442	408	76	41	35	767	396	371
Parkinson's disease (G20-G21) .....	14,593	8,262	6,331	389	222	167	14,177	8,029	6,148
Alzheimer's disease (G30) .....	44,536	13,391	31,145	981	314	667	43,471	13,052	30,419
Major cardiovascular diseases (I00-I78) .....	950,314	441,827	508,487	33,665	17,304	16,361	913,476	422,824	490,652
Diseases of heart (I00-I09,I11,I13, I20-I51) .....	725,192	351,617	373,575	25,866	13,554	12,312	696,719	336,615	360,104
Acute rheumatic fever and chronic rheumatic heart diseases (I00-I09) ....	3,676	1,042	2,634	166	38	128	3,498	999	2,499
Hypertensive heart disease (I11) .....	22,702	9,316	13,386	933	455	478	21,639	8,790	12,849
Hypertensive heart and renal disease (I13) .....	3,327	1,390	1,937	144	65	79	3,171	1,318	1,853
Ischemic heart diseases (I20-I25) .....	529,659	267,268	262,391	19,936	10,604	9,332	507,700	255,524	252,176
Acute myocardial infarction (I21-I22) .....	199,454	104,169	95,285	7,158	3,836	3,322	191,729	100,014	91,715
Other acute ischemic heart diseases (I24) .....	3,232	1,665	1,567	53	26	27	3,167	1,635	1,532
Other forms of chronic ischemic heart disease (I20,I25) .....	326,973	161,434	165,539	12,725	6,742	5,983	312,804	153,875	158,929
Atherosclerotic cardiovascular disease, so described (I25.0) .....	71,926	36,633	35,293	3,063	1,847	1,216	68,373	34,451	33,922
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9) .....	255,047	124,801	130,246	9,662	4,895	4,767	244,431	119,424	125,007
Other heart diseases (I26-I51) .....	165,828	72,601	93,227	4,687	2,392	2,295	160,711	69,984	90,727
Acute and subacute endocarditis (I33) ..	1,116	639	477	63	42	21	1,049	594	455
Diseases of pericardium and acute myocarditis (I30-I31,I40) .....	890	442	448	64	30	34	824	410	414
Heart failure (I50) .....	54,913	20,755	34,158	1,242	522	720	53,528	20,170	33,358
All other forms of heart disease (I26-I28,I34-I38,I42-I49,I51) .....	108,909	50,765	58,144	3,318	1,798	1,520	105,310	48,810	56,500
Essential (primary) hypertension and hypertensive renal disease (I10,I12) .....	16,968	6,488	10,480	753	340	413	16,158	6,123	10,035
Cerebrovascular diseases (I60-I69) .....	167,366	64,485	102,881	5,907	2,809	3,098	161,057	61,499	99,558
Atherosclerosis (I70) .....	14,979	5,443	9,536	410	185	225	14,519	5,236	9,283
Other diseases of circulatory system (I71-I78) .....	25,809	13,794	12,015	729	416	313	25,023	13,351	11,672
Aortic aneurysm and dissection (I71) .....	15,807	9,615	6,192	384	256	128	15,393	9,342	6,051
Other diseases of arteries, arterioles and capillaries (I72-I78) .....	10,002	4,179	5,823	345	160	185	9,630	4,009	5,621
Other disorders of circulatory system (I80-I99) .....	4,025	1,714	2,311	186	83	103	3,825	1,623	2,202
Influenza and pneumonia (J10-J18) .....	63,730	27,718	36,012	2,246	1,092	1,154	61,218	26,489	34,729
Influenza (J10-J11) .....	1,665	602	1,063	45	21	24	1,612	580	1,032
Pneumonia (J12-J18) .....	62,065	27,116	34,949	2,201	1,071	1,130	59,606	25,909	33,697
Other acute lower respiratory infections (J20-J22) .....	540	196	344	21	10	11	518	185	333
Acute bronchitis and bronchiolitis (J20-J21) .....	388	154	234	20	10	10	367	143	224
Unspecified acute lower respiratory infection (J22) .....	152	42	110	1	-	1	151	42	109
Chronic lower respiratory diseases (J40-J47) .....	124,181	62,415	61,766	2,859	1,547	1,312	120,968	60,669	60,299
Bronchitis, chronic and unspecified (J40-J42) .....	1,172	498	674	52	17	35	1,117	478	639
Emphysema (J43) .....	17,787	9,480	8,307	292	183	109	17,441	9,260	8,181
Asthma (J45-J46) .....	4,657	1,620	3,037	320	119	201	4,324	1,495	2,829
Other chronic lower respiratory diseases (J44,J47) .....	100,565	50,817	49,748	2,195	1,228	967	98,086	49,436	48,650
Pneumoconioses and chemical effects (J60-J66,J68) .....	1,113	1,079	34	13	11	2	1,100	1,068	32
Pneumonitis due to solids and liquids (J69) ..	15,268	7,755	7,513	413	195	218	14,812	7,534	7,278
Other diseases of respiratory system (J00-J06,J30-J39,J67,J70-J98) .....	25,031	12,110	12,921	1,157	583	574	23,802	11,483	12,319
Peptic ulcer (K25-K28) .....	4,604	2,189	2,415	172	101	71	4,415	2,079	2,336
Diseases of appendix (K35-K38) .....	390	236	154	29	20	9	358	213	145
Hernia (K40-K46) .....	1,464	597	867	66	27	39	1,390	566	824
Chronic liver disease and cirrhosis (K70,K73-K74) .....	26,259	17,115	9,144	2,972	2,143	829	23,185	14,896	8,289
Alcoholic liver disease (K70) .....	11,958	8,922	3,036	1,547	1,294	253	10,353	7,580	2,773
Other chronic liver disease and cirrhosis (K73-K74) .....	14,301	8,193	6,108	1,425	849	576	12,832	7,316	5,516
Cholelithiasis and other disorders of gallbladder (K80-K82) .....	2,830	1,248	1,582	185	84	101	2,639	1,163	1,476

See footnotes at end of table.

**Table 12. Number of deaths from 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[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 on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black			Origin not stated <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Nutritional deficiencies (E40-E64) .....	3,486	1,142	2,344	585	250	335	9	4	5
Malnutrition (E40-E46) .....	3,232	1,047	2,185	543	234	309	9	4	5
Other nutritional deficiencies (E50-E64) .....	254	95	159	42	16	26	-	-	-
Meningitis (G00,G03) .....	524	265	259	217	119	98	7	5	2
Parkinson's disease (G20-G21) .....	13,475	7,648	5,827	502	269	233	27	11	16
Alzheimer's disease (G30) .....	40,835	12,253	28,582	2,325	689	1,636	84	25	59
Major cardiovascular diseases (I00-I78) .....	793,945	366,310	427,635	103,629	47,982	55,647	3,173	1,699	1,474
Diseases of heart (I00-I09,I11,I13, I20-I51) .....	607,704	293,206	314,498	77,713	37,077	40,636	2,607	1,448	1,159
Acute rheumatic fever and chronic rheumatic heart diseases (I00-I09) ....	3,130	892	2,238	269	86	183	12	5	7
Hypertensive heart disease (I11) .....	15,654	6,013	9,641	5,556	2,571	2,985	130	71	59
Hypertensive heart and renal disease (I13) .....	2,091	843	1,248	989	426	563	12	7	5
Ischemic heart diseases (I20-I25) .....	447,960	225,909	222,051	51,368	24,736	26,632	2,023	1,140	883
Acute myocardial infarction (I21-I22) .....	169,545	89,142	80,403	19,120	9,106	10,014	567	319	248
Other acute ischemic heart diseases (I24) .....	2,689	1,361	1,328	429	246	183	12	4	8
Other forms of chronic ischemic heart disease (I20,I25) .....	275,726	135,406	140,320	31,819	15,384	16,435	1,444	817	627
Atherosclerotic cardiovascular disease, so described (I25.0) .....	56,375	27,943	28,432	10,643	5,692	4,951	490	335	155
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9) .....	219,351	107,463	111,888	21,176	9,692	11,484	954	482	472
Other heart diseases (I26-I51) .....	138,869	59,549	79,320	19,531	9,258	10,273	430	225	205
Acute and subacute endocarditis (I33) ..	814	466	348	208	115	93	4	3	1
Diseases of pericardium and acute myocarditis (I30-I31,I40) .....	639	320	319	158	76	82	2	2	-
Heart failure (I50) .....	47,977	17,903	30,074	4,961	2,005	2,956	143	63	80
All other forms of heart disease (I26-I28,I34-I38,I42-I49,I51) .....	89,439	40,860	48,579	14,204	7,062	7,142	281	157	124
Essential (primary) hypertension and hypertensive renal disease (I10,I12) .....	12,048	4,395	7,653	3,708	1,550	2,158	57	25	32
Cerebrovascular diseases (I60-I69) .....	138,716	51,968	86,748	18,731	7,823	10,908	402	177	225
Atherosclerosis (I70) .....	13,286	4,727	8,559	1,061	430	631	50	22	28
Other diseases of circulatory system (I71-I78) .....	22,191	12,014	10,177	2,416	1,102	1,314	57	27	30
Aortic aneurysm and dissection (I71) .....	13,934	8,551	5,383	1,172	615	557	30	17	13
Other diseases of arteries, arterioles and capillaries (I72-I78) .....	8,257	3,463	4,794	1,244	487	757	27	10	17
Other disorders of circulatory system (I80-I99) .....	3,149	1,310	1,839	613	281	332	14	8	6
Influenza and pneumonia (J10-J18) .....	54,280	23,097	31,183	5,794	2,786	3,008	266	137	129
Influenza (J10-J11) .....	1,522	547	975	65	24	41	8	1	7
Pneumonia (J12-J18) .....	52,758	22,550	30,208	5,729	2,762	2,967	258	136	122
Other acute lower respiratory infections (J20-J22) .....	440	145	295	64	30	34	1	1	-
Acute bronchitis and bronchiolitis (J20-J21) .....	299	108	191	55	26	29	1	1	-
Unspecified acute lower respiratory infection (J22) .....	141	37	104	9	4	5	-	-	-
Chronic lower respiratory diseases (J40-J47) .....	111,620	55,314	56,306	7,840	4,452	3,388	354	199	155
Bronchitis, chronic and unspecified (J40-J42) .....	1,002	421	581	88	43	45	3	3	-
Emphysema (J43) .....	16,338	8,540	7,798	923	594	329	54	37	17
Asthma (J45-J46) .....	3,011	930	2,081	1,134	474	660	13	6	7
Other chronic lower respiratory diseases (J44,J47) .....	91,269	45,423	45,846	5,695	3,341	2,354	284	153	131
Pneumoconioses and chemical effects (J60-J66,J68) .....	1,024	995	29	67	64	3	-	-	-
Pneumonitis due to solids and liquids (J69) ..	13,139	6,642	6,497	1,495	768	727	43	26	17
Other diseases of respiratory system (J00-J06,J30-J39,J67,J70-J98) .....	20,959	10,154	10,805	2,339	1,081	1,258	72	44	28
Peptic ulcer (K25-K28) .....	3,859	1,783	2,076	443	240	203	17	9	8
Diseases of appendix (K35-K38) .....	284	163	121	67	47	20	3	3	-
Hernia (K40-K46) .....	1,227	505	722	139	53	86	8	4	4
Chronic liver disease and cirrhosis (K70,K73-K74) .....	19,602	12,613	6,989	2,793	1,812	981	102	76	26
Alcoholic liver disease (K70) .....	8,470	6,288	2,182	1,445	1,001	444	58	48	10
Other chronic liver disease and cirrhosis (K73-K74) .....	11,132	6,325	4,807	1,348	811	537	44	28	16
Cholelithiasis and other disorders of gallbladder (K80-K82) .....	2,299	1,017	1,282	257	102	155	6	1	5

See footnotes at end of table.

**Table 12. Number of deaths from 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[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 on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins			Hispanic			Non-Hispanic <sup>1</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) .....	35,525	17,016	18,509	1,584	814	770	33,830	16,143	17,687
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01, N04) .....	182	90	92	12	4	8	170	86	84
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (N02-N03,N05-N07, N26) .....	589	304	285	33	18	15	555	285	270
Renal failure (N17-N19) .....	34,719	16,611	18,108	1,535	790	745	33,074	15,763	17,311
Other disorders of kidney (N25,N27) .....	35	11	24	4	2	2	31	9	22
Infections of kidney (N10-N12,N13.6, N15.1) .....	846	263	583	55	21	34	786	240	546
Hyperplasia of prostate (N40) .....	430	430	...	11	11	...	417	417	...
Inflammatory diseases of female pelvic organs (N70-N76) .....	108	...	108	7	...	7	101	...	101
Pregnancy, childbirth and the puerperium (O00-O99) .....	406	...	406	70	...	70	333	...	333
Pregnancy with abortive outcome (O00-O07) .....	31	...	31	4	...	4	26	...	26
Other complications of pregnancy, childbirth and the puerperium (O10-O99) .....	375	...	375	66	...	66	307	...	307
Certain conditions originating in the perinatal period (P00-P96) .....	14,259	8,044	6,215	2,153	1,192	961	11,815	6,680	5,135
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) ..	10,393	5,346	5,047	1,498	756	742	8,825	4,550	4,275
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	26,672	12,877	13,795	1,281	768	513	25,181	11,962	13,219
All other diseases (Residual) .....	171,683	69,784	101,899	7,291	3,655	3,636	163,832	65,835	97,997
Accidents (unintentional injuries) (V01-X59,Y85-Y86) .....	97,860	63,535	34,325	8,650	6,578	2,072	88,669	56,551	32,118
Transport accidents (V01-V99,Y85) .....	46,423	31,642	14,781	4,880	3,630	1,250	41,330	27,850	13,480
Motor vehicle accidents (V02-V04, V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5, V81.0-V81.1,V82.0-V82.1,V83-V86, V87.0-V87.8,V88.0-V88.8,V89.0, V89.2) .....	42,401	28,552	13,849	4,525	3,337	1,188	37,684	25,072	12,612
Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9, V10-V11,V15-V18,V19.3, V19.8-V19.9,V80.0-V80.2, V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9) .....	2,118	1,559	559	264	220	44	1,836	1,323	513
Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) .....	1,904	1,531	373	91	73	18	1,810	1,455	355
Nontransport accidents (W00-X59,Y86) .....	51,437	31,893	19,544	3,770	2,948	822	47,339	28,701	18,638
Falls (W00-W19) .....	13,162	7,109	6,053	652	464	188	12,447	6,602	5,845
Accidental discharge of firearms (W32-W34) .....	824	707	117	66	61	5	758	646	112
Accidental drowning and submersion (W65-W74) .....	3,529	2,794	735	480	405	75	3,029	2,370	659
Accidental exposure to smoke, fire and flames (X00-X09) .....	3,348	2,025	1,323	192	127	65	3,133	1,879	1,254
Accidental poisoning and exposure to noxious substances (X40-X49) .....	12,186	8,887	3,299	1,502	1,271	231	10,542	7,510	3,032
Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86) .....	18,388	10,371	8,017	878	620	258	17,430	9,694	7,736
Intentional self-harm (suicide) (X60-X84,Y87.0) .....	29,199	23,458	5,741	1,695	1,430	265	27,379	21,929	5,450
Intentional self-harm (suicide) by discharge of firearms (X72-X74) .....	16,599	14,479	2,120	794	705	89	15,755	13,732	2,023
Intentional self-harm (suicide) by other and unspecified means and their sequelae (X60-X71,X75-X84,Y87.0) .....	12,600	8,979	3,621	901	725	176	11,624	8,197	3,427
Assault (homicide) (X85-Y09,Y87.1) .....	16,889	12,785	4,104	2,864	2,399	465	13,873	10,275	3,598
Assault (homicide) by discharge of firearms (X93-X95) .....	10,828	8,944	1,884	1,939	1,709	230	8,821	7,177	1,644
Assault (homicide) by other and unspecified means and their sequelae (X85-X92,X96-Y09,Y87.1) .....	6,061	3,841	2,220	925	690	235	5,052	3,098	1,954

See footnotes at end of table.

**Table 12. Number of deaths from 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[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 on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black			Origin not stated <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) .....	26,418	12,793	13,625	6,659	2,984	3,675	111	59	52
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01, N04) .....	132	63	69	28	16	12	-	-	-
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (N02-N03,N05-N07, N26) .....	436	227	209	92	46	46	1	1	-
Renal failure (N17-N19) .....	25,831	12,496	13,335	6,527	2,920	3,607	110	58	52
Other disorders of kidney (N25,N27) .....	19	7	12	12	2	10	-	-	-
Infections of kidney (N10-N12,N13.6, N15.1) .....	689	209	480	85	29	56	5	2	3
Hyperplasia of prostate (N40) .....	377	377	...	38	38	...	2	2	...
Inflammatory diseases of female pelvic organs (N70-N76) .....	73	...	73	26	...	26	-	...	-
Pregnancy, childbirth and the puerperium (O00-O99) .....	152	...	152	158	...	158	3	...	3
Pregnancy with abortive outcome (O00-O07) .....	11	...	11	14	...	14	1	...	1
Other complications of pregnancy, childbirth and the puerperium (O10-O99) .....	141	...	141	144	...	144	2	...	2
Certain conditions originating in the perinatal period (P00-P96) .....	6,384	3,627	2,757	5,000	2,818	2,182	291	172	119
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) ..	6,782	3,498	3,284	1,680	880	800	70	40	30
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	20,200	9,249	10,951	4,508	2,460	2,048	210	147	63
All other diseases (Residual) .....	141,002	55,517	85,485	20,137	8,967	11,170	560	294	266
Accidents (unintentional injuries) (V01-X59,Y85-Y86) .....	73,326	46,113	27,213	12,533	8,629	3,904	541	406	135
Transport accidents (V01-V99,Y85) .....	33,803	22,682	11,121	5,810	4,097	1,713	213	162	51
Motor vehicle accidents (V02-V04, V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5, V81.0-V81.1,V82.0-V82.1,V83-V86, V87.0-V87.8,V88.0-V88.8,V89.0, V89.2) .....	30,743	20,362	10,381	5,388	3,763	1,625	192	143	49
Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9, V10-V11,V15-V18,V19.3, V19.8-V19.9,V80.0-V80.2, V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9) .....	1,480	1,051	429	248	192	56	18	16	2
Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) .....	1,580	1,269	311	174	142	32	3	3	-
Nontransport accidents (W00-X59,Y86) .....	39,523	23,431	16,092	6,723	4,532	2,191	328	244	84
Falls (W00-W19) .....	11,295	5,860	5,435	865	554	311	63	43	20
Accidental discharge of firearms (W32-W34) .....	585	495	90	156	135	21	-	-	-
Accidental drowning and submersion (W65-W74) .....	2,230	1,708	522	624	521	103	20	19	1
Accidental exposure to smoke, fire and flames (X00-X09) .....	2,172	1,325	847	887	507	380	23	19	4
Accidental poisoning and exposure to noxious substances (X40-X49) .....	8,311	5,921	2,390	2,008	1,450	558	142	106	36
Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86) .....	14,930	8,122	6,808	2,183	1,365	818	80	57	23
Intentional self-harm (suicide) (X60-X84,Y87.0) .....	24,534	19,620	4,914	1,924	1,630	294	125	99	26
Intentional self-harm (suicide) by discharge of firearms (X72-X74) .....	14,316	12,441	1,875	1,112	1,007	105	50	42	8
Intentional self-harm (suicide) by other and unspecified means and their sequelae (X60-X71,X75-X84,Y87.0) .....	10,218	7,179	3,039	812	623	189	75	57	18
Assault (homicide) (X85-Y09,Y87.1) .....	5,748	3,747	2,001	7,536	6,131	1,405	152	111	41
Assault (homicide) by discharge of firearms (X93-X95) .....	2,995	2,119	876	5,508	4,826	682	68	58	10
Assault (homicide) by other and unspecified means and their sequelae (X85-X92,X96-Y09,Y87.1) .....	2,753	1,628	1,125	2,028	1,305	723	84	53	31

See footnotes at end of table.

**Table 12. Number of deaths from 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[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 on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins			Hispanic			Non-Hispanic <sup>1</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Legal intervention (Y35,Y89.0) .....	398	392	6	58	58	-	338	332	6
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) .....	3,917	2,692	1,225	249	200	49	3,630	2,463	1,167
Discharge of firearms, undetermined intent (Y22-Y24) .....	324	277	47	31	26	5	293	251	42
Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2,Y89.9) .....	3,593	2,415	1,178	218	174	44	3,337	2,212	1,125
Operations of war and their sequelae (Y36,Y89.1) .....	23	22	1	2	2	-	21	20	1
Complications of medical and surgical care (Y40-Y84,Y88) .....	2,823	1,308	1,515	100	52	48	2,714	1,253	1,461

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black			Origin not stated <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Legal intervention (Y35,Y89.0) .....	197	192	5	125	124	1	2	2	-
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) .....	2,848	1,887	961	686	514	172	38	29	9
Discharge of firearms, undetermined intent (Y22-Y24) .....	217	187	30	65	55	10	-	-	-
Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2,Y89.9) .....	2,631	1,700	931	621	459	162	38	29	9
Operations of war and their sequelae (Y36,Y89.1) .....	20	19	1	1	1	-	-	-	-
Complications of medical and surgical care (Y40-Y84,Y88) .....	2,212	1,025	1,187	442	195	247	9	3	6

- Quantity zero.

. . . Category not applicable.

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

<sup>2</sup> Includes deaths for which Hispanic origin was not reported on the death certificate.

NOTE: Complete confirmation of deaths from selected causes of death, considered to be of public health concern, were not provided by the following States--California, Florida, Illinois, Indiana, Kentucky, Maine, Michigan, Missouri, New Jersey, New York City, North Carolina, Ohio, Pennsylvania, Rhode Island, Washington, and West Virginia; see Technical notes.

**Table 13. Death rates for 113 selected causes by race and sex: United States, 1999**

[Rates per 100,000 population in specified group]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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 .....	877.0	882.0	872.2	917.7	911.2	924.1	686.5	741.6	636.1	817.7	880.0	761.3
Salmonella infections (A01-A02) .....	0.0	0.0	*	0.0	*	*	*	*	*	*	*	*
Shigellosis and amebiasis (A03,A06) .....	*	*	*	*	*	*	*	*	*	*	*	*
Certain other intestinal infections (A04,A07-A09) .....	0.4	0.3	0.5	0.5	0.4	0.6	0.2	0.1	0.2	0.2	0.2	0.3
Tuberculosis (A16-A19) .....	0.3	0.4	0.2	0.3	0.3	0.2	0.8	1.0	0.5	0.7	1.0	0.5
Respiratory tuberculosis (A16) .....	0.3	0.4	0.2	0.2	0.3	0.2	0.6	0.8	0.4	0.6	0.8	0.4
Other tuberculosis (A17-A19) .....	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.2	*
Whooping cough (A37) .....	*	*	*	*	*	*	*	*	*	*	*	*
Scarlet fever and erysipelas (A38,A46) .....	*	*	*	*	*	*	*	*	*	*	*	*
Meningococcal infection (A39) .....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	*
Septicemia (A40-A41) .....	11.3	10.1	12.4	10.8	9.5	12.1	13.3	12.7	13.9	16.7	15.8	17.5
Syphilis (A50-A53) .....	0.0	*	0.0	0.0	*	*	*	*	*	*	*	*
Acute poliomyelitis (A80) .....	*	*	*	*	*	*	*	*	*	*	*	*
Arthropod-borne viral encephalitis (A83-A84,A85.2) .....	*	*	*	*	*	*	*	*	*	*	*	*
Measles (B05) .....	*	*	*	*	*	*	*	*	*	*	*	*
Viral hepatitis (B15-B19) .....	1.8	2.3	1.3	1.7	2.2	1.2	2.1	2.6	1.6	2.1	2.7	1.6
Human immunodeficiency virus (HIV) disease (B20-B24) .....	5.4	8.4	2.6	3.0	5.1	1.0	16.7	24.5	9.7	22.6	33.2	13.1
Malaria (B50-B54) .....	*	*	*	*	*	*	*	*	*	*	*	*
Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44, A48-A49,A54-A79,A81-A82,A85.0-A85.1,A85.8, A86-B04,B06-B09,B25-B49,B55-B99) .....	2.7	2.7	2.6	2.6	2.6	2.5	3.1	3.2	2.9	3.6	3.8	3.5
Malignant neoplasms (C00-C97) .....	201.6	214.5	189.4	212.5	224.2	201.1	151.0	167.5	135.9	177.7	198.4	159.0
Malignant neoplasms of lip, oral cavity, and pharynx (C00-C14) .....	2.7	3.7	1.8	2.7	3.6	1.9	2.8	4.3	1.5	3.3	5.0	1.7
Malignant neoplasm of esophagus (C15) .....	4.4	6.8	2.0	4.5	7.0	2.0	3.8	5.9	1.9	4.7	7.3	2.4
Malignant neoplasm of stomach (C16) .....	4.7	5.6	3.8	4.4	5.2	3.5	6.1	7.3	5.0	6.3	7.6	5.1
Malignant neoplasms of colon, rectum and anus (C18-C21) .....	21.0	21.2	20.7	22.0	22.2	21.7	16.2	16.1	16.2	19.4	19.3	19.6
Malignant neoplasms of liver and intrahepatic bile ducts (C22) .....	4.5	5.8	3.4	4.4	5.6	3.4	5.0	6.7	3.4	4.3	5.7	3.1
Malignant neoplasm of pancreas (C25) .....	10.7	10.6	10.7	11.2	11.1	11.2	8.3	8.3	8.3	9.7	9.7	9.7
Malignant neoplasm of larynx (C32) .....	1.4	2.2	0.6	1.4	2.2	0.6	1.5	2.5	0.5	1.9	3.2	0.7
Malignant neoplasm of trachea, bronchus and lung (C33-C34) .....	55.8	67.1	45.0	59.5	70.6	48.9	38.3	50.6	27.0	45.8	61.2	31.8
Malignant melanoma of skin (C43) .....	2.6	3.4	1.9	3.2	4.0	2.3	0.3	0.3	0.2	0.3	0.3	0.3
Malignant neoplasm of breast (C50) .....	15.2	0.3	29.5	15.8	0.3	30.7	12.8	0.3	24.1	15.6	0.4	29.3
Malignant neoplasm of cervix uteri (C53) .....	1.5	...	3.0	1.4	...	2.8	2.0	...	3.9	2.4	...	4.6
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) .....	2.4	...	4.6	2.4	...	4.7	2.3	...	4.3	2.8	...	5.4
Malignant neoplasm of ovary (C56) .....	5.0	...	9.8	5.5	...	10.8	2.8	...	5.3	3.1	...	5.9
Malignant neoplasm of prostate (C61) .....	11.6	23.8	...	11.6	23.6	...	11.9	25.0	...	15.4	32.4	...
Malignant neoplasms of kidney and renal pelvis (C64-C65) .....	4.1	5.2	3.0	4.4	5.5	3.3	2.6	3.3	1.9	3.0	3.8	2.3
Malignant neoplasm of bladder (C67) .....	4.4	6.1	2.7	4.8	6.8	2.9	2.2	2.6	1.8	2.6	3.0	2.3
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) .....	4.7	5.3	4.1	5.3	5.9	4.7	2.0	2.2	1.7	2.2	2.4	2.0
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) .....	20.7	22.3	19.1	22.3	24.1	20.7	12.7	13.8	11.8	14.6	15.6	13.6
Hodgkin's disease (C81) .....	0.5	0.6	0.4	0.6	0.6	0.5	0.3	0.3	0.3	0.4	0.5	0.3
Non-Hodgkin's lymphoma (C82-C85) .....	8.4	8.8	7.9	9.3	9.8	8.9	3.9	4.5	3.3	4.1	4.7	3.6
Leukemia (C91-C95) .....	7.7	8.6	6.8	8.4	9.4	7.4	4.4	4.9	3.9	4.9	5.4	4.5
Multiple myeloma and immunoproliferative neoplasms (C88,C90) .....	4.0	4.2	3.9	4.0	4.2	3.8	4.2	4.1	4.3	5.2	5.0	5.3

See footnotes at end of table.

**Table 13. Death rates for 113 selected causes by race and sex: United States, 1999 - Con.**

[Rates per 100,000 population in specified group]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All other											
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) .....	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*
All other and unspecified malignant neoplasms (C17, C23-C24, C26-C31, C37-C41, C44-C49, C51-C52, C57-C60, C62-C63, C66, C68-C69, C73-C80, C97) .....	24.3	25.1	23.5	25.7	26.5	25.0	17.5	18.4	16.8	20.3	21.4	19.2
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	4.9	4.9	4.8	5.3	5.3	5.2	2.9	2.7	3.0	3.4	3.1	3.6
Anemias (D50-D64) .....	1.7	1.3	2.0	1.5	1.1	1.9	2.3	2.2	2.4	2.9	2.8	3.1
Diabetes mellitus (E10-E14) .....	25.1	23.4	26.7	24.3	23.2	25.4	28.7	24.4	32.6	34.2	28.7	39.2
Nutritional deficiencies (E40-E64) .....	1.6	1.1	2.0	1.6	1.1	2.1	1.4	1.3	1.5	1.7	1.5	1.9
Malnutrition (E40-E46) .....	1.5	1.0	1.9	1.5	1.0	2.0	1.3	1.2	1.4	1.6	1.4	1.7
Other nutritional deficiencies (E50-E64) .....	0.1	0.1	0.1	0.1	0.1	0.1	*	*	0.1	0.1	*	0.1
Meningitis (G00, G03) .....	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6	0.5	0.6	0.7	0.6
Parkinson's disease (G20-G21) .....	5.4	6.2	4.5	6.2	7.1	5.3	1.5	1.7	1.3	1.5	1.6	1.3
Alzheimer's disease (G30) .....	16.3	10.0	22.3	18.6	11.4	25.6	5.5	3.5	7.4	6.7	4.2	9.0
Major cardiovascular diseases (I00-I78) .....	348.5	331.5	364.7	369.3	348.5	389.3	251.4	249.6	253.0	300.3	293.4	306.6
Diseases of heart (I00-I09, I11, I13, I20-I51) .....	265.9	263.8	268.0	282.8	278.8	286.6	187.3	191.9	183.1	225.4	226.9	224.0
Acute rheumatic fever and chronic rheumatic heart disease (I00-I09) .....	1.3	0.8	1.9	1.5	0.8	2.1	0.8	0.5	1.1	0.8	0.5	1.0
Hypertensive heart disease (I11) .....	8.3	7.0	9.6	7.4	5.9	8.9	12.6	12.3	12.9	16.1	15.7	16.5
Hypertensive heart and renal disease (I13) .....	1.2	1.0	1.4	1.0	0.8	1.2	2.3	2.1	2.4	2.9	2.6	3.1
Ischemic heart disease (I20-I25) .....	194.2	200.5	188.2	208.9	215.0	203.0	125.9	131.1	121.1	149.1	151.6	146.9
Acute myocardial infarction (I21-I22) .....	73.1	78.2	68.3	78.8	84.5	73.4	46.5	47.9	45.3	55.3	55.5	55.1
Other acute ischemic heart diseases (I24) .....	1.2	1.2	1.1	1.2	1.3	1.2	1.0	1.2	0.8	1.2	1.5	1.0
Other forms of chronic ischemic heart disease (I20, I25) .....	119.9	121.1	118.7	128.8	129.3	128.4	78.3	82.0	74.9	92.6	94.6	90.8
Atherosclerotic cardiovascular disease, so described (I25.0) .....	26.4	27.5	25.3	26.6	27.2	26.0	25.4	29.0	22.1	31.0	35.1	27.4
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9) .....	93.5	93.6	93.4	102.2	102.1	102.4	52.9	53.0	52.8	61.6	59.5	63.4
Other heart diseases (I26-I51) .....	60.8	54.5	66.9	64.0	56.2	71.5	45.8	46.0	45.7	56.5	56.4	56.5
Acute and subacute endocarditis (I33) .....	0.4	0.5	0.3	0.4	0.5	0.3	0.5	0.6	0.4	0.6	0.7	0.5
Diseases of pericardium and acute myocarditis (I30-I31, I40) .....	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5
Heart failure (I50) .....	20.1	15.6	24.5	22.0	16.7	27.0	11.6	10.0	13.2	14.3	12.2	16.3
All other forms of heart disease (I26-I28, I34-I38, I42-I49, I51) .....	39.9	38.1	41.7	41.4	38.7	43.9	33.3	35.0	31.8	41.1	43.1	39.3
Essential (primary) hypertension and hypertensive renal disease (I10, I12) .....	6.2	4.9	7.5	5.7	4.3	7.1	8.6	7.6	9.5	10.7	9.5	11.8
Cerebrovascular diseases (I60-I69) .....	61.4	48.4	73.8	64.5	49.7	78.7	46.9	41.9	51.4	54.2	47.7	60.0
Atherosclerosis (I70) .....	5.5	4.1	6.8	6.1	4.5	7.7	2.6	2.2	2.9	3.1	2.6	3.5
Other diseases of circulatory system (I71-I78) .....	9.5	10.3	8.6	10.2	11.3	9.2	5.9	5.9	6.0	7.0	6.7	7.2
Aortic aneurysm and dissection (I71) .....	5.8	7.2	4.4	6.4	8.0	4.8	3.1	3.5	2.7	3.4	3.7	3.1
Other diseases of arteries, arterioles and capillaries (I72-I78) .....	3.7	3.1	4.2	3.8	3.3	4.4	2.9	2.4	3.3	3.6	3.0	4.2
Other disorders of circulatory system (I80-I99) .....	1.5	1.3	1.7	1.5	1.3	1.7	1.4	1.4	1.5	1.8	1.7	1.8
Influenza and pneumonia (J10-J18) .....	23.4	20.8	25.8	25.2	22.0	28.4	14.6	15.0	14.3	16.9	17.1	16.7
Influenza (J10-J11) .....	0.6	0.5	0.8	0.7	0.5	0.9	0.2	0.1	0.2	0.2	0.1	0.2
Pneumonia (J12-J18) .....	22.8	20.3	25.1	24.5	21.5	27.5	14.4	14.8	14.1	16.7	16.9	16.4
Other acute lower respiratory infections (J20-J22) .....	0.2	0.1	0.2	0.2	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Acute bronchitis and bronchiolitis (J20-J21) .....	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2
Unspecified acute lower respiratory infection (J22) .....	0.1	0.0	0.1	0.1	0.0	0.1	*	*	*	*	*	*
Chronic lower respiratory diseases (J40-J47) .....	45.5	46.8	44.3	51.1	51.7	50.5	19.6	23.6	16.0	22.7	27.2	18.7
Bronchitis, chronic and unspecified (J40-J42) .....	0.4	0.4	0.5	0.5	0.4	0.5	0.2	0.3	0.2	0.3	0.3	0.2
Emphysema (J43) .....	6.5	7.1	6.0	7.4	7.9	6.9	2.3	3.2	1.5	2.7	3.6	1.8

See footnotes at end of table.

**Table 13. Death rates for 113 selected causes by race and sex: United States, 1999 - Con.**

[Rates per 100,000 population in specified group]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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
Asthma (J45-J46) .....	1.7	1.2	2.2	1.5	0.9	2.0	2.8	2.5	3.0	3.3	2.9	3.6
Other chronic lower respiratory diseases (J44,J47) .....	36.9	38.1	35.7	41.7	42.4	41.1	14.3	17.7	11.3	16.5	20.4	13.0
Pneumoconioses and chemical effects (J60-J66,J68) .....	0.4	0.8	0.0	0.5	0.9	0.0	0.2	0.3	*	0.2	0.4	*
Pneumonitis due to solids and liquids (J69) .....	5.6	5.8	5.4	6.0	6.2	5.9	3.5	3.9	3.1	4.3	4.7	4.0
Other diseases of respiratory system (J00-J06,J30-J39, J67,J70-J98) .....	9.2	9.1	9.3	9.9	9.8	10.0	6.0	5.9	6.1	6.8	6.6	6.9
Peptic ulcer (K25-K28) .....	1.7	1.6	1.7	1.8	1.7	1.9	1.2	1.3	1.0	1.3	1.5	1.1
Diseases of appendix (K35-K38) .....	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.3	0.1
Hernia (K40-K46) .....	0.5	0.4	0.6	0.6	0.5	0.7	0.3	0.3	0.4	0.4	0.3	0.5
Chronic liver disease and cirrhosis (K70,K73-K74) .....	9.6	12.8	6.6	10.1	13.4	6.9	7.6	10.1	5.2	8.1	11.1	5.4
Alcoholic liver disease (K70) .....	4.4	6.7	2.2	4.5	6.9	2.1	4.0	5.8	2.4	4.2	6.1	2.4
Other chronic liver disease and cirrhosis (K73-K74) .....	5.2	6.1	4.4	5.6	6.5	4.7	3.6	4.4	2.9	3.9	5.0	3.0
Cholelithiasis and other disorders of gallbladder (K80-K82) .....	1.0	0.9	1.1	1.1	1.0	1.2	0.7	0.6	0.8	0.7	0.6	0.8
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) .....	13.0	12.8	13.3	12.5	12.4	12.6	15.6	14.8	16.3	19.3	18.2	20.2
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01,N04) .....	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 (N02-N03,N05-N07,N26) .....	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3
Renal failure (N17-N19) .....	12.7	12.5	13.0	12.2	12.1	12.3	15.2	14.4	16.0	18.9	17.8	19.9
Other disorders of kidney (N25,N27) .....	0.0	*	0.0	0.0	*	*	*	*	*	*	*	*
Infections of kidney (N10-N12,N13.6,N15.1) .....	0.3	0.2	0.4	0.3	0.2	0.5	0.2	0.1	0.3	0.2	0.2	0.3
Hyperplasia of prostate (N40) .....	0.2	0.3	...	0.2	0.4	...	0.1	0.2	...	0.1	0.2	...
Inflammatory diseases of female pelvic organs (N70-N76) .....	0.0	...	0.1	0.0	...	0.1	0.1	...	0.1	0.1	...	0.1
Pregnancy, childbirth and the puerperium (O00-O99) .....	0.1	...	0.3	0.1	...	0.2	0.4	...	0.7	0.5	...	0.9
Pregnancy with abortive outcome (O00-O07) .....	0.0	...	0.0	*	...	*	*	...	*	*	...	*
Other complications of pregnancy, childbirth and the puerperium (O10-O99) .....	0.1	...	0.3	0.1	...	0.2	0.4	...	0.7	0.4	...	0.8
Certain conditions originating in the perinatal period (P00-P96) .....	5.2	6.0	4.5	3.9	4.4	3.3	11.7	13.8	9.7	14.8	17.6	12.3
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) .....	3.8	4.0	3.6	3.7	3.9	3.5	4.4	4.7	4.1	4.9	5.4	4.5
Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	9.8	9.7	9.9	9.6	9.1	10.1	10.6	12.1	9.1	13.2	15.2	11.3
All other diseases (Residual) .....	63.0	52.4	73.1	66.2	53.8	78.1	48.0	45.5	50.2	58.3	54.8	61.5
Accidents (unintentional injuries) (V01-X59,Y85-Y86) .....	35.9	47.7	24.6	36.6	47.9	25.7	32.5	46.4	19.8	36.5	53.0	21.6
Transport accidents (V01-V99,Y85) .....	17.0	23.7	10.6	17.3	23.9	10.8	15.9	22.9	9.5	16.9	25.1	9.5
Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5,V81.0-V81.1, V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8, V89.0,V89.2) .....	15.5	21.4	9.9	15.7	21.5	10.1	14.7	20.9	9.0	15.7	23.1	9.0
Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V11, V15-V18,V19.3,V19.8-V19.9,V80.0-V80.2, V80.6-V80.9,V81.2-V81.9,V82.2-V82.9,V87.9, V88.9,V89.1,V89.3,V89.9) .....	0.8	1.2	0.4	0.8	1.2	0.4	0.8	1.2	0.3	0.7	1.2	0.3
Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) .....	0.7	1.1	0.3	0.7	1.2	0.3	0.5	0.8	0.2	0.5	0.9	0.2
Nontransport accidents (W00-X59,Y86) .....	18.9	23.9	14.0	19.4	24.0	14.8	16.6	23.5	10.3	19.6	27.8	12.1
Falls (W00-W19) .....	4.8	5.3	4.3	5.3	5.8	4.9	2.4	3.3	1.6	2.5	3.4	1.7
Accidental discharge of firearms (W32-W34) .....	0.3	0.5	0.1	0.3	0.5	0.1	0.4	0.7	0.1	0.4	0.8	0.1

See footnotes at end of table.



**Table 13. Death rates for 113 selected causes by race and sex: United States, 1999 - Con.**

[Rates per 100,000 population in specified group]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All other											
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Accidental drowning and submersion (W65-W74) .....	1.3	2.1	0.5	1.2	1.9	0.5	1.7	2.9	0.6	1.8	3.2	0.6
Accidental exposure to smoke, fire and flames (X00-X09) .....	1.2	1.5	0.9	1.1	1.3	0.8	2.0	2.4	1.6	2.6	3.1	2.1
Accidental poisoning and exposure to noxious substances (X40-X49) .....	4.5	6.7	2.4	4.4	6.6	2.3	4.8	7.2	2.6	5.9	9.0	3.1
Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86) .....	6.7	7.8	5.8	7.1	8.0	6.2	5.3	6.9	3.7	6.3	8.3	4.5
Intentional self-harm (suicide) (X60-X84,Y87.0) .....	10.7	17.6	4.1	11.7	19.1	4.5	6.0	10.2	2.2	5.6	10.0	1.6
Intentional self-harm (suicide) by discharge of firearms (X72-X74) .....	6.1	10.9	1.5	6.7	11.9	1.7	3.0	5.7	0.6	3.2	6.1	0.6
Intentional self-harm (suicide) by other and unspecified means and their sequelae (X60-X71,X75-X84, Y87.0) .....	4.6	6.7	2.6	5.0	7.2	2.8	3.0	4.5	1.6	2.4	3.8	1.0
Assault (homicide) (X85-Y09,Y87.1) .....	6.2	9.6	2.9	3.8	5.6	2.2	17.2	28.9	6.5	21.9	37.5	7.8
Assault (homicide) by discharge of firearms (X93-X95) .....	4.0	6.7	1.4	2.2	3.5	1.0	12.3	22.3	3.1	16.0	29.5	3.8
Assault (homicide) by other and unspecified means and their sequelae (X85-X92,X96-Y09,Y87.1) .....	2.2	2.9	1.6	1.7	2.1	1.2	4.9	6.5	3.4	5.9	8.0	4.0
Legal intervention (Y35,Y89.0) .....	0.1	0.3	*	0.1	0.2	*	0.3	0.6	*	0.4	0.8	*
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) ..	1.4	2.0	0.9	1.4	1.9	0.9	1.7	2.6	0.8	2.0	3.2	0.9
Discharge of firearms, undetermined intent (Y22-Y24) ..	0.1	0.2	0.0	0.1	0.2	0.0	0.2	0.3	*	0.2	0.3	*
Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2, Y89.9) .....	1.3	1.8	0.8	1.3	1.7	0.9	1.5	2.3	0.8	1.8	2.8	0.9
Operations of war and their sequelae (Y36,Y89.1) .....	0.0	0.0	*	0.0	0.0	*	*	*	*	*	*	*
Complications of medical and surgical care (Y40-Y84,Y88) .....	1.0	1.0	1.1	1.0	1.0	1.1	1.1	1.0	1.1	1.3	1.2	1.4

0.0 Quantity more than zero but less than 0.05.

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

... Category not applicable.

NOTE: Complete confirmation of deaths from selected causes of death, considered to be of public health concern, were not provided by the following States--California, Florida, Illinois, Indiana, Kentucky, Maine, Michigan, Missouri, New Jersey, New York City, North Carolina, Ohio, Pennsylvania, Rhode Island, Washington, and West Virginia; see Technical notes.

**Table 14. Death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999**

[Rates per 100,000 population in specified group. 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins <sup>1</sup>			Hispanic			Non-Hispanic <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All causes .....	877.0	882.0	872.2	331.0	367.9	293.7	944.4	946.9	942.0
Salmonella infections (A01-A02) .....	0.0	0.0	*	*	*	*	0.0	*	*
Shigellosis and amebiasis (A03,A06) .....	*	*	*	*	*	*	*	*	*
Certain other intestinal infections (A04,A07-A09) .....	0.4	0.3	0.5	0.1	*	*	0.4	0.3	0.5
Tuberculosis (A16-A19) .....	0.3	0.4	0.2	0.4	0.5	0.3	0.3	0.4	0.2
Respiratory tuberculosis (A16) .....	0.3	0.4	0.2	0.3	0.3	0.2	0.3	0.4	0.2
Other tuberculosis (A17-A19) .....	0.1	0.1	0.0	0.1	0.1	*	0.1	0.1	0.0
Whooping cough (A37) .....	*	*	*	*	*	*	*	*	*
Scarlet fever and erysipelas (A38,A46) .....	*	*	*	*	*	*	*	*	*
Meningococcal infection (A39) .....	0.1	0.1	0.1	0.1	*	*	0.1	0.1	0.1
Septicemia (A40-A41) .....	11.3	10.1	12.4	3.9	3.8	3.9	12.2	10.8	13.4
Syphilis (A50-A53) .....	0.0	*	0.0	*	*	*	0.0	*	*
Acute poliomyelitis (A80) .....	*	*	*	*	*	*	*	*	*
Arthropod-borne viral encephalitis (A83-A84,A85.2) .....	*	*	*	*	*	*	*	*	*
Measles (B05) .....	*	*	*	*	*	*	*	*	*
Viral hepatitis (B15-B19) .....	1.8	2.3	1.3	2.1	2.6	1.6	1.7	2.2	1.3
Human immunodeficiency virus (HIV) disease (B20-B24) .....	5.4	8.4	2.6	6.2	9.7	2.8	5.2	8.1	2.5
Malaria (B50-B54) .....	*	*	*	*	*	*	*	*	*
Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44,A48-A49, A54-A79,A81-A82,A85.0-A85.1, A85.8,A86-B04,B06-B09,B25-B49, B55-B99) .....	2.7	2.7	2.6	1.6	1.6	1.5	2.8	2.9	2.7
Malignant neoplasms (C00-C97) .....	201.6	214.5	189.4	64.6	67.7	61.4	218.9	233.5	204.9
Malignant neoplasms of lip, oral cavity and pharynx (C00-C14) .....	2.7	3.7	1.8	0.9	1.3	0.5	3.0	4.0	2.0
Malignant neoplasm of esophagus (C15) .....	4.4	6.8	2.0	1.2	1.9	0.5	4.8	7.5	2.2
Malignant neoplasm of stomach (C16) .....	4.7	5.6	3.8	3.4	3.9	2.9	4.8	5.8	3.9
Malignant neoplasms of colon, rectum and anus (C18-C21) .....	21.0	21.2	20.7	6.5	6.7	6.2	22.8	23.1	22.5
Malignant neoplasms of liver and intrahepatic bile ducts (C22) .....	4.5	5.8	3.4	3.5	4.4	2.5	4.7	5.9	3.5
Malignant neoplasm of pancreas (C25) .....	10.7	10.6	10.7	3.6	3.6	3.7	11.5	11.5	11.5
Malignant neoplasm of larynx (C32) .....	1.4	2.2	0.6	0.5	0.9	0.1	1.5	2.4	0.6
Malignant neoplasms of trachea, bronchus and lung (C33-C34) .....	55.8	67.1	45.0	11.3	15.1	7.5	61.4	73.9	49.6
Malignant melanoma of skin (C43) .....	2.6	3.4	1.9	0.4	0.5	0.3	2.9	3.8	2.1
Malignant neoplasm of breast (C50) .....	15.2	0.3	29.5	4.9	*	9.9	16.5	0.3	31.9
Malignant neoplasm of cervix uteri (C53) .....	1.5	...	3.0	1.2	...	2.4	1.6	...	3.1
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) .....	2.4	...	4.6	0.9	...	1.7	2.6	...	5.0
Malignant neoplasm of ovary (C56) .....	5.0	...	9.8	1.5	...	3.1	5.4	...	10.6
Malignant neoplasm of prostate (C61) .....	11.6	23.8	...	3.4	6.7	...	12.7	26.1	...
Malignant neoplasms of kidney and renal pelvis (C64-C65) .....	4.1	5.2	3.0	1.7	2.2	1.2	4.4	5.5	3.3
Malignant neoplasm of bladder (C67) .....	4.4	6.1	2.7	1.0	1.4	0.5	4.8	6.7	3.0
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) .....	4.7	5.3	4.1	1.8	1.9	1.8	5.0	5.7	4.4
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) .....	20.7	22.3	19.1	8.1	8.4	7.8	22.2	24.1	20.4
Hodgkin's disease (C81) .....	0.5	0.6	0.4	0.4	0.4	0.3	0.5	0.6	0.5
Non-Hodgkin's lymphoma (C82-C85) .....	8.4	8.8	7.9	3.1	3.1	3.0	9.0	9.6	8.5
Leukemia (C91-C95) .....	7.7	8.6	6.8	3.2	3.4	3.0	8.3	9.3	7.3
Multiple myeloma and immunoproliferative neoplasms (C88,C90) .....	4.0	4.2	3.9	1.5	1.4	1.6	4.4	4.6	4.2
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) .....	0.0	0.0	0.0	*	*	*	0.0	0.0	0.0
All other and unspecified malignant neoplasms (C17,C23-C24,C26-C31, C37-C41,C44-C49,C51-C52, C57-C60,C62-C63,C66,C68-C69, C73-C80,C97) .....	24.3	25.1	23.5	8.8	8.9	8.7	26.2	27.2	25.3
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	4.9	4.9	4.8	1.6	1.5	1.7	5.3	5.3	5.2
Anemias (D50-D64) .....	1.7	1.3	2.0	0.5	0.5	0.5	1.8	1.4	2.1
Diabetes mellitus (E10-E14) .....	25.1	23.4	26.7	16.5	14.8	18.3	26.1	24.4	27.7

See footnotes at end of table.

**Table 14. Death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Rates per 100,000 population in specified group. 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black		
	Both sexes	Male	Female	Both sexes	Male	Female
All causes .....	996.3	984.7	1,007.4	852.1	918.0	792.8
Salmonella infections (A01-A02) .....	0.0	*	*	*	*	*
Shigellosis and amebiasis (A03,A06) .....	*	*	*	*	*	*
Certain other intestinal infections (A04,A07-A09) .....	0.5	0.4	0.6	0.2	0.2	0.3
Tuberculosis (A16-A19) .....	0.2	0.3	0.2	0.7	1.0	0.5
Respiratory tuberculosis (A16) .....	0.2	0.2	0.1	0.6	0.8	0.4
Other tuberculosis (A17-A19) .....	0.0	0.0	0.0	0.1	0.2	*
Whooping cough (A37) .....	*	*	*	*	*	*
Scarlet fever and erysipelas (A38,A46) .....	*	*	*	*	*	*
Meningococcal infection (A39) .....	0.1	0.1	0.1	0.1	0.1	*
Septicemia (A40-A41) .....	11.7	10.3	13.1	17.4	16.5	18.2
Syphilis (A50-A53) .....	*	*	*	*	*	*
Acute poliomyelitis (A80) .....	*	*	*	*	*	*
Arthropod-borne viral encephalitis (A83-A84,A85.2) .....	*	*	*	*	*	*
Measles (B05) .....	*	*	*	*	*	*
Viral hepatitis (B15-B19) .....	1.6	2.1	1.1	2.2	2.8	1.6
Human immunodeficiency virus (HIV) disease (B20-B24) .....	2.4	4.2	0.7	23.4	34.3	13.6
Malaria (B50-B54) .....	*	*	*	*	*	*
Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44,A48-A49, A54-A79,A81-A82,A85.0-A85.1, A85.8,A86-B04,B06-B09,B25-B49, B55-B99) .....	2.7	2.8	2.6	3.8	3.9	3.6
Malignant neoplasms (C00-C97) .....	232.8	246.3	219.7	185.6	207.6	165.7
Malignant neoplasms of lip, oral cavity and pharynx (C00-C14) .....	3.0	3.9	2.1	3.4	5.2	1.8
Malignant neoplasm of esophagus (C15) ...	4.9	7.8	2.3	4.9	7.6	2.5
Malignant neoplasm of stomach (C16) .....	4.4	5.4	3.5	6.6	8.0	5.3
Malignant neoplasms of colon, rectum and anus (C18-C21) .....	24.1	24.4	23.8	20.3	20.2	20.4
Malignant neoplasms of liver and intrahepatic bile ducts (C22) .....	4.5	5.7	3.4	4.5	6.0	3.2
Malignant neoplasm of pancreas (C25) .....	12.2	12.2	12.2	10.2	10.2	10.1
Malignant neoplasm of larynx (C32) .....	1.5	2.4	0.7	2.0	3.4	0.7
Malignant neoplasms of trachea, bronchus and lung (C33-C34) .....	66.3	78.5	54.6	47.8	64.0	33.3
Malignant melanoma of skin (C43) .....	3.5	4.6	2.6	0.3	0.3	0.3
Malignant neoplasm of breast (C50) .....	17.2	0.3	33.5	16.3	0.4	30.5
Malignant neoplasm of cervix uteri (C53) ...	1.5	...	2.9	2.5	...	4.7
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) .....	2.6	...	5.1	3.0	...	5.6
Malignant neoplasm of ovary (C56) .....	6.0	...	11.8	3.2	...	6.1
Malignant neoplasm of prostate (C61) .....	12.7	26.0	...	16.1	33.9	...
Malignant neoplasms of kidney and renal pelvis (C64-C65) .....	4.8	6.0	3.6	3.1	3.9	2.4
Malignant neoplasm of bladder (C67) .....	5.4	7.6	3.3	2.7	3.1	2.4
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) .....	5.7	6.5	5.0	2.3	2.5	2.0
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) .....	24.3	26.3	22.4	15.2	16.4	14.2
Hodgkin's disease (C81) .....	0.6	0.7	0.5	0.4	0.5	0.3
Non-Hodgkin's lymphoma (C82-C85) .....	10.2	10.7	9.7	4.3	5.0	3.7
Leukemia (C91-C95) .....	9.1	10.3	8.0	5.1	5.7	4.6
Multiple myeloma and immunoproliferative neoplasms (C88,C90) .....	4.4	4.6	4.1	5.4	5.3	5.5
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) .....	0.0	0.0	0.0	*	*	*
All other and unspecified malignant neoplasms (C17,C23-C24,C26-C31, C37-C41,C44-C49,C51-C52, C57-C60,C62-C63,C66,C68-C69, C73-C80,C97) .....	28.0	28.9	27.2	21.2	22.4	20.1
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	5.8	5.9	5.7	3.5	3.3	3.7
Anemias (D50-D64) .....	1.6	1.2	2.1	3.1	2.9	3.2
Diabetes mellitus (E10-E14) .....	25.2	24.2	26.1	35.7	30.1	40.8

See footnotes at end of table.

**Table 14. Death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Rates per 100,000 population in specified group. 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins <sup>1</sup>			Hispanic			Non-Hispanic <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Nutritional deficiencies (E40-E64) .....	1.6	1.1	2.0	0.4	0.3	0.5	1.7	1.2	2.2
Malnutrition (E40-E46) .....	1.5	1.0	1.9	0.4	0.3	0.5	1.6	1.1	2.0
Other nutritional deficiencies (E50-E64) .....	0.1	0.1	0.1	*	*	*	0.1	0.1	0.2
Meningitis (G00,G03) .....	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.3
Parkinson's disease (G20-G21) .....	5.4	6.2	4.5	1.2	1.4	1.1	5.9	6.8	5.0
Alzheimer's disease (G30) .....	16.3	10.0	22.3	3.1	2.0	4.3	18.0	11.1	24.6
Major cardiovascular diseases (I00-I78) .....	348.5	331.5	364.7	107.4	109.8	105.0	378.5	359.8	396.2
Diseases of heart (I00-I09,I11,I13, I20-I51) .....	265.9	263.8	268.0	82.5	86.0	79.0	288.7	286.4	290.8
Acute rheumatic fever and chronic rheumatic heart diseases (I00-I09) ....	1.3	0.8	1.9	0.5	0.2	0.8	1.4	0.9	2.0
Hypertensive heart disease (I11) .....	8.3	7.0	9.6	3.0	2.9	3.1	9.0	7.5	10.4
Hypertensive heart and renal disease (I13) .....	1.2	1.0	1.4	0.5	0.4	0.5	1.3	1.1	1.5
Ischemic heart diseases (I20-I25) .....	194.2	200.5	188.2	63.6	67.3	59.9	210.4	217.4	203.6
Acute myocardial infarction (I21-I22) .....	73.1	78.2	68.3	22.8	24.3	21.3	79.4	85.1	74.1
Other acute ischemic heart diseases (I24) .....	1.2	1.2	1.1	0.2	0.2	0.2	1.3	1.4	1.2
Other forms of chronic ischemic heart disease (I20,I25) .....	119.9	121.1	118.7	40.6	42.8	38.4	129.6	130.9	128.3
Atherosclerotic cardiovascular disease, so described (I25.0) .....	26.4	27.5	25.3	9.8	11.7	7.8	28.3	29.3	27.4
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9) .....	93.5	93.6	93.4	30.8	31.1	30.6	101.3	101.6	100.9
Other heart diseases (I26-I51) .....	60.8	54.5	66.9	15.0	15.2	14.7	66.6	59.6	73.3
Acute and subacute endocarditis (I33) ..	0.4	0.5	0.3	0.2	0.3	0.1	0.4	0.5	0.4
Diseases of pericardium and acute myocarditis (I30-I31,I40) .....	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3
Heart failure (I50) .....	20.1	15.6	24.5	4.0	3.3	4.6	22.2	17.2	26.9
All other forms of heart disease (I26-I28,I34-I38,I42-I49,I51) .....	39.9	38.1	41.7	10.6	11.4	9.8	43.6	41.5	45.6
Essential (primary) hypertension and hypertensive renal disease (I10,I12) .....	6.2	4.9	7.5	2.4	2.2	2.7	6.7	5.2	8.1
Cerebrovascular diseases (I60-I69) .....	61.4	48.4	73.8	18.8	17.8	19.9	66.7	52.3	80.4
Atherosclerosis (I70) .....	5.5	4.1	6.8	1.3	1.2	1.4	6.0	4.5	7.5
Other diseases of circulatory system (I71-I78) .....	9.5	10.3	8.6	2.3	2.6	2.0	10.4	11.4	9.4
Aortic aneurysm and dissection (I71) .....	5.8	7.2	4.4	1.2	1.6	0.8	6.4	7.9	4.9
Other diseases of arteries, arterioles and capillaries (I72-I78) .....	3.7	3.1	4.2	1.1	1.0	1.2	4.0	3.4	4.5
Other disorders of circulatory system (I80-I99) .....	1.5	1.3	1.7	0.6	0.5	0.7	1.6	1.4	1.8
Influenza and pneumonia (J10-J18) .....	23.4	20.8	25.8	7.2	6.9	7.4	25.4	22.5	28.0
Influenza (J10-J11) .....	0.6	0.5	0.8	0.1	0.1	0.2	0.7	0.5	0.8
Pneumonia (J12-J18) .....	22.8	20.3	25.1	7.0	6.8	7.3	24.7	22.0	27.2
Other acute lower respiratory infections (J20-J22) .....	0.2	0.1	0.2	0.1	*	*	0.2	0.2	0.3
Acute bronchitis and bronchiolitis (J20-J21) .....	0.1	0.1	0.2	0.1	*	*	0.2	0.1	0.2
Unspecified acute lower respiratory infection (J22) .....	0.1	0.0	0.1	*	*	*	0.1	0.0	0.1
Chronic lower respiratory diseases (J40-J47) .....	45.5	46.8	44.3	9.1	9.8	8.4	50.1	51.6	48.7
Bronchitis, chronic and unspecified (J40-J42) .....	0.4	0.4	0.5	0.2	*	0.2	0.5	0.4	0.5
Emphysema (J43) .....	6.5	7.1	6.0	0.9	1.2	0.7	7.2	7.9	6.6
Asthma (J45-J46) .....	1.7	1.2	2.2	1.0	0.8	1.3	1.8	1.3	2.3
Other chronic lower respiratory diseases (J44,J47) .....	36.9	38.1	35.7	7.0	7.8	6.2	40.6	42.1	39.3
Pneumoconioses and chemical effects (J60-J66,J68) .....	0.4	0.8	0.0	*	*	*	0.5	0.9	0.0
Pneumonitis due to solids and liquids (J69) ..	5.6	5.8	5.4	1.3	1.2	1.4	6.1	6.4	5.9
Other diseases of respiratory system (J00-J06,J30-J39,J67,J70-J98) .....	9.2	9.1	9.3	3.7	3.7	3.7	9.9	9.8	9.9
Peptic ulcer (K25-K28) .....	1.7	1.6	1.7	0.5	0.6	0.5	1.8	1.8	1.9
Diseases of appendix (K35-K38) .....	0.1	0.2	0.1	0.1	0.1	*	0.1	0.2	0.1
Hernia (K40-K46) .....	0.5	0.4	0.6	0.2	0.2	0.3	0.6	0.5	0.7
Chronic liver disease and cirrhosis (K70,K73-K74) .....	9.6	12.8	6.6	9.5	13.6	5.3	9.6	12.7	6.7
Alcoholic liver disease (K70) .....	4.4	6.7	2.2	4.9	8.2	1.6	4.3	6.5	2.2
Other chronic liver disease and cirrhosis (K73-K74) .....	5.2	6.1	4.4	4.5	5.4	3.7	5.3	6.2	4.5
Cholelithiasis and other disorders of gallbladder (K80-K82) .....	1.0	0.9	1.1	0.6	0.5	0.6	1.1	1.0	1.2

See footnotes at end of table.

**Table 14. Death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Rates per 100,000 population in specified group. 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black		
	Both sexes	Male	Female	Both sexes	Male	Female
Nutritional deficiencies (E40-E64) .....	1.8	1.2	2.3	1.8	1.6	1.9
Malnutrition (E40-E46) .....	1.6	1.1	2.2	1.6	1.5	1.8
Other nutritional deficiencies (E50-E64) .....	0.1	0.1	0.2	0.1	*	0.1
Meningitis (G00,G03) .....	0.3	0.3	0.3	0.7	0.8	0.6
Parkinson's disease (G20-G21) .....	6.9	8.0	5.8	1.5	1.7	1.3
Alzheimer's disease (G30) .....	20.8	12.8	28.6	7.0	4.4	9.4
Major cardiovascular diseases (I00-I78) .....	405.0	381.7	427.3	313.2	306.1	319.5
Diseases of heart (I00-I09,I11,I13, I20-I51) .....	310.0	305.5	314.2	234.8	236.6	233.3
Acute rheumatic fever and chronic rheumatic heart diseases (I00-I09) ....	1.6	0.9	2.2	0.8	0.5	1.1
Hypertensive heart disease (I11) .....	8.0	6.3	9.6	16.8	16.4	17.1
Hypertensive heart and renal disease (I13) .....	1.1	0.9	1.2	3.0	2.7	3.2
Ischemic heart diseases (I20-I25) .....	228.5	235.4	221.9	155.2	157.8	152.9
Acute myocardial infarction (I21-I22) ....	86.5	92.9	80.3	57.8	58.1	57.5
Other acute ischemic heart diseases (I24) .....	1.4	1.4	1.3	1.3	1.6	1.1
Other forms of chronic ischemic heart disease (I20,I25) .....	140.6	141.1	140.2	96.2	98.1	94.4
Atherosclerotic cardiovascular disease, so described (I25.0) .....	28.8	29.1	28.4	32.2	36.3	28.4
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9) .....	111.9	112.0	111.8	64.0	61.8	65.9
Other heart diseases (I26-I51) .....	70.8	62.1	79.3	59.0	59.1	59.0
Acute and subacute endocarditis (I33) ..	0.4	0.5	0.3	0.6	0.7	0.5
Diseases of pericardium and acute myocarditis (I30-I31,I40) .....	0.3	0.3	0.3	0.5	0.5	0.5
Heart failure (I50) .....	24.5	18.7	30.0	15.0	12.8	17.0
All other forms of heart disease (I26-I28,I34-I38,I42-I49,I51) .....	45.6	42.6	48.5	42.9	45.1	41.0
Essential (primary) hypertension and hypertensive renal disease (I10,I12) .....	6.1	4.6	7.6	11.2	9.9	12.4
Cerebrovascular diseases (I60-I69) .....	70.8	54.2	86.7	56.6	49.9	62.6
Atherosclerosis (I70) .....	6.8	4.9	8.6	3.2	2.7	3.6
Other diseases of circulatory system (I71-I78) .....	11.3	12.5	10.2	7.3	7.0	7.5
Aortic aneurysm and dissection (I71) .....	7.1	8.9	5.4	3.5	3.9	3.2
Other diseases of arteries, arterioles and capillaries (I72-I78) .....	4.2	3.6	4.8	3.8	3.1	4.3
Other disorders of circulatory system (I80-I99) .....	1.6	1.4	1.8	1.9	1.8	1.9
Influenza and pneumonia (J10-J18) .....	27.7	24.1	31.2	17.5	17.8	17.3
Influenza (J10-J11) .....	0.8	0.6	1.0	0.2	0.2	0.2
Pneumonia (J12-J18) .....	26.9	23.5	30.2	17.3	17.6	17.0
Other acute lower respiratory infections (J20-J22) .....	0.2	0.2	0.3	0.2	0.2	0.2
Acute bronchitis and bronchiolitis (J20-J21) .....	0.2	0.1	0.2	0.2	0.2	0.2
Unspecified acute lower respiratory infection (J22) .....	0.1	0.0	0.1	*	*	*
Chronic lower respiratory diseases (J40-J47) .....	56.9	57.6	56.3	23.7	28.4	19.5
Bronchitis, chronic and unspecified (J40-J42) .....	0.5	0.4	0.6	0.3	0.3	0.3
Emphysema (J43) .....	8.3	8.9	7.8	2.8	3.8	1.9
Asthma (J45-J46) .....	1.5	1.0	2.1	3.4	3.0	3.8
Other chronic lower respiratory diseases (J44,J47) .....	46.6	47.3	45.8	17.2	21.3	13.5
Pneumoconioses and chemical effects (J60-J66,J68) .....	0.5	1.0	0.0	0.2	0.4	*
Pneumonitis due to solids and liquids (J69) ..	6.7	6.9	6.5	4.5	4.9	4.2
Other diseases of respiratory system (J00-J06,J30-J39,J67,J70-J98) .....	10.7	10.6	10.8	7.1	6.9	7.2
Peptic ulcer (K25-K28) .....	2.0	1.9	2.1	1.3	1.5	1.2
Diseases of appendix (K35-K38) .....	0.1	0.2	0.1	0.2	0.3	0.1
Hernia (K40-K46) .....	0.6	0.5	0.7	0.4	0.3	0.5
Chronic liver disease and cirrhosis (K70,K73-K74) .....	10.0	13.1	7.0	8.4	11.6	5.6
Alcoholic liver disease (K70) .....	4.3	6.6	2.2	4.4	6.4	2.5
Other chronic liver disease and cirrhosis (K73-K74) .....	5.7	6.6	4.8	4.1	5.2	3.1
Cholelithiasis and other disorders of gallbladder (K80-K82) .....	1.2	1.1	1.3	0.8	0.7	0.9

See footnotes at end of table.

**Table 14. Death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Rates per 100,000 population in specified group. 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins <sup>1</sup>			Hispanic			Non-Hispanic <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) .....	13.0	12.8	13.3	5.1	5.2	4.9	14.0	13.7	14.3
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01, N04) .....	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 (N02-N03,N05-N07, N26) .....	0.2	0.2	0.2	0.1	*	*	0.2	0.2	0.2
Renal failure (N17-N19) .....	12.7	12.5	13.0	4.9	5.0	4.8	13.7	13.4	14.0
Other disorders of kidney (N25,N27) .....	0.0	*	0.0	*	*	*	0.0	*	0.0
Infections of kidney (N10-N12,N13.6, N15.1) .....	0.3	0.2	0.4	0.2	0.1	0.2	0.3	0.2	0.4
Hyperplasia of prostate (N40) .....	0.2	0.3	...	*	*	...	0.2	0.4	...
Inflammatory diseases of female pelvic organs (N70-N76) .....	0.0	...	0.1	*	...	*	0.0	...	0.1
Pregnancy, childbirth and the puerperium (O00-O99) .....	0.1	...	0.3	0.2	...	0.4	0.1	...	0.3
Pregnancy with abortive outcome (O00-O07) .....	0.0	...	0.0	*	...	*	0.0	...	0.0
Other complications of pregnancy, childbirth and the puerperium (O10-O99) .....	0.1	...	0.3	0.2	...	0.4	0.1	...	0.2
Certain conditions originating in the perinatal period (P00-P96) .....	5.2	6.0	4.5	6.9	7.6	6.2	4.9	5.7	4.1
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) ..	3.8	4.0	3.6	4.8	4.8	4.8	3.7	3.9	3.5
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	9.8	9.7	9.9	4.1	4.9	3.3	10.4	10.2	10.7
All other diseases (Residual) .....	63.0	52.4	73.1	23.3	23.2	23.3	67.9	56.0	79.1
Accidents (unintentional injuries) (V01-X59,Y85-Y86) .....	35.9	47.7	24.6	27.6	41.7	13.3	36.7	48.1	25.9
Transport accidents (V01-V99,Y85) .....	17.0	23.7	10.6	15.6	23.0	8.0	17.1	23.7	10.9
Motor vehicle accidents (V02-V04, V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5, V81.0-V81.1,V82.0-V82.1,V83-V86, V87.0-V87.8,V88.0-V88.8,V89.0, V89.2) .....	15.5	21.4	9.9	14.4	21.2	7.6	15.6	21.3	10.2
Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9, V10-V11,V15-V18,V19.3, V19.8-V19.9,V80.0-V80.2, V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9) .....	0.8	1.2	0.4	0.8	1.4	0.3	0.8	1.1	0.4
Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) .....	0.7	1.1	0.3	0.3	0.5	*	0.7	1.2	0.3
Nontransport accidents (W00-X59,Y86) .....	18.9	23.9	14.0	12.0	18.7	5.3	19.6	24.4	15.1
Falls (W00-W19) .....	4.8	5.3	4.3	2.1	2.9	1.2	5.2	5.6	4.7
Accidental discharge of firearms (W32-W34) .....	0.3	0.5	0.1	0.2	0.4	*	0.3	0.5	0.1
Accidental drowning and submersion (W65-W74) .....	1.3	2.1	0.5	1.5	2.6	0.5	1.3	2.0	0.5
Accidental exposure to smoke, fire and flames (X00-X09) .....	1.2	1.5	0.9	0.6	0.8	0.4	1.3	1.6	1.0
Accidental poisoning and exposure to noxious substances (X40-X49) .....	4.5	6.7	2.4	4.8	8.1	1.5	4.4	6.4	2.4
Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86) .....	6.7	7.8	5.8	2.8	3.9	1.7	7.2	8.2	6.2
Intentional self-harm (suicide) (X60-X84,Y87.0) .....	10.7	17.6	4.1	5.4	9.1	1.7	11.3	18.7	4.4
Intentional self-harm (suicide) by discharge of firearms (X72-X74) .....	6.1	10.9	1.5	2.5	4.5	0.6	6.5	11.7	1.6
Intentional self-harm (suicide) by other and unspecified means and their sequelae (X60-X71,X75-X84,Y87.0) .....	4.6	6.7	2.6	2.9	4.6	1.1	4.8	7.0	2.8
Assault (homicide) (X85-Y09,Y87.1) .....	6.2	9.6	2.9	9.1	15.2	3.0	5.7	8.7	2.9
Assault (homicide) by discharge of firearms (X93-X95) .....	4.0	6.7	1.4	6.2	10.8	1.5	3.7	6.1	1.3
Assault (homicide) by other and unspecified means and their sequelae (X85-X92,X96-Y09,Y87.1) .....	2.2	2.9	1.6	3.0	4.4	1.5	2.1	2.6	1.6

See footnotes at end of table.

**Table 14. Death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Rates per 100,000 population in specified group. 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black		
	Both sexes	Male	Female	Both sexes	Male	Female
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) .....	13.5	13.3	13.6	20.1	19.0	21.1
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01, N04) .....	0.1	0.1	0.1	0.1	*	*
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (N02-N03,N05-N07, N26) .....	0.2	0.2	0.2	0.3	0.3	0.3
Renal failure (N17-N19) .....	13.2	13.0	13.3	19.7	18.6	20.7
Other disorders of kidney (N25,N27) .....	*	*	*	*	*	*
Infections of kidney (N10-N12,N13.6, N15.1) .....	0.4	0.2	0.5	0.3	0.2	0.3
Hyperplasia of prostate (N40) .....	0.2	0.4	...	0.1	0.2	...
Inflammatory diseases of female pelvic organs (N70-N76) .....	0.0	...	0.1	0.1	...	0.1
Pregnancy, childbirth and the puerperium (O00-O99) .....	0.1	...	0.2	0.5	...	0.9
Pregnancy with abortive outcome (O00-O07) .....	*	...	*	*	...	*
Other complications of pregnancy, childbirth and the puerperium (O10-O99) .....	0.1	...	0.1	0.4	...	0.8
Certain conditions originating in the perinatal period (P00-P96) .....	3.3	3.8	2.8	15.1	18.0	12.5
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) ..	3.5	3.6	3.3	5.1	5.6	4.6
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	10.3	9.6	10.9	13.6	15.7	11.8
All other diseases (Residual) .....	71.9	57.9	85.4	60.9	57.2	64.1
Accidents (unintentional injuries) (V01-X59,Y85-Y86) .....	37.4	48.1	27.2	37.9	55.1	22.4
Transport accidents (V01-V99,Y85) .....	17.2	23.6	11.1	17.6	26.1	9.8
Motor vehicle accidents (V02-V04, V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5, V81.0-V81.1,V82.0-V82.1,V83-V86, V87.0-V87.8,V88.0-V88.8,V89.0, V89.2) .....	15.7	21.2	10.4	16.3	24.0	9.3
Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9, V10-V11,V15-V18,V19.3, V19.8-V19.9,V80.0-V80.2, V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9) .....	0.8	1.1	0.4	0.7	1.2	0.3
Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) .....	0.8	1.3	0.3	0.5	0.9	0.2
Nontransport accidents (W00-X59,Y86) .....	20.2	24.4	16.1	20.3	28.9	12.6
Falls (W00-W19) .....	5.8	6.1	5.4	2.6	3.5	1.8
Accidental discharge of firearms (W32-W34) .....	0.3	0.5	0.1	0.5	0.9	0.1
Accidental drowning and submersion (W65-W74) .....	1.1	1.8	0.5	1.9	3.3	0.6
Accidental exposure to smoke, fire and flames (X00-X09) .....	1.1	1.4	0.8	2.7	3.2	2.2
Accidental poisoning and exposure to noxious substances (X40-X49) .....	4.2	6.2	2.4	6.1	9.3	3.2
Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86) .....	7.6	8.5	6.8	6.6	8.7	4.7
Intentional self-harm (suicide) (X60-X84,Y87.0) .....	12.5	20.4	4.9	5.8	10.4	1.7
Intentional self-harm (suicide) by discharge of firearms (X72-X74) .....	7.3	13.0	1.9	3.4	6.4	0.6
Intentional self-harm (suicide) by other and unspecified means and their sequelae (X60-X71,X75-X84,Y87.0) .....	5.2	7.5	3.0	2.5	4.0	1.1
Assault (homicide) (X85-Y09,Y87.1) .....	2.9	3.9	2.0	22.8	39.1	8.1
Assault (homicide) by discharge of firearms (X93-X95) .....	1.5	2.2	0.9	16.6	30.8	3.9
Assault (homicide) by other and unspecified means and their sequelae (X85-X92,X96-Y09,Y87.1) ....	1.4	1.7	1.1	6.1	8.3	4.2

See footnotes at end of table.

**Table 14. Death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Rates per 100,000 population in specified group. 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins <sup>1</sup>			Hispanic			Non-Hispanic <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Legal intervention (Y35,Y89.0) .....	0.1	0.3	*	0.2	0.4	*	0.1	0.3	*
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) .....	1.4	2.0	0.9	0.8	1.3	0.3	1.5	2.1	0.9
Discharge of firearms, undetermined intent (Y22-Y24) .....	0.1	0.2	0.0	0.1	0.2	*	0.1	0.2	0.0
Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2,Y89.9) .....	1.3	1.8	0.8	0.7	1.1	0.3	1.4	1.9	0.9
Operations of war and their sequelae (Y36,Y89.1) .....	0.0	0.0	*	*	*	*	0.0	0.0	*
Complications of medical and surgical care (Y40-Y84,Y88) .....	1.0	1.0	1.1	0.3	0.3	0.3	1.1	1.1	1.2

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black		
	Both sexes	Male	Female	Both sexes	Male	Female
Legal intervention (Y35,Y89.0) .....	0.1	0.2	*	0.4	0.8	*
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) .....	1.5	2.0	1.0	2.1	3.3	1.0
Discharge of firearms, undetermined intent (Y22-Y24) .....	0.1	0.2	0.0	0.2	0.4	*
Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2,Y89.9) .....	1.3	1.8	0.9	1.9	2.9	0.9
Operations of war and their sequelae (Y36,Y89.1) .....	0.0	*	*	*	*	*
Complications of medical and surgical care (Y40-Y84,Y88) .....	1.1	1.1	1.2	1.3	1.2	1.4

\* 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> All origins includes origin not stated; specified origins exclude origin not stated.

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

NOTE: Complete confirmation of deaths from selected causes of death, considered to be of public health concern, were not provided by the following States--California, Florida, Illinois, Indiana, Kentucky, Maine, Michigan, Missouri, New Jersey, New York City, North Carolina, Ohio, Pennsylvania, Rhode Island, Washington, and West Virginia; see Technical notes.



**Table 15. Age-adjusted death rates for 113 selected causes by race and sex: United States, 1999**

[Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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 .....	881.9	1,061.8	743.6	860.7	1,035.8	725.7	990.8	1,206.7	831.0	1,147.1	1,412.5	955.0
Salmonella infections (A01-A02) .....	0.0	0.0	*	0.0	*	*	*	*	*	*	*	*
Shigellosis and amebiasis (A03,A06) .....	*	*	*	*	*	*	*	*	*	*	*	*
Certain other intestinal infections (A04,A07-A09) .....	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.3	0.3	0.3	0.3
Tuberculosis (A16-A19) .....	0.3	0.5	0.2	0.2	0.3	0.1	1.1	1.7	0.7	1.0	1.5	0.6
Respiratory tuberculosis (A16) .....	0.3	0.4	0.2	0.2	0.3	0.1	0.9	1.4	0.5	0.8	1.2	0.5
Other tuberculosis (A17-A19) .....	0.1	0.1	0.0	0.0	0.1	0.0	0.2	0.3	0.1	0.2	0.3	*
Whooping cough (A37) .....	*	*	*	*	*	*	*	*	*	*	*	*
Scarlet fever and erysipelas (A38,A46) .....	*	*	*	*	*	*	*	*	*	*	*	*
Meningococcal infection (A39) .....	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	*
Septicemia (A40-A41) .....	11.3	12.4	10.5	10.1	11.0	9.4	20.4	22.8	18.6	24.9	28.2	22.5
Syphilis (A50-A53) .....	0.0	*	0.0	0.0	*	*	*	*	*	*	*	*
Acute poliomyelitis (A80) .....	*	*	*	*	*	*	*	*	*	*	*	*
Arthropod-borne viral encephalitis (A83-A84,A85.2) .....	*	*	*	*	*	*	*	*	*	*	*	*
Measles (B05) .....	*	*	*	*	*	*	*	*	*	*	*	*
Viral hepatitis (B15-B19) .....	1.8	2.4	1.2	1.6	2.3	1.1	2.7	3.5	2.0	2.6	3.5	1.9
Human immunodeficiency virus (HIV) disease (B20-B24) .....	5.4	8.4	2.6	3.0	5.0	1.0	17.6	26.9	9.7	24.2	37.1	13.4
Malaria (B50-B54) .....	*	*	*	*	*	*	*	*	*	*	*	*
Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44, A48-A49,A54-A79,A81-A82,A85.0-A85.1,A85.8, A86-B04,B06-B09,B25-B49,B55-B99) .....	2.7	3.1	2.3	2.5	2.9	2.1	4.0	4.8	3.5	4.6	5.5	4.1
Malignant neoplasms (C00-C97) .....	202.7	251.6	169.9	199.8	246.5	168.6	220.7	288.8	176.1	254.4	340.5	200.2
Malignant neoplasms of lip, oral cavity, and pharynx (C00-C14) .....	2.8	4.2	1.6	2.6	3.8	1.6	3.8	6.4	1.9	4.4	7.5	2.1
Malignant neoplasm of esophagus (C15) .....	4.4	7.7	1.8	4.2	7.5	1.7	5.4	9.4	2.5	6.6	11.5	3.1
Malignant neoplasm of stomach (C16) .....	4.7	6.6	3.3	4.1	5.8	2.8	9.1	12.7	6.6	9.2	13.3	6.6
Malignant neoplasms of colon, rectum and anus (C18-C21) .....	21.1	25.2	18.1	20.6	24.8	17.5	24.4	28.3	21.6	28.6	33.6	25.1
Malignant neoplasms of liver and intrahepatic bile ducts (C22) .....	4.6	6.5	3.0	4.2	6.0	2.8	7.0	10.2	4.5	6.0	8.7	3.9
Malignant neoplasm of pancreas (C25) .....	10.7	12.3	9.4	10.5	12.1	9.2	12.4	14.0	11.2	14.2	16.2	12.6
Malignant neoplasm of larynx (C32) .....	1.4	2.6	0.5	1.3	2.3	0.5	2.0	4.0	0.7	2.6	5.1	0.8
Malignant neoplasm of trachea, bronchus and lung (C33-C34) .....	56.0	77.0	40.8	56.0	75.8	41.5	55.7	84.9	35.4	65.2	101.8	40.5
Malignant melanoma of skin (C43) .....	2.7	3.8	1.8	3.0	4.3	2.0	0.4	0.5	0.3	0.4	0.5	0.3
Malignant neoplasm of breast (C50) .....	15.3	0.3	27.0	14.9	0.3	26.4	17.5	0.5	29.9	21.1	0.7	35.6
Malignant neoplasm of cervix uteri (C53) .....	1.6	...	2.9	1.4	...	2.6	2.7	...	4.7	3.2	...	5.5
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) .....	2.4	...	4.1	2.3	...	3.9	3.4	...	5.7	4.2	...	6.9
Malignant neoplasm of ovary (C56) .....	5.0	...	8.9	5.2	...	9.2	4.0	...	6.8	4.4	...	7.5
Malignant neoplasm of prostate (C61) .....	11.7	30.9	...	10.7	28.4	...	19.6	52.1	...	24.3	66.5	...
Malignant neoplasms of kidney and renal pelvis (C64-C65) .....	4.1	5.9	2.7	4.1	6.0	2.7	3.7	5.3	2.5	4.2	6.0	2.9
Malignant neoplasm of bladder (C67) .....	4.4	7.6	2.3	4.5	7.9	2.3	3.4	4.8	2.5	4.0	5.6	3.0
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) .....	4.7	5.7	3.9	5.0	6.1	4.2	2.5	3.0	2.1	2.8	3.3	2.4
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) .....	20.7	26.1	16.9	21.0	26.5	17.1	18.2	22.5	15.3	20.4	25.3	17.1
Hodgkin's disease (C81) .....	0.5	0.7	0.4	0.5	0.7	0.4	0.3	0.4	0.3	0.4	0.6	0.3
Non-Hodgkin's lymphoma (C82-C85) .....	8.4	10.3	7.0	8.8	10.7	7.3	5.5	7.2	4.3	5.7	7.4	4.5
Leukemia (C91-C95) .....	7.7	10.2	6.0	7.9	10.4	6.2	6.1	7.8	5.0	6.7	8.5	5.5
Multiple myeloma and immunoproliferative neoplasms (C88,C90) .....	4.1	4.9	3.4	3.7	4.6	3.1	6.3	7.1	5.7	7.6	8.8	6.8

See footnotes at end of table.

**Table 15. Age-adjusted death rates for 113 selected causes by race and sex: United States, 1999 - Con.**

[Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) .....	0.0	0.0	0.0	0.0	0.0	0.0	*	*	*	*	*	*
All other and unspecified malignant neoplasms (C17, C23-C24, C26-C31, C37-C41, C44-C49, C51-C52, C57-C60, C62-C63, C66, C68-C69, C73-C80, C97) .....	24.4	29.3	20.8	24.2	29.1	20.6	25.4	30.1	21.9	28.7	34.9	24.3
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	4.9	6.0	4.1	4.9	6.2	4.1	4.2	4.7	3.9	4.9	5.3	4.5
Anemias (D50-D64) .....	1.6	1.7	1.6	1.4	1.4	1.4	3.0	3.0	2.9	3.7	3.7	3.6
Diabetes mellitus (E10-E14) .....	25.2	27.7	23.3	22.8	25.8	20.5	43.2	41.8	43.7	50.1	48.6	50.4
Nutritional deficiencies (E40-E64) .....	1.6	1.5	1.6	1.5	1.4	1.5	2.3	2.5	2.1	2.7	3.0	2.4
Malnutrition (E40-E46) .....	1.5	1.4	1.5	1.4	1.2	1.4	2.1	2.4	1.9	2.5	2.8	2.3
Other nutritional deficiencies (E50-E64) .....	0.1	0.1	0.1	0.1	0.1	0.1	0.2	*	0.2	0.2	*	0.2
Meningitis (G00, G03) .....	0.3	0.3	0.3	0.3	0.3	0.2	0.6	0.7	0.5	0.7	0.9	0.6
Parkinson's disease (G20-G21) .....	5.4	8.2	3.7	5.7	8.7	3.9	2.5	3.8	1.9	2.4	3.6	1.7
Alzheimer's disease (G30) .....	16.5	14.0	17.6	17.2	14.7	18.4	9.9	8.3	10.7	11.4	9.7	12.2
Major cardiovascular diseases (I00-I78) .....	350.9	414.8	300.3	343.7	408.4	292.1	391.4	451.0	345.8	450.9	520.9	398.0
Diseases of heart (I00-I09, I11, I13, I20-I51) .....	267.8	328.1	220.9	263.4	324.7	215.5	290.1	343.2	250.1	336.7	398.9	290.5
Acute rheumatic fever and chronic rheumatic heart disease (I00-I09) .....	1.4	0.9	1.6	1.4	0.9	1.7	1.1	0.7	1.3	1.0	0.8	1.2
Hypertensive heart disease (I11) .....	8.4	8.3	8.0	6.9	6.7	6.7	18.6	20.1	17.1	23.1	25.5	21.0
Hypertensive heart and renal disease (I13) .....	1.2	1.3	1.1	0.9	1.0	0.9	3.5	3.6	3.3	4.2	4.4	4.0
Ischemic heart disease (I20-I25) .....	195.6	249.0	154.9	194.5	249.4	152.5	198.1	239.5	167.4	226.4	272.6	192.5
Acute myocardial infarction (I21-I22) .....	73.6	95.4	57.1	73.5	96.3	56.2	72.9	87.3	62.5	83.7	99.8	72.2
Other acute ischemic heart diseases (I24) .....	1.2	1.5	0.9	1.1	1.4	0.9	1.5	2.0	1.1	1.8	2.4	1.3
Other forms of chronic ischemic heart disease (I20, I25) .....	120.8	152.1	96.9	119.8	151.7	95.4	123.7	150.3	103.8	140.9	170.4	119.0
Atherosclerotic cardiovascular disease, so described (I25.0) .....	26.5	33.3	20.9	24.8	31.0	19.5	39.0	50.5	30.3	46.2	60.5	35.7
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9) .....	94.2	118.7	75.9	95.0	120.6	75.8	84.7	99.8	73.5	94.8	109.8	83.4
Other heart diseases (I26-I51) .....	61.2	68.5	55.2	59.7	66.6	53.8	68.8	79.4	60.9	81.9	95.7	71.8
Acute and subacute endocarditis (I33) .....	0.4	0.5	0.3	0.4	0.5	0.3	0.6	0.7	0.5	0.7	0.9	0.6
Diseases of pericardium and acute myocarditis (I30-I31, I40) .....	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.5	0.5	0.5
Heart failure (I50) .....	20.3	21.0	19.5	20.3	21.0	19.5	19.3	20.3	18.5	22.7	24.4	21.4
All other forms of heart disease (I26-I28, I34-I38, I42-I49, I51) .....	40.2	46.5	35.1	38.7	44.7	33.8	48.4	57.8	41.4	57.9	69.8	49.2
Essential (primary) hypertension and hypertensive renal disease (I10, I12) .....	6.3	6.1	6.2	5.3	5.1	5.3	13.5	13.8	13.0	16.1	16.9	15.4
Cerebrovascular diseases (I60-I69) .....	61.8	62.4	60.5	59.8	60.0	58.7	74.1	78.4	70.4	82.4	87.4	78.1
Atherosclerosis (I70) .....	5.5	5.6	5.4	5.7	5.7	5.5	4.4	4.8	4.1	5.0	5.6	4.6
Other diseases of circulatory system (I71-I78) .....	9.5	12.7	7.2	9.5	12.9	7.1	9.3	10.8	8.2	10.6	12.1	9.4
Aortic aneurysm and dissection (I71) .....	5.8	8.7	3.8	5.9	9.0	3.8	4.6	6.1	3.7	5.0	6.3	4.0
Other diseases of arteries, arterioles and capillaries (I72-I78) .....	3.7	4.0	3.5	3.6	3.8	3.3	4.7	4.7	4.6	5.6	5.8	5.4
Other disorders of circulatory system (I80-I99) .....	1.5	1.5	1.4	1.4	1.4	1.4	2.0	2.2	1.9	2.4	2.6	2.3
Influenza and pneumonia (J10-J18) .....	23.6	28.0	20.8	23.4	27.7	20.8	23.3	29.2	19.5	25.6	32.4	21.3
Influenza (J10-J11) .....	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.2	0.3	0.3	0.2	0.3
Pneumonia (J12-J18) .....	22.9	27.4	20.2	22.8	27.0	20.2	23.0	29.0	19.2	25.3	32.1	21.1
Other acute lower respiratory infections (J20-J22) .....	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Acute bronchitis and bronchiolitis (J20-J21) .....	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2
Unspecified acute lower respiratory infection (J22) .....	0.1	0.0	0.1	0.1	0.0	0.1	*	*	*	*	*	*
Chronic lower respiratory diseases (J40-J47) .....	45.8	58.1	38.2	47.5	59.6	40.2	30.3	44.6	21.4	33.7	50.1	23.9
Bronchitis, chronic and unspecified (J40-J42) .....	0.4	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.4	0.4	0.3
Emphysema (J43) .....	6.5	8.6	5.2	6.9	8.9	5.7	3.6	5.9	2.1	4.0	6.6	2.4

See footnotes at end of table.

**Table 15. Age-adjusted death rates for 113 selected causes by race and sex: United States, 1999 - Con.**

[Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All other											
	All races			White			Total			Black		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Asthma (J45-J46) .....	1.7	1.4	2.0	1.4	1.0	1.7	3.4	3.3	3.5	3.9	3.6	4.2
Other chronic lower respiratory diseases (J44,J47) .....	37.0	47.8	30.6	38.7	49.2	32.5	23.0	35.0	15.5	25.4	39.5	17.0
Pneumococci and chemical effects (J60-J66,J68) .....	0.4	1.0	0.0	0.4	1.1	0.0	0.2	0.6	*	0.3	0.7	*
Pneumonitis due to solids and liquids (J69) .....	5.6	7.9	4.4	5.6	7.9	4.3	5.8	8.1	4.4	6.8	9.5	5.2
Other diseases of respiratory system (J00-J06,J30-J39, J67,J70-J98) .....	9.2	11.1	8.0	9.2	11.2	7.9	8.7	10.0	7.9	9.5	11.0	8.6
Peptic ulcer (K25-K28) .....	1.7	2.0	1.4	1.7	2.0	1.4	1.8	2.2	1.4	1.9	2.4	1.4
Diseases of appendix (K35-K38) .....	0.1	0.2	0.1	0.1	0.2	0.1	0.2	0.3	0.1	0.2	0.4	0.1
Hernia (K40-K46) .....	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.6
Chronic liver disease and cirrhosis (K70,K73-K74) .....	9.7	13.7	6.1	9.7	13.7	6.1	9.5	13.6	6.2	10.2	15.1	6.4
Alcoholic liver disease (K70) .....	4.4	7.0	2.1	4.3	6.9	2.0	4.8	7.5	2.7	5.2	8.2	2.8
Other chronic liver disease and cirrhosis (K73-K74) .....	5.3	6.7	4.0	5.3	6.8	4.0	4.7	6.1	3.5	5.1	6.9	3.6
Cholelithiasis and other disorders of gallbladder (K80-K82) .....	1.0	1.2	1.0	1.0	1.2	0.9	1.1	1.2	1.1	1.1	1.1	1.1
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) .....	13.1	16.2	11.2	11.6	14.8	9.7	24.0	27.1	21.9	28.6	32.9	26.0
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01,N04) .....	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	*	0.1	*	*
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (N02-N03,N05-N07,N26) .....	0.2	0.3	0.2	0.2	0.3	0.2	0.4	0.5	0.3	0.4	0.5	0.3
Renal failure (N17-N19) .....	12.8	15.9	11.0	11.4	14.5	9.5	23.4	26.4	21.5	28.1	32.3	25.5
Other disorders of kidney (N25,N27) .....	0.0	*	0.0	0.0	*	*	*	*	*	*	*	*
Infections of kidney (N10-N12,N13.6,N15.1) .....	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.2	0.3	0.4	0.3	0.4
Hyperplasia of prostate (N40) .....	0.2	0.5	...	0.2	0.5	...	0.1	0.4	...	0.2	0.5	...
Inflammatory diseases of female pelvic organs (N70-N76) .....	0.0	...	0.1	0.0	...	0.0	0.1	...	0.1	0.1	...	0.2
Pregnancy, childbirth and the puerperium (O00-O99) .....	0.2	...	0.3	0.1	...	0.2	0.4	...	0.7	0.4	...	0.8
Pregnancy with abortive outcome (O00-O07) .....	0.0	...	0.0	*	...	*	*	...	*	*	...	*
Other complications of pregnancy, childbirth and the puerperium (O10-O99) .....	0.1	...	0.3	0.1	...	0.2	0.3	...	0.6	0.4	...	0.7
Certain conditions originating in the perinatal period (P00-P96) .....	5.1	5.7	4.6	3.9	4.4	3.5	9.8	10.8	8.7	12.5	13.9	11.1
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) .....	3.8	4.0	3.6	3.7	3.9	3.5	4.0	4.3	3.8	4.6	4.9	4.3
Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	9.8	10.9	8.5	9.1	10.1	8.0	12.8	15.3	10.6	15.7	19.2	12.8
All other diseases (Residual) .....	63.4	63.7	61.4	62.0	61.9	60.3	69.3	74.3	64.9	81.9	88.6	76.3
Accidents (unintentional injuries) (V01-X59,Y85-Y86) .....	35.9	50.6	22.7	35.7	50.0	22.7	36.6	54.2	22.0	40.9	62.1	23.7
Transport accidents (V01-V99,Y85) .....	17.0	24.1	10.4	17.1	24.1	10.5	16.6	24.5	9.9	17.6	27.0	9.7
Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5,V81.0-V81.1, V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8, V89.0,V89.2) .....	15.5	21.8	9.8	15.6	21.8	9.9	15.3	22.3	9.3	16.2	24.7	9.2
Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9,V10-V11, V15-V18,V19.3,V19.8-V19.9,V80.0-V80.2, V80.6-V80.9,V81.2-V81.9,V82.2-V82.9,V87.9, V88.9,V89.1,V89.3,V89.9) .....	0.8	1.2	0.4	0.8	1.2	0.4	0.8	1.3	0.4	0.8	1.3	0.3
Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) .....	0.7	1.2	0.3	0.7	1.2	0.3	0.5	1.0	0.2	0.5	1.0	0.2
Nontransport accidents (W00-X59,Y86) .....	18.9	26.4	12.3	18.6	25.8	12.1	20.0	29.6	12.2	23.4	35.1	14.0
Falls (W00-W19) .....	4.8	6.6	3.6	5.0	6.7	3.7	3.5	5.3	2.2	3.5	5.2	2.2
Accidental discharge of firearms (W32-W34) .....	0.3	0.5	0.1	0.3	0.5	0.1	0.3	0.6	0.1	0.4	0.8	0.1

See footnotes at end of table.

**Table 15. Age-adjusted death rates for 113 selected causes by race and sex: United States, 1999 - Con.**

[Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	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
Accidental drowning and submersion (W65-W74) .....	1.3	2.1	0.5	1.2	1.9	0.5	1.6	2.8	0.6	1.7	3.0	0.6
Accidental exposure to smoke, fire and flames (X00-X09) .....	1.2	1.6	0.9	1.0	1.4	0.7	2.4	3.2	1.9	3.0	4.0	2.3
Accidental poisoning and exposure to noxious substances (X40-X49) .....	4.5	6.6	2.3	4.4	6.5	2.3	5.1	7.8	2.7	6.4	10.1	3.3
Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86) .....	6.8	9.0	4.8	6.7	8.9	4.8	7.0	10.0	4.8	8.3	12.1	5.6
Intentional self-harm (suicide) (X60-X84,Y87.0) .....	10.7	18.2	4.1	11.5	19.4	4.4	6.2	10.7	2.2	5.7	10.4	1.6
Intentional self-harm (suicide) by discharge of firearms (X72-X74) .....	6.1	11.4	1.5	6.6	12.2	1.7	3.1	6.0	0.6	3.3	6.6	0.6
Intentional self-harm (suicide) by other and unspecified means and their sequelae (X60-X71,X75-X84, Y87.0) .....	4.6	6.8	2.6	4.9	7.2	2.8	3.0	4.7	1.6	2.4	3.9	1.1
Assault (homicide) (X85-Y09,Y87.1) .....	6.2	9.4	2.9	3.8	5.5	2.2	16.1	26.9	6.3	20.6	34.9	7.5
Assault (homicide) by discharge of firearms (X93-X95) .....	4.0	6.5	1.4	2.2	3.4	1.0	11.3	20.2	3.0	14.7	26.6	3.6
Assault (homicide) by other and unspecified means and their sequelae (X85-X92,X96-Y09,Y87.1) .....	2.2	2.9	1.6	1.6	2.1	1.2	4.8	6.7	3.3	5.9	8.3	3.9
Legal intervention (Y35,Y89.0) .....	0.2	0.3	*	0.1	0.2	*	0.3	0.6	*	0.3	0.7	*
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) ..	1.4	2.0	0.9	1.4	1.9	0.9	1.7	2.7	0.8	2.0	3.3	0.9
Discharge of firearms, undetermined intent (Y22-Y24) ..	0.1	0.2	0.0	0.1	0.2	0.0	0.2	0.3	*	0.2	0.3	*
Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2, Y89.9) .....	1.3	1.8	0.9	1.3	1.7	0.9	1.5	2.4	0.8	1.9	3.0	0.9
Operations of war and their sequelae (Y36,Y89.1) .....	0.0	0.0	*	0.0	0.0	*	*	*	*	*	*	*
Complications of medical and surgical care (Y40-Y84,Y88) .....	1.0	1.2	1.0	1.0	1.1	0.9	1.5	1.7	1.4	1.8	1.9	1.7

0.0 Quantity more than zero but less than 0.05.

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

... Category not applicable.

NOTE: Complete confirmation of deaths from selected causes of death, considered to be of public health concern, were not provided by the following States--California, Florida, Illinois, Indiana, Kentucky, Maine, Michigan, Missouri, New Jersey, New York City, North Carolina, Ohio, Pennsylvania, Rhode Island, Washington, and West Virginia; see Technical notes.

**Table 16. Age-adjusted death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999**

[Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins <sup>1</sup>			Hispanic			Non-Hispanic <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
All causes .....	881.9	1,061.8	743.6	601.0	736.0	490.1	894.9	1,076.6	756.0
Salmonella infections (A01-A02) .....	0.0	0.0	*	*	*	*	0.0	*	*
Shigellosis and amebiasis (A03,A06) .....	*	*	*	*	*	*	*	*	*
Certain other intestinal infections (A04,A07-A09) .....	0.4	0.4	0.4	0.2	*	*	0.4	0.4	0.4
Tuberculosis (A16-A19) .....	0.3	0.5	0.2	0.7	1.0	0.5	0.3	0.5	0.2
Respiratory tuberculosis (A16) .....	0.3	0.4	0.2	0.6	0.7	0.4	0.3	0.4	0.2
Other tuberculosis (A17-A19) .....	0.1	0.1	0.0	0.1	0.2	*	0.1	0.1	0.0
Whooping cough (A37) .....	*	*	*	*	*	*	*	*	*
Scarlet fever and erysipelas (A38,A46) .....	*	*	*	*	*	*	*	*	*
Meningococcal infection (A39) .....	0.1	0.1	0.1	0.1	*	*	0.1	0.1	0.1
Septicemia (A40-A41) .....	11.3	12.4	10.5	7.7	8.7	6.8	11.5	12.6	10.7
Syphilis (A50-A53) .....	0.0	*	0.0	*	*	*	0.0	*	*
Acute poliomyelitis (A80) .....	*	*	*	*	*	*	*	*	*
Arthropod-borne viral encephalitis (A83-A84,A85.2) .....	*	*	*	*	*	*	*	*	*
Measles (B05) .....	*	*	*	*	*	*	*	*	*
Viral hepatitis (B15-B19) .....	1.8	2.4	1.2	3.4	4.2	2.6	1.6	2.3	1.1
Human immunodeficiency virus (HIV) disease (B20-B24) .....	5.4	8.4	2.6	7.3	11.5	3.1	5.2	8.0	2.5
Malaria (B50-B54) .....	*	*	*	*	*	*	*	*	*
Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44,A48-A49, A54-A79,A81-A82,A85.0-A85.1, A85.8,A86-B04,B06-B09,B25-B49, B55-B99) .....	2.7	3.1	2.3	2.4	2.6	2.3	2.7	3.1	2.4
Malignant neoplasms (C00-C97) .....	202.7	251.6	169.9	122.0	151.4	101.4	207.2	257.1	173.8
Malignant neoplasms of lip, oral cavity and pharynx (C00-C14) .....	2.8	4.2	1.6	1.7	2.8	0.9	2.8	4.3	1.7
Malignant neoplasm of esophagus (C15) ...	4.4	7.7	1.8	2.3	4.2	0.9	4.5	7.9	1.9
Malignant neoplasm of stomach (C16) .....	4.7	6.6	3.3	6.4	8.4	4.8	4.5	6.4	3.2
Malignant neoplasms of colon, rectum and anus (C18-C21) .....	21.1	25.2	18.1	12.8	15.6	10.7	21.5	25.7	18.4
Malignant neoplasms of liver and intrahepatic bile ducts (C22) .....	4.6	6.5	3.0	6.6	9.2	4.5	4.4	6.3	2.9
Malignant neoplasm of pancreas (C25) .....	10.7	12.3	9.4	7.1	7.9	6.5	10.9	12.5	9.6
Malignant neoplasm of larynx (C32) .....	1.4	2.6	0.5	1.1	2.2	0.3	1.4	2.6	0.6
Malignant neoplasms of trachea, bronchus and lung (C33-C34) .....	56.0	77.0	40.8	22.5	35.2	13.1	58.0	79.4	42.5
Malignant melanoma of skin (C43) .....	2.7	3.8	1.8	0.7	0.9	0.5	2.8	4.0	1.9
Malignant neoplasm of breast (C50) .....	15.3	0.3	27.0	8.6	*	15.4	15.7	0.3	27.7
Malignant neoplasm of cervix uteri (C53) ...	1.6	...	2.9	1.8	...	3.4	1.5	...	2.8
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) .....	2.4	...	4.1	1.6	...	2.9	2.4	...	4.2
Malignant neoplasm of ovary (C56) .....	5.0	...	8.9	2.8	...	5.1	5.2	...	9.1
Malignant neoplasm of prostate (C61) .....	11.7	30.9	...	7.5	19.0	...	11.9	31.5	...
Malignant neoplasms of kidney and renal pelvis (C64-C65) .....	4.1	5.9	2.7	3.3	4.7	2.1	4.1	6.0	2.8
Malignant neoplasm of bladder (C67) .....	4.4	7.6	2.3	2.0	3.5	0.9	4.5	7.8	2.4
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) .....	4.7	5.7	3.9	2.8	3.0	2.5	4.8	5.9	4.0
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) .....	20.7	26.1	16.9	14.1	16.2	12.4	21.1	26.6	17.1
Hodgkin's disease (C81) .....	0.5	0.7	0.4	0.6	0.8	0.5	0.5	0.6	0.4
Non-Hodgkin's lymphoma (C82-C85) .....	8.4	10.3	7.0	5.7	6.5	5.0	8.6	10.5	7.1
Leukemia (C91-C95) .....	7.7	10.2	6.0	4.9	5.8	4.2	7.8	10.4	6.1
Multiple myeloma and immunoproliferative neoplasms (C88,C90) .....	4.1	4.9	3.4	2.9	3.1	2.7	4.1	5.0	3.5
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) .....	0.0	0.0	0.0	*	*	*	0.0	0.0	0.0
All other and unspecified malignant neoplasms (C17,C23-C24,C26-C31, C37-C41,C44-C49,C51-C52, C57-C60,C62-C63,C66,C68-C69, C73-C80,C97) .....	24.4	29.3	20.8	16.2	18.7	14.4	24.8	29.9	21.2
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	4.9	6.0	4.1	2.9	3.0	2.8	5.0	6.2	4.2
Anemias (D50-D64) .....	1.6	1.7	1.6	1.0	1.2	0.9	1.7	1.7	1.7
Diabetes mellitus (E10-E14) .....	25.2	27.7	23.3	33.6	34.5	32.6	24.7	27.2	22.7

See footnotes at end of table.

**Table 16. Age-adjusted death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black		
	Both sexes	Male	Female	Both sexes	Male	Female
All causes .....	869.4	1,045.1	734.9	1,177.0	1,451.0	979.3
Salmonella infections (A01-A02) .....	0.0	*	*	*	*	*
Shigellosis and amebiasis (A03,A06) .....	*	*	*	*	*	*
Certain other intestinal infections (A04,A07-A09) .....	0.4	0.4	0.4	0.3	0.3	0.4
Tuberculosis (A16-A19) .....	0.2	0.3	0.1	1.0	1.5	0.6
Respiratory tuberculosis (A16) .....	0.2	0.3	0.1	0.8	1.2	0.5
Other tuberculosis (A17-A19) .....	0.0	0.0	0.0	0.2	0.3	*
Whooping cough (A37) .....	*	*	*	*	*	*
Scarlet fever and erysipelas (A38,A46) .....	*	*	*	*	*	*
Meningococcal infection (A39) .....	0.1	0.1	0.1	0.1	0.1	*
Septicemia (A40-A41) .....	10.2	11.1	9.5	25.5	28.9	23.0
Syphilis (A50-A53) .....	*	*	*	*	*	*
Acute poliomyelitis (A80) .....	*	*	*	*	*	*
Arthropod-borne viral encephalitis (A83-A84,A85.2) .....	*	*	*	*	*	*
Measles (B05) .....	*	*	*	*	*	*
Viral hepatitis (B15-B19) .....	1.5	2.0	1.0	2.7	3.6	1.9
Human immunodeficiency virus (HIV) disease (B20-B24) .....	2.4	4.1	0.7	24.9	38.2	13.8
Malaria (B50-B54) .....	*	*	*	*	*	*
Other and unspecified infectious and parasitic diseases and their sequelae (A00,A05,A20-A36,A42-A44,A48-A49, A54-A79,A81-A82,A85.0-A85.1, A85.8,A86-B04,B06-B09,B25-B49, B55-B99) .....	2.4	2.8	2.1	4.8	5.6	4.2
Malignant neoplasms (C00-C97) .....	203.8	251.4	172.1	261.4	350.1	205.6
Malignant neoplasms of lip, oral cavity and pharynx (C00-C14) .....	2.6	3.9	1.6	4.5	7.8	2.2
Malignant neoplasm of esophagus (C15) ...	4.4	7.7	1.7	6.7	11.8	3.2
Malignant neoplasm of stomach (C16) .....	3.9	5.5	2.7	9.5	13.7	6.7
Malignant neoplasms of colon, rectum and anus (C18-C21) .....	21.0	25.2	17.8	29.3	34.5	25.8
Malignant neoplasms of liver and intrahepatic bile ducts (C22) .....	4.0	5.7	2.6	6.2	9.0	4.0
Malignant neoplasm of pancreas (C25) .....	10.6	12.3	9.3	14.6	16.8	12.9
Malignant neoplasm of larynx (C32) .....	1.3	2.3	0.5	2.7	5.2	0.9
Malignant neoplasms of trachea, bronchus and lung (C33-C34) .....	58.0	78.2	43.4	67.0	104.8	41.7
Malignant melanoma of skin (C43) .....	3.2	4.5	2.1	0.4	0.5	0.3
Malignant neoplasm of breast (C50) .....	15.3	0.3	27.0	21.7	0.7	36.7
Malignant neoplasm of cervix uteri (C53) ...	1.3	...	2.5	3.2	...	5.6
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55) .....	2.3	...	4.0	4.3	...	7.1
Malignant neoplasm of ovary (C56) .....	5.3	...	9.5	4.5	...	7.6
Malignant neoplasm of prostate (C61) .....	10.9	28.8	...	24.9	68.1	...
Malignant neoplasms of kidney and renal pelvis (C64-C65) .....	4.2	6.0	2.8	4.3	6.2	3.0
Malignant neoplasm of bladder (C67) .....	4.6	8.1	2.4	4.1	5.7	3.1
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72) .....	5.2	6.3	4.3	2.8	3.4	2.4
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96) .....	21.3	26.9	17.2	21.0	26.1	17.6
Hodgkin's disease (C81) .....	0.6	0.7	0.4	0.4	0.6	0.3
Non-Hodgkin's lymphoma (C82-C85) .....	8.9	10.9	7.4	5.8	7.6	4.6
Leukemia (C91-C95) .....	8.0	10.6	6.2	6.9	8.9	5.6
Multiple myeloma and immunoproliferative neoplasms (C88,C90) .....	3.8	4.7	3.1	7.8	9.0	7.0
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96) .....	0.0	0.0	0.0	*	*	*
All other and unspecified malignant neoplasms (C17,C23-C24,C26-C31, C37-C41,C44-C49,C51-C52, C57-C60,C62-C63,C66,C68-C69, C73-C80,C97) .....	24.6	29.6	20.9	29.5	35.9	25.0
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	5.0	6.3	4.2	5.0	5.4	4.6
Anemias (D50-D64) .....	1.4	1.4	1.4	3.8	3.8	3.7
Diabetes mellitus (E10-E14) .....	21.9	25.0	19.5	51.4	50.1	51.7

See footnotes at end of table.

**Table 16. Age-adjusted death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins <sup>1</sup>			Hispanic			Non-Hispanic <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Nutritional deficiencies (E40-E64) .....	1.6	1.5	1.6	1.0	1.0	1.0	1.6	1.5	1.6
Malnutrition (E40-E46) .....	1.5	1.4	1.5	1.0	1.0	1.0	1.5	1.4	1.5
Other nutritional deficiencies (E50-E64) .....	0.1	0.1	0.1	*	*	*	0.1	0.1	0.1
Meningitis (G00,G03) .....	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Parkinson's disease (G20-G21) .....	5.4	8.2	3.7	2.9	4.2	2.1	5.5	8.4	3.8
Alzheimer's disease (G30) .....	16.5	14.0	17.6	7.7	6.4	8.4	16.9	14.4	18.0
Major cardiovascular diseases (I00-I78) .....	350.9	414.8	300.3	229.2	273.0	194.1	356.5	421.6	304.9
Diseases of heart (I00-I09,I11,I13, I20-I51) .....	267.8	328.1	220.9	176.1	212.7	146.5	272.0	333.6	224.2
Acute rheumatic fever and chronic rheumatic heart diseases (I00-I09) ....	1.4	0.9	1.6	1.0	0.4	1.4	1.4	0.9	1.6
Hypertensive heart disease (I11) .....	8.4	8.3	8.0	6.0	6.3	5.6	8.5	8.4	8.1
Hypertensive heart and renal disease (I13) .....	1.2	1.3	1.1	1.0	1.0	0.9	1.2	1.3	1.2
Ischemic heart diseases (I20-I25) .....	195.6	249.0	154.9	138.4	170.4	112.8	198.1	252.7	156.6
Acute myocardial infarction (I21-I22) .....	73.6	95.4	57.1	49.2	61.0	39.8	74.9	97.3	57.9
Other acute ischemic heart diseases (I24) .....	1.2	1.5	0.9	0.3	0.4	0.3	1.2	1.6	1.0
Other forms of chronic ischemic heart disease (I20,I25) .....	120.8	152.1	96.9	88.9	109.1	72.7	122.0	153.8	97.7
Atherosclerotic cardiovascular disease, so described (I25.0) .....	26.5	33.3	20.9	20.2	27.2	14.5	26.7	33.4	21.1
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9) .....	94.2	118.7	75.9	68.7	81.8	58.2	95.2	120.4	76.6
Other heart diseases (I26-I51) .....	61.2	68.5	55.2	29.8	34.6	25.8	62.8	70.3	56.6
Acute and subacute endocarditis (I33) ..	0.4	0.5	0.3	0.3	0.5	0.2	0.4	0.5	0.3
Diseases of pericardium and acute myocarditis (I30-I31,I40) .....	0.3	0.4	0.3	0.3	0.2	0.3	0.3	0.4	0.3
Heart failure (I50) .....	20.3	21.0	19.5	9.2	9.5	8.8	20.8	21.6	20.0
All other forms of heart disease (I26-I28,I34-I38,I42-I49,I51) .....	40.2	46.5	35.1	20.0	24.4	16.5	41.3	47.8	36.0
Essential (primary) hypertension and hypertensive renal disease (I10,I12) .....	6.3	6.1	6.2	5.2	5.5	4.9	6.3	6.1	6.3
Cerebrovascular diseases (I60-I69) .....	61.8	62.4	60.5	40.0	44.6	36.3	62.8	63.1	61.6
Atherosclerosis (I70) .....	5.5	5.6	5.4	3.1	3.6	2.8	5.6	5.7	5.5
Other diseases of circulatory system (I71-I78) .....	9.5	12.7	7.2	4.9	6.7	3.6	9.7	13.0	7.4
Aortic aneurysm and dissection (I71) .....	5.8	8.7	3.8	2.5	3.9	1.5	6.0	9.0	3.9
Other diseases of arteries, arterioles and capillaries (I72-I78) .....	3.7	4.0	3.5	2.4	2.8	2.1	3.7	4.0	3.5
Other disorders of circulatory system (I80-I99) .....	1.5	1.5	1.4	1.1	1.1	1.1	1.5	1.5	1.5
Influenza and pneumonia (J10-J18) .....	23.6	28.0	20.8	15.6	18.6	13.5	23.9	28.4	21.1
Influenza (J10-J11) .....	0.6	0.6	0.6	0.3	0.2	0.3	0.6	0.6	0.6
Pneumonia (J12-J18) .....	22.9	27.4	20.2	15.3	18.3	13.3	23.2	27.7	20.5
Other acute lower respiratory infections (J20-J22) .....	0.2	0.2	0.2	0.1	*	*	0.2	0.2	0.2
Acute bronchitis and bronchiolitis (J20-J21) .....	0.1	0.1	0.1	0.1	*	*	0.1	0.1	0.1
Unspecified acute lower respiratory infection (J22) .....	0.1	0.0	0.1	*	*	*	0.1	0.0	0.1
Chronic lower respiratory diseases (J40-J47) .....	45.8	58.1	38.2	19.9	27.3	15.3	47.1	59.8	39.4
Bronchitis, chronic and unspecified (J40-J42) .....	0.4	0.5	0.4	0.3	*	0.4	0.4	0.5	0.4
Emphysema (J43) .....	6.5	8.6	5.2	2.1	3.2	1.3	6.8	8.9	5.5
Asthma (J45-J46) .....	1.7	1.4	2.0	1.7	1.2	2.0	1.7	1.4	2.0
Other chronic lower respiratory diseases (J44,J47) .....	37.0	47.8	30.6	15.9	22.5	11.6	38.1	49.0	31.6
Pneumoconioses and chemical effects (J60-J66,J68) .....	0.4	1.0	0.0	*	*	*	0.4	1.1	0.0
Pneumonitis due to solids and liquids (J69) ..	5.6	7.9	4.4	3.0	3.7	2.6	5.8	8.1	4.4
Other diseases of respiratory system (J00-J06,J30-J39,J67,J70-J98) .....	9.2	11.1	8.0	7.3	8.6	6.3	9.3	11.2	8.0
Peptic ulcer (K25-K28) .....	1.7	2.0	1.4	1.1	1.6	0.8	1.7	2.0	1.5
Diseases of appendix (K35-K38) .....	0.1	0.2	0.1	0.1	0.2	*	0.1	0.2	0.1
Hernia (K40-K46) .....	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.6	0.5
Chronic liver disease and cirrhosis (K70,K73-K74) .....	9.7	13.7	6.1	15.3	23.0	8.5	9.2	12.9	6.0
Alcoholic liver disease (K70) .....	4.4	7.0	2.1	7.4	13.3	2.3	4.2	6.5	2.1
Other chronic liver disease and cirrhosis (K73-K74) .....	5.3	6.7	4.0	7.9	9.7	6.2	5.1	6.5	3.9
Cholelithiasis and other disorders of gallbladder (K80-K82) .....	1.0	1.2	1.0	1.3	1.4	1.2	1.0	1.2	0.9

See footnotes at end of table.

**Table 16. Age-adjusted death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black		
	Both sexes	Male	Female	Both sexes	Male	Female
Nutritional deficiencies (E40-E64) .....	1.5	1.4	1.6	2.8	3.1	2.5
Malnutrition (E40-E46) .....	1.4	1.3	1.5	2.5	2.9	2.3
Other nutritional deficiencies (E50-E64) .....	0.1	0.1	0.1	0.2	*	0.2
Meningitis (G00,G03) .....	0.3	0.3	0.2	0.7	0.9	0.6
Parkinson's disease (G20-G21) .....	5.8	9.0	4.0	2.4	3.7	1.8
Alzheimer's disease (G30) .....	17.6	15.1	18.8	11.6	9.9	12.4
Major cardiovascular diseases (I00-I78) .....	348.2	414.0	295.8	461.4	533.5	407.2
Diseases of heart (I00-I09,I11,I13, I20-I51) .....	266.9	329.5	218.1	344.3	408.2	297.0
Acute rheumatic fever and chronic rheumatic heart diseases (I00-I09) ....	1.4	1.0	1.7	1.1	0.8	1.3
Hypertensive heart disease (I11) .....	6.9	6.7	6.7	23.7	26.1	21.4
Hypertensive heart and renal disease (I13) .....	0.9	1.0	0.8	4.3	4.5	4.1
Ischemic heart diseases (I20-I25) .....	196.6	252.8	153.7	231.1	278.4	196.6
Acute myocardial infarction (I21-I22) ....	74.7	98.1	56.8	85.8	102.6	73.9
Other acute ischemic heart diseases (I24) .....	1.2	1.5	0.9	1.8	2.5	1.3
Other forms of chronic ischemic heart disease (I20,I25) .....	120.7	153.2	96.0	143.5	173.3	121.3
Atherosclerotic cardiovascular disease, so described (I25.0) .....	24.8	30.9	19.7	47.0	61.5	36.3
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9) .....	95.9	122.2	76.3	96.5	111.8	85.0
Other heart diseases (I26-I51) .....	61.1	68.2	55.1	84.1	98.4	73.7
Acute and subacute endocarditis (I33) ..	0.4	0.5	0.3	0.8	1.0	0.6
Diseases of pericardium and acute myocarditis (I30-I31,I40) .....	0.3	0.3	0.3	0.6	0.6	0.5
Heart failure (I50) .....	20.8	21.6	20.0	23.2	25.0	21.9
All other forms of heart disease (I26-I28,I34-I38,I42-I49,I51) .....	39.6	45.8	34.6	59.5	71.9	50.6
Essential (primary) hypertension and hypertensive renal disease (I10,I12) .....	5.2	5.1	5.2	16.6	17.4	15.8
Cerebrovascular diseases (I60-I69) .....	60.5	60.5	59.6	84.5	89.7	80.0
Atherosclerosis (I70) .....	5.8	5.8	5.6	5.1	5.7	4.7
Other diseases of circulatory system (I71-I78) .....	9.7	13.2	7.2	10.8	12.4	9.7
Aortic aneurysm and dissection (I71) .....	6.1	9.3	3.9	5.1	6.5	4.1
Other diseases of arteries, arterioles and capillaries (I72-I78) .....	3.6	3.9	3.4	5.8	6.0	5.6
Other disorders of circulatory system (I80-I99) .....	1.4	1.4	1.3	2.5	2.7	2.3
Influenza and pneumonia (J10-J18) .....	23.7	28.0	21.1	26.1	33.0	21.7
Influenza (J10-J11) .....	0.6	0.7	0.6	0.3	0.3	0.3
Pneumonia (J12-J18) .....	23.0	27.3	20.4	25.8	32.8	21.4
Other acute lower respiratory infections (J20-J22) .....	0.2	0.2	0.2	0.2	0.2	0.2
Acute bronchitis and bronchiolitis (J20-J21) .....	0.1	0.1	0.1	0.2	0.2	0.2
Unspecified acute lower respiratory infection (J22) .....	0.1	0.0	0.1	*	*	*
Chronic lower respiratory diseases (J40-J47) .....	48.9	61.3	41.5	34.5	51.4	24.5
Bronchitis, chronic and unspecified (J40-J42) .....	0.4	0.5	0.4	0.4	0.5	0.3
Emphysema (J43) .....	7.2	9.2	5.9	4.1	6.8	2.4
Asthma (J45-J46) .....	1.4	1.0	1.7	4.1	3.7	4.3
Other chronic lower respiratory diseases (J44,J47) .....	39.9	50.6	33.6	26.0	40.5	17.4
Pneumoconioses and chemical effects (J60-J66,J68) .....	0.4	1.1	0.0	0.3	0.8	*
Pneumonitis due to solids and liquids (J69) ..	5.7	8.1	4.4	7.0	9.7	5.4
Other diseases of respiratory system (J00-J06,J30-J39,J67,J70-J98) .....	9.3	11.2	7.9	9.8	11.3	8.8
Peptic ulcer (K25-K28) .....	1.7	2.0	1.5	1.9	2.4	1.5
Diseases of appendix (K35-K38) .....	0.1	0.2	0.1	0.3	0.4	0.1
Hernia (K40-K46) .....	0.5	0.6	0.5	0.6	0.6	0.6
Chronic liver disease and cirrhosis (K70,K73-K74) .....	9.1	12.7	5.8	10.5	15.6	6.6
Alcoholic liver disease (K70) .....	4.0	6.2	2.0	5.3	8.5	2.9
Other chronic liver disease and cirrhosis (K73-K74) .....	5.1	6.4	3.9	5.2	7.1	3.7
Cholelithiasis and other disorders of gallbladder (K80-K82) .....	1.0	1.2	0.9	1.1	1.1	1.1

See footnotes at end of table.



**Table 16. Age-adjusted death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins <sup>1</sup>			Hispanic			Non-Hispanic <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) .....	13.1	16.2	11.2	10.4	12.9	8.8	13.2	16.4	11.3
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01, N04) .....	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 (N02-N03,N05-N07, N26) .....	0.2	0.3	0.2	0.2	*	*	0.2	0.3	0.2
Renal failure (N17-N19) .....	12.8	15.9	11.0	10.1	12.6	8.5	12.9	16.0	11.1
Other disorders of kidney (N25,N27) .....	0.0	*	0.0	*	*	*	0.0	*	0.0
Infections of kidney (N10-N12,N13.6, N15.1) .....	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.2	0.3
Hyperplasia of prostate (N40) .....	0.2	0.5	...	*	*	...	0.2	0.5	...
Inflammatory diseases of female pelvic organs (N70-N76) .....	0.0	...	0.1	*	...	*	0.0	...	0.1
Pregnancy, childbirth and the puerperium (O00-O99) .....	0.2	...	0.3	0.2	...	0.4	0.1	...	0.3
Pregnancy with abortive outcome (O00-O07) .....	0.0	...	0.0	*	...	*	0.0	...	0.0
Other complications of pregnancy, childbirth and the puerperium (O10-O99) .....	0.1	...	0.3	0.2	...	0.4	0.1	...	0.2
Certain conditions originating in the perinatal period (P00-P96) .....	5.1	5.7	4.6	4.1	4.5	3.8	5.3	5.8	4.7
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) ..	3.8	4.0	3.6	3.5	3.5	3.5	3.8	4.0	3.6
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	9.8	10.9	8.5	4.9	6.0	3.9	10.1	11.3	8.8
All other diseases (Residual) .....	63.4	63.7	61.4	42.2	45.2	38.9	64.4	64.5	62.5
Accidents (unintentional injuries) (V01-X59,Y85-Y86) .....	35.9	50.6	22.7	31.1	47.2	15.6	36.0	50.3	23.2
Transport accidents (V01-V99,Y85) .....	17.0	24.1	10.4	16.2	24.1	8.5	17.0	23.9	10.6
Motor vehicle accidents (V02-V04, V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5, V81.0-V81.1,V82.0-V82.1,V83-V86, V87.0-V87.8,V88.0-V88.8,V89.0, V89.2) .....	15.5	21.8	9.8	15.0	21.9	8.1	15.5	21.6	9.9
Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9, V10-V11,V15-V18,V19.3, V19.8-V19.9,V80.0-V80.2, V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9) .....	0.8	1.2	0.4	0.9	1.6	0.3	0.7	1.2	0.4
Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) .....	0.7	1.2	0.3	0.3	0.5	*	0.7	1.2	0.3
Nontransport accidents (W00-X59,Y86) .....	18.9	26.4	12.3	14.9	23.2	7.0	19.0	26.3	12.6
Falls (W00-W19) .....	4.8	6.6	3.6	3.6	5.4	2.2	4.9	6.6	3.6
Accidental discharge of firearms (W32-W34) .....	0.3	0.5	0.1	0.2	0.3	*	0.3	0.5	0.1
Accidental drowning and submersion (W65-W74) .....	1.3	2.1	0.5	1.3	2.2	0.4	1.3	2.0	0.5
Accidental exposure to smoke, fire and flames (X00-X09) .....	1.2	1.6	0.9	0.7	1.0	0.4	1.3	1.7	0.9
Accidental poisoning and exposure to noxious substances (X40-X49) .....	4.5	6.6	2.3	5.2	8.7	1.7	4.3	6.3	2.4
Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86) .....	6.8	9.0	4.8	3.8	5.5	2.4	6.9	9.2	5.0
Intentional self-harm (suicide) (X60-X84,Y87.0) .....	10.7	18.2	4.1	6.1	10.7	1.9	11.1	18.9	4.3
Intentional self-harm (suicide) by discharge of firearms (X72-X74) .....	6.1	11.4	1.5	2.9	5.4	0.6	6.4	11.9	1.6
Intentional self-harm (suicide) by other and unspecified means and their sequelae (X60-X71,X75-X84,Y87.0) .....	4.6	6.8	2.6	3.2	5.2	1.3	4.8	7.0	2.7
Assault (homicide) (X85-Y09,Y87.1) .....	6.2	9.4	2.9	8.4	13.8	2.8	5.8	8.6	2.9
Assault (homicide) by discharge of firearms (X93-X95) .....	4.0	6.5	1.4	5.5	9.5	1.4	3.7	6.0	1.3
Assault (homicide) by other and unspecified means and their sequelae (X85-X92,X96-Y09,Y87.1) .....	2.2	2.9	1.6	2.8	4.3	1.4	2.1	2.6	1.6

See footnotes at end of table.

**Table 16. Age-adjusted death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black		
	Both sexes	Male	Female	Both sexes	Male	Female
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27) .....	11.6	14.8	9.7	29.4	33.8	26.6
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01, N04) .....	0.0	0.1	0.1	0.1	*	*
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified (N02-N03,N05-N07, N26) .....	0.2	0.2	0.2	0.4	0.5	0.3
Renal failure (N17-N19) .....	11.3	14.4	9.5	28.8	33.2	26.1
Other disorders of kidney (N25,N27) .....	*	*	*	*	*	*
Infections of kidney (N10-N12,N13.6, N15.1) .....	0.3	0.2	0.4	0.4	0.3	0.4
Hyperplasia of prostate (N40) .....	0.2	0.5	...	0.2	0.5	...
Inflammatory diseases of female pelvic organs (N70-N76) .....	0.0	...	0.0	0.1	...	0.2
Pregnancy, childbirth and the puerperium (O00-O99) .....	0.1	...	0.2	0.4	...	0.8
Pregnancy with abortive outcome (O00-O07) .....	*	...	*	*	...	*
Other complications of pregnancy, childbirth and the puerperium (O10-O99) .....	0.1	...	0.1	0.4	...	0.8
Certain conditions originating in the perinatal period (P00-P96) .....	3.7	4.1	3.3	13.1	14.5	11.6
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) ..	3.6	3.8	3.4	4.8	5.1	4.5
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	9.4	10.3	8.2	16.2	19.8	13.2
All other diseases (Residual) .....	62.7	62.3	61.1	84.1	91.2	78.3
Accidents (unintentional injuries) (V01-X59,Y85-Y86) .....	35.5	49.1	23.1	42.2	64.2	24.4
Transport accidents (V01-V99,Y85) .....	16.9	23.7	10.7	18.1	28.0	10.0
Motor vehicle accidents (V02-V04, V09.0,V09.2,V12-V14,V19.0-V19.2, V19.4-V19.6,V20-V79,V80.3-V80.5, V81.0-V81.1,V82.0-V82.1,V83-V86, V87.0-V87.8,V88.0-V88.8,V89.0, V89.2) .....	15.4	21.3	10.0	16.8	25.6	9.5
Other land transport accidents (V01,V05-V06,V09.1,V09.3-V09.9, V10-V11,V15-V18,V19.3, V19.8-V19.9,V80.0-V80.2, V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.9,V88.9,V89.1, V89.3,V89.9) .....	0.8	1.1	0.4	0.8	1.3	0.3
Water, air and space, and other and unspecified transport accidents and their sequelae (V90-V99,Y85) .....	0.8	1.3	0.3	0.6	1.0	0.2
Nontransport accidents (W00-X59,Y86) .....	18.5	25.5	12.4	24.0	36.2	14.4
Falls (W00-W19) .....	5.0	6.7	3.8	3.5	5.3	2.2
Accidental discharge of firearms (W32-W34) .....	0.3	0.5	0.1	0.4	0.8	0.1
Accidental drowning and submersion (W65-W74) .....	1.2	1.8	0.5	1.8	3.1	0.6
Accidental exposure to smoke, fire and flames (X00-X09) .....	1.1	1.4	0.8	3.2	4.2	2.4
Accidental poisoning and exposure to noxious substances (X40-X49) .....	4.2	6.0	2.3	6.5	10.3	3.3
Other and unspecified nontransport accidents and their sequelae (W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86) .....	6.8	9.1	4.9	8.6	12.5	5.7
Intentional self-harm (suicide) (X60-X84,Y87.0) .....	12.1	20.3	4.7	5.9	10.8	1.7
Intentional self-harm (suicide) by discharge of firearms (X72-X74) .....	7.0	12.9	1.8	3.4	6.9	0.6
Intentional self-harm (suicide) by other and unspecified means and their sequelae (X60-X71,X75-X84,Y87.0) .....	5.1	7.4	2.9	2.5	4.0	1.1
Assault (homicide) (X85-Y09,Y87.1) .....	2.9	3.9	2.0	21.4	36.4	7.8
Assault (homicide) by discharge of firearms (X93-X95) .....	1.5	2.2	0.9	15.3	27.8	3.7
Assault (homicide) by other and unspecified means and their sequelae (X85-X92,X96-Y09,Y87.1) ....	1.4	1.7	1.1	6.1	8.6	4.1

See footnotes at end of table.

**Table 16. Age-adjusted death rates for 113 selected causes by Hispanic origin, race for non-Hispanic population, and sex: United States, 1999 - Con.**

[Age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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 reporting Hispanic origin on death certificates and on censuses and surveys; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	All origins <sup>1</sup>			Hispanic			Non-Hispanic <sup>2</sup>		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
Legal intervention (Y35,Y89.0) .....	0.2	0.3	*	0.2	0.4	*	0.1	0.3	*
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) .....	1.4	2.0	0.9	0.8	1.3	0.3	1.5	2.1	0.9
Discharge of firearms, undetermined intent (Y22-Y24) .....	0.1	0.2	0.0	0.1	0.2	*	0.1	0.2	0.0
Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2,Y89.9) .....	1.3	1.8	0.9	0.7	1.1	0.3	1.4	1.8	0.9
Operations of war and their sequelae (Y36,Y89.1) .....	0.0	0.0	*	*	*	*	0.0	0.0	*
Complications of medical and surgical care (Y40-Y84,Y88) .....	1.0	1.2	1.0	0.5	0.6	0.4	1.1	1.2	1.0

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Non-Hispanic White			Non-Hispanic Black		
	Both sexes	Male	Female	Both sexes	Male	Female
Legal intervention (Y35,Y89.0) .....	0.1	0.2	*	0.4	0.7	*
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9) .....	1.4	1.9	0.9	2.1	3.5	1.0
Discharge of firearms, undetermined intent (Y22-Y24) .....	0.1	0.2	0.0	0.2	0.3	*
Other and unspecified events of undetermined intent and their sequelae (Y10-Y21,Y25-Y34,Y87.2,Y89.9) .....	1.3	1.7	0.9	1.9	3.1	0.9
Operations of war and their sequelae (Y36,Y89.1) .....	0.0	*	*	*	*	*
Complications of medical and surgical care (Y40-Y84,Y88) .....	1.0	1.1	0.9	1.8	2.0	1.7

0.0 Quantity more than zero but less than 0.05.

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

... Category not applicable.

<sup>1</sup> All origins includes origin not stated; specified origins exclude origin not stated.

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

NOTE: Complete confirmation of deaths from selected causes of death, considered to be of public health concern, were not provided by the following States—California, Florida, Illinois, Indiana, Kentucky, Maine, Michigan, Missouri, New Jersey, New York City, North Carolina, Ohio, Pennsylvania, Rhode Island, Washington, and West Virginia; see Technical notes.

**Table 17. Number of deaths from injury by firearms by age, race, and sex: United States, 1999**

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992), 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 (W32-W34, X72-X74, X93-X95, Y22-Y24, Y35.0):</b>											
All races <sup>1</sup> , both sexes .....	28,874	8	65	80	336	2,896	3,899	3,248	2,727	2,812	2,422
Male .....	24,700	5	36	50	258	2,560	3,496	2,848	2,308	2,279	1,950
Female .....	4,174	3	29	30	78	336	403	400	419	533	472
White, both sexes .....	21,143	4	32	41	248	1,617	2,053	1,874	1,839	2,120	1,944
Male .....	17,942	4	18	24	191	1,418	1,806	1,615	1,530	1,704	1,566
Female .....	3,201	-	14	17	57	199	247	259	309	416	378
Black, both sexes .....	7,017	2	27	32	74	1,177	1,734	1,264	803	617	430
Male .....	6,184	1	13	23	56	1,052	1,595	1,144	710	514	348
Female .....	833	1	14	9	18	125	139	120	93	103	82
<b>Accidental discharge of firearms (W32-W34):</b>											
All races <sup>1</sup> , both sexes .....	824	-	12	19	57	126	125	76	67	67	69
Male .....	707	-	7	13	47	115	114	62	60	56	56
Female .....	117	-	5	6	10	11	11	14	7	11	13
White, both sexes .....	649	-	5	9	48	88	86	62	53	56	60
Male .....	554	-	3	4	42	80	78	49	47	46	48
Female .....	95	-	2	5	6	8	8	13	6	10	12
Black, both sexes .....	156	-	7	9	8	36	31	12	11	9	9
Male .....	135	-	4	8	4	33	28	12	10	8	8
Female .....	21	-	3	1	4	3	3	-	1	1	1
<b>Intentional self-harm (suicide) by discharge of firearms (X72-X74):</b>											
All races <sup>1</sup> , both sexes .....	16,599	...	...	-	103	975	1,340	1,292	1,329	1,617	1,480
Male .....	14,479	...	...	-	80	867	1,216	1,137	1,133	1,349	1,237
Female .....	2,120	...	...	-	23	108	124	155	196	268	243
White, both sexes .....	15,135	...	...	-	94	817	1,082	1,081	1,172	1,452	1,381
Male .....	13,167	...	...	-	72	724	983	945	993	1,200	1,149
Female .....	1,968	...	...	-	22	93	99	136	179	252	232
Black, both sexes .....	1,125	...	...	-	5	120	207	156	116	125	74
Male .....	1,018	...	...	-	4	109	189	144	106	113	66
Female .....	107	...	...	-	1	11	18	12	10	12	8
<b>Assault (homicide) by discharge of firearms (X93-X95):</b>											
All races <sup>1</sup> , both sexes .....	10,828	8	50	61	163	1,708	2,330	1,795	1,253	1,054	814
Male .....	8,944	5	26	37	118	1,498	2,071	1,568	1,041	807	607
Female .....	1,884	3	24	24	45	210	259	227	212	247	207
White, both sexes .....	4,918	4	26	32	95	662	822	675	562	555	456
Male .....	3,820	4	14	20	66	567	688	568	440	408	328
Female .....	1,098	-	12	12	29	95	134	107	122	147	128
Black, both sexes .....	5,577	2	18	23	59	991	1,459	1,068	656	468	336
Male .....	4,883	1	7	15	46	883	1,344	961	576	378	265
Female .....	694	1	11	8	13	108	115	107	80	90	71
<b>Discharge of firearms, undetermined intent (Y22-Y24):</b>											
All races <sup>1</sup> , both sexes .....	324	-	3	-	12	68	59	32	19	28	29
Male .....	277	-	3	-	12	61	50	28	16	24	21
Female .....	47	-	-	-	-	7	9	4	3	4	8
White, both sexes .....	247	-	1	-	11	42	43	22	14	25	25
Male .....	212	-	1	-	11	39	37	19	12	21	20
Female .....	35	-	-	-	-	3	6	3	2	4	5
Black, both sexes .....	66	-	2	-	1	20	15	10	4	3	3
Male .....	56	-	2	-	1	17	12	9	3	3	1
Female .....	10	-	-	-	-	3	3	1	1	-	2
<b>Legal intervention involving firearm discharge (Y35.0):</b>											
All races <sup>1</sup> , both sexes .....	299	-	-	-	1	19	45	53	59	46	30
Male .....	293	-	-	-	1	19	45	53	58	43	29
Female .....	6	-	-	-	-	-	-	-	1	3	1
White, both sexes .....	194	-	-	-	-	8	20	34	38	32	22
Male .....	189	-	-	-	-	8	20	34	38	29	21
Female .....	5	-	-	-	-	-	-	-	-	3	1
Black, both sexes .....	93	-	-	-	1	10	22	18	16	12	8
Male .....	92	-	-	-	1	10	22	18	15	12	8
Female .....	1	-	-	-	-	-	-	-	1	-	-

See footnotes at end of table.

Table 17. Number of deaths from injury by firearms by age, race, and sex: United States, 1999

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992), 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 (W32-W34, X72-X74, X93-X95, Y22-Y24, Y35.0):</b>										
All races <sup>1</sup> , both sexes .....	2,096	1,626	1,299	1,007	955	1,079	1,029	709	561	20
Male .....	1,722	1,335	1,080	871	833	953	928	652	517	19
Female .....	374	291	219	136	122	126	101	57	44	1
White, both sexes .....	1,742	1,430	1,166	902	888	1,019	980	682	547	15
Male .....	1,431	1,185	959	781	778	899	886	628	505	14
Female .....	311	245	207	121	110	120	94	54	42	1
Black, both sexes .....	312	153	111	85	58	51	47	21	14	5
Male .....	259	123	102	73	49	46	41	18	12	5
Female .....	53	30	9	12	9	5	6	3	2	-
<b>Accidental discharge of firearms (W32-W34):</b>										
All races <sup>1</sup> , both sexes .....	51	41	25	23	15	18	15	8	10	-
Male .....	46	32	22	19	13	18	13	7	7	-
Female .....	5	9	3	4	2	-	2	1	3	-
White, both sexes .....	45	36	21	20	13	17	13	7	10	-
Male .....	41	27	19	18	11	17	11	6	7	-
Female .....	4	9	2	2	2	-	2	1	3	-
Black, both sexes .....	6	5	4	3	2	1	2	1	-	-
Male .....	5	5	3	1	2	1	2	1	-	-
Female .....	1	-	1	2	-	-	-	-	-	-
<b>Intentional self-harm (suicide) by discharge of firearms (X72-X74):</b>										
All races <sup>1</sup> , both sexes .....	1,462	1,215	1,058	802	827	964	946	660	524	5
Male .....	1,221	1,030	882	712	742	873	875	624	496	5
Female .....	241	185	176	90	85	91	71	36	28	-
White, both sexes .....	1,360	1,154	998	756	785	929	917	640	512	5
Male .....	1,139	974	827	672	707	838	849	605	485	5
Female .....	221	180	171	84	78	91	68	35	27	-
Black, both sexes .....	77	43	46	36	36	29	28	15	12	-
Male .....	64	40	42	32	30	29	25	14	11	-
Female .....	13	3	4	4	6	-	3	1	1	-
<b>Assault (homicide) by discharge of firearms (X93-X95):</b>										
All races <sup>1</sup> , both sexes .....	551	342	206	167	102	91	61	34	23	15
Male .....	426	250	167	127	68	56	34	14	10	14
Female .....	125	92	39	40	34	35	27	20	13	1
White, both sexes .....	313	213	139	113	79	69	43	29	21	10
Male .....	230	162	106	80	50	40	20	11	9	9
Female .....	83	51	33	33	29	29	23	18	12	1
Black, both sexes .....	222	104	59	45	20	19	17	4	2	5
Male .....	183	77	55	39	17	14	14	2	1	5
Female .....	39	27	4	6	3	5	3	2	1	-
<b>Discharge of firearms, undetermined intent (Y22-Y24):</b>										
All races <sup>1</sup> , both sexes .....	18	10	6	8	9	6	6	7	4	-
Male .....	15	6	5	6	8	6	5	7	4	-
Female .....	3	4	1	2	1	-	1	-	-	-
White, both sexes .....	13	10	5	7	9	4	6	6	4	-
Male .....	10	6	4	5	8	4	5	6	4	-
Female .....	3	4	1	2	1	-	1	-	-	-
Black, both sexes .....	4	-	1	-	-	2	-	1	-	-
Male .....	4	-	1	-	-	2	-	1	-	-
Female .....	-	-	-	-	-	-	-	-	-	-
<b>Legal intervention involving firearm discharge (Y35.0):</b>										
All races <sup>1</sup> , both sexes .....	14	18	4	7	2	-	1	-	-	-
Male .....	14	17	4	7	2	-	1	-	-	-
Female .....	-	1	-	-	-	-	-	-	-	-
White, both sexes .....	11	17	3	6	2	-	1	-	-	-
Male .....	11	16	3	6	2	-	1	-	-	-
Female .....	-	1	-	-	-	-	-	-	-	-
Black, both sexes .....	3	1	1	1	-	-	-	-	-	-
Male .....	3	1	1	1	-	-	-	-	-	-
Female .....	-	-	-	-	-	-	-	-	-	-

- Quantity zero.

... Category not applicable.

1 Includes races other than white and black.

**Table 18. Death rates and age-adjusted death rates for injury by firearms, by age, race, and sex: United States, 1999**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard. For a listing of injury by firearms, see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992), 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 (W32-W34, X72-X74, X93-X95, Y22-Y24, Y35.0):</b>											
All races <sup>4</sup> , both sexes .....	10.6	*	0.4	0.4	1.7	14.7	21.6	17.8	13.8	12.5	10.9
Male .....	18.5	*	0.5	0.5	2.6	25.2	38.1	31.5	23.6	20.3	17.7
Female .....	3.0	*	0.4	0.3	0.8	3.5	4.6	4.4	4.2	4.7	4.2
White, both sexes .....	9.4	*	0.3	0.3	1.6	10.3	14.3	12.9	11.5	11.5	10.5
Male .....	16.3	*	0.3	0.3	2.4	17.6	24.5	22.2	19.2	18.3	17.0
Female .....	2.8	*	*	*	0.8	2.6	3.5	3.6	3.9	4.5	4.1
Black, both sexes .....	20.1	*	1.2	1.0	2.4	38.7	64.3	48.4	30.0	21.3	15.6
Male .....	37.3	*	*	1.4	3.6	67.9	119.6	91.6	56.5	37.7	27.0
Female .....	4.6	*	*	*	*	8.4	10.2	8.8	6.6	6.7	5.6
<b>Accidental discharge of firearms (W32-W34):</b>											
All races <sup>4</sup> , both sexes .....	0.3	*	*	*	0.3	0.6	0.7	0.4	0.3	0.3	0.3
Male .....	0.5	*	*	*	0.5	1.1	1.2	0.7	0.6	0.5	0.5
Female .....	0.1	*	*	*	*	*	*	*	*	*	*
White, both sexes .....	0.3	*	*	*	0.3	0.6	0.6	0.4	0.3	0.3	0.3
Male .....	0.5	*	*	*	0.5	1.0	1.1	0.7	0.6	0.5	0.5
Female .....	0.1	*	*	*	*	*	*	*	*	*	*
Black, both sexes .....	0.4	*	*	*	*	1.2	1.1	*	*	*	*
Male .....	0.8	*	*	*	*	2.1	2.1	*	*	*	*
Female .....	0.1	*	*	*	*	*	*	*	*	*	*
<b>Intentional self-harm (suicide) by discharge of firearms (X72-X74):</b>											
All races <sup>4</sup> , both sexes .....	6.1	...	...	*	0.5	4.9	7.4	7.1	6.7	7.2	6.6
Male .....	10.9	...	...	*	0.8	8.5	13.2	12.6	11.6	12.0	11.2
Female .....	1.5	...	...	*	0.2	1.1	1.4	1.7	2.0	2.4	2.2
White, both sexes .....	6.7	...	...	*	0.6	5.2	7.5	7.5	7.4	7.8	7.5
Male .....	11.9	...	...	*	0.9	9.0	13.3	13.0	12.4	12.9	12.4
Female .....	1.7	...	...	*	0.3	1.2	1.4	1.9	2.3	2.7	2.5
Black, both sexes .....	3.2	...	...	*	*	3.9	7.7	6.0	4.3	4.3	2.7
Male .....	6.1	...	...	*	*	7.0	14.2	11.5	8.4	8.3	5.1
Female .....	0.6	...	...	*	*	*	*	*	*	*	*
<b>Assault (homicide) by discharge of firearms (X93-X95):</b>											
All races <sup>4</sup> , both sexes .....	4.0	*	0.3	0.3	0.8	8.6	12.9	9.9	6.4	4.7	3.7
Male .....	6.7	*	0.3	0.4	1.2	14.8	22.6	17.3	10.7	7.2	5.5
Female .....	1.4	*	0.3	0.2	0.5	2.2	2.9	2.5	2.1	2.2	1.8
White, both sexes .....	2.2	*	0.2	0.2	0.6	4.2	5.7	4.7	3.5	3.0	2.5
Male .....	3.5	*	*	0.2	0.8	7.0	9.3	7.8	5.5	4.4	3.6
Female .....	1.0	*	*	*	0.4	1.3	1.9	1.5	1.5	1.6	1.4
Black, both sexes .....	16.0	*	*	0.7	1.9	32.6	54.1	40.9	24.5	16.1	12.2
Male .....	29.5	*	*	*	2.9	57.0	100.8	76.9	45.8	27.7	20.6
Female .....	3.8	*	*	*	*	7.2	8.4	7.9	5.6	5.9	4.9
<b>Discharge of firearms, undetermined intent (Y22-Y24):</b>											
All races <sup>4</sup> , both sexes .....	0.1	*	*	*	*	0.3	0.3	0.2	*	0.1	0.1
Male .....	0.2	*	*	*	*	0.6	0.5	0.3	*	0.2	0.2
Female .....	0.0	*	*	*	*	*	*	*	*	*	*
White, both sexes .....	0.1	*	*	*	*	0.3	0.3	0.2	*	0.1	0.1
Male .....	0.2	*	*	*	*	0.5	0.5	*	*	0.2	0.2
Female .....	0.0	*	*	*	*	*	*	*	*	*	*
Black, both sexes .....	0.2	*	*	*	*	0.7	*	*	*	*	*
Male .....	0.3	*	*	*	*	*	*	*	*	*	*
Female .....	*	*	*	*	*	*	*	*	*	*	*
<b>Legal intervention involving firearm discharge (Y35.0):</b>											
All races <sup>4</sup> , both sexes .....	0.1	*	*	*	*	*	0.2	0.3	0.3	0.2	0.1
Male .....	0.2	*	*	*	*	*	0.5	0.6	0.6	0.4	0.3
Female .....	*	*	*	*	*	*	*	*	*	*	*
White, both sexes .....	0.1	*	*	*	*	*	0.1	0.2	0.2	0.2	0.1
Male .....	0.2	*	*	*	*	*	0.3	0.5	0.5	0.3	0.2
Female .....	*	*	*	*	*	*	*	*	*	*	*
Black, both sexes .....	0.3	*	*	*	*	*	0.8	*	*	*	*
Male .....	0.6	*	*	*	*	*	1.6	*	*	*	*
Female .....	*	*	*	*	*	*	*	*	*	*	*

See footnotes at end of table.

**Table 18. Death rates and age-adjusted death rates for injury by firearms, by age, race, and sex: United States, 1999 - Con.**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard.  
For a listing of injury by firearms, see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992), 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 (W32-W34, X72-X74, X93-X95, Y22-Y24, Y35.0):</b>										
All races <sup>4</sup> , both sexes .....	10.8	9.9	10.1	9.6	10.1	12.3	14.0	14.7	13.4	10.6
Male .....	18.1	16.7	17.5	17.5	19.2	24.7	30.4	35.9	41.7	18.8
Female .....	3.8	3.4	3.3	2.5	2.4	2.6	2.4	1.9	1.5	3.0
White, both sexes .....	10.7	10.2	10.5	10.0	10.8	13.1	14.9	15.6	14.5	9.3
Male .....	17.8	17.2	17.8	18.0	20.5	26.1	32.1	38.0	45.3	16.5
Female .....	3.8	3.4	3.6	2.6	2.5	2.8	2.5	2.0	1.6	2.8
Black, both sexes .....	13.9	9.1	8.6	8.1	6.2	6.9	8.4	6.3	*	18.8
Male .....	25.2	16.2	18.1	16.2	12.2	15.0	18.8	*	*	34.8
Female .....	4.4	3.2	*	*	*	*	*	*	*	4.4
<b>Accidental discharge of firearms (W32-W34):</b>										
All races <sup>4</sup> , both sexes .....	0.3	0.2	0.2	0.2	*	*	*	*	*	0.3
Male .....	0.5	0.4	0.4	*	*	*	*	*	*	0.5
Female .....	*	*	*	*	*	*	*	*	*	0.1
White, both sexes .....	0.3	0.3	0.2	0.2	*	*	*	*	*	0.3
Male .....	0.5	0.4	*	*	*	*	*	*	*	0.5
Female .....	*	*	*	*	*	*	*	*	*	0.1
Black, both sexes .....	*	*	*	*	*	*	*	*	*	0.4
Male .....	*	*	*	*	*	*	*	*	*	0.8
Female .....	*	*	*	*	*	*	*	*	*	0.1
<b>Intentional self-harm (suicide) by discharge of firearms (X72-X74):</b>										
All races <sup>4</sup> , both sexes .....	7.6	7.4	8.2	7.6	8.8	11.0	12.9	13.7	12.6	6.1
Male .....	12.9	12.9	14.3	14.3	17.1	22.6	28.6	34.4	40.0	11.4
Female .....	2.4	2.2	2.6	1.6	1.7	1.9	1.7	1.2	1.0	1.5
White, both sexes .....	8.4	8.2	9.0	8.3	9.6	12.0	13.9	14.6	13.6	6.6
Male .....	14.2	14.1	15.4	15.5	18.6	24.3	30.8	36.6	43.5	12.2
Female .....	2.7	2.5	3.0	1.8	1.8	2.1	1.8	1.3	1.0	1.7
Black, both sexes .....	3.4	2.5	3.6	3.4	3.8	3.9	5.0	*	*	3.3
Male .....	6.2	5.3	7.4	7.1	7.5	9.4	11.5	*	*	6.6
Female .....	*	*	*	*	*	*	*	*	*	0.6
<b>Assault (homicide) by discharge of firearms (X93-X95):</b>										
All races <sup>4</sup> , both sexes .....	2.8	2.1	1.6	1.6	1.1	1.0	0.8	0.7	0.6	4.0
Male .....	4.5	3.1	2.7	2.6	1.6	1.5	1.1	*	*	6.5
Female .....	1.3	1.1	0.6	0.7	0.7	0.7	0.6	0.7	*	1.4
White, both sexes .....	1.9	1.5	1.3	1.2	1.0	0.9	0.7	0.7	0.6	2.2
Male .....	2.9	2.3	2.0	1.8	1.3	1.2	0.7	*	*	3.4
Female .....	1.0	0.7	0.6	0.7	0.7	0.7	0.6	*	*	1.0
Black, both sexes .....	9.9	6.2	4.6	4.3	2.1	*	*	*	*	14.7
Male .....	17.8	10.2	9.7	8.7	*	*	*	*	*	26.6
Female .....	3.2	2.9	*	*	*	*	*	*	*	3.6
<b>Discharge of firearms, undetermined intent (Y22-Y24):</b>										
All races <sup>4</sup> , both sexes .....	*	*	*	*	*	*	*	*	*	0.1
Male .....	*	*	*	*	*	*	*	*	*	0.2
Female .....	*	*	*	*	*	*	*	*	*	0.0
White, both sexes .....	*	*	*	*	*	*	*	*	*	0.1
Male .....	*	*	*	*	*	*	*	*	*	0.2
Female .....	*	*	*	*	*	*	*	*	*	0.0
Black, both sexes .....	*	*	*	*	*	*	*	*	*	0.2
Male .....	*	*	*	*	*	*	*	*	*	0.3
Female .....	*	*	*	*	*	*	*	*	*	*
<b>Legal intervention involving firearm discharge (Y35.0):</b>										
All races <sup>4</sup> , both sexes .....	*	*	*	*	*	*	*	*	*	0.1
Male .....	*	*	*	*	*	*	*	*	*	0.2
Female .....	*	*	*	*	*	*	*	*	*	*
White, both sexes .....	*	*	*	*	*	*	*	*	*	0.1
Male .....	*	*	*	*	*	*	*	*	*	0.2
Female .....	*	*	*	*	*	*	*	*	*	*
Black, both sexes .....	*	*	*	*	*	*	*	*	*	0.3
Male .....	*	*	*	*	*	*	*	*	*	0.5
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 19. Number of deaths, death rates, and age-adjusted death rates for injury by firearms, by race and sex: United States, 1998, modified 1998, and 1999**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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												
1999 .....	28,874	24,700	4,174	21,143	17,942	3,201	7,731	6,758	973	7,017	6,184	833
1998 (modified) <sup>1</sup> .....	30,625	26,118	4,507	22,419	18,968	3,452	8,206	7,151	1,055	7,483	6,574	909
1998 <sup>2</sup> .....	30,708	26,189	4,519	22,480	19,019	3,461	8,228	7,170	1,058	7,503	6,592	911
Rate												
1999 .....	10.6	18.5	3.0	9.4	16.3	2.8	16.1	29.5	3.9	20.1	37.3	4.6
1998 (modified) <sup>1</sup> .....	11.4	19.7	3.3	10.1	17.4	3.0	17.4	31.7	4.3	21.7	40.2	5.0
1998 <sup>2</sup> .....	11.4	19.8	3.3	10.1	17.4	3.0	17.4	31.8	4.3	21.8	40.3	5.0
Age-adjusted rate <sup>3</sup>												
1999 .....	10.6	18.8	3.0	9.3	16.5	2.8	15.1	27.5	3.7	18.8	34.8	4.4
1998 (modified) <sup>1</sup> .....	11.3	20.0	3.3	10.0	17.6	3.0	16.2	29.5	4.1	20.2	37.2	4.8
1998 <sup>2</sup> .....	11.3	20.1	3.3	10.0	17.6	3.0	16.2	29.6	4.1	20.3	37.3	4.8

<sup>1</sup> Numbers, rates, and age-adjusted rates were modified with the comparability ratios shown in table III of the Technical notes.

<sup>2</sup> The 1998 cause-of-death data are tabulated using ICD-9 codes that approximate ICD-10 categories as shown in table III of the Technical notes.

<sup>3</sup> 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, 1998, modified 1998, and 1999**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes. For listing of drug-induced causes, 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												
1999 .....	19,102	12,873	6,229	15,694	10,497	5,197	3,408	2,376	1,032	3,094	2,188	906
1998 (modified) <sup>1</sup> .....	20,227	13,697	6,529	16,504	11,081	5,423	3,722	2,616	1,107	3,383	2,388	995
1998 <sup>2</sup> .....	16,926	11,462	5,464	13,811	9,273	4,538	3,115	2,189	926	2,831	1,998	833
Rate												
1999 .....	7.0	9.7	4.5	7.0	9.5	4.5	7.1	10.4	4.1	8.9	13.2	4.9
1998 (modified) <sup>1</sup> .....	7.5	10.4	4.8	7.4	10.2	4.8	7.9	11.6	4.4	9.8	14.6	5.5
1998 <sup>2</sup> .....	6.3	8.7	4.0	6.2	8.5	4.0	6.6	9.7	3.7	8.2	12.2	4.6
Age-adjusted rate <sup>3</sup>												
1999 .....	7.0	9.6	4.4	6.9	9.4	4.5	7.5	11.3	4.2	9.5	14.7	5.1
1998 (modified) <sup>1</sup> .....	7.5	10.3	4.7	7.3	9.9	4.7	8.2	12.5	4.5	10.5	16.3	5.7
1998 <sup>2</sup> .....	6.3	8.6	3.9	6.1	8.3	3.9	6.9	10.5	3.8	8.8	13.6	4.8

<sup>1</sup> Numbers, rates, and age-adjusted rates were modified with the comparability ratios shown in table III of the Technical notes.

<sup>2</sup> The 1998 cause-of-death data are tabulated using ICD-9 codes that approximate ICD-10 categories as shown in table III of the Technical notes.

<sup>3</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, 1998, modified 1998, and 1999**

[Rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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												
1999 .....	19,171	14,665	4,506	15,686	12,110	3,576	3,485	2,555	930	2,757	2,042	715
1998 (modified) <sup>1</sup> .....	18,894	14,289	4,606	15,454	11,764	3,691	3,440	2,525	915	2,742	2,046	696
1998 <sup>2</sup> .....	19,515	14,758	4,757	15,962	12,150	3,812	3,553	2,608	945	2,832	2,113	719
Rate												
1999 .....	7.0	11.0	3.2	7.0	11.0	3.1	7.2	11.1	3.7	7.9	12.3	3.9
1998 (modified) <sup>1</sup> .....	7.0	10.8	3.3	7.0	10.7	3.3	7.3	11.2	3.7	7.9	12.5	3.9
1998 <sup>2</sup> .....	7.2	11.2	3.4	7.2	11.1	3.4	7.5	11.6	3.8	8.2	12.9	4.0
Age-adjusted rate <sup>3</sup>												
1999 .....	7.1	11.5	3.2	6.8	11.0	3.0	8.8	14.6	4.2	9.7	16.5	4.5
1998 (modified) <sup>1</sup> .....	7.1	11.4	3.3	6.8	10.8	3.1	8.9	14.8	4.2	9.9	16.9	4.5
1998 <sup>2</sup> .....	7.3	11.8	3.4	7.0	11.2	3.2	9.2	15.3	4.3	10.2	17.5	4.6

<sup>1</sup> Numbers, rates, and age-adjusted rates were modified with the comparability ratios shown in table III of the Technical notes.

<sup>2</sup> The 1998 cause-of-death data are tabulated using ICD-9 codes that approximate ICD-10 categories as shown in table III of the Technical notes.

<sup>3</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, 1999**

[Rates per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard, 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	2,350,262	30,656	41,066	89,256	152,974	238,979	452,600	1,344,731	...
Never married	234,167	27,828	22,391	30,060	26,996	22,359	29,397	75,136	...
Ever married	2,106,632	2,755	18,387	58,304	124,546	214,924	421,230	1,266,486	...
Married	947,981	2,340	13,502	37,224	78,465	138,378	251,032	427,040	...
Widowed	913,912	70	322	1,661	6,339	25,720	111,687	768,113	...
Divorced	244,739	345	4,563	19,419	39,742	50,826	58,511	71,333	...
Not stated	9,463	73	288	892	1,432	1,696	1,973	3,109	...
All races <sup>3</sup> , male	1,152,070	22,414	28,276	57,118	95,659	142,724	254,920	550,959	...
Never married	139,330	20,694	16,591	21,589	18,740	14,690	18,649	28,377	...
Ever married	1,005,906	1,658	11,455	34,806	75,723	126,649	234,779	520,836	...
Married	650,342	1,431	8,445	21,928	48,137	88,588	169,815	311,998	...
Widowed	222,545	36	149	583	2,021	7,324	32,373	180,059	...
Divorced	133,019	191	2,861	12,295	25,565	30,737	32,591	28,779	...
Not stated	6,834	62	230	723	1,196	1,385	1,492	1,746	...
All races <sup>3</sup> , female	1,198,192	8,242	12,790	32,138	57,315	96,255	197,680	793,772	...
Never married	94,837	7,134	5,800	8,471	8,256	7,669	10,748	46,759	...
Ever married	1,100,726	1,097	6,932	23,498	48,823	88,275	186,451	745,650	...
Married	297,639	909	5,057	15,296	30,328	49,790	81,217	115,042	...
Widowed	691,367	34	173	1,078	4,318	18,396	79,314	588,054	...
Divorced	111,720	154	1,702	7,124	14,177	20,089	25,920	42,554	...
Not stated	2,629	11	58	169	236	311	481	1,363	...
White, both sexes	2,033,827	22,352	29,400	65,607	117,011	193,582	387,437	1,218,438	...
Never married	176,843	20,004	14,518	18,703	17,482	15,668	23,129	67,339	...
Ever married	1,850,380	2,300	14,691	46,301	98,572	176,737	362,924	1,148,855	...
Married	838,106	1,936	10,586	29,302	63,061	116,516	222,759	393,946	...
Widowed	807,919	59	232	1,093	4,108	18,920	91,250	692,257	...
Divorced	204,355	305	3,873	15,906	31,403	41,301	48,915	62,652	...
Not stated	6,604	48	191	603	957	1,177	1,384	2,244	...
White, male	989,613	16,203	20,549	42,914	73,908	116,537	220,442	499,060	...
Never married	102,924	14,785	11,200	14,249	12,569	10,526	14,747	24,848	...
Ever married	881,896	1,377	9,184	28,160	60,521	105,042	204,641	472,971	...
Married	575,893	1,178	6,628	17,379	38,576	74,370	150,703	287,059	...
Widowed	195,154	29	106	393	1,297	5,403	26,687	161,239	...
Divorced	110,849	170	2,450	10,388	20,648	25,269	27,251	24,673	...
Not stated	4,793	41	165	505	818	969	1,054	1,241	...
White, female	1,044,214	6,149	8,851	22,693	43,103	77,045	166,995	719,378	...
Never married	73,919	5,219	3,318	4,454	4,913	5,142	8,382	42,491	...
Ever married	968,484	923	5,507	18,141	38,051	71,695	158,283	675,884	...
Married	262,213	758	3,958	11,923	24,485	42,146	72,056	106,887	...
Widowed	612,765	30	126	700	2,811	13,517	64,563	531,018	...
Divorced	93,506	135	1,423	5,518	10,755	16,032	21,664	37,979	...
Not stated	1,811	7	26	98	139	208	330	1,003	...
Black, both sexes	273,065	7,066	10,115	21,041	31,759	39,476	56,122	107,486	...
Never married	52,385	6,710	7,055	10,601	8,957	6,222	5,771	7,069	...
Ever married	218,023	334	2,970	10,177	22,353	32,763	49,807	99,619	...
Married	88,329	299	2,338	6,547	12,744	17,939	22,882	25,580	...
Widowed	93,014	7	70	516	2,034	6,122	18,178	66,087	...
Divorced	36,680	28	562	3,114	7,575	8,702	8,747	7,952	...
Not stated	2,657	22	90	263	449	491	544	798	...
Black, male	138,906	5,348	6,723	12,567	19,298	22,769	29,594	42,607	...
Never married	33,023	5,112	4,792	6,791	5,809	3,862	3,571	3,086	...
Ever married	103,985	218	1,870	5,580	13,131	18,511	25,619	39,056	...
Married	59,747	199	1,493	3,726	7,988	11,749	15,563	19,029	...
Widowed	24,107	5	32	172	672	1,760	5,162	16,304	...
Divorced	20,131	14	345	1,682	4,471	5,002	4,894	3,723	...
Not stated	1,898	18	61	196	358	396	404	465	...
Black, female	134,159	1,718	3,392	8,474	12,461	16,707	26,528	64,879	...
Never married	19,362	1,598	2,263	3,810	3,148	2,360	2,200	3,983	...
Ever married	114,038	116	1,100	4,597	9,222	14,252	24,188	60,563	...
Married	28,582	100	845	2,821	4,756	6,190	7,319	6,551	...
Widowed	68,907	2	38	344	1,362	4,362	13,016	49,783	...
Divorced	16,549	14	217	1,432	3,104	3,700	3,853	4,229	...
Not stated	759	4	29	67	91	95	140	333	...

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 race, sex, and marital status: United States, 1999 - Con.**

[Rates per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard, 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>
All races <sup>3</sup> , both sexes .....	1,097.0	81.2	108.3	199.2	427.3	1,021.8	2,484.3	8,238.9	1,322.4
Never married .....	394.7	83.6	166.6	427.7	892.9	1,838.6	4,231.4	11,757.7	2,106.2
Ever married .....	1,359.8	61.3	75.1	154.3	380.0	969.3	2,403.8	8,075.7	1,263.7
Married .....	787.9	56.1	61.9	118.6	297.8	806.7	2,070.9	5,835.3	969.8
Widowed .....	6,215.6	*	348.7	410.5	724.6	1,414.7	2,902.4	10,038.5	1,751.6
Divorced .....	1,229.5	111.8	177.0	324.0	715.2	1,587.5	3,765.9	10,006.3	1,800.3
All races <sup>3</sup> , male .....	1,114.5	115.9	150.2	256.7	546.7	1,280.0	3,109.3	9,015.3	1,541.6
Never married .....	433.3	117.2	215.5	528.6	1,205.0	2,402.5	6,055.4	12,081.0	2,499.4
Ever married .....	1,412.5	99.3	103.0	191.6	474.9	1,201.7	2,975.4	8,863.0	1,461.9
Married .....	1,085.9	91.8	84.3	143.5	360.1	997.4	2,604.5	7,320.2	1,212.6
Widowed .....	8,248.9	*	*	558.2	1,158.1	2,290.9	4,556.3	13,147.6	2,556.9
Divorced .....	1,541.3	172.1	261.6	442.2	1,063.9	2,298.3	4,937.4	11,756.0	2,299.3
All races <sup>3</sup> , female .....	1,080.6	44.7	66.9	142.5	313.1	786.5	1,972.9	7,774.1	1,148.3
Never married .....	349.1	45.7	101.0	287.7	562.3	1,268.4	2,779.0	11,569.8	1,745.5
Ever married .....	1,314.9	38.9	51.9	119.8	290.0	758.8	1,935.6	7,603.8	1,111.2
Married .....	492.5	34.8	42.8	95.0	233.6	602.0	1,449.9	3,764.4	662.2
Widowed .....	5,758.6	*	232.6	359.2	616.6	1,227.7	2,527.9	9,360.7	1,565.1
Divorced .....	990.9	78.0	114.6	221.8	449.6	1,077.6	2,900.6	9,091.2	1,463.6
White, both sexes .....	1,139.6	74.5	96.6	177.6	386.8	961.5	2,427.8	8,266.8	1,294.7
Never married .....	394.3	76.8	150.0	379.7	798.8	1,711.8	4,309.5	11,966.7	2,081.4
Ever married .....	1,384.8	58.0	70.8	144.6	351.3	919.6	2,353.3	8,104.1	1,245.2
Married .....	800.8	52.4	57.1	109.4	276.7	768.7	2,041.7	5,810.1	951.6
Widowed .....	6,494.7	*	*	346.1	620.5	1,337.8	2,860.3	10,206.3	1,715.1
Divorced .....	1,236.5	115.1	180.1	323.2	681.1	1,560.9	3,702.6	10,218.4	1,803.4
White, male .....	1,141.5	104.9	134.5	231.5	494.2	1,200.2	3,043.2	9,027.8	1,504.7
Never married .....	412.7	105.8	193.5	464.2	1,055.3	2,184.9	6,231.3	12,391.8	2,465.0
Ever married .....	1,428.2	93.9	96.8	182.0	439.7	1,138.3	2,920.5	8,877.9	1,438.1
Married .....	1,102.5	86.2	77.4	133.0	333.1	946.7	2,565.8	7,309.0	1,191.0
Widowed .....	8,682.3	*	*	491.1	979.3	2,211.4	4,624.8	13,485.9	2,484.6
Divorced .....	1,525.9	172.2	270.6	447.4	1,007.4	2,240.1	4,897.2	12,066.7	2,307.8
White, female .....	1,137.7	42.2	58.4	123.3	281.8	739.1	1,916.2	7,810.1	1,126.3
Never married .....	371.2	43.2	85.3	239.9	492.5	1,186.1	2,793.7	11,731.4	1,721.1
Ever married .....	1,347.5	36.9	48.9	109.6	266.1	717.7	1,881.0	7,638.3	1,095.1
Married .....	500.3	32.6	39.7	86.9	218.5	577.2	1,430.5	3,746.5	649.3
Widowed .....	6,012.2	*	*	296.9	530.7	1,155.4	2,470.7	9,504.5	1,534.8
Divorced .....	1,009.5	81.2	114.3	212.3	420.0	1,056.1	2,833.2	9,293.6	1,464.1
Black, both sexes .....	1,057.0	123.1	191.3	372.3	808.4	1,683.3	3,343.6	8,941.6	1,705.3
Never married .....	468.1	124.2	249.2	596.9	1,254.8	2,291.0	4,217.1	*	2,277.4
Ever married .....	1,489.0	98.5	120.9	262.5	695.3	1,580.1	3,230.8	8,733.6	1,594.5
Married .....	884.5	97.3	111.7	224.6	569.7	1,414.0	2,822.3	7,208.0	1,350.4
Widowed .....	5,068.7	*	*	*	1,175.6	1,852.2	3,443.9	9,388.1	1,960.5
Divorced .....	1,300.4	*	166.4	350.2	941.4	1,834.5	4,307.6	*	1,913.8
Black, male .....	1,160.3	185.6	268.4	473.6	1,081.9	2,244.0	4,182.8	10,017.5	2,065.8
Never married .....	603.1	185.9	348.6	817.2	1,839.9	3,306.4	*	*	2,832.1
Ever married .....	1,600.8	166.3	165.4	306.1	894.5	2,061.7	3,968.9	9,764.8	1,893.0
Married .....	1,204.1	162.5	153.1	262.6	707.6	1,782.8	3,524.3	8,806.1	1,668.0
Widowed .....	6,323.6	*	*	*	*	*	4,619.1	10,933.0	2,452.2
Divorced .....	1,746.6	*	222.0	438.1	1,493.8	2,803.9	*	*	2,388.6
Black, female .....	967.8	60.1	122.0	282.6	581.0	1,255.7	2,732.1	8,352.5	1,445.7
Never married .....	338.7	60.3	155.4	403.2	790.7	1,524.8	*	*	1,834.8
Ever married .....	1,400.0	55.7	83.0	223.8	528.0	1,212.2	2,699.1	8,176.7	1,386.1
Married .....	568.9	54.1	75.6	188.6	429.2	1,015.3	1,982.6	4,719.8	932.7
Widowed .....	4,739.6	*	*	*	1,022.4	1,615.1	3,128.3	8,972.8	1,784.3
Divorced .....	992.1	*	119.0	283.4	614.2	1,250.2	3,474.0	*	1,586.5

\* 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, 1999**

[Rates per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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	25-34	35-44	45-54	55-64	Age-adjusted rate <sup>2</sup>
	years <sup>1</sup>	years	years	years	years	
	Number					
Both sexes .....	492,988	38,698	84,304	144,462	225,524	...
Under 12 years .....	111,037	9,028	18,047	27,219	56,743	...
12 years .....	213,929	17,422	38,167	60,859	97,481	...
13 years or more .....	149,346	10,922	24,911	50,896	62,617	...
Not stated .....	18,676	1,326	3,179	5,488	8,683	...
Male .....	305,636	26,685	53,998	90,325	134,628	...
Under 12 years .....	71,037	6,522	12,174	17,668	34,673	...
12 years .....	130,581	12,397	25,129	37,656	55,399	...
13 years or more .....	91,359	6,826	14,547	31,147	38,839	...
Not stated .....	12,659	940	2,148	3,854	5,717	...
Female .....	187,352	12,013	30,306	54,137	90,896	...
Under 12 years .....	40,000	2,506	5,873	9,551	22,070	...
12 years .....	83,348	5,025	13,038	23,203	42,082	...
13 years or more .....	57,987	4,096	10,364	19,749	23,778	...
Not stated .....	6,017	386	1,031	1,634	2,966	...
	Rate <sup>3</sup>					
Both sexes .....	365.6	107.2	197.9	426.9	1,011.4	370.0
Under 12 years .....	643.1	203.6	365.8	712.7	1,390.6	585.3
12 years .....	484.9	157.9	265.5	574.1	1,201.8	474.5
13 years or more .....	203.3	53.0	106.9	262.1	619.6	219.1
Male .....	460.9	148.9	254.9	545.4	1,265.4	472.0
Under 12 years .....	808.1	275.1	463.0	952.4	1,792.0	763.7
12 years .....	614.2	215.1	345.1	795.5	1,590.0	636.7
13 years or more .....	252.0	69.7	129.0	312.3	744.0	264.2
Female .....	273.4	66.1	141.5	313.3	779.6	273.4
Under 12 years .....	471.9	121.5	254.9	486.3	1,028.6	409.9
12 years .....	364.7	95.4	183.8	395.4	909.5	337.3
13 years or more .....	155.9	37.8	86.2	209.0	486.6	172.6

... 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, 1999**

[Rates per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; 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	Rate
All races <sup>3</sup> , both sexes .....	5,651	543	1,014	1,366	1,270	800	658	...	...
Male .....	5,152	499	934	1,265	1,161	741	552	...	...
Female .....	499	44	80	101	109	59	106	...	...
White, both sexes .....	4,805	464	847	1,145	1,043	688	618	...	...
Male .....	4,385	431	781	1,063	956	638	516	...	...
Female .....	420	33	66	82	87	50	102	...	...
Black, both sexes .....	659	60	129	174	171	93	32	...	...
Male .....	598	52	119	159	155	84	29	...	...
Female .....	61	8	10	15	16	9	3	...	...
All races <sup>3</sup> , both sexes .....	2.6	1.4	2.7	3.0	3.5	3.4	1.9	2.6	2.6
Male .....	5.0	2.6	5.0	5.7	6.6	6.6	3.9	5.0	5.0
Female .....	0.5	0.2	0.4	0.4	0.6	0.5	0.5	0.4	0.4
White, both sexes .....	2.7	1.5	2.8	3.1	3.4	3.4	2.0	2.7	2.7
Male .....	5.1	2.8	5.1	5.7	6.4	6.6	4.0	5.0	5.0
Female .....	0.5	0.2	0.4	0.4	0.6	0.5	0.6	0.4	0.4
Black, both sexes .....	2.6	1.0	2.4	3.1	4.4	4.0	1.1	2.6	2.6
Male .....	5.0	1.8	4.7	6.0	8.7	8.3	2.6	5.2	5.2
Female .....	0.4	*	*	*	*	*	*	0.5	0.5

... 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, 1993-99**

[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 based on year 2000 standard; see Technical notes. For discussion of injury at work, 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												
1999 .....	5,651	5,152	499	4,805	4,385	420	846	767	79	659	598	61
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												
1999 .....	2.6	5.0	0.5	2.7	5.1	0.5	2.4	4.6	0.4	2.6	5.0	0.4
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>												
1999 .....	2.6	5.0	0.4	2.7	5.0	0.4	2.4	4.7	0.4	2.6	5.2	0.5
1998 .....	2.6	4.9	0.5	2.7	5.1	0.5	2.2	4.3	0.4	2.4	4.8	0.4
1997 .....	2.7	5.1	0.5	2.7	5.1	0.5	2.6	5.2	0.5	2.8	5.7	0.4
1996 .....	2.8	5.3	0.4	2.9	5.4	0.5	2.5	4.9	0.5	2.7	5.3	0.5
1995 .....	2.9	5.4	0.5	2.9	5.4	0.5	2.7	5.5	0.5	3.0	6.1	0.5
1994 .....	3.0	5.6	0.5	3.0	5.6	0.5	2.8	5.5	0.6	3.1	6.1	0.6
1993 .....	2.9	5.6	0.5	2.9	5.6	0.5	2.8	5.5	0.6	3.0	6.0	0.6

<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, 1999**

[Rates per 100,000 population in each area; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes. Numbers after causes of death are categories of the Tenth Revision, International Classification of Diseases, 1992]

Area	All causes			Human immunodeficiency virus (HIV) disease (B20-B24)			Malignant neoplasms (C00-C97)			Diabetes mellitus (E10-E14)		
	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 .....	2,391,399	877.0	881.9	14,802	5.4	5.4	549,838	201.6	202.7	68,399	25.1	25.2
New England .....	121,785	902.4	819.6	536	4.0	3.8	30,068	222.8	206.9	3,102	23.0	21.1
Maine .....	12,261	978.5	896.3	17	*	*	3,035	242.2	223.2	348	27.8	25.4
New Hampshire .....	9,537	794.0	835.2	12	*	*	2,408	200.5	211.3	294	24.5	25.9
Vermont .....	4,993	840.9	843.9	12	*	*	1,255	211.4	213.1	179	30.1	30.7
Massachusetts .....	55,840	904.3	816.7	257	4.2	4.0	13,853	224.3	207.8	1,354	21.9	20.0
Rhode Island .....	9,708	979.8	812.8	35	3.5	3.6	2,463	248.6	214.0	236	23.8	20.4
Connecticut .....	29,446	897.2	792.3	203	6.2	6.1	7,054	214.9	194.5	691	21.1	18.8
Middle Atlantic .....	364,191	950.0	864.8	3,786	9.9	9.7	86,099	224.6	205.5	9,977	26.0	23.7
New York .....	159,927	878.9	836.0	2,375	13.1	12.8	37,609	206.7	197.8	3,799	20.9	19.9
New Jersey .....	73,981	908.5	857.8	913	11.2	10.8	18,178	223.2	210.6	2,436	29.9	28.2
Pennsylvania .....	130,283	1,086.2	907.5	498	4.2	4.1	30,312	252.7	212.7	3,742	31.2	25.9
East North Central .....	406,160	913.9	909.3	1,206	2.7	2.7	93,654	210.7	210.2	12,130	27.3	27.2
Ohio .....	108,517	964.0	933.6	244	2.2	2.2	25,233	224.2	216.2	3,675	32.6	31.5
Indiana .....	55,303	930.6	941.4	111	1.9	1.9	12,898	217.0	219.1	1,591	26.8	27.1
Illinois .....	108,436	894.1	903.1	548	4.5	4.5	25,024	206.3	210.5	3,004	24.8	25.2
Michigan .....	87,232	884.4	906.9	238	2.4	2.4	19,744	200.2	204.1	2,587	26.2	26.8
Wisconsin .....	46,672	888.9	838.1	65	1.2	1.2	10,755	204.8	197.7	1,273	24.2	23.1
West North Central .....	175,986	936.1	856.7	314	1.7	1.7	39,166	208.3	197.1	4,908	26.1	24.2
Minnesota .....	38,537	807.0	792.2	72	1.5	1.5	8,892	186.2	189.1	1,249	26.2	26.0
Iowa .....	28,411	990.1	815.3	21	0.7	0.8	6,346	221.2	191.2	684	23.8	19.9
Missouri .....	55,931	1,022.8	954.1	150	2.7	2.8	12,186	222.8	210.7	1,554	28.4	26.6
North Dakota .....	6,103	963.1	802.6	3	*	*	1,366	215.6	188.4	203	32.0	27.0
South Dakota .....	6,953	948.4	820.2	5	*	*	1,632	222.6	201.0	196	26.7	23.5
Nebraska .....	15,579	935.1	838.7	20	1.2	1.3	3,410	204.7	191.7	372	22.3	20.5
Kansas .....	24,472	922.1	850.5	43	1.6	1.7	5,334	201.0	193.0	650	24.5	23.0
South Atlantic .....	463,105	934.4	903.2	4,425	8.9	8.8	106,954	215.8	206.2	13,015	26.3	25.2
Delaware .....	6,666	884.6	904.6	65	8.6	8.5	1,737	230.5	231.0	179	23.8	24.2
Maryland .....	43,089	833.2	911.2	592	11.4	10.8	10,143	196.1	212.0	1,422	27.5	30.0
District of Columbia .....	6,076	1,170.7	1,082.7	266	51.3	47.1	1,340	258.2	236.9	221	42.6	38.9
Virginia .....	55,320	804.9	905.9	265	3.9	3.7	13,365	194.5	213.5	1,486	21.6	24.0
West Virginia .....	21,049	1,164.9	1,013.3	21	1.2	1.2	4,762	263.5	225.6	734	40.6	34.9
North Carolina .....	69,600	909.7	943.6	466	6.1	6.0	15,815	206.7	210.3	2,050	26.8	27.4
South Carolina .....	36,053	927.8	996.0	307	7.9	7.8	8,089	208.2	216.1	1,118	28.8	30.3
Georgia .....	62,028	796.4	983.9	786	10.1	9.8	13,225	169.8	206.5	1,448	18.6	23.1
Florida .....	163,224	1,080.1	833.9	1,657	11.0	11.3	38,478	254.6	196.2	4,357	28.8	22.1
East South Central .....	166,077	1,001.5	1,019.5	667	4.0	4.0	36,517	220.2	221.2	4,503	27.2	27.5
Kentucky .....	39,321	992.7	1,012.8	76	1.9	1.9	8,925	225.3	226.1	1,133	28.6	29.0
Tennessee .....	53,765	980.5	1,001.9	258	4.7	4.6	11,943	217.8	218.6	1,436	26.2	26.6
Alabama .....	44,806	1,025.3	1,021.1	177	4.1	4.0	9,506	217.5	213.5	1,341	30.7	30.4
Mississippi .....	28,185	1,018.0	1,064.9	156	5.6	5.9	6,143	221.9	232.4	593	21.4	22.4
West South Central .....	250,721	826.8	936.9	1,615	5.3	5.4	55,616	183.4	206.1	8,295	27.4	31.0
Arkansas .....	27,925	1,094.5	1,005.4	67	2.6	2.8	6,137	240.5	220.6	691	27.1	24.9
Louisiana .....	41,238	943.2	1,040.7	373	8.5	8.9	9,412	215.3	233.9	1,687	38.6	42.5
Oklahoma .....	34,700	1,033.3	985.0	103	3.1	3.2	7,312	217.7	207.8	986	29.4	28.1
Texas .....	146,858	732.7	892.2	1,072	5.3	5.4	32,755	163.4	196.8	4,931	24.6	30.0
Mountain .....	129,729	757.4	846.8	433	2.5	2.6	28,590	166.9	183.5	3,623	21.2	23.6
Montana .....	8,128	920.7	861.2	6	*	*	1,854	210.0	196.2	244	27.6	25.9
Idaho .....	9,579	765.3	825.2	5	*	*	2,162	172.7	186.5	267	21.3	23.1
Wyoming .....	4,042	842.8	909.0	2	*	*	899	187.4	197.5	135	28.1	30.2
Colorado .....	27,114	668.5	801.2	104	2.6	2.5	5,863	144.5	169.8	639	15.8	19.1
New Mexico .....	13,676	786.0	875.7	29	1.7	1.7	2,857	164.2	180.1	517	29.7	32.7
Arizona .....	40,050	838.2	850.1	153	3.2	3.4	9,006	188.5	188.0	1,063	22.2	22.4
Utah .....	12,058	566.1	787.1	29	1.4	1.7	2,393	112.4	157.1	472	22.2	31.6
Nevada .....	15,082	833.6	967.1	105	5.8	5.7	3,556	196.5	214.8	286	15.8	17.8
Pacific .....	313,645	712.5	795.5	1,820	4.1	4.1	73,174	166.2	185.6	8,846	20.1	22.5
Washington .....	43,865	762.0	816.1	110	1.9	1.9	10,653	185.1	199.0	1,307	22.7	24.5
Oregon .....	29,422	887.2	839.2	75	2.3	2.3	6,905	208.2	198.4	860	25.9	24.6
California .....	229,380	692.0	791.0	1,593	4.8	4.8	53,067	160.1	183.1	6,401	19.3	22.2
Alaska .....	2,708	437.1	834.4	13	*	*	633	102.2	187.0	67	10.8	23.6
Hawaii .....	8,270	697.6	680.3	29	2.4	2.4	1,916	161.6	154.7	211	17.8	17.1
Puerto Rico <sup>2</sup> .....	28,967	744.7	895.5	683	17.6	19.8	4,592	118.1	142.6	2,392	61.5	74.7
Virgin Islands <sup>2</sup> .....	659	550.9	805.2	10	*	*	117	97.8	147.9	40	33.4	52.7
Guam <sup>2</sup> .....	693	456.0	832.9	1	*	*	102	67.1	123.0	25	16.5	33.0
American Samoa <sup>2</sup> .....	246	385.7	832.8	-	*	*	36	56.4	132.2	22	34.5	96.4
Northern Marianas <sup>2</sup> .....	162	234.0	1,016.9	-	*	*	22	31.8	145.5	9	*	*

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, 1999 - Con.**

[Rates per 100,000 population in each area; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes. Numbers after causes of death are categories of the Tenth Revision, International Classification of Diseases, 1992]

Area	Alzheimer's disease (G30)			Diseases of heart (I00-I09,I11,I13,I20-I51)			Cerebrovascular diseases (I60-I69)			Influenza and pneumonia (J10-J18)		
	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 .....	44,536	16.3	16.5	725,192	265.9	267.8	167,366	61.4	61.8	63,730	23.4	23.6
New England .....	2,672	19.8	17.1	35,517	263.2	235.5	8,006	59.3	52.3	3,697	27.4	23.9
Maine .....	429	34.2	30.7	3,418	272.8	247.5	879	70.1	63.4	287	22.9	20.6
New Hampshire .....	266	22.1	23.3	2,751	229.0	241.5	669	55.7	58.6	187	15.6	16.4
Vermont .....	127	21.4	21.1	1,342	226.0	225.6	344	57.9	57.7	134	22.6	22.4
Massachusetts .....	1,182	19.1	16.4	15,871	257.0	228.8	3,548	57.5	50.3	1,904	30.8	26.8
Rhode Island .....	219	22.1	16.6	3,008	303.6	243.6	633	63.9	49.9	300	30.3	23.2
Connecticut .....	449	13.7	11.4	9,127	278.1	240.7	1,933	58.9	50.1	885	27.0	22.7
Middle Atlantic .....	4,590	12.0	10.6	124,187	324.0	291.2	20,846	54.4	48.8	10,673	27.8	24.9
New York .....	1,357	7.5	7.0	58,987	324.2	305.6	8,124	44.6	42.1	5,482	30.1	28.2
New Jersey .....	1,041	12.8	12.0	23,493	288.5	271.0	4,122	50.6	47.5	2,075	25.5	23.9
Pennsylvania .....	2,192	18.3	14.5	41,707	347.7	284.8	8,600	71.7	58.0	3,116	26.0	21.1
East North Central .....	7,714	17.4	17.2	124,760	280.7	279.0	28,916	65.1	64.6	10,856	24.4	24.2
Ohio .....	2,099	18.6	18.1	33,192	294.9	285.1	7,235	64.3	62.1	2,641	23.5	22.8
Indiana .....	1,106	18.6	19.0	16,661	280.4	284.2	4,057	68.3	69.4	1,362	22.9	23.3
Illinois .....	1,908	15.7	15.7	33,387	275.3	277.8	7,714	63.6	63.9	3,121	25.7	25.7
Michigan .....	1,431	14.5	15.1	27,693	280.8	289.1	6,041	61.2	63.3	2,307	23.4	24.2
Wisconsin .....	1,170	22.3	20.0	13,827	263.3	245.4	3,869	73.7	67.9	1,425	27.1	24.7
West North Central .....	3,855	20.5	17.6	51,535	274.1	246.6	13,341	71.0	62.7	5,431	28.9	25.1
Minnesota .....	1,083	22.7	21.3	9,533	199.6	194.1	2,997	62.8	60.1	1,077	22.6	21.2
Iowa .....	706	24.6	18.4	8,699	303.2	242.9	2,317	80.7	62.7	1,082	37.7	28.7
Missouri .....	914	16.7	15.0	17,974	328.7	302.9	3,950	72.2	66.1	1,716	31.4	28.5
North Dakota .....	155	24.5	18.2	1,833	289.3	235.6	513	81.0	63.4	157	24.8	19.5
South Dakota .....	155	21.1	16.4	2,024	276.1	231.6	547	74.6	60.7	264	36.0	28.4
Nebraska .....	331	19.9	16.4	4,497	269.9	236.9	1,176	70.6	60.6	459	27.6	23.1
Kansas .....	511	19.3	16.6	6,975	262.8	237.5	1,841	69.4	61.7	676	25.5	22.2
South Atlantic .....	8,357	16.9	16.5	136,097	274.6	265.5	32,563	65.7	63.6	11,330	22.9	22.3
Delaware .....	107	14.2	15.3	2,011	266.9	275.9	365	48.4	50.4	155	20.6	21.7
Maryland .....	681	13.2	15.3	12,080	233.6	259.9	2,892	55.9	63.1	1,140	22.0	25.1
District of Columbia ...	53	10.2	9.2	1,652	318.3	289.9	297	57.2	52.2	116	22.4	20.2
Virginia .....	917	13.3	16.1	15,329	223.0	255.5	4,110	59.8	69.8	1,594	23.2	27.5
West Virginia .....	314	17.4	15.0	6,822	377.5	325.4	1,323	73.2	63.1	520	28.8	25.0
North Carolina .....	1,456	19.0	20.7	19,191	250.8	262.7	5,626	73.5	78.1	1,891	24.7	26.5
South Carolina .....	690	17.8	21.1	9,981	256.9	280.1	2,974	76.5	85.6	883	22.7	25.9
Georgia .....	1,080	13.9	19.1	17,597	225.9	288.0	4,416	56.7	73.6	1,703	21.9	28.8
Florida .....	3,059	20.2	14.4	51,434	340.4	253.0	10,560	69.9	51.5	3,328	22.0	16.3
East South Central .....	2,800	16.9	17.7	51,133	308.3	315.7	11,815	71.2	73.6	4,815	29.0	30.2
Kentucky .....	728	18.4	19.4	12,098	305.4	313.4	2,710	68.4	71.0	1,198	30.2	31.6
Tennessee .....	944	17.2	18.3	16,280	296.9	305.5	4,103	74.8	78.0	1,588	29.0	30.3
Alabama .....	772	17.7	18.0	13,419	307.1	306.8	3,148	72.0	72.4	1,228	28.1	28.6
Mississippi .....	356	12.9	13.7	9,336	337.2	354.9	1,854	67.0	70.8	801	28.9	30.5
West South Central .....	4,503	14.8	17.7	75,003	247.3	285.5	17,834	58.8	68.7	6,290	20.7	24.3
Arkansas .....	434	17.0	15.3	8,315	325.9	296.5	2,255	88.4	80.0	741	29.0	26.2
Louisiana .....	683	15.6	18.4	12,007	274.6	308.2	2,684	61.4	69.6	1,008	23.1	26.6
Oklahoma .....	553	16.5	15.5	11,263	335.4	317.4	2,481	73.9	69.8	1,007	30.0	28.1
Texas .....	2,833	14.1	18.6	43,418	216.6	271.5	10,414	52.0	66.2	3,534	17.6	22.5
Mountain .....	2,937	17.1	20.5	33,279	194.3	221.7	8,633	50.4	58.6	3,849	22.5	26.2
Montana .....	205	23.2	21.3	2,049	232.1	215.2	595	67.4	62.2	252	28.5	26.4
Idaho .....	243	19.4	21.2	2,532	202.3	220.0	771	61.6	67.2	289	23.1	25.2
Wyoming .....	103	21.5	24.3	1,009	210.4	231.1	265	55.3	61.7	130	27.1	30.5
Colorado .....	756	18.6	24.4	6,420	158.3	195.3	1,834	45.2	57.0	807	19.9	25.1
New Mexico .....	248	14.3	17.1	3,452	198.4	226.7	817	47.0	54.5	374	21.5	25.1
Arizona .....	963	20.2	21.2	10,800	226.0	230.8	2,600	54.4	56.1	1,287	26.9	28.0
Utah .....	245	11.5	17.2	2,786	130.8	190.5	869	40.8	60.2	391	18.4	27.0
Nevada .....	174	9.6	13.7	4,231	233.9	281.8	882	48.7	60.7	319	17.6	22.7
Pacific .....	7,108	16.1	18.6	93,681	212.8	241.2	25,412	57.7	65.6	6,789	15.4	17.6
Washington .....	1,577	27.4	29.7	11,515	200.0	215.6	3,718	64.6	69.8	1,259	21.9	23.6
Oregon .....	866	26.1	24.1	7,263	219.0	205.7	2,799	84.4	78.6	695	21.0	19.5
California .....	4,532	13.7	16.2	71,930	217.0	252.8	17,962	54.2	63.2	4,560	13.8	16.1
Alaska .....	24	3.9	11.8	563	90.9	196.1	171	27.6	70.7	46	7.4	19.7
Hawaii .....	109	9.2	9.3	2,410	203.3	198.8	762	64.3	63.2	229	19.3	19.2
Puerto Rico <sup>2</sup> .....	651	16.7	21.5	6,446	165.7	205.2	1,814	46.6	58.5	1,113	28.6	35.7
Virgin Islands <sup>2</sup> .....	7	*	*	181	151.3	235.4	38	31.8	52.1	13	*	*
Guam <sup>2</sup> .....	2	*	*	197	129.6	264.5	66	43.4	94.6	21	13.8	32.0
American Samoa <sup>2</sup> .....	-	*	*	45	70.6	166.1	15	*	*	3	*	*
Northern Marianas <sup>2</sup> .....	-	*	*	30	43.3	283.8	11	*	*	-	*	*

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, 1999 - Con.**

[Rates per 100,000 population in each area; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes. Numbers after causes of death are categories of the Tenth Revision, International Classification of Diseases, 1992]

Area	Chronic lower respiratory diseases (J40-J47)			Chronic liver disease and cirrhosis (K70,K73-K74)			Nephritis, nephrotic syndrome, and nephrosis (N00-N07,N17-N19,N25-N27)			Accidents (V01-X59,Y85-Y86)		
	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 .....	124,181	45.5	45.8	26,259	9.6	9.7	35,525	13.0	13.1	97,860	35.9	35.9
New England .....	6,435	47.7	43.0	1,277	9.5	9.1	2,035	15.1	13.6	3,576	26.5	25.3
Maine .....	751	59.9	54.6	128	10.2	9.5	191	15.2	13.9	458	36.6	35.1
New Hampshire .....	592	49.3	52.1	87	7.2	7.6	93	7.7	8.1	329	27.4	27.9
Vermont .....	300	50.5	51.5	52	8.8	8.6	56	9.4	9.6	209	35.2	34.8
Massachusetts .....	2,862	46.3	41.6	590	9.6	9.2	1,127	18.3	16.2	1,303	21.1	19.9
Rhode Island .....	495	50.0	40.6	119	12.0	11.4	111	11.2	9.0	243	24.5	22.3
Connecticut .....	1,435	43.7	38.0	301	9.2	8.7	457	13.9	12.2	1,034	31.5	30.1
Middle Atlantic .....	16,357	42.7	38.3	3,349	8.7	8.2	6,362	16.6	14.9	11,638	30.4	29.2
New York .....	7,086	38.9	37.0	1,534	8.4	8.2	2,302	12.7	12.0	4,797	26.4	25.8
New Jersey .....	3,130	38.4	36.0	791	9.7	9.3	1,380	16.9	15.9	2,227	27.3	26.7
Pennsylvania .....	6,141	51.2	41.6	1,024	8.5	7.6	2,680	22.3	18.2	4,614	38.5	35.9
East North Central .....	20,652	46.5	46.2	3,983	9.0	9.0	6,829	15.4	15.3	15,207	34.2	34.1
Ohio .....	5,858	52.0	49.9	1,007	8.9	8.7	1,748	15.5	15.0	3,630	32.2	31.9
Indiana .....	3,053	51.4	52.0	444	7.5	7.5	1,022	17.2	17.4	2,309	38.9	38.9
Illinois .....	5,155	42.5	43.2	1,095	9.0	9.2	1,965	16.2	16.4	4,125	34.0	34.1
Michigan .....	4,316	43.8	44.8	1,029	10.4	10.6	1,417	14.4	14.8	3,188	32.3	32.6
Wisconsin .....	2,270	43.2	40.8	408	7.8	7.7	677	12.9	12.0	1,955	37.2	36.0
West North Central .....	9,644	51.3	47.3	1,399	7.4	7.3	2,542	13.5	12.1	7,772	41.3	39.5
Minnesota .....	1,994	41.8	41.6	313	6.6	6.8	605	12.7	12.2	1,772	37.1	36.3
Iowa .....	1,643	57.3	47.5	209	7.3	6.7	226	7.9	6.5	1,123	39.1	35.8
Missouri .....	3,068	56.1	52.3	428	7.8	7.6	907	16.6	15.2	2,465	45.1	43.8
North Dakota .....	273	43.1	36.2	56	8.8	8.7	85	13.4	10.5	267	42.1	39.0
South Dakota .....	335	45.7	39.3	82	11.2	11.4	97	13.2	10.9	351	47.9	45.7
Nebraska .....	945	56.7	51.3	123	7.4	7.4	232	13.9	12.2	668	40.1	38.0
Kansas .....	1,386	52.2	48.8	188	7.1	7.1	390	14.7	13.2	1,126	42.4	40.9
South Atlantic .....	23,901	48.2	45.9	5,083	10.3	9.9	6,694	13.5	13.0	18,966	38.3	37.8
Delaware .....	327	43.4	43.9	68	9.0	9.0	100	13.3	13.7	267	35.4	36.1
Maryland .....	1,943	37.6	41.7	481	9.3	9.5	563	10.9	12.1	1,296	25.1	26.1
District of Columbia ...	166	32.0	29.3	57	11.0	10.3	91	17.5	16.0	161	31.0	29.1
Virginia .....	2,699	39.3	44.6	525	7.6	8.0	1,035	15.1	17.2	2,214	32.2	33.6
West Virginia .....	1,236	68.4	58.1	207	11.5	10.0	345	19.1	16.5	798	44.2	42.0
North Carolina .....	3,591	46.9	48.4	731	9.6	9.6	1,138	14.9	15.5	3,290	43.0	43.6
South Carolina .....	1,752	45.1	48.0	415	10.7	10.8	434	11.2	12.1	1,901	48.9	50.1
Georgia .....	3,056	39.2	50.1	627	8.1	9.0	1,142	14.7	18.6	3,078	39.5	42.6
Florida .....	9,131	60.4	44.0	1,972	13.0	11.4	1,846	12.2	9.1	5,961	39.4	37.3
East South Central .....	8,521	51.4	52.1	1,597	9.6	9.6	2,962	17.9	18.3	8,362	50.4	50.5
Kentucky .....	2,327	58.8	59.7	386	9.7	9.6	685	17.3	17.8	1,730	43.7	43.7
Tennessee .....	2,748	50.1	51.1	549	10.0	9.9	675	12.3	12.6	2,677	48.8	49.0
Alabama .....	2,179	49.9	49.3	412	9.4	9.2	979	22.4	22.5	2,313	52.9	52.6
Mississippi .....	1,267	45.8	48.1	250	9.0	9.5	623	22.5	23.7	1,642	59.3	60.0
West South Central .....	12,237	40.4	46.6	3,079	10.2	11.0	3,463	11.4	13.2	12,063	39.8	41.4
Arkansas .....	1,358	53.2	48.2	218	8.5	8.2	458	18.0	16.3	1,287	50.4	49.4
Louisiana .....	1,610	36.8	41.0	392	9.0	9.5	911	20.8	23.4	1,940	44.4	45.6
Oklahoma .....	1,751	52.1	49.6	365	10.9	10.7	425	12.7	12.0	1,609	47.9	47.2
Texas .....	7,518	37.5	47.2	2,104	10.5	11.8	1,669	8.3	10.4	7,227	36.1	38.3
Mountain .....	8,355	48.8	55.0	1,966	11.5	12.1	1,672	9.8	11.1	7,378	43.1	44.9
Montana .....	566	64.1	60.0	91	10.3	9.7	92	10.4	9.6	461	52.2	50.7
Idaho .....	568	45.4	49.7	88	7.0	7.5	99	7.9	8.6	597	47.7	48.7
Wyoming .....	338	70.5	76.6	49	10.2	10.4	30	6.3	6.9	258	53.8	53.9
Colorado .....	1,894	46.7	57.9	391	9.6	9.8	312	7.7	9.6	1,519	37.4	40.1
New Mexico .....	848	48.7	55.0	288	16.6	17.3	162	9.3	10.5	969	55.7	58.2
Arizona .....	2,553	53.4	53.3	653	13.7	14.0	544	11.4	11.5	2,214	46.3	47.1
Utah .....	559	26.2	37.8	138	6.5	8.7	135	6.3	9.2	650	30.5	34.3
Nevada .....	1,029	56.9	66.5	268	14.8	15.0	298	16.5	19.7	710	39.2	41.0
Pacific .....	18,079	41.1	46.4	4,526	10.3	11.1	2,966	6.7	7.6	12,898	29.3	30.1
Washington .....	2,713	47.1	51.2	532	9.2	9.6	278	4.8	5.2	1,914	33.3	33.6
Oregon .....	1,765	53.2	50.4	306	9.2	8.8	260	7.8	7.3	1,199	36.2	35.3
California .....	13,165	39.7	46.0	3,572	10.8	12.0	2,261	6.8	7.9	9,198	27.8	28.7
Alaska .....	146	23.6	55.7	46	7.4	9.8	34	5.5	13.3	294	47.5	57.8
Hawaii .....	290	24.5	23.6	70	5.9	5.5	133	11.2	11.0	293	24.7	24.5
Puerto Rico <sup>2</sup> .....	1,294	33.3	41.5	375	9.6	11.3	809	20.8	25.4	1,311	33.7	36.0
Virgin Islands <sup>2</sup> .....	7	*	*	18	*	*	11	*	*	41	34.3	42.8
Guam <sup>2</sup> .....	30	19.7	42.5	23	15.1	20.6	18	*	*	39	25.7	30.0
American Samoa <sup>2</sup> .....	12	*	*	2	*	*	7	*	*	19	*	*
Northern Marianas <sup>2</sup> .....	6	*	*	1	*	*	3	*	*	22	31.8	29.9

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, 1999 - Con.**

[Rates per 100,000 population in each area; age-adjusted rates per 100,000 U.S. standard population based on year 2000 standard; see Technical notes. Numbers after causes of death are categories of the Tenth Revision, International Classification of Diseases, 1992]

Area	Motor vehicle accidents <sup>3</sup>			Intentional self-harm (suicide) (X60-X84, Y87.0)			Assault (homicide) (X85-Y09, Y87.1)			Injury by firearms <sup>4</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>	Number	Rate	Age- adjusted rate <sup>1</sup>
United States .....	42,401	15.5	15.5	29,199	10.7	10.7	16,889	6.2	6.2	28,874	10.6	10.6
New England .....	1,249	9.3	9.2	1,176	8.7	8.5	352	2.6	2.6	691	5.1	5.1
Maine .....	199	15.9	15.7	175	14.0	13.4	25	2.0	2.0	113	9.0	8.7
New Hampshire .....	129	10.7	10.9	137	11.4	11.3	21	1.7	1.7	71	5.9	5.9
Vermont .....	83	14.0	13.8	63	10.6	10.3	17	*	*	57	9.6	9.3
Massachusetts .....	441	7.1	7.1	431	7.0	6.8	133	2.2	2.2	195	3.2	3.1
Rhode Island .....	89	9.0	8.8	96	9.7	9.6	36	3.6	3.7	56	5.7	5.6
Connecticut .....	308	9.4	9.5	274	8.3	8.3	120	3.7	3.8	199	6.1	6.2
Middle Atlantic .....	4,066	10.6	10.5	3,043	7.9	7.8	1,906	5.0	5.0	2,572	6.7	6.7
New York .....	1,759	9.7	9.6	1,196	6.6	6.5	969	5.3	5.4	1,016	5.6	5.6
New Jersey .....	727	8.9	8.9	563	6.9	6.8	298	3.7	3.7	366	4.5	4.5
Pennsylvania .....	1,580	13.2	13.0	1,284	10.7	10.5	639	5.3	5.5	1,190	9.9	9.9
East North Central .....	6,138	13.8	13.8	4,317	9.7	9.7	2,820	6.3	6.3	4,361	9.8	9.8
Ohio .....	1,427	12.7	12.6	1,102	9.8	9.7	450	4.0	4.0	939	8.3	8.3
Indiana .....	988	16.6	16.6	628	10.6	10.6	386	6.5	6.4	680	11.4	11.4
Illinois .....	1,537	12.7	12.7	1,020	8.4	8.5	1,023	8.4	8.4	1,209	10.0	10.0
Michigan .....	1,411	14.3	14.3	974	9.9	9.9	759	7.7	7.6	1,085	11.0	11.0
Wisconsin .....	775	14.8	14.6	593	11.3	11.2	202	3.8	3.8	448	8.5	8.5
West North Central .....	3,409	18.1	17.9	2,094	11.1	11.1	811	4.3	4.3	1,746	9.3	9.2
Minnesota .....	646	13.5	13.5	437	9.2	9.2	139	2.9	2.9	296	6.2	6.2
Iowa .....	529	18.4	18.0	305	10.6	10.4	53	1.8	1.9	202	7.0	6.9
Missouri .....	1,061	19.4	19.2	700	12.8	12.7	385	7.0	7.1	711	13.0	12.9
North Dakota .....	134	21.1	20.4	73	11.5	11.2	13	*	*	49	7.7	7.5
South Dakota .....	174	23.7	23.5	103	14.0	14.0	23	3.1	3.3	73	10.0	9.9
Nebraska .....	295	17.7	17.5	177	10.6	10.8	61	3.7	3.6	146	8.8	8.8
Kansas .....	570	21.5	21.2	299	11.3	11.3	137	5.2	5.1	269	10.1	10.1
South Atlantic .....	9,013	18.2	18.1	5,775	11.7	11.5	3,821	7.7	7.7	6,396	12.9	12.8
Delaware .....	98	13.0	13.0	86	11.4	11.2	24	3.2	3.1	68	9.0	8.9
Maryland .....	609	11.8	12.0	435	8.4	8.4	531	10.3	10.2	657	12.7	12.8
District of Columbia .....	36	6.9	6.9	30	5.8	5.4	186	35.8	36.8	163	31.4	32.3
Virginia .....	897	13.1	13.1	791	11.5	11.4	419	6.1	5.9	823	12.0	11.9
West Virginia .....	387	21.4	21.0	229	12.7	12.2	99	5.5	5.5	250	13.8	13.3
North Carolina .....	1,597	20.9	20.9	884	11.6	11.5	651	8.5	8.4	1,057	13.8	13.8
South Carolina .....	996	25.6	25.5	418	10.8	10.7	313	8.1	7.9	552	14.2	14.0
Georgia .....	1,521	19.5	19.8	873	11.2	11.5	634	8.1	7.8	1,105	14.2	14.2
Florida .....	2,872	19.0	18.8	2,029	13.4	12.9	964	6.4	6.7	1,721	11.4	11.2
East South Central .....	4,254	25.7	25.4	2,055	12.4	12.3	1,383	8.3	8.2	2,678	16.1	16.0
Kentucky .....	814	20.6	20.3	470	11.9	11.7	210	5.3	5.2	525	13.3	13.1
Tennessee .....	1,322	24.1	24.0	726	13.2	13.0	423	7.7	7.6	848	15.5	15.3
Alabama .....	1,162	26.6	26.3	555	12.7	12.5	438	10.0	9.9	790	18.1	17.8
Mississippi .....	956	34.5	34.5	304	11.0	11.2	312	11.3	11.1	515	18.6	18.6
West South Central .....	5,980	19.7	19.9	3,351	11.1	11.4	2,213	7.3	7.2	3,793	12.5	12.7
Arkansas .....	649	25.4	25.4	336	13.2	13.2	179	7.0	7.1	388	15.2	15.2
Louisiana .....	976	22.3	22.3	518	11.8	12.1	484	11.1	10.9	779	17.8	17.9
Oklahoma .....	686	20.4	20.2	492	14.7	14.9	231	6.9	6.9	509	15.2	15.2
Texas .....	3,669	18.3	18.7	2,005	10.0	10.4	1,319	6.6	6.5	2,117	10.6	10.8
Mountain .....	3,309	19.3	19.6	2,785	16.3	16.8	1,131	6.6	6.5	2,479	14.5	14.8
Montana .....	210	23.8	23.5	162	18.4	18.0	33	3.7	3.9	123	13.9	13.6
Idaho .....	278	22.2	22.2	181	14.5	15.0	31	2.5	2.4	151	12.1	12.3
Wyoming .....	144	30.0	29.2	98	20.4	20.8	13	*	*	74	15.4	15.5
Colorado .....	620	15.3	15.5	574	14.2	14.3	199	4.9	4.8	452	11.1	11.3
New Mexico .....	415	23.9	24.3	318	18.3	18.8	167	9.6	9.6	290	16.7	17.0
Arizona .....	945	19.8	20.0	766	16.0	16.5	470	9.8	9.9	822	17.2	17.5
Utah .....	364	17.1	17.7	282	13.2	14.7	51	2.4	2.4	192	9.0	9.9
Nevada .....	333	18.4	18.9	404	22.3	23.0	167	9.2	9.4	375	20.7	21.6
Pacific .....	4,983	11.3	11.4	4,603	10.5	10.7	2,452	5.6	5.4	4,158	9.4	9.5
Washington .....	732	12.7	12.7	816	14.2	14.2	190	3.3	3.3	585	10.2	10.2
Oregon .....	433	13.1	12.9	478	14.4	14.2	107	3.2	3.3	389	11.7	11.6
California .....	3,641	11.0	11.2	3,077	9.3	9.6	2,066	6.2	6.1	3,054	9.2	9.3
Alaska .....	87	14.0	15.4	96	15.5	17.2	51	8.2	8.5	88	14.2	16.0
Hawaii .....	90	7.6	7.6	136	11.5	11.5	38	3.2	3.2	42	3.5	3.6
Puerto Rico <sup>2</sup> .....	483	12.4	12.7	289	7.4	8.2	664	17.1	15.7	690	17.7	16.3
Virgin Islands <sup>2</sup> .....	12	*	*	6	*	*	27	22.6	24.0	16	*	*
Guam <sup>2</sup> .....	27	17.8	19.6	36	23.7	25.2	10	*	*	8	*	*
American Samoa <sup>2</sup> .....	3	*	*	1	*	*	1	*	*	1	*	*
Northern Marianas <sup>2</sup> .....	5	*	*	2	*	*	4	*	*	1	*	*

\* 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, and American Samoa, and Northern Marianas, are calculated using different age groups in the weighting procedure; see Technical notes.<sup>3</sup> ICD-10 codes for Motor vehicle accidents are V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2.<sup>4</sup> ICD-10 codes for Injury by firearms are W32-W34, X72-X74, X93-X95, Y22-Y24, Y35.0.

**Table 27. Infant, neonatal, and postneonatal mortality rates by race and sex: United States, 1940, 1950, 1960, 1970, and 1975-99**

[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>												
1999	7.1	7.7	6.4	5.8	6.4	5.2	11.9	12.9	10.9	14.6	15.9	13.2
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>												
1999	4.7	5.1	4.3	3.9	4.2	3.6	7.9	8.6	7.3	9.8	10.7	8.8
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 1975-99 - 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>												
1999 .....	2.3	2.6	2.0	1.9	2.2	1.6	4.0	4.3	3.6	4.8	5.2	4.4
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 deaths and infant mortality rates for 130 selected causes by race: United States, 1999**

[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]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number			Rate		
	All races <sup>1</sup>	White	Black	All races <sup>1</sup>	White	Black
All causes .....	27,937	18,067	8,822	705.6	576.8	1,455.8
Certain infectious and parasitic diseases (A00-B99) .....	562	354	188	14.2	11.3	31.0
Certain intestinal infectious diseases (A00-A08) .....	21	16	5	0.5	*	*
Diarrhea and gastroenteritis of infectious origin (A09) .....	-	-	-	*	*	*
Tuberculosis (A16-A19) .....	2	1	1	*	*	*
Tetanus (A33,A35) .....	-	-	-	*	*	*
Diphtheria (A36) .....	-	-	-	*	*	*
Whooping cough (A37) .....	7	6	1	*	*	*
Meningococcal infection (A39) .....	32	30	2	0.8	1.0	*
Septicemia (A40-A41) .....	283	164	107	7.1	5.2	17.7
Congenital syphilis (A50) .....	2	2	-	*	*	*
Gonococcal infection (A54) .....	-	-	-	*	*	*
Viral diseases (A80-B34) .....	134	83	44	3.4	2.6	7.3
Acute poliomyelitis (A80) .....	-	-	-	*	*	*
Varicella (chickenpox) (B01) .....	3	3	-	*	*	*
Measles (B05) .....	1	-	1	*	*	*
Human immunodeficiency virus (HIV) disease (B20-B24) .....	14	4	10	*	*	*
Mumps (B26) .....	-	-	-	*	*	*
Other and unspecified viral diseases (A81-B00,B02-B04,B06-B19,B25,B27-B34) .....	116	76	33	2.9	2.4	5.4
Candidiasis (B37) .....	27	15	12	0.7	*	*
Malaria (B50-B54) .....	1	-	1	*	*	*
Pneumocystosis (B59) .....	4	3	1	*	*	*
All other and unspecified infectious and parasitic diseases (A20-A32,A38,A42-A49,A51-A53,A55-A79,B35-B36,B38-B49,B55-B58,B60-B99) .....	49	34	14	1.2	1.1	*
Neoplasms (C00-D48) .....	126	94	26	3.2	3.0	4.3
Malignant neoplasms (C00-C97) .....	68	53	11	1.7	1.7	*
Hodgkin's disease and non-Hodgkin's lymphomas (C81-C85) .....	2	-	2	*	*	*
Leukemia (C91-C95) .....	27	23	2	0.7	0.7	*
Other and unspecified malignant neoplasms (C00-C80,C88,C90,C96-C97) .....	39	30	7	1.0	1.0	*
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48) .....	58	41	15	1.5	1.3	*
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89) .....	94	53	33	2.4	1.7	5.4
Anemias (D50-D64) .....	12	6	3	*	*	*
Hemorrhagic conditions and other diseases of blood and blood-forming organs (D65-D76) .....	64	36	24	1.6	1.1	4.0
Certain disorders involving the immune mechanism (D80-D89) .....	18	11	6	*	*	*
Endocrine, nutritional and metabolic diseases (E00-E88) .....	261	179	69	6.6	5.7	11.4
Short stature, not elsewhere classified (E34.3) .....	24	18	6	0.6	*	*
Nutritional deficiencies (E40-E64) .....	9	5	4	*	*	*
Cystic fibrosis (E84) .....	12	12	-	*	*	*
Volume depletion, disorders of fluid, electrolyte and acid-base balance (E86-E87) .....	73	40	29	1.8	1.3	4.8
All other endocrine, nutritional and metabolic diseases (E00-E32,E34.0-E34.2,E34.4-E34.9,E65-E83,E85,E88) .....	143	104	30	3.6	3.3	5.0
Diseases of the nervous system (G00-G98) .....	441	311	108	11.1	9.9	17.8
Meningitis (G00,G03) .....	116	68	42	2.9	2.2	6.9
Infantile spinal muscular atrophy, type I (Werdnig-Hoffman) (G12.0) .....	42	35	5	1.1	1.1	*
Infantile cerebral palsy (G80) .....	13	6	7	*	*	*
Anoxic brain damage, not elsewhere classified (G93.1) .....	39	22	12	1.0	0.7	*
Other diseases of nervous system (G04,G06-G11,G12.1-G12.9,G20-G72,G81-G92,G93.0,G93.2-G93.9,G95-G98) .....	231	180	42	5.8	5.7	6.9
Diseases of the ear and mastoid process (H60-H93) .....	4	3	-	*	*	*
Diseases of the circulatory system (I00-I99) .....	667	452	181	16.8	14.4	29.9
Pulmonary heart disease and diseases of pulmonary circulation (I26-I28) .....	218	154	57	5.5	4.9	9.4
Pericarditis, endocarditis and myocarditis (I30,I33,I40) .....	20	9	8	0.5	*	*
Cardiomyopathy (I42) .....	132	91	31	3.3	2.9	5.1
Cardiac arrest (I46) .....	27	16	10	0.7	*	*
Cerebrovascular diseases (I60-I69) .....	103	70	28	2.6	2.2	4.6
All other diseases of circulatory system (I00-I25,I31,I34-I38,I44-I45,I47-I51,I70-I99) .....	167	112	47	4.2	3.6	7.8
Diseases of the respiratory system (J00-J98) .....	687	396	252	17.4	12.6	41.6
Acute upper respiratory infections (J00-J06) .....	10	5	4	*	*	*
Influenza and pneumonia (J10-J18) .....	320	184	115	8.1	5.9	19.0
Influenza (J10-J11) .....	13	7	4	*	*	*
Pneumonia (J12-J18) .....	307	177	111	7.8	5.7	18.3
Acute bronchitis and acute bronchiolitis (J20-J21) .....	62	35	24	1.6	1.1	4.0
Bronchitis, chronic and unspecified (J40-J42) .....	20	11	7	0.5	*	*
Asthma (J45-J46) .....	5	1	4	*	*	*
Pneumonitis due to solids and liquids (J69) .....	16	13	2	*	*	*
Other and unspecified diseases of respiratory system (J22,J30-J39,J43-J44,J47-J68,J70-J98) .....	254	147	96	6.4	4.7	15.8
Diseases of the digestive system (K00-K92) .....	500	300	179	12.6	9.6	29.5
Gastritis, duodenitis, and noninfective enteritis and colitis (K29,K50-K55) .....	242	134	98	6.1	4.3	16.2
Hernia of abdominal cavity and intestinal obstruction without hernia (K40-K46,K56) .....	66	50	13	1.7	1.6	*
All other and unspecified diseases of digestive system (K00-K28,K30-K38,K57-K92) .....	192	116	68	4.8	3.7	11.2
Diseases of the genitourinary system (N00-N98) .....	192	118	67	4.8	3.8	11.1
Renal failure and other disorders of kidney (N17-N19,N25,N27) .....	163	99	58	4.1	3.2	9.6
Other and unspecified diseases of genitourinary system (N00-N15,N20-N23,N26,N28-N98) .....	29	19	9	0.7	*	*
Certain conditions originating in the perinatal period (P00-P96) .....	14,084	8,522	5,113	355.7	272.1	843.8
Newborn affected by maternal factors and by complications of pregnancy, labor and delivery (P00-P04) .....	2,738	1,684	964	69.2	53.8	159.1
Newborn affected by maternal hypertensive disorders (P00.0) .....	71	42	27	1.8	1.3	4.5

See footnotes at end of table.

**Table 28. Number of infant deaths and infant mortality rates for 130 selected causes by race: United States, 1999 - Con.**

[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]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number			Rate		
	All races <sup>1</sup>	White	Black	All races <sup>1</sup>	White	Black
Newborn affected by other maternal conditions which may be unrelated to present pregnancy (P00.1-P00.9) .....	68	40	25	1.7	1.3	4.1
Newborn affected by maternal complications of pregnancy (P01) .....	1,399	859	496	35.3	27.4	81.9
Newborn affected by incompetent cervix (P01.0) .....	384	236	131	9.7	7.5	21.6
Newborn affected by premature rupture of membranes (P01.1) .....	647	389	235	16.3	12.4	38.8
Newborn affected by multiple pregnancy (P01.5) .....	225	135	87	5.7	4.3	14.4
Newborn affected by other maternal complications of pregnancy (P01.2-P01.4, P01.6-P01.9) .....	143	99	43	3.6	3.2	7.1
Newborn affected by complications of placenta, cord and membranes (P02) .....	1,025	633	358	25.9	20.2	59.1
Newborn affected by complications involving placenta (P02.0-P02.3) .....	530	350	160	13.4	11.2	26.4
Newborn affected by complications involving cord (P02.4-P02.6) .....	64	43	19	1.6	1.4	*
Newborn affected by chorioamnionitis (P02.7) .....	430	239	179	10.9	7.6	29.5
Newborn affected by other and unspecified abnormalities of membranes (P02.8-P02.9) .....	1	1	-	*	*	*
Newborn affected by other complications of labor and delivery (P03) .....	145	102	36	3.7	3.3	5.9
Newborn affected by noxious influences transmitted via placenta or breast milk (P04) .....	30	8	22	0.8	*	3.6
Disorders related to length of gestation and fetal malnutrition (P05-P08) .....	4,454	2,401	1,923	112.5	76.6	317.3
Slow fetal growth and fetal malnutrition (P05) .....	62	35	25	1.6	1.1	4.1
Disorders related to short gestation and low birth weight, not elsewhere classified (P07) .....	4,392	2,366	1,898	110.9	75.5	313.2
Extremely low birth weight or extreme immaturity (P07.0, P07.2) .....	3,324	1,765	1,461	84.0	56.3	241.1
Other low birth weight or preterm (P07.1, P07.3) .....	1,068	601	437	27.0	19.2	72.1
Disorders related to long gestation and high birth weight (P08) .....	-	-	-	*	*	*
Birth trauma (P10-P15) .....	20	11	5	0.5	*	*
Intrauterine hypoxia and birth asphyxia (P20-P21) .....	613	429	157	15.5	13.7	25.9
Intrauterine hypoxia (P20) .....	114	73	35	2.9	2.3	5.8
Birth asphyxia (P21) .....	499	356	122	12.6	11.4	20.1
Respiratory distress of newborn (P22) .....	1,110	704	375	28.0	22.5	61.9
Other respiratory conditions originating in the perinatal period (P23-P28) .....	1,718	1,151	528	43.4	36.7	87.1
Congenital pneumonia (P23) .....	82	55	25	2.1	1.8	4.1
Neonatal aspiration syndromes (P24) .....	84	60	21	2.1	1.9	3.5
Interstitial emphysema and related conditions originating in the perinatal period (P25) .....	230	167	58	5.8	5.3	9.6
Pulmonary hemorrhage originating in the perinatal period (P26) .....	269	178	87	6.8	5.7	14.4
Chronic respiratory disease originating in the perinatal period (P27) .....	336	197	130	8.5	6.3	21.5
Atelectasis (P28.0-P28.1) .....	647	451	182	16.3	14.4	30.0
All other respiratory conditions originating in the perinatal period (P28.2-P28.9) .....	70	43	25	1.8	1.4	4.1
Infections specific to the perinatal period (P35-P39) .....	871	537	308	22.0	17.1	50.8
Bacterial sepsis of newborn (P36) .....	691	417	253	17.5	13.3	41.8
Omphalitis of newborn with or without mild hemorrhage (P38) .....	-	-	-	*	*	*
All other infections specific to the perinatal period (P35, P37, P39) .....	180	120	55	4.5	3.8	9.1
Hemorrhagic and hematological disorders of newborn (P50-P61) .....	619	430	159	15.6	13.7	26.2
Neonatal hemorrhage (P50-P52, P54) .....	506	354	127	12.8	11.3	21.0
Hemorrhagic disease of newborn (P53) .....	1	-	1	*	*	*
Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice (P55-P59) .....	16	11	5	*	*	*
Hematological disorders (P60-P61) .....	96	65	26	2.4	2.1	4.3
Syndromes of infant of a diabetic mother and neonatal diabetes mellitus (P70.0-P70.2) .....	8	5	3	*	*	*
Necrotizing enterocolitis of newborn (P77) .....	404	209	178	10.2	6.7	29.4
Hydrops fetalis not due to hemolytic disease (P83.2) .....	189	153	29	4.8	4.9	4.8
Other perinatal conditions (P29, P70.3-P70.9, P71-P76, P78-P81, P83.0-P83.1, P83.3-P83.9, P90-P96) .....	1,340	808	484	33.8	25.8	79.9
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99) .....	5,473	4,211	1,025	138.2	134.4	169.2
Anencephaly and similar malformations (Q00) .....	311	253	39	7.9	8.1	6.4
Congenital hydrocephalus (Q03) .....	93	66	23	2.3	2.1	3.8
Spina bifida (Q05) .....	22	18	3	0.6	*	*
Other congenital malformations of nervous system (Q01-Q02, Q04, Q06-Q07) .....	264	195	55	6.7	6.2	9.1
Congenital malformations of heart (Q20-Q24) .....	1,598	1,252	290	40.4	40.0	47.9
Other congenital malformations of circulatory system (Q25-Q28) .....	220	154	57	5.6	4.9	9.4
Congenital malformations of respiratory system (Q30-Q34) .....	564	420	121	14.2	13.4	20.0
Congenital malformations of digestive system (Q35-Q45) .....	93	66	22	2.3	2.1	3.6
Congenital malformations of genitourinary system (Q50-Q64) .....	366	278	65	9.2	8.9	10.7
Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85) .....	486	374	92	12.3	11.9	15.2
Down's syndrome (Q90) .....	94	79	11	2.4	2.5	*
Edward's syndrome (Q91.0-Q91.3) .....	439	351	69	11.1	11.2	11.4
Patau's syndrome (Q91.4-Q91.7) .....	250	195	51	6.3	6.2	8.4
Other congenital malformations and deformations (Q10-Q18, Q86-Q89) .....	507	379	101	12.8	12.1	16.7
Other chromosomal abnormalities, not elsewhere classified (Q92-Q99) .....	166	131	26	4.2	4.2	4.3
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99) .....	3,538	2,227	1,167	89.4	71.1	192.6
Sudden infant death syndrome (R95) .....	2,648	1,711	839	66.9	54.6	138.5
Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R53, R55-R94, R96-R99) .....	890	516	328	22.5	16.5	54.1
All other diseases (Residual) .....	23	14	8	0.6	*	*
External causes of mortality (V01-Y89) .....	1,285	833	406	32.5	26.6	67.0
Accidents (unintentional injuries) (V01-Y59) .....	845	562	252	21.3	17.9	41.6
Transport accidents (V01-Y99) .....	189	137	44	4.8	4.4	7.3
Motor vehicle accidents (V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2) .....	184	133	43	4.6	4.2	7.1
Other and unspecified transport accidents (V01, V05-V06, V09.1, V09.3-V09.9, V10-V11, V15-V18, V19.3, V19.8-V19.9, V80.0-V80.2, V80.6-V80.9, V81.2-V81.9, V82.2-V82.9, V87.9, V88.9, V89.1, V89.3, V89.9, V90-V99) .....	5	4	1	*	*	*

See footnotes at end of table.

**Table 28. Number of infant deaths and infant mortality rates for 130 selected causes by race: United States, 1999 - Con.**

[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]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number			Rate		
	All races <sup>1</sup>	White	Black	All races <sup>1</sup>	White	Black
Falls (W00-W19) .....	12	8	2	*	*	*
Accidental discharge of firearms (W32-W34) .....	-	-	-	*	*	*
Accidental drowning and submersion (W65-W74) .....	68	46	21	1.7	1.5	3.5
Accidental suffocation and strangulation in bed (W75) .....	255	165	80	6.4	5.3	13.2
Other accidental suffocation and strangulation (W76-W77,W81-W84) .....	154	93	55	3.9	3.0	9.1
Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract (W78-W80) .....	63	43	19	1.6	1.4	*
Accidents caused by exposure to smoke, fire and flames (X00-X09) .....	41	26	15	1.0	0.8	*
Accidental poisoning and exposure to noxious substances (X40-X49) .....	12	10	1	*	*	*
Other and unspecified accidents (W20-W31,W35-W64,W85-W99,X10-X39,X50-X59) ....	51	34	15	1.3	1.1	*
Assault (homicide) (X85-Y09) .....	331	200	118	8.4	6.4	19.5
Assault (homicide) by hanging, strangulation and suffocation (X91) .....	34	22	11	0.9	0.7	*
Assault (homicide) by discharge of firearms (X93-X95) .....	8	4	2	*	*	*
Neglect, abandonment and other maltreatment syndromes (Y06-Y07) .....	125	76	45	3.2	2.4	7.4
Assault (homicide) by other and unspecified means (X85-X90,X92,X96-X99,Y00-Y05,Y08-Y09) .....	164	98	60	4.1	3.1	9.9
Complications of medical and surgical care (Y40-Y84) .....	54	35	18	1.4	1.1	*
Other external causes (X60-X84,Y10-Y36) .....	55	36	18	1.4	1.1	*

- Quantity zero.

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

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

NOTE: Complete confirmation of deaths from selected causes of death, considered to be of public health concern, were not provided by the following States--California, Florida, Illinois, Indiana, Kentucky, Maine, Michigan, Missouri, New Jersey, New York City, North Carolina, Ohio, Pennsylvania, Rhode Island, Washington, and West Virginia; see Technical notes.

**Table 29. 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, 1999**

[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 .....	27,937	7.1	18,067	5.8	8,822	14.6	18,728	4.7	12,164	3.9	5,920	9.8
Male .....	15,646	7.7	10,197	6.4	4,897	15.9	10,355	5.1	6,734	4.2	3,297	10.7
Female .....	12,291	6.4	7,870	5.2	3,925	13.2	8,373	4.3	5,430	3.6	2,623	8.8
New England .....	939	5.5	766	5.2	153	10.3	723	4.2	590	4.0	123	8.3
Maine .....	66	4.8	62	4.7	3	*	51	3.7	47	3.5	3	*
New Hampshire .....	82	5.8	78	5.7	1	*	60	4.3	59	4.3	-	*
Vermont .....	38	5.8	38	5.9	-	*	22	3.4	22	3.4	-	*
Massachusetts .....	417	5.2	329	4.8	80	9.8	332	4.1	261	3.8	66	8.1
Rhode Island .....	71	5.7	54	5.0	12	*	53	4.3	42	3.9	9	*
Connecticut .....	265	6.1	205	5.7	57	10.6	205	4.7	159	4.4	45	8.4
Middle Atlantic .....	3,451	6.7	2,152	5.5	1,210	12.8	2,440	4.7	1,545	4.0	832	8.8
New York .....	1,627	6.4	1,009	5.5	568	10.6	1,142	4.5	720	3.9	386	7.2
New Jersey .....	766	6.7	441	5.2	299	14.1	555	4.9	329	3.9	209	9.9
Pennsylvania .....	1,058	7.3	702	5.8	343	16.8	743	5.1	496	4.1	237	11.6
East North Central .....	5,016	8.1	3,220	6.3	1,710	17.8	3,408	5.5	2,197	4.3	1,155	12.0
Ohio .....	1,244	8.2	846	6.6	388	17.6	845	5.5	581	4.5	261	11.8
Indiana .....	686	8.0	525	7.0	158	17.0	452	5.3	349	4.6	100	10.8
Illinois .....	1,550	8.5	877	6.3	630	18.4	1,083	5.9	623	4.4	430	12.6
Michigan .....	1,077	8.1	630	6.0	430	17.9	734	5.5	424	4.0	299	12.4
Wisconsin .....	459	6.7	342	5.8	104	16.0	294	4.3	220	3.7	65	10.0
West North Central .....	1,800	6.9	1,333	5.9	367	17.7	1,163	4.5	869	3.8	239	11.5
Minnesota .....	408	6.2	310	5.4	62	15.4	261	4.0	203	3.5	39	9.7
Iowa .....	215	5.7	189	5.3	24	20.6	128	3.4	113	3.2	14	*
Missouri .....	585	7.8	366	5.8	213	18.9	385	5.1	238	3.8	145	12.9
North Dakota .....	52	6.8	39	5.8	-	*	33	4.3	26	3.9	-	*
South Dakota .....	94	8.9	67	7.7	3	*	57	5.4	44	5.1	3	*
Nebraska .....	163	6.8	128	5.9	24	18.9	108	4.5	84	3.9	15	*
Kansas .....	283	7.3	234	6.8	41	14.4	191	4.9	161	4.7	23	8.1
South Atlantic .....	5,733	8.2	2,855	5.9	2,755	14.5	3,968	5.7	1,946	4.0	1,936	10.2
Delaware .....	79	7.4	30	3.9	48	18.0	55	5.2	20	2.6	35	13.1
Maryland .....	601	8.4	226	5.1	355	14.6	420	5.8	153	3.4	253	10.4
District of Columbia .....	113	15.0	12	*	98	19.0	88	11.7	8	*	77	14.9
Virginia .....	693	7.3	387	5.6	288	13.0	483	5.1	255	3.7	213	9.6
West Virginia .....	154	7.4	145	7.3	9	*	97	4.7	92	4.6	5	*
North Carolina .....	1,038	9.1	560	6.9	441	15.5	767	6.7	413	5.1	326	11.5
South Carolina .....	563	10.2	235	6.7	322	16.9	392	7.1	153	4.4	235	12.3
Georgia .....	1,040	8.2	435	5.4	583	13.8	699	5.5	286	3.5	400	9.5
Florida .....	1,452	7.4	825	5.6	611	13.6	967	4.9	566	3.9	392	8.7
East South Central .....	2,049	8.6	1,130	6.5	905	14.9	1,298	5.5	707	4.1	579	9.5
Kentucky .....	411	7.6	347	7.1	63	12.7	261	4.8	220	4.5	40	8.0
Tennessee .....	599	7.7	342	5.7	251	15.2	389	5.0	219	3.6	164	9.9
Alabama .....	606	9.8	288	6.9	316	16.0	383	6.2	176	4.2	205	10.4
Mississippi .....	433	10.1	153	6.8	275	14.2	265	6.2	92	4.1	170	8.8
West South Central .....	3,494	7.0	2,364	5.9	1,052	13.2	2,170	4.3	1,490	3.7	643	8.1
Arkansas .....	292	8.0	198	7.0	92	12.0	168	4.6	120	4.2	46	6.0
Louisiana .....	621	9.2	228	5.9	386	14.2	394	5.9	143	3.7	248	9.1
Oklahoma .....	417	8.5	308	8.0	72	15.6	243	5.0	191	4.9	38	8.2
Texas .....	2,164	6.2	1,630	5.5	502	12.5	1,365	3.9	1,036	3.5	311	7.8
Mountain .....	1,817	6.4	1,535	6.0	145	16.5	1,149	4.1	984	3.9	89	10.1
Montana .....	72	6.7	55	5.9	-	*	32	3.0	23	2.5	-	*
Idaho .....	134	6.7	127	6.6	3	*	92	4.6	86	4.5	2	*
Wyoming .....	42	6.9	39	6.8	1	*	25	4.1	22	3.8	1	*
Colorado .....	416	6.7	359	6.3	47	16.2	268	4.3	232	4.1	31	10.7
New Mexico .....	188	6.9	148	6.5	11	*	107	3.9	87	3.8	9	*
Arizona .....	548	6.8	442	6.2	52	19.1	363	4.5	300	4.2	31	11.4
Utah .....	224	4.8	212	4.8	2	*	148	3.2	141	3.2	-	*
Nevada .....	193	6.6	153	6.1	29	13.2	114	3.9	93	3.7	15	*
Pacific .....	3,638	5.4	2,712	5.0	525	13.0	2,409	3.6	1,836	3.4	324	8.0
Washington .....	400	5.0	319	4.7	50	15.0	256	3.2	206	3.0	31	9.3
Oregon .....	261	5.8	237	5.7	6	*	191	4.2	174	4.2	4	*
California .....	2,800	5.4	2,106	5.0	457	12.9	1,852	3.6	1,425	3.4	281	7.9
Alaska .....	57	5.7	31	4.7	4	*	26	2.6	15	*	3	*
Hawaii .....	120	7.0	19	*	8	*	84	4.9	16	*	5	*
Puerto Rico .....	630	10.6	614	11.3	15	*	438	7.4	430	7.9	8	*
Virgin Islands .....	18	*	3	*	15	*	15	*	1	*	14	*
Guam .....	35	8.7	1	*	-	*	21	5.2	-	*	-	*
American Samoa .....	20	11.5	-	*	-	*	16	*	-	*	-	*
Northern Marianas .....	8	*	1	*	-	*	7	*	1	*	-	*

\* 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 30. Number of maternal deaths and maternal mortality rates for selected causes, by race: United States, 1999**

[Maternal causes are those assigned to categories A34,O00-O95,O98-O99 of the Tenth Revision, International Classification of Diseases, 1992. Rates per 100,000 live births in specified group; see Technical notes]

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number				Rate			
	All races	White	All other		All races	White	All other	
			Total	Black			Total	Black
Maternal causes (A34,O00-O95,O98-O99) .....	391	214	177	154	9.9	6.8	21.4	25.4
Pregnancy with abortive outcome (O00-O07) .....	31	15	16	15	0.8	*	*	*
Ectopic pregnancy (O00) .....	19	8	11	10	*	*	*	*
Spontaneous abortion (O03) .....	4	2	2	2	*	*	*	*
Medical abortion (O04) .....	1	-	1	1	*	*	*	*
Other abortion (O05) .....	-	-	-	-	*	*	*	*
Other and unspecified pregnancy with abortive outcome (O01-O02,O06-O07) .....	7	5	2	2	*	*	*	*
Other direct obstetric causes (A34,O10-O92) .....	308	168	140	120	7.8	5.4	16.9	19.8
Eclampsia and pre-eclampsia (O11,O13-O16) .....	90	50	40	35	2.3	1.6	4.8	5.8
Hemorrhage of pregnancy and childbirth and placenta previa (O20,O44-O46,O67,O72) .....	45	27	18	13	1.1	0.9	*	*
Complications predominantly related to the puerperium (A34,O85-O92) .....	84	47	37	32	2.1	1.5	4.5	5.3
Obstetrical tetanus (A34) .....	-	-	-	-	*	*	*	*
Obstetric embolism (O88) .....	53	32	21	16	1.3	1.0	2.5	*
Other complications predominantly related to the puerperium (O85-O87,O89-O92) .....	31	15	16	16	0.8	*	*	*
All other direct obstetric causes (O10,O12,O21-O43,O47-O66,O68-O71,O73-O75) .....	89	44	45	40	2.2	1.4	5.4	6.6
Obstetric death of unspecified cause (O95) .....	5	3	2	2	*	*	*	*
Indirect obstetric causes (O98-O99) .....	47	28	19	17	1.2	0.9	*	*
Maternal causes more than 42 days after delivery or termination of pregnancy (O96-O97) .....	15	6	9	8	*	*	*	*
Death from any obstetric cause occurring more than 42 days but less than one year after delivery (O96) .....	5	3	2	2	*	*	*	*
Death from sequelae of direct obstetric causes (O97) .....	10	3	7	6	*	*	*	*

\* 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 (21) and Technical Appendix of *Vital Statistics of the United States, 1989*, Volume II, Mortality, part A (22). Data for Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas are included in tables showing data by State, but are not included in U.S. totals.

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 1999 all the States and the District of Columbia participated in this program and submitted part or all of the mortality data for 1999 in electronic data files to NCHS. All States provided precoded medical (cause-of-death) data to NCHS except Arizona, Illinois, Kentucky, Missouri, New Jersey, Ohio, and West Virginia, New York City, and the District of Columbia. For 1999 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 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.

### Cause-of-death classification

The mortality statistics presented in this report were compiled in accordance with the World Health Organization (WHO) regulations, which specify that member nations classify and code causes of death in accordance with the current revision of the *International Statistical Classification of Diseases and Related Health Problems* (ICD). The ICD provides the basic guidance used in virtually all countries to code and classify causes of death. Effective with deaths occurring in 1999, the United States began using the Tenth Revision of this classification, (ICD-10) (6); during the period 1979–98, causes were coded and classified according to the Ninth Revision (ICD-9) (8). 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. Discontinuities between the Ninth and Tenth Revisions of the ICD for selected causes of death are measured using comparability ratios from a comparability study described in the section *Comparability between ICD-9 and ICD-10 for mortality*. 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).

The ICD not only details disease classification but also provides definitions, tabulation lists, the format of the death certificate, and the rules for 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). It includes rules for selecting the underlying cause of death for tabulation purposes, definitions, tabulation lists, and regulations on the use of the Classification.

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. All cause-of-death data in this report are coded 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 1999 approximately 39 percent of the Nation's death records were multiple-cause coded using SuperMICAR, and 61 percent using MICAR only. This represents data from 27 States that were coded by SuperMICAR and data from 23 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 which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury” (6). 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).

### Tabulation lists and cause-of-death ranking

Tabulation lists for ICD-10 were developed to maximize continuity with ICD-9. This continuity is especially useful in trend analysis and in identifying causes of death that are of public health and

medical importance. The lists are published in the NCHS Instruction Manual, Part 9, ICD-10 Cause-of-Death Lists for Tabulating Mortality Statistics, Effective 1999 (35). For this report two tabulation lists are used, namely, the List of 113 Selected Causes of Death used for deaths of all ages, and the List of 130 Selected Causes of Infant Death used for infants. These lists are also used to rank leading causes of death for the two population groups. For the List of 113 Selected Causes of Death, the group titles Major cardiovascular diseases (ICD-10 codes I00-I78) and Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified (ICD-10 codes R00-R99), are not ranked. 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 (ICD-10 codes A16-A19)), its component parts are not ranked (in this case, Respiratory tuberculosis (ICD-10 code A16) and Other tuberculosis (ICD-10 codes A17-A19)). For the List of 130 Selected Causes of Infant Death, the same ranking procedures are used, except that the category Major cardiovascular diseases is not in the list.

Cause-of-death titles in ICD-10 differ in some cases from those in ICD-9. A comparison of cause-of-death titles for the 15 leading causes of death between ICD-9 and ICD-10 is shown in [table I](#). For 7 of the 15 leading causes of death the titles between ICD-9 and ICD-10 are the same.

The 10 leading causes of infant death were affected by the introduction of ICD-10 as well. A comparison of cause-of-death titles for the 10 leading causes of infant death between ICD-9 and ICD-10 are shown in [table II](#). For 4 of the 10 leading causes of infant death, the titles between ICD-9 and ICD-10 are the same.

The change in the tabulation lists and coding rules for selecting the underlying cause of death between ICD-9 and ICD-10 has implications for ranking leading causes of death (9). The top five causes of death and causes of infant death did not change in rank; however, changes in rank for causes ranked sixth and lower resulted from using ICD-10 instead of ICD-9.

## Race and Hispanic origin

Race and Hispanic origin are reported separately on the death certificate. Therefore, data shown by race include persons of Hispanic or non-Hispanic origin, and data for Hispanic origin include persons of any race. In this report, unless otherwise specified, deaths of Hispanic origin are included in the totals for each race group—white, black, American Indian, and Asian or Pacific Islander (API)—according to the decedent's race as reported on the death certificate. Data shown for Hispanic persons include all persons of Hispanic origin of any race.

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.

*Quality of race and Hispanic origin data*—Death rates for Hispanic, American Indian, and API persons should be interpreted with caution because of inconsistencies in reporting Hispanic origin or race on the death certificate as compared with race on censuses, surveys, and birth certificates. Studies have shown underreporting on death certificates of American Indians, API, and Hispanic decedents; and undercounts of these groups in the censuses (14,36).

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 (36,37) 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 (5,14,38). 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 (14).

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 (14). 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 indicating net underreporting of Hispanic origin on death certificates by 7 percent as compared with self-reports on the surveys. 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 (14,38).

*Other races and race not stated*—Beginning in 1992 all records coded as "Other races" (0.02 percent of the total deaths in 1999) were assigned to the specified race of the previous record. Records for which race was unknown, not stated, or not classifiable (0.10 percent) were assigned the racial designation of the previous record.

*Infant and maternal mortality rates*—For 1989-99, 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 (39,40). 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

**Table I. List of ICD-10 leading causes of death for 1999 and comparable ICD-9 causes of death**

ICD-10	ICD-9
Diseases of heart (I00-I09,I11,I13,I20-I51)	Diseases of heart (390-398,402,404,410-429)
Malignant neoplasms (C00-C97)	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues (140-208)
Cerebrovascular diseases (I60-I69)	Cerebrovascular diseases (430-434,436-438) <sup>1</sup>
Chronic lower respiratory diseases (J40-J47)	Chronic obstructive pulmonary diseases and allied conditions (490-494,496) <sup>1</sup>
Accidents (unintentional injuries) (V01-X59,Y85-Y86)	Accidents (E800-E869,E880-E929) <sup>1</sup>
Diabetes mellitus (E10-E14)	Diabetes mellitus (250)
Influenza and pneumonia (J10-J18)	Pneumonia and influenza (480-487)
Alzheimer's disease (G30)	Alzheimer's disease (331.0)
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27)	Nephritis, nephrotic syndrome and nephrosis (580-589)
Septicemia (A40-A41)	Septicemia (038)
Intentional self-harm (suicide) (X60-X84,Y87.0)	Suicide (E950-E959)
Chronic liver disease and cirrhosis (K70,K73-K74)	Chronic liver disease and cirrhosis (571)
Essential (primary) hypertension and hypertensive renal disease (I10,I12)	Hypertension with or without renal disease (401,403)
Assault (homicide) (X85-Y09,Y87.1)	Homicide (E960-E969) <sup>1</sup>
Aortic aneurysm and dissection (I71)	Aortic aneurysm (441) <sup>2</sup>

<sup>1</sup>ICD-9 codes do not match those of the ICD-9 List of 72 Selected Causes of Death; see Technical notes.

<sup>2</sup>Not a rankable cause in ICD-9; see Technical notes.

**Table II. List of ICD-10 leading causes of infant death for 1999 and comparable ICD-9 causes of infant death**

ICD-10	ICD-9
Congenital malformations, deformations, and chromosomal abnormalities (Q00-Q99)	Congenital anomalies (740-759)
Disorders related to short gestation and low birthweight, not elsewhere classified (P07)	Disorders relating to short gestation and unspecified low birthweight (765)
Sudden infant death syndrome (R95)	Sudden infant death syndrome (798.0)
Newborn affected by maternal complications of pregnancy (P01)	Newborn affected by maternal complications of pregnancy (761)
Respiratory distress of newborn (P22)	Respiratory distress syndrome (769)
Newborn affected by complications of placenta, cord and membranes (P02)	Newborn affected by complications of placenta, cord and membranes (762)
Accidents (unintentional injuries) (V01-X59)	Accidents (E800-E869,E880-E929) <sup>1</sup>
Bacterial sepsis of newborn (P36)	Other infection specific to the perinatal period (771.8) <sup>2</sup>
Diseases of the circulatory system (I00-I99)	Diseases of the circulatory system (390-434,436-459) <sup>2</sup>
Atelectasis (P28.0-P28.1)	Primary, other, and unspecified atelectasis (770.4-770.5) <sup>2</sup>

<sup>1</sup>ICD-9 codes do not match those of the ICD-9 List of 61 Selected Causes of Infant Death; see Technical notes.

<sup>2</sup>Not a rankable cause in ICD-9; see Technical notes.

parents. Rates for most other minority races also are higher when computed by race of mother (22,40).

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 1.4 and the percent of live births to mothers of unknown origin was 1.2 for the United States for 1999.

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 error when based on linked files of infant deaths and live births (20).

Infant mortality rates calculated from the general mortality file for specified race and/or Hispanic origin are in error because of reporting problems that affect the classification of race and Hispanic origin on the birth and death certificates for the same infant. Infant mortality rates by specified race and Hispanic origin are more accurate when based on the linked file of infant deaths and live births (20). The linked file

computes infant mortality rates using the race and/or Hispanic origin of the mother from the birth certificate in both the numerator and denominator of the rate. In addition, mother's race and/or Hispanic origin from the birth certificate is considered to be more accurately reported than infant's race and/or Hispanic origin from the death certificate because, on the birth certificate, race is generally reported by the mother at the time of delivery whereas, on the death certificate, infant's race and/or Hispanic origin is reported by an informant, usually the mother but sometimes by the funeral director. Estimates of reporting errors 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 (14,22).

### 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 death rates of a particular time period, usually a given year. Beginning with final data reported for 1997, 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 (41). 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.

Beginning with 1997 mortality data, a revised life table methodology was used to construct complete life tables by single years of age that extend to age 100 (42) using a methodology similar to that of the decennial life tables (43). The advantages of the new over the previous methodology are its comparability with decennial life table methodology, greater accuracy, and greater age detail. A comparison of the two methods shows small differences in resulting values for life expectancy (42). Although the new method produces complete life tables, that is, life tables by single years of age, life table data shown in this report are summarized in 5-year age groupings. To calculate the probability of dying at each age, the revised 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 were used to model the probability of dying at ages 85 and over because the data are shown to be significantly more reliable than vital statistics data at the oldest ages (44).

### Causes of death contributing to changes in life expectancy

Causes of death contributing to changes in life expectancy were estimated using a life table partitioning technique. The method partitions changes into component additive parts. This method identifies the causes of death having the greatest influence, positive or negative, on changes in life expectancy (15,45).

### Comparability between ICD-9 and ICD-10 for mortality

One of the efforts to maintain the tradition of progress in the classification of diseases has been the practice, begun in 1900, to revise about every 10–20 years what is now the International Classification of Diseases (ICD). Each of these revisions has produced some break in the comparability of cause-of-death statistics. ICD-10 has many changes from ICD-9, including considerably greater detail, shifts of inclusion terms and titles from one category, section, or chapter to another; regroupings of diseases; new titles and sections; and modifications in coding rules (6). As a result, serious breaks occur in comparability for a number of causes of death. Measures of this discontinuity are essential to the interpretation of mortality trends. Ratios of comparability between ICD-9 and ICD-10 have been computed for this purpose.

The method followed by the United States for constructing comparability ratios for mortality data is that recommended by the International Conference for the Sixth Revision of the International List of Diseases and Causes of Death, which convened in France in 1948. The Conference recommended that deaths for a country as a whole in 1949 or in 1950 be coded according to the Detailed List of Causes of Death of the Fifth Revision, and that dual tabulations of these data be published in such a way as to indicate the changes resulting from the application of the new revision. The dual coding method to measure discontinuities in mortality data resulting from the introduction of a new revision was used in this study between ICD-9 and ICD-10. This makes the fifth time since the recommendation of the International Conference for the Sixth Revision that the United States used this method (7).

Studies of the comparability between revisions of the ICD have been carried out and published at least since the Fifth Revision. Comparability studies—also called bridge-coding studies—involve dual classification of a single year of mortality data, that is, classifying the underlying cause of death on mortality records by the new revision and the previous revision. The key element of a comparability study is the comparability ratio, which is derived from the dual classification. It is calculated by dividing the number of deaths for a selected cause of death classified by the new revision by the number of deaths classified to the most nearly comparable cause of death by the previous revision. The resulting ratio represents the net effect of the new revision on statistics for this cause and can be used as a factor to adjust mortality statistics for causes of death classified by a previous revision to be comparable to those for the same cause classified by the new revision.

A comparability ratio of 1.00 indicates that the same number of deaths was assigned to a particular cause or combination of causes whether the Ninth or Tenth Revision was used. A ratio showing perfect correspondence (1.00) between the two revisions does not necessarily indicate that the cause was unaffected by changes in classification and coding procedures but merely that there was no net change.

A ratio of less than 1.00 results from a decrease in assignments of death to a cause in ICD-10 compared with ICD-9. A ratio of more than 1.00 results from an increase in assignments of deaths to a cause in ICD-10 compared with the comparable ICD-9 cause.

One of the major objectives of the comparability study was to furnish ratios that measure the degree of discontinuity between data tabulated by the cause lists published under ICD-10 and data tabulated by the most nearly comparable cause lists published under ICD-9.

Ratios are presented for the cause lists presented in this report. The list of selected causes for which final data are published has been expanded from the 72 causes plus HIV infection and Alzheimer's disease published under ICD-9, to 113 causes under ICD-10. The list of selected causes of infant death was expanded from 61 plus HIV disease to 130 causes. The lists are as follows:

ICD-10	ICD-9
1. List of 113 Selected Causes of Death	1. List of 72 Selected Causes of Death, HIV infection and Alzheimer's disease
2. List of 130 Selected Causes of Infant Death	2. List of 61 Selected Causes of Infant Death and HIV infection

The data used in the ICD-10 Comparability Study are cause-of-death information from a large sample of death certificates for deaths occurring in 1996 filed in the 50 States and the District of Columbia. [Table III](#) shows comparability ratios and their standard errors for the List of 113 Selected Causes of Death. [Table IV](#) shows the same information for the List of 130 Selected Causes of Infant Death. The cause-of-death information in the sample is based on death records in which the underlying cause of death is classified by ICD-9 and ICD-10. The sample comprises 1,852,651 (80 percent) out of the total 2,314,690 resident deaths that occurred in the United States during 1996. The sample is treated as if it were random. As a result, standard errors associated with comparability ratios are based on sampling and stochastic (random) variation (9). Most of the records in the study were processed using the NCHS automated systems for

**Table III. Comparable category codes and estimated comparability ratios for 113 selected causes of death, injury by firearms, drug-induced deaths, and alcohol-induced deaths according to the Ninth and Tenth Revisions, *International Classification of Diseases***

Cause of death (Based on the <i>Tenth Revision, International Classification of Diseases, 1992</i> )	Category codes according to the Tenth Revision (ICD-10)	Category codes according to the Ninth Revision (ICD-9)	Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
			Tenth Revision	Ninth Revision				Lower	Upper
Salmonella infections . . . . .	A01-A02	002-003	30	37	0.8108	0.0644	7.9	0.6846	0.9370
Shigellosis and amebiasis . . . . .	A03,A06	004,006	*	*	*	*	*	*	*
Certain other intestinal infections . . . . .	A04,A07-A09	007-009	*	*	*	*	*	*	*
Tuberculosis . . . . .	A16-A19	010-018	653	764	0.8547	0.0172	2.0	0.8209	0.8885
Respiratory tuberculosis . . . . .	A16	010-012	518	572	0.9056	0.0201	2.2	0.8662	0.9450
Other tuberculosis . . . . .	A17-A19	013-018	135	192	0.7031	0.0407	5.8	0.6233	0.7830
Whooping cough . . . . .	A37	033	*	*	*	*	*	*	*
Scarlet fever and erysipelas . . . . .	A38,A46	034.1-035	*	*	*	*	*	*	*
Meningococcal infection . . . . .	A39	036	221	222	0.9955	0.0149	1.5	0.9663	1.0247
Septicemia . . . . .	A40-A41	038	21,258	17,791	1.1949	0.0042	0.3	1.1867	1.2030
Syphilis . . . . .	A50-A53	090-097	21	33	0.6364	0.1184	18.6	0.4043	0.8685
Acute poliomyelitis . . . . .	A80	045	*	*	*	*	*	*	*
Arthropod-borne viral encephalitis . . . . .	A83-A84,A85.2	062-064	*	*	*	*	*	*	*
Measles . . . . .	B05	055	*	*	*	*	*	*	*
Viral hepatitis . . . . .	B15-B19	070	1,123	1,346	0.8343	0.0120	1.4	0.8109	0.8578
Human immunodeficiency virus (HIV) disease . . . . .	B20-B24	*042-*044	12,765	11,150	1.1448	0.0045	0.4	1.1360	1.1536
Malaria . . . . .	B50-B54	084	*	*	*	*	*	*	*
Other and unspecified infectious and parasitic diseases and their sequelae . . . . .	A00,A05,A20-A36,A42-A44,A48-A49, A54-A79,A81-A82,A85.0-A85.1,A85.8 A86-B04,B06-B09,B25-B49,B55-B99	001,005,020-032,037,039-041,046-054, 056-061,065-066,071-083,085-088, 098-134,136-139,771.3	2,865	2,607	1.0990	0.0154	1.4	1.0688	1.1291
Malignant neoplasms . . . . .	C00-C97	140-208	464,688	461,544	1.0068	0.0002	0.0	1.0064	1.0072
Malignant neoplasms of lip, oral cavity and pharynx . . . . .	C00-C14	140-149	5,927	6,172	0.9603	0.0040	0.4	0.9525	0.9681
Malignant neoplasm of esophagus . . . . .	C15	150	9,596	9,630	0.9965	0.0020	0.2	0.9926	1.0003
Malignant neoplasm of stomach . . . . .	C16	151	11,480	11,408	1.0063	0.0019	0.2	1.0025	1.0101
Malignant neoplasms of colon, rectum and anus . . . . .	C18-C21	153-154	48,583	48,619	0.9993	0.0009	0.1	0.9975	1.0010
Malignant neoplasms of liver and intrahepatic bile ducts . . . . .	C22	155	9,732	10,102	0.9634	0.0023	0.2	0.9588	0.9679
Malignant neoplasm of pancreas . . . . .	C25	157	24,313	24,361	0.9980	0.0009	0.1	0.9963	0.9997
Malignant neoplasm of larynx . . . . .	C32	161	3,209	3,194	1.0047	0.0053	0.5	0.9943	1.0150
Malignant neoplasms of trachea, bronchus and lung . . . . .	C33-C34	162	131,750	133,936	0.9837	0.0005	0.1	0.9827	0.9846
Malignant melanoma of skin . . . . .	C43	172	5,941	6,139	0.9677	0.0032	0.3	0.9614	0.9741
Malignant neoplasm of breast . . . . .	C50	174-175	38,102	37,891	1.0056	0.0010	0.1	1.0036	1.0075
Malignant neoplasm of cervix uteri . . . . .	C53	180	3,753	3,802	0.9871	0.0034	0.3	0.9805	0.9938
Malignant neoplasms of corpus uteri and uterus, part unspecified . . . . .	C54-C55	179,182	5,318	5,183	1.0260	0.0040	0.4	1.0182	1.0339
Malignant neoplasm of ovary . . . . .	C56	183.0	11,292	11,344	0.9954	0.0016	0.2	0.9923	0.9985
Malignant neoplasm of prostate . . . . .	C61	185	30,672	30,267	1.0134	0.0015	0.1	1.0105	1.0162
Malignant neoplasms of kidney and renal pelvis . . . . .	C64-C65	189.0,189.1	9,521	9,521	1.0000	0.0022	0.2	0.9957	1.0043
Malignant neoplasm of bladder . . . . .	C67	188	9,563	9,594	0.9968	0.0026	0.3	0.9916	1.0019
Malignant neoplasms of meninges, brain and other parts of central nervous system . . . . .	C70-C72	191-192	10,039	10,359	0.9691	0.0025	0.3	0.9642	0.9740
Malignant neoplasms of lymphoid, hematopoietic and related tissue . . . . .	C81-C96	200-208	44,715	44,530	1.0042	0.0012	0.1	1.0019	1.0064
Hodgkin's disease . . . . .	C81	201	1,021	1,036	0.9855	0.0089	0.9	0.9680	1.0030
Non-Hodgkin's lymphoma . . . . .	C82-C85	200,202	17,924	18,326	0.9781	0.0018	0.2	0.9745	0.9817
Leukemia . . . . .	C91-C95	204-208	16,600	16,405	1.0119	0.0019	0.2	1.0083	1.0155

See footnotes at end of table.

**Table III. Comparable category codes and estimated comparability ratios for 113 selected causes of death, injury by firearms, drug-induced deaths, and alcohol-induced deaths according to the Ninth and Tenth Revisions, *International Classification of Diseases—Con.***

Cause of death (Based on the <i>Tenth Revision, International Classification of Diseases, 1992</i> )	Category codes according to the Tenth Revision (ICD-10)	Category codes according to the Ninth Revision (ICD-9)	Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
			Tenth Revision	Ninth Revision				Lower	Upper
Multiple myeloma and immunoproliferative neoplasms . . . . .	C88,C90	203	9,099	8,763	1.0383	0.0030	0.3	1.0324	1.0443
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue . . . . .	C96	---	*	*	*	*	*	*	*
All other and unspecified malignant neoplasms . . . . .	C17,C23-C24,C26-C31,C37-C41, C44-C49,C51-C52,C57-C60, C66,C68-C69,C73-C80,C97	152, 156,158-160,163-171,173,181, 183.2-184,186-187,189.2-190,193-199	51,182	45,492	1.1251	0.0021	0.2	1.1210	1.1292
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior . . . . .	D00-D48	210-239	9,263	5,532	1.6744	0.0164	1.0	1.6422	1.7067
Anemias . . . . .	D50-D64	280-285	3,059	3,200	0.9559	0.0077	0.8	0.9409	0.9710
Diabetes mellitus . . . . .	E10-E14	250	48,636	48,242	1.0082	0.0011	0.1	1.0060	1.0103
Nutritional deficiencies . . . . .	E40-E64	260-269	3,215	2,763	1.1636	0.0165	1.4	1.1312	1.1960
Malnutrition . . . . .	E40-E46	260-263	2,607	2,665	0.9782	0.0151	1.5	0.9487	1.0078
Other nutritional deficiencies . . . . .	E50-E64	264-269	608	98	6.2041	0.5961	9.6	5.0358	7.3724
Meningitis . . . . .	G00,G03	320-322	592	584	1.0137	0.0136	1.3	0.9871	1.0403
Parkinson's disease . . . . .	G20-G21	332	10,404	10,392	1.0012	0.0028	0.3	0.9956	1.0067
Alzheimer's disease . . . . .	G30	331.0	29,707	19,121	1.5536	0.0071	0.5	1.5398	1.5675
Major cardiovascular diseases . . . . .	I00-I78	390-434,436-448	796,919	798,435	0.9981	0.0002	0.0	0.9977	0.9985
Diseases of heart . . . . .	I00-I09,I11,I13,I20-I51	390-398,402,404,410-429	615,564	624,405	0.9858	0.0002	0.0	0.9854	0.9863
Acute rheumatic fever and chronic rheumatic heart diseases . . . . .	I00-I09	390-398	2,446	2,980	0.8208	0.0089	1.1	0.8034	0.8382
Hypertensive heart disease . . . . .	I11	402	17,322	21,577	0.8028	0.0028	0.3	0.7973	0.8083
Hypertensive heart and renal disease . . . . .	I13	404	2,170	2,027	1.0705	0.0160	1.5	1.0392	1.1019
Ischemic heart diseases . . . . .	I20-I25	410-414,429.2	466,459	466,935	0.9990	0.0002	0.0	0.9985	0.9994
Acute myocardial infarction . . . . .	I21-I22	410	178,125	180,169	0.9887	0.0003	0.0	0.9880	0.9893
Other acute ischemic heart diseases . . . . .	I24	411	2,667	2,638	1.0110	0.0117	1.2	0.9880	1.0340
Other forms of chronic ischemic heart disease . . . . .	I20,I25	412-414,429.2	285,667	284,128	1.0054	0.0004	0.0	1.0046	1.0062
Atherosclerotic cardiovascular disease, so described . . . . .	I25.0	429.2	64,354	61,362	1.0488	0.0016	0.2	1.0456	1.0519
All other forms of chronic ischemic heart disease . . . . .	I20,I25.1-I25.9	412-414	221,313	222,766	0.9935	0.0004	0.0	0.9927	0.9942
Other heart diseases . . . . .	I26-I51	415-429.1,429.3-429.9	127,167	130,886	0.9716	0.0010	0.1	0.9696	0.9736
Acute and subacute endocarditis . . . . .	I33	421	552	554	0.9964	0.0137	1.4	0.9695	1.0233
Diseases of pericardium and acute myocarditis . . . . .	I30-I31,I40	420,422-423	489	475	1.0295	0.0160	1.6	0.9981	1.0608
Heart failure . . . . .	I50	428	44,297	42,554	1.0410	0.0013	0.1	1.0384	1.0435
All other forms of heart disease . . . . .	I26-I28,I34-I38,I42-I49,151	415-417,424-427,429.0-429.1,429.3-429.9	81,829	87,303	0.9373	0.0014	0.2	0.9345	0.9401
Essential (primary) hypertension and hypertensive renal disease . . . . .	I10,I12	401,403	11,958	10,684	1.1192	0.0050	0.4	1.1094	1.1291
Cerebrovascular diseases . . . . .	I60-I69	430-434,436-438	137,264	129,640	1.0588	0.0008	0.1	1.0572	1.0604
Atherosclerosis . . . . .	I70	440	13,894	14,417	0.9637	0.0025	0.3	0.9588	0.9686
Other diseases of circulatory system . . . . .	I71-I78	441-448	18,239	19,289	0.9456	0.0021	0.2	0.9414	0.9498
Aortic aneurysm and dissection . . . . .	I71	441	12,216	12,201	1.0012	0.0010	0.1	0.9992	1.0032
Other diseases of arteries, arterioles and capillaries . . . . .	I72-I78	442-448	6,023	7,088	0.8497	0.0053	0.6	0.8394	0.8601
Other disorders of circulatory system . . . . .	I80-I99	451-459	2,984	2,899	1.0293	0.0172	1.7	0.9956	1.0631
Influenza and pneumonia . . . . .	J10-J18	480-487	50,526	72,371	0.6982	0.0018	0.3	0.6947	0.7016
Influenza . . . . .	J10-J11	487	572	567	1.0088	0.0073	0.7	0.9945	1.0231
Pneumonia . . . . .	J12-J18	480-486	49,954	71,804	0.6957	0.0018	0.3	0.6922	0.6992
Other acute lower respiratory infections . . . . .	J20-J22	466	346	355	0.9746	0.0392	4.0	0.8978	1.0515
Acute bronchitis and bronchiolitis . . . . .	J20-J21	466	265	355	0.7465	0.0264	3.5	0.6947	0.7983

See footnotes at end of table.

**Table III. Comparable category codes and estimated comparability ratios for 113 selected causes of death, injury by firearms, drug-induced deaths, and alcohol-induced deaths according to the Ninth and Tenth Revisions, *International Classification of Diseases—Con.***

Cause of death (Based on the <i>Tenth Revision, International Classification of Diseases, 1992</i> )	Category codes according to the Tenth Revision (ICD-10)	Category codes according to the Ninth Revision (ICD-9)	Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
			Tenth Revision	Ninth Revision				Lower	Upper
Unspecified acute lower respiratory infection . . . . .	J22	---	*	*	*	*	*	*	*
Chronic lower respiratory diseases. . . . .	J40-J47	490-494,496	94,326	90,022	1.0478	0.0009	0.1	1.0460	1.0496
Bronchitis, chronic and unspecified . . . . .	J40-J42	490-491	913	2,320	0.3935	0.0107	2.7	0.3726	0.4145
Emphysema. . . . .	J43	492	14,369	14,774	0.9726	0.0031	0.3	0.9666	0.9786
Asthma . . . . .	J45-J46	493	4,217	4,718	0.8938	0.0061	0.7	0.8819	0.9057
Other chronic lower respiratory diseases. . . . .	J44,J47	494,496	74,827	68,210	1.0970	0.0014	0.1	1.0943	1.0998
Pneumoconioses and chemical effects . . . . .	J60-J66,J68	500-506	860	845	1.0178	0.0099	1.0	0.9983	1.0372
Pneumonitis due to solids and liquids. . . . .	J69	507	10,183	9,104	1.1185	0.0048	0.4	1.1092	1.1279
Other diseases of respiratory system . . . . .	J00-J06,J30-J39,J67,J70-J98	034.0,460-465,470-478,495,508-519	16,656	14,269	1.1673	0.0052	0.4	1.1572	1.1774
Peptic ulcer . . . . .	K25-K28	531-534	3,574	3,686	0.9696	0.0045	0.5	0.9608	0.9784
Diseases of appendix . . . . .	K35-K38	540-543	209	202	1.0347	0.0242	2.3	0.9873	1.0820
Hernia . . . . .	K40-K46	550-553	658	633	1.0395	0.0154	1.5	1.0094	1.0696
Chronic liver disease and cirrhosis . . . . .	K70,K73-K74	571	21,688	20,920	1.0367	0.0027	0.3	1.0314	1.0420
Alcoholic liver disease. . . . .	K70	571.0-571.3	10,147	9,965	1.0183	0.0050	0.5	1.0085	1.0281
Other chronic liver disease and cirrhosis. . . . .	K73-K74	571.4-571.9	11,541	10,955	1.0535	0.0041	0.4	1.0454	1.0615
Cholelithiasis and other disorders of gallbladder. . . . .	K80-K82	574-575	1,725	1,803	0.9567	0.0060	0.6	0.9450	0.9685
Nephritis, nephrotic syndrome and nephrosis . . . . .	N00-N07,N17-N19,N25-N27	580-589	24,939	20,242	1.2320	0.0044	0.4	1.2234	1.2407
Acute and rapidly progressive nephritic and nephrotic syndrome . . . . .	N00-N01,N04	580-581	161	249	0.6466	0.0342	5.3	0.5796	0.7136
Chronic glomerulonephritis, nephritis and nephropathy not specified as acute or chronic, and renal sclerosis unspecified. . . . .	N02-N03,N05-N07,N26	582-583,587	468	1,213	0.3858	0.0144	3.7	0.3575	0.4141
Renal failure . . . . .	N17-N19	584-586	24,290	18,758	1.2949	0.0050	0.4	1.2852	1.3047
Other disorders of kidney. . . . .	N25,N27	588-589	20	22	0.9091	0.0867	9.5	0.7392	1.0790
Infections of kidney. . . . .	N10-N12,N13.6,N15.1	590	731	726	1.0069	0.0144	1.4	0.9786	1.0352
Hyperplasia of prostate . . . . .	N40	600	326	327	0.9969	0.0159	1.6	0.9658	1.0280
Inflammatory diseases of female pelvic organs . . . . .	N70-N76	614-616	63	64	0.9844	0.0410	4.2	0.9040	1.0648
Pregnancy, childbirth and the puerperium. . . . .	O00-O99	630-676	*	*	*	*	*	*	*
Pregnancy with abortive outcome . . . . .	O00-O07	630-639	*	*	*	*	*	*	*
Other complications of pregnancy, childbirth and the puerperium . . . . .	O10-O99	640-676	*	*	*	*	*	*	*
Certain conditions originating in the perinatal period . . . . .	P00-P96	760-771.2,771.4-779	10,184	9,555	1.0658	0.0033	0.3	1.0593	1.0724
Congenital malformations, deformations and chromosomal abnormalities . . . . .	Q00-Q99	740-759	5,950	7,025	0.8470	0.0055	0.6	0.8362	0.8577
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified . . . . .	R00-R99	780-799	16,940	17,732	0.9553	0.0034	0.4	0.9487	0.9620
All other diseases (Residual) . . . . .	Residual	Residual	109,853	122,107	0.8996	0.0015	0.2	0.8968	0.9025
Accidents (unintentional injuries) . . . . .	V01-X59,Y85-Y86	E800-E869,E880-E929	31,084	30,163	1.0305	0.0014	0.1	1.0278	1.0333
Transport accidents . . . . .	V01-V99,Y85	E800-E848,E929.0,E929.1	17,547	17,586	0.9978	0.0006	0.1	0.9966	0.9990
Motor vehicle accidents. . . . .	V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79,V80.3-V80.5,V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2	E810-E825	16,632	17,051	0.9754	0.0006	0.1	0.9742	0.9766

See footnotes at end of table.



**Table III. Comparable category codes and estimated comparability ratios for 113 selected causes of death, injury by firearms, drug-induced deaths, and alcohol-induced deaths according to the Ninth and Tenth Revisions, *International Classification of Diseases—Con.***

Cause of death (Based on the <i>Tenth Revision, International Classification of Diseases, 1992</i> )	Category codes according to the Tenth Revision (ICD-10)	Category codes according to the Ninth Revision (ICD-9)	Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
			Tenth Revision	Ninth Revision				Lower	Upper
Other land transport accidents . . . . .	V01,V05-V06,V09.1,V09.3-V09.9, V10-V11,V15-V18,V19.3,V19.8-V19.9, V80.0-V80.2,V80.6-V80.9,V81.2-V81.9, V82.2-V82.9,V87.8,V88.9,V89.1,V89.3, V89.9	E800-E807,E826-E829	*	*	*	*	*	*	*
Water, air and space, and other and unspecified transport accidents and their sequelae . . . . .	V90-V99,Y85	E830-E848,E929.0,E929.1	351	347	1.0115	0.0209	2.1	0.9706	1.0525
Nontransport accidents . . . . .	W00-X59,Y86	E850-E869,E880-E928,E929.2-E929.9	13,537	12,577	1.0763	0.0035	0.3	1.0696	1.0831
Falls . . . . .	W00-W19	E880-E888	5,173	6,152	0.8409	0.0049	0.6	0.8313	0.8505
Accidental discharge of firearms . . . . .	W32-W34	E922	493	466	1.0579	0.0127	1.2	1.0331	1.0828
Accidental drowning and submersion . . . . .	W65-W74	E910	283	284	0.9965	0.0127	1.3	0.9716	1.0213
Accidental exposure to smoke, fire and flames . . . . .	X00-X09	E890-E899	493	506	0.9743	0.0089	0.9	0.9568	0.9918
Accidental poisoning and exposure to noxious substance . . . . .	X40-X49	E850-E869,E924.1	*	*	*	*	*	*	*
Other and unspecified nontransport accidents and their sequelae . . . . .	W20-W31,W35-W64,W75-W99, X10-X39,X50-X59,Y86	E900-E909,E911-E921,E923-E924.0, E924.8-E928,E929.2-E929.9	6,698	4,721	1.4188	0.0123	0.9	1.3947	1.4428
Intentional self-harm (suicide) . . . . .	X60-X84,Y87.0	E950-E959	18,352	18,422	0.9962	0.0005	0.0	0.9952	0.9972
Intentional self-harm (suicide) by discharge of firearms . . . . .	X72-X74	E955.0-E955.4	14,157	14,183	0.9982	0.0007	0.1	0.9968	0.9996
Intentional self-harm (suicide) by other and unspecified means and their sequelae . . . . .	X60-X71,X75-X84,Y87.0	E950-E954,E955.5-E959	4,195	4,239	0.9896	0.0023	0.2	0.9850	0.9942
Assault (homicide) . . . . .	X85-Y09,Y87.1	E960-E969	12,287	12,308	0.9983	0.0006	0.1	0.9972	0.9994
Assault (homicide) by discharge of firearms . . . . .	X93-X95	E965.0-E965.4	8,718	8,745	0.9969	0.0008	0.1	0.9953	0.9985
Assault (homicide) by other and unspecified means and their sequelae . . . . .	X85-X92,X96-Y09,Y87.1	E960-E964,E965.5-E969	3,569	3,563	1.0017	0.0024	0.2	0.9969	1.0064
Legal intervention . . . . .	Y35,Y89.0	E970-E978	*	*	*	*	*	*	*
Events of undetermined intent . . . . .	Y10-Y34,Y87.2,Y89.9	E980-E989	*	*	*	*	*	*	*
Discharge of firearms, undetermined intent . . . . .	Y22-Y24	E985.0-E985.4	*	*	*	*	*	*	*
Other and unspecified events of undetermined intent and their sequelae . . . . .	Y10-Y21,Y25-Y34,Y87.2,Y89.9	E980-E984,E985.5-E989	*	*	*	*	*	*	*
Operations of war and their sequelae . . . . .	Y36,Y89.1	E990-E999	*	*	*	*	*	*	*
Complications of medical and surgical care . . . . .	Y40-Y84,Y88	E870-E879,E930-E949	*	*	*	*	*	*	*
Injury by firearms <sup>1</sup> . . . . .	W32-W34,X72-X74,X93-X95, Y22-Y24,Y35.0	E922,E955.0-E955.4,E965.0-E965.4, E970,E985.0-E985.4	23,355	23,418	0.9973	0.0006	0.1	0.9961	0.9985
Drug-induced deaths <sup>1</sup> . . . . .	F11.0-F11.5,F11.7-F11.9,F12.0-F12.5, F12.7-F12.9,F13.0-F13.5,F13.7-F13.9, F14.0-F14.5,F14.7-F14.9,F15.0-F15.5, F15.7-F15.9,F16.0-F16.5,F16.7-F16.9, F17.0,F17.3-F17.5,F17.7-F17.9, F18.0-F18.5,F18.7-F18.9,F19.0-F19.5, F19.7-F19.9,X40-X44,X60-X64,X85, Y10-Y14	292,304,305.2-305.9,E850-E858, E950.0-E950.5,E962.0,E980.0-E980.5	1,158	969	1.1950	0.0225	1.9	1.1509	1.2391
Alcohol-induced deaths <sup>1</sup> . . . . .	F10,G31.2,G62.1,I42.6,K29.2,K70, R78.0,X45,X65,Y15	291,303,305.0,357.5,425.5,535.3, 571.0-571.3,790.3,E860	14,783	15,269	0.9682	0.0025	0.3	0.9633	0.9731

\* 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>Included in selected categories.

**Table IV. Comparable category codes and estimated comparability ratios for 130 selected causes of infant death according to the Ninth and Tenth Revisions, *International Classification of Diseases***

Cause of death (Based on the <i>Tenth Revision, International Classification of Diseases, 1992</i> )	Category codes according to the Tenth Revision (ICD-10)	Category codes according to the Ninth Revision (ICD-9)	Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
			Tenth Revision	Ninth Revision				Lower	Upper
Certain infectious and parasitic diseases . . . . .	A00-B99	001-033,034.1-134,136-139,771.3	284	387	0.7339	0.0339	4.6	0.6673	0.8004
Certain intestinal infectious diseases . . . . .	A00-A08	001-008	*	*	*	*	*	*	*
Diarrhea and gastroenteritis of infectious origin . . . . .	A09	009	0	144	0.0000	0.0000	0.0	0.0000	0.0000
Tuberculosis . . . . .	A16-A19	010-018	*	*	*	*	*	*	*
Tetanus . . . . .	A33,A35	037,771.3	*	*	*	*	*	*	*
Diphtheria . . . . .	A36	032	*	*	*	*	*	*	*
Whooping cough . . . . .	A37	033	*	*	*	*	*	*	*
Meningococcal infection . . . . .	A39	036	25	26	0.9615	0.0377	3.9	0.8876	1.0355
Septicemia . . . . .	A40-A41	038	167	121	1.3802	0.0713	5.2	1.2403	1.5200
Congenital syphilis . . . . .	A50	090	*	*	*	*	*	*	*
Gonococcal infection . . . . .	A54	098	*	*	*	*	*	*	*
Viral diseases . . . . .	A80-B34	042-079	62	62	1.0000	0.0757	7.6	0.8517	1.1483
Acute poliomyelitis . . . . .	A80	045	*	*	*	*	*	*	*
Varicella (chickenpox) . . . . .	B01	052	*	*	*	*	*	*	*
Measles . . . . .	B05	055	*	*	*	*	*	*	*
Human immunodeficiency virus (HIV) disease . . . . .	B20-B24	042-044	*	*	*	*	*	*	*
Mumps . . . . .	B26	072	*	*	*	*	*	*	*
Other and unspecified viral diseases . . . . .	A81-B00,B02-B04,B06-B19,B25, B27-B34	046-051,053-054,056-071,073-079	35	36	0.9722	0.1255	12.9	0.7262	1.2182
Candidiasis . . . . .	B37	112	*	*	*	*	*	*	*
Malaria . . . . .	B50-B54	084	*	*	*	*	*	*	*
Pneumocystosis . . . . .	B59	136.3	*	*	*	*	*	*	*
All other and unspecified infectious and parasitic diseases . . . . .	A20-A32,A38,A42-A49,A51-A53, A55-A79,B35-B36,B38-B49, B55-B58,B60-B99	020-031,034.1-035,039-041,080-083, 085-088,091-097,099-111,114-134, 136.0-136.2,136.4-139	*	*	*	*	*	*	*
Neoplasms . . . . .	C00-D48	140-239	73	72	1.0139	0.0420	4.1	0.9317	1.0961
Malignant neoplasms . . . . .	C00-C97	140-208	48	46	1.0435	0.0544	5.2	0.9369	1.1501
Hodgkin's disease and non-Hodgkin's lymphomas . . . . .	C81-C85	200-202	*	*	*	*	*	*	*
Leukemia . . . . .	C91-C95	204-208	*	*	*	*	*	*	*
Other and unspecified malignant neoplasms . . . . .	C00-C80,C88-C90,C96-C97	140-199,203	30	28	1.0714	0.0906	8.5	0.8939	1.2489
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior . . . . .	D00-D48	210-239	25	26	0.9615	0.1131	11.8	0.7398	1.1833
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism . . . . .	D50-D89	135, 279-289	35	50	0.7000	0.0803	11.5	0.5427	0.8573
Anemias . . . . .	D50-D64	280-285	*	*	*	*	*	*	*
Other diseases of blood and blood-forming organs . . . . .	D65-D76	286-289	*	*	*	*	*	*	*
Certain disorders involving the immune mechanism . . . . .	D80-D89	135,279	*	*	*	*	*	*	*
Endocrine, nutritional and metabolic diseases . . . . .	E00-E88	240-278	112	129	0.8682	0.0555	6.4	0.7595	0.9770
Short stature, not elsewhere classified . . . . .	E34.3	259.4	*	*	*	*	*	*	*
Malnutrition and other nutritional deficiencies . . . . .	E40-E64	260-269	*	*	*	*	*	*	*
Cystic fibrosis . . . . .	E84	277.0	*	*	*	*	*	*	*
Volume depletion, disorders of fluid, electrolyte and acid-base balance . . . . .	E86-E87	276	40	53	0.7547	0.0852	11.3	0.5878	0.9217

See footnotes at end of table.

**Table IV. Comparable category codes and estimated comparability ratios for 130 selected causes of infant death according to the Ninth and Tenth Revisions, *International Classification of Diseases*—Con.**

Cause of death (Based on the <i>Tenth Revision, International Classification of Diseases, 1992</i> )	Category codes according to the Tenth Revision (ICD-10)	Category codes according to the Ninth Revision (ICD-9)	Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
			Tenth Revision	Ninth Revision				Lower	Upper
All other endocrine, nutritional and metabolic diseases . . . . .	E00–E32,E34.0–E34.2,E34.4–E34.9, E65–E83,E85,E88	240–259,3,259.8–259.9,270–275, 277.1–278	64	55	1.1636	0.0809	6.9	1.0051	1.3221
Diseases of the nervous system . . . . .	G00–G98	320–359,435	305	286	1.0664	0.0263	2.5	1.0149	1.1180
Meningitis . . . . .	G00,G03	320–322	70	70	1.0000	0.0404	4.0	0.9208	1.0792
Infantile spinal muscular atrophy, type I (Werdnig-Hoffman) . . . . .	G12.0	335.0	47	47	1.0000	0.0521	5.2	0.8978	1.1022
Infantile cerebral palsy . . . . .	G80	343	*	*	*	*	*	*	*
Anoxic brain damage, not elsewhere classified . . . . .	G93.1	348.1	29	30	0.9667	0.1269	13.1	0.7179	1.2155
Other diseases of nervous system . . . . .	G04,G06–G11,G12.1–G12.9, G20–G72,G81–G92,G93.0, G93.2–G93.9,G95–G98	323–334,335.1–342,344–348.0, 348.2–359,435	145	126	1.1508	0.0532	4.6	1.0466	1.2550
Diseases of the ear and mastoid process . . . . .	H60–H93	380–389	*	*	*	*	*	*	*
Diseases of the circulatory system. . . . .	I00–I99	390–434,436–459	419	587	0.7138	0.0244	3.4	0.6659	0.7617
Pulmonary heart disease and diseases of pulmonary circulation . . . . .	I26–I28	415–417	138	123	1.1220	0.0447	4.0	1.0342	1.2097
Pericarditis, endocarditis and myocarditis . . . . .	I30,I33,I40	420–422	*	*	*	*	*	*	*
Cardiomyopathy . . . . .	I42	425	82	84	0.9762	0.0166	1.7	0.9436	1.0088
Cardiac arrest . . . . .	I46	427.5	25	87	0.2874	0.0508	17.7	0.1878	0.3869
Cerebrovascular diseases . . . . .	I60–I69	430–434,436–438	77	163	0.4724	0.0510	10.8	0.3725	0.5723
All other diseases of circulatory system . . . . .	I00–I25,I31,I34–I38,I44–I45, I47–I51,I70–I99	390–414,423–424,426–427.4, 427.6–429,440–459	88	123	0.7154	0.0519	7.3	0.6137	0.8172
Disease of the respiratory system . . . . .	J00–J98	034.0,460–519	420	516	0.8140	0.0220	2.7	0.7709	0.8570
Acute upper respiratory infections. . . . .	J00–J06	034.0,460–465	*	*	*	*	*	*	*
Influenza and pneumonia. . . . .	J10–J18	480–487	231	303	0.7624	0.0261	3.4	0.7112	0.8135
Influenza . . . . .	J10–J11	487	*	*	*	*	*	*	*
Pneumonia. . . . .	J12–J18	480–486	224	295	0.7593	0.0266	3.5	0.7072	0.8114
Acute bronchitis and acute bronchiolitis . . . . .	J20–J21	466	33	41	0.8049	0.0758	9.4	0.6563	0.9534
Bronchitis, chronic and unspecified . . . . .	J40–J42	490–491	*	*	*	*	*	*	*
Asthma . . . . .	J45–J46	493	*	*	*	*	*	*	*
Pneumonitis due to solids and liquids . . . . .	J69	507	*	*	*	*	*	*	*
Other and unspecified diseases of respiratory system . . . . .	J22,J30–J39,J43–J44,J47–J68,J70–J98	470–479,492,494–506,508–519	117	127	0.9213	0.0632	6.9	0.7973	1.0452
Diseases of the digestive system . . . . .	K00–K92	520–579	278	167	1.6647	0.1084	6.5	1.4521	1.8772
Gastritis, duodenitis, and noninfective enteritis and colitis . . . . .	K29,K50–K55	535, 555–558	137	47	2.9149	0.3879	13.3	2.1547	3.6751
Hernia of abdominal cavity and intestinal obstruction without hernia. . . . .	K40–K46,K56	550–553,560	*	*	*	*	*	*	*
All other and unspecified diseases of digestive system . . . . .	K00–K28,K30–K38,K57–K92	520–534,536–543,562–579	84	86	0.9767	0.0708	7.3	0.8379	1.1156
Diseases of the genitourinary system . . . . .	N00–N98	580–629	117	117	1.0000	0.0567	5.7	0.8889	1.1111
Renal failure and other disorders of kidney . . . . .	N17–N19,N25,N27	584–589	102	98	1.0408	0.0658	6.3	0.9118	1.1699
Other and unspecified diseases of genitourinary system . . . . .	N00–N15,N20–N23,N26,N28–N98	580–583,590–629	*	*	*	*	*	*	*
Certain conditions originating in the perinatal period . . . . .	P00–P96	760–771.2,771.4–779	10,047	9,495	1.0581	0.0032	0.3	1.0519	1.0643

See footnotes at end of table.

Table IV. Comparable category codes and estimated comparability ratios for 130 selected causes of infant death according to the Ninth and Tenth Revisions, *International Classification of Diseases—Con.*

Cause of death (Based on the <i>Tenth Revision, International Classification of Diseases, 1992</i> )	Category codes according to the Tenth Revision (ICD-10)	Category codes according to the Ninth Revision (ICD-9)	Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
			Tenth Revision	Ninth Revision				Lower	Upper
Newborn affected by maternal factors and by complications of pregnancy, labor and delivery . . . . .	P00-P04	760-763	1,305	1,256	1.0390	0.0099	1.0	1.0196	1.0585
Newborn affected by maternal hypertensive disorders . . . . .	P00.0	760.0	23	22	1.0455	0.0465	4.4	0.9544	1.1365
Newborn affected by other maternal conditions which may be unrelated to present pregnancy . . . . .	P00.1-P00.9	760.1-760.6,760.8-760.9	*	*	*	*	*	*	*
Newborn affected by maternal complications of pregnancy . . . . .	P01	761	662	643	1.0295	0.0138	1.3	1.0024	1.0567
Newborn affected by incompetent cervix . . . . .	P01.0	761.0	205	201	1.0199	0.0188	1.8	0.9831	1.0567
Newborn affected by premature rupture of membranes . . . . .	P01.1	761.1	314	307	1.0228	0.0136	1.3	0.9962	1.0494
Newborn affected by multiple pregnancy . . . . .	P01.5	761.5	104	103	1.0097	0.0507	5.0	0.9103	1.1091
Newborn affected by other maternal complications of pregnancy . . . . .	P01.2-P01.4,P01.6-P01.9	761.2-761.4,761.6-761.9	39	32	1.2188	0.1655	13.6	0.8945	1.5430
Newborn affected by complications of placenta, cord and membranes . . . . .	P02	762	579	553	1.0470	0.0128	1.2	1.0219	1.0721
Newborn affected by complications involving placenta . . . . .	P02.0-P02.3	762.0-762.3	306	285	1.0737	0.0174	1.6	1.0395	1.1079
Newborn affected by complications involving cord . . . . .	P02.4-P02.6	762.4-762.6	*	*	*	*	*	*	*
Newborn affected by chorioamnionitis . . . . .	P02.7	762.7	258	255	1.0118	0.0163	1.6	0.9799	1.0436
Newborn affected by other and unspecified abnormalities of membranes . . . . .	P02.8-P02.9	762.8-762.9	*	*	*	*	*	*	*
Newborn affected by other complications of labor and delivery . . . . .	P03	763.0-763.4,763.6-763.9	37	20	1.8500	0.3262	17.6	1.2107	2.4893
Newborn affected by noxious influences transmitted via placenta or breast milk . . . . .	P04	760.7, 763.5	*	*	*	*	*	*	*
Disorders related to length of gestation and fetal malnutrition . . . . .	P05-P08	764-766	3,843	3,474	1.1062	0.0064	0.6	1.0936	1.1188
Slow fetal growth and fetal malnutrition . . . . .	P05	764	34	30	1.1333	0.1004	8.9	0.9366	1.3301
Disorders related to short gestation and low birth weight, not elsewhere classified . . . . .	P07	765	3,809	3,444	1.1060	0.0064	0.6	1.0934	1.1186
Extremely low birthweight or extreme immaturity . . . . .	P07.0,P07.2	765.0	2,835	2,558	1.1083	0.0079	0.7	1.0927	1.1239
Other low birthweight or preterm . . . . .	P07.1,P07.3	765.1	974	886	1.0993	0.0135	1.2	1.0729	1.1258
Disorders related to long gestation and high birthweight . . . . .	P08	766	*	*	*	*	*	*	*
Birth trauma . . . . .	P10-P15	767	5	113	0.0442	0.0197	44.5	0.0056	0.0829
Intrauterine hypoxia and birth asphyxia . . . . .	P20-P21	768	401	277	1.4477	0.0599	4.1	1.3303	1.5650
Intrauterine hypoxia . . . . .	P20	768.2-768.4	57	63	0.9048	0.1227	13.6	0.6643	1.1452
Birth asphyxia . . . . .	P21	768.5-768.9	344	214	1.6075	0.0763	4.7	1.4579	1.7571
Respiratory distress of newborn . . . . .	P22	769	917	894	1.0257	0.0131	1.3	1.0001	1.0513
Other respiratory conditions originating in the perinatal period . . . . .	P23-P28	770	1,160	1,372	0.8455	0.0216	2.6	0.8032	0.8878
Congenital pneumonia . . . . .	P23	770.0	57	15	3.8000	0.9004	23.7	2.0352	5.5648
Neonatal aspiration syndromes . . . . .	P24	770.1	78	56	1.3929	0.1115	8.0	1.1743	1.6114
Interstitial emphysema and related conditions originating in the perinatal period . . . . .	P25	770.2	146	121	1.2066	0.0595	4.9	1.0899	1.3233

See footnotes at end of table.

**Table IV. Comparable category codes and estimated comparability ratios for 130 selected causes of infant death according to the Ninth and Tenth Revisions, *International Classification of Diseases—Con.***

Cause of death (Based on the <i>Tenth Revision, International Classification of Diseases, 1992</i> )	Category codes according to the Tenth Revision (ICD-10)	Category codes according to the Ninth Revision (ICD-9)	Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
			Tenth Revision	Ninth Revision				Lower	Upper
Pulmonary hemorrhage originating in the perinatal period . . . . .	P26	770.3	212	145	1.4621	0.0751	5.1	1.3150	1.6092
Chronic respiratory disease originating in the perinatal period . . . . .	P27	770.7	243	214	1.1355	0.0327	2.9	1.0715	1.1995
Atelectasis . . . . .	P28.0–P28.1	770.4–770.5	382	185	2.0649	0.1144	5.5	1.8406	2.2891
All other respiratory conditions originating in the perinatal period . . . . .	P28.2–P28.9	770.6–770.8	42	636	0.0660	0.0101	15.2	0.0463	0.0858
Infections specific to the perinatal period . . . . .	P35–P39	771.0–771.2,771.4–771.8	563	552	1.0199	0.0261	2.6	0.9688	1.0710
Bacterial sepsis of newborn . . . . .	P36	771.8	470	514	0.9144	0.0272	3.0	0.8611	0.9677
Omphalitis of newborn with or without mild hemorrhage . . . . .	P38	771.4	*	*	*	*	*	*	*
All other infections specific to the perinatal period . . . . .	P35,P37,P39	771.0–771.2,771.5–771.7	93	38	2.4474	0.3705	15.1	1.7211	3.1736
Hemorrhagic and hematological disorders of newborn . . . . .	P50–P61	772–774, 776	390	274	1.4234	0.0640	4.5	1.2979	1.5488
Neonatal hemorrhage . . . . .	P50–P52,P54	772	319	222	1.4369	0.0698	4.9	1.3002	1.5737
Hemorrhagic disease of newborn . . . . .	P53	776.0	*	*	*	*	*	*	*
Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice . . . . .	P55–P59	773–774	*	*	*	*	*	*	*
Hematological disorders . . . . .	P60–P61	776.1–776.9	*	*	*	*	*	*	*
Syndrome of infant of a diabetic mother and neonatal diabetes mellitus . . . . .	P70.0–P70.2	775.0–775.1	*	*	*	*	*	*	*
Necrotizing enterocolitis of newborn . . . . .	P77	777.5	249	203	1.2266	0.0456	3.7	1.1371	1.3161
Hydrops fetalis not due to hemolytic disease . . . . .	P83.2	778.0	120	120	1.0000	0.0264	2.6	0.9483	1.0517
Other perinatal conditions . . . . .	P29,P70.3–P76,P78–P81,P83.0–P83.1 P83.3–P96	775.2–775.9,777.0–777.4,777.6–777.9, 778.1–779	1,092	954	1.1447	0.0192	1.7	1.1070	1.1823
Congenital malformations, deformations and chromosomal abnormalities . . . . .	Q00–Q99	740–759	3,400	3,751	0.9064	0.0057	0.6	0.8953	0.9176
Anencephaly and similar malformations . . . . .	Q00	740	299	299	1.0000	0.0000	0.0	1.0000	1.0000
Congenital hydrocephalus . . . . .	Q03	742.3	62	91	0.6813	0.0552	8.1	0.5732	0.7895
Spina bifida . . . . .	Q05	741	24	32	0.7500	0.0765	10.2	0.6000	0.9000
Other congenital malformations of nervous system . . . . .	Q01–Q02,Q04,Q06–Q07	742.0–742.2,742.4–742.9	191	177	1.0791	0.0477	4.4	0.9856	1.1725
Congenital malformations of heart . . . . .	Q20–Q24	745–746	1,022	1,027	0.9951	0.0081	0.8	0.9793	1.0109
Other congenital malformations of circulatory system . . . . .	Q25–Q28	747	75	121	0.6198	0.0504	8.1	0.5210	0.7186
Congenital malformations of respiratory system . . . . .	Q30–Q34	748	361	571	0.6322	0.0225	3.6	0.5882	0.6762
Congenital malformations of digestive system . . . . .	Q35–Q45	749–751	*	*	*	*	*	*	*
Congenital malformations of genitourinary system . . . . .	Q50–Q64	752–753	216	229	0.9432	0.0244	2.6	0.8955	0.9910
Congenital malformations and deformations of musculoskeletal system, limbs and integument . . . . .	Q65–Q85	754–757	269	311	0.8650	0.0319	3.7	0.8024	0.9275
Down's syndrome . . . . .	Q90	758.0	57	58	0.9828	0.0705	7.2	0.8446	1.1209
Edward's syndrome . . . . .	Q91.0–Q91.3	758.2	277	278	0.9964	0.0080	0.8	0.9807	1.0121
Patau's syndrome . . . . .	Q91.4–Q91.7	758.1	170	173	0.9827	0.0099	1.0	0.9632	1.0021
Other congenital malformations and deformations . . . . .	Q10–Q18,Q86–Q89	743–744,759	304	312	0.9744	0.0210	2.2	0.9332	1.0155
Other chromosomal abnormalities, not elsewhere classified . . . . .	Q92–Q99	758.3–758.9	57	53	1.0755	0.0783	7.3	0.9221	1.2289

See footnotes at end of table.

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Cause of death (Based on the <i>Tenth Revision, International Classification of Diseases, 1992</i> )	Category codes according to the Tenth Revision (ICD-10)	Category codes according to the Ninth Revision (ICD-9)	Number of deaths allocated according to		Estimated comparability ratio	Standard error	Relative standard error	95-percent confidence limits	
			Tenth Revision	Ninth Revision				Lower	Upper
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified . . . . .	R00-R99	780-799	2,799	2,732	1.0245	0.0042	0.4	1.0163	1.0327
Sudden infant death syndrome . . . . .	R95	798.0	2,575	2,485	1.0362	0.0040	0.4	1.0284	1.0440
Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified . . . . .	R00-R53,R55-R594,R96-R99	780-796,798.1-799	224	247	0.9069	0.0270	3.0	0.8540	0.9598
All other diseases . . . . .	F01-F99,H00-H57,L00-M99	290-319,360-379,680-739	*	*	*	*	*	*	*
External causes of mortality . . . . .	V01-Y84	E800-E999	441	444	0.9932	0.0098	1.0	0.9741	1.0124
Accidents (unintentional injuries) . . . . .	V01-X59	E800-E869,E880-E929	292	285	1.0246	0.0107	1.0	1.0037	1.0454
Transport accidents . . . . .	V01-V99	E800-E848,E920-E929.1	99	108	0.9167	0.0294	3.2	0.8590	0.9743
Motor vehicle accidents . . . . .	V02-V04,V09.0,V09.2,V12-V14, V19.0-V19.2,V19.4-V19.6,V20-V79, V80.3-V80.5,V81.0-V81.1, V82.0-V82.1,V83-V86,V87.0-V87.8, V88.0-V88.8,V89.0,V89.2	E810-E825	95	98	0.9694	0.0176	1.8	0.9349	1.0039
Other and unspecified transport accidents . . . . .	V01,V05-V06,V09.1,V09.3-V09.9, V10-V11,V15-V18,V19.3,V19.8, V19.9,V80.0-V80.2,V80.6-V80.9, V81.2-V81.9,V82.2-V82.9,V87.9, V88.9,V89.1,V89.3,V89.9,V90-V99	E800-E807,E826-E848,E929.1	*	*	*	*	*	*	*
Falls . . . . .	W00-W19	E880-E888	*	*	*	*	*	*	*
Accidental discharge of firearms . . . . .	W32-W34	E922	*	*	*	*	*	*	*
Accidental drowning and submersion . . . . .	W65-W74	E910	*	*	*	*	*	*	*
Accidental suffocation and strangulation in bed . . . . .	W75	E913.0	*	*	*	*	*	*	*
Other accidental suffocation and strangulation . . . . .	W76-W77,W81-W84	E913.1-E913.9	79	69	1.1449	0.0537	4.7	1.0396	1.2502
Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract . . . . .	W78-W80	E911-E912	32	29	1.1034	0.0810	7.3	0.9447	1.2622
Accidents caused by exposure to smoke, fire and flames . . . . .	X00-X09	E890-E899	*	*	*	*	*	*	*
Accidental poisoning and exposure to noxious substances . . . . .	X40-X49	E850-E869,E924.1	*	*	*	*	*	*	*
Other and unspecified accidents . . . . .	W20-W31,W35-W64,W85-W99, X10-X39,X50-X59	E900-E909,E914-E921,E923-E924.0, E924.8-E929	*	*	*	*	*	*	*
Assault (homicide) . . . . .	X85-Y09	E960-E968	146	154	0.9481	0.0179	1.9	0.9130	0.9831
Assault (homicide) by hanging, strangulation and suffocation . . . . .	X91	E963	*	*	*	*	*	*	*
Assault (homicide) by discharge of firearms . . . . .	X93-X95	E965.0-E965.4	*	*	*	*	*	*	*
Neglect, abandonment and other maltreatment syndromes . . . . .	Y06-Y07	E967,E968.4	*	*	*	*	*	*	*
Assault (homicide) by other and unspecified means. . . . .	X85-X90,X92,X96-X99,Y00-Y05, Y08-Y09	E960-E962,E964,E965.5-E966, E968.0-E968.3, E968.8-E968.9	91	88	1.0341	0.0417	4.0	0.9524	1.1158
Complications of medical and surgical care . . . . .	Y40-Y84	E870-E879,E930-E949	*	*	*	*	*	*	*
Other external causes . . . . .	X60-X84,Y10-Y36	E970-E979	*	*	*	*	*	*	*

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

selecting the underlying cause of death. Records that could not be processed were rejected for manual coding. Since the rejects are not fully representative of the complete file, the comparability ratios in this report are biased to an unknown extent. For most categories the bias is believed to be small. Tables III and IV show comparability ratios only for causes of death for which the data were deemed reliable; data not deemed reliable were replaced with an asterisk (\*).

For the 15 leading causes of death in 1999 according to ICD-10, table 8 presents death rates for 1999, death rates for 1998 for the most nearly comparable ICD-9 titles (tables I and II) multiplied by the comparability ratio (comparability-modified rates), and death rates for 1998 that are not comparability modified. Comparability-modified data for 1998 uses ICD-9 codes that approximate ICD-10 categories (table III).

### Selected causes of death with problems of interpretation

Changes between the comparability-modified 1998 rates and the 1999 rates for selected causes should be interpreted with caution due to concerns with the accuracy of the comparability ratio if the ratio does not accurately account for difference in the coding and classification system, changes in death rates between 1998 and 1999 will be under or overstated. Although comparability-modified 1998 rates are presented in this report for only the 15 leading causes of death (table 8), the following paragraphs attempt to explain some of the issues in interpreting these data for selected causes in the List of 113 Selected Causes of Death and the List of 130 Selected Causes of Infant Death. For further explanation of these issues, refer to the report, *Comparability of Cause of Death Between ICD-9 and ICD-10: Preliminary Estimates* (9).

**Alzheimer's disease**—The comparability ratio for Alzheimer's disease (ICD-10 code G30) is 1.5536 (table III), indicating a 55 percent increase in Alzheimer's disease deaths when classified by ICD-10. In absolute terms, more than 10,000 additional deaths were classified to Alzheimer's disease in ICD-10 than in ICD-9. Nearly all of this increase (about 95 percent) comes from deaths that were classified in ICD-9 as Presenile dementia (ICD-9 code 290.1).

The application of the comparability ratio presented for Alzheimer's disease to years later than 1996 may substantially underestimate the increase in Alzheimer's disease due to ICD-10. Increases in the reporting of Alzheimer's-type dementia have occurred since 1996, resulting in substantial increases in Presenile dementia from 1996 to 1998. The number of Alzheimer's disease deaths increased by about 1,000 deaths between 1996 and 1997; slowing to an increase of about 300 between 1997 and 1998. In contrast, the increase in Presenile dementia was more substantial, about 2,000 deaths each year. If the comparability ratio were based on 1998 data it would probably be at least 1.69 (approximating the ICD-10-classified Alzheimer's disease deaths by adding the Alzheimer's disease and Presenile dementia deaths). Assuming proportionately similar increases in the ICD-9 classification of Alzheimer's disease and Presenile dementia from 1998 to 1999, the comparability ratio based on 1999 data could be as high as 1.8 or 1.9 resulting in higher rates for Alzheimer's disease in 1998. As a consequence, the reported increase in mortality for Alzheimer's disease in table C is overstated considerably.

**Nephritis, nephrotic syndrome and nephrosis and Renal failure**—Nephritis, nephrotic syndrome and nephrosis (ICD-10 codes N00–N07, N17–N19, N25–N27) has a comparability ratio of 1.2320

(table III). The 23 percent increase in this category is due primarily to changes in the classification of Renal failure (ICD-10 codes N17–N19) that has a comparability ratio of 1.2949. End-stage renal disease, which was classified as an unspecified disorder of the kidney in ICD-9 (ICD-9 code 593.9) (grouped with All other diseases), has been reclassified in ICD-10 as End-stage renal disease (ICD-10 code N18.0), a subcategory of Renal failure (N17–N19). This results in adding a substantial number of deaths to the Renal failure and Nephritis, nephrotic syndrome and nephrosis categories.

When applied to years later than 1996, the comparability ratios for Nephritis, nephrotic syndrome and nephrosis and Renal failure presented in this report may underestimate the increase in these causes due to ICD-10. From 1996 to 1999 reporting of End-stage renal disease increased by about 1,900 deaths. This increase disproportionately affects the numerator of the comparability ratio since End-stage renal disease is included with Renal failure in ICD-10, but not in ICD-9. Thus, the numerator of the comparability ratio should probably be larger by roughly 1,900 deaths giving a comparability ratio about 1.4 for Renal failure and about 1.3 for Nephritis, nephrotic syndrome and nephrosis.

**Pregnancy, childbirth and the puerperium**—The large increase in the number of deaths attributable to Pregnancy, childbirth and the puerperium (ICD-10 codes O00–O99) is due to a selection rule change in ICD-10 (26). See section entitled *Maternal mortality*.

**Motor vehicle accidents and Other land transport accidents**—The preliminary comparability ratio for Motor vehicle accidents shown in table III (0.9754) is different from that shown in the report, *Comparability of Cause of Death Between ICD-9 and ICD-10: Preliminary Estimates* (9). For a death to be classified as a Motor vehicle accident in ICD-10, it must be explicit that the injury involved a "motor" vehicle. In ICD-9, in the absence of the term "motor" or when a vehicle accident was reported as occurring on a highway or road, the assumption was to classify the accident as involving a motor vehicle. ICD-10 does not allow this assumption and classifies such accidents as involving unspecified vehicles (categorized in ICD-10 as Other land transport accidents). However, for U.S. data, it has been decided that, if an accident occurred on a highway or road, classification to Motor vehicle accident is appropriate. This change is made in this report. Taking into account, this change in classification results in a revised comparability ratio for Motor vehicle accidents. This ratio is only applicable to data in which the aforementioned classification change was implemented. It is possible that some States may have released data that does not include this change.

**Diarrhea and gastroenteritis of infectious origin**—The apparent elimination of infant deaths due to Diarrhea and gastroenteritis of infectious origin (ICD-10 code A09) occurred because in ICD-10, for developed countries, diarrhea or gastroenteritis is presumed to be noninfectious unless specified otherwise. In ICD-9 the presumption was that the disease was infectious when unspecified. Records coded in ICD-9 to ICD-9 code 009.0 (Infectious colitis, enteritis, and gastroenteritis) are reclassified in ICD-10 to noninfectious causes.

**Birth trauma**—For newborns, cerebral hemorrhage either unspecified or due to birth injury, anoxia, or hypoxia was classified in ICD-9 to a birth injury or trauma (ICD-9 code 767.0, Subdural and cerebral hemorrhage). In ICD-10, for the cerebral hemorrhage to be classified as birth injury (ICD-10 code P10.0, Subdural hemorrhage due to birth injury), the certifier must specify that there was a birth injury. Cerebral hemorrhages either unspecified or due to anoxia or hypoxia are classified as nontraumatic. Nearly all of the Birth trauma (ICD-10 codes

P10–P15) cases are reclassified to nontraumatic causes; thus the numerator of the comparability ratio is based on a very small number (table IV).

**Atelectasis**—In ICD–10, when hypoplasia or dysplasia of lung is mentioned on the death certificate with prematurity or short gestation, the appropriate classification is Primary atelectasis of newborn (ICD–10 codes P28.0–P28.1) rather than Hypoplasia and dysplasia of lung (ICD–10 code Q33.6). Due to this coding change, the number of deaths classified to Atelectasis increased substantially in 1999.

**Sudden infant death syndrome (SIDS)**—The large decrease in the number of deaths attributable to SIDS (ICD–10 code R95) is partially due to the change in the way SIDS is diagnosed in the medical community and reported on the death certificate. Many of these deaths have been classified to the category Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified.

### Codes for firearm deaths

Causes of death attributable to firearm mortality include ICD–10 codes W32–W34, Accidental discharge of firearms; X72–X74, Intentional self-harm (suicide) by discharge of firearms; X93–X95, Assault (homicide) by discharge of firearms; Y22–Y24, Discharge of firearms, undetermined intent; and Y35.0, Legal intervention involving firearm discharge. Deaths from injury by firearms exclude deaths due to explosives and other causes indirectly related to firearms.

### Codes for drug-induced deaths

Causes of death attributable to drug-induced mortality include selected codes from the ICD–10 title Mental and behavioral disorders due to psychoactive substance use, specifically, ICD–10 codes F11.0–F11.5, F11.7–F11.9, F12.0–F12.5, F12.7–F12.9, F13.0–F13.5, F13.7–F13.9, F14.0–F14.5, F14.7–F14.9, F15.0–F15.5, F15.7–F15.9, F16.0–F16.5, F16.7–F16.9, F17.0, F17.3–F17.5, F17.7–F17.9, F18.0–F18.5, F18.7–F18.9, F19.0–F19.5, and F19.7–F19.9; Accidental poisoning by and exposure to drugs, medicaments and biological substances, X40–X44; Intentional self-poisoning (suicide) by and exposure to drugs, medicaments and biological substances, X60–X64; Assault (homicide) by drugs, medicaments and biological substances, X85; and Poisoning by and exposure to drugs, medicaments and biological substances, undetermined intent, Y10–Y14. 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–10 codes F10, Mental and behavioral disorders due to alcohol use; G31.2, Degeneration of nervous system due to alcohol; G62.1, Alcoholic polyneuropathy; I42.6, Alcoholic cardiomyopathy; K29.2, Alcoholic gastritis; K70, Alcoholic liver disease; R78.0, Finding of alcohol in blood; X45, Accidental poisoning by and exposure to alcohol; X65, Intentional self-poisoning by and exposure to alcohol; and Y15, Poisoning by and exposure to alcohol, undetermined intent. 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.

### 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 (37). 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 1999 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 (46).

Rates by educational attainment are affected by differences in the measuring 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 (47).

### Injury at work

Information on deaths attributed to injuries 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 death rates, and age-adjusted death rates for injury at work are shown in tables 24 and 25. Deaths, crude death rates, and age-adjusted 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 U.S. standard population based on year 2000 standard for ages 15 years and over. See section on *Computation of Rates*.

### Infant mortality

Infant mortality rates are the most commonly used index for measuring the risk of dying during the first year of life. The rates presented in this report 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. For final birth figures used in the denominator for infant mortality rates, see *Births: Final Data for 1999* (48). 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 in this report are calculated by dividing the number of infant deaths by the estimated population of persons under 1 year of age on July 1, 1999, 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.

### Maternal mortality

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.

"Maternal deaths" are defined by the World Health Organization as "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes" (6). Included in these deaths are ICD-10 codes O00-O95, O98-O99, and A34.

Changes have been made in the classification and coding of maternal deaths between ICD-9 and ICD-10, effective with mortality data for 1999. Some State death certificates include a separate question regarding pregnancy status. A positive response to the question is interpreted as "pregnant" being reported in Part II of the cause-of-death section of the death certificate. If a specified length of time is not provided by the medical certifier, it is assumed that the pregnancy terminated 42 days or less prior to death. Further, if only indirect maternal causes of death (that is, a previously existing disease or a disease that developed during pregnancy that was not due to direct obstetric causes but was aggravated by physiologic effects of pregnancy) are reported in Part I and pregnancy is reported in either Part I or Part II, ICD-10 classifies this as a maternal death. ICD-9 only classified the death as maternal if pregnancy was reported in Part I.

### 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 Chapter XVIII; Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (ICD-10 codes R00-R99). Although deaths occur for which the underlying causes are impossible to determine, this proportion indicates the care and consideration given to the cause-of-death statement 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 1999, 1.12 percent of all reported deaths in the United States were assigned to Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified. The percent of deaths from this cause for all ages combined generally has remained stable since 1990.

### Rare causes of death

Selected causes of death considered to be of public health concern are routinely confirmed by the States according to agreed upon procedures between the State vital statistics programs and the National Center for Health Statistics. These causes, termed Infrequent and rare causes of death, are listed in the NCHS instruction manuals Parts 2a, 11, and 20 (26,49,50).

As a consequence of the major effort involved in implementing a new revision of the ICD, a number of States did not provide complete confirmation of deaths from Infrequent and rare causes for 1999. These States include the following: California, Florida, Illinois, Indiana, Kentucky, Maine, Michigan, Missouri, New Jersey, New York City, North Carolina, Ohio, Pennsylvania, Rhode Island, Washington, and West Virginia.

### 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, enumerated as of April 1 for census years and estimated as of July 1 for all other years. Death rates for the United States for 1999 are based on population estimates as of July 1, 1999, shown in [table V](#) by 10-year age groups and available by 5-year age groups on the mortality Web site at <http://www.cdc.gov/nchs/datawh/statab/unpubd/mortabs.htm> (51). 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 (52). The population estimates for Mexicans, Puerto Ricans, Cubans, and Other Hispanics, shown in [table VI](#), and the population estimates by marital status, shown in [table VII](#), are based on the Current Population Survey adjusted to resident population control totals (53) for the United States and, as such, are subject to sampling variation (see "[Random variation](#)").

Population estimates by educational attainment, shown in [table VIII](#), are also based on the Current Population Survey (53) 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 IX](#), are based on demographic analysis and, therefore, are not subject to sampling variation (54-59).

### Computing rates

Except for infant and maternal mortality rates, rates are on an annual basis per 1,000 or per 100,000 estimated population residing in the specified area. Infant and maternal mortality rates are per 1,000 or per 100,000 live births. 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.

Age-adjusted rates are used to compare relative mortality risks among groups and over time. However, they should be viewed as

**Table V. Estimated population by 10-year age groups, specified race and sex: United States, 1999**

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 . . . . .	272,690,813	133,276,559	139,414,254	224,610,797	110,336,291	114,274,506	34,862,169	16,557,186	18,304,983	2,397,426	1,186,745	1,210,681	10,820,421	5,196,337	5,624,084
Under 1 year . . . . .	3,819,903	1,952,133	1,867,770	3,027,180	1,549,389	1,477,791	568,772	289,078	279,694	42,542	21,442	21,100	181,409	92,224	89,185
1-4 years . . . . .	15,122,239	7,730,542	7,391,697	12,015,456	6,155,680	5,859,776	2,226,888	1,129,687	1,097,201	159,576	80,755	78,821	720,319	364,420	355,899
5-14 years . . . . .	39,495,230	20,219,664	19,275,566	31,094,794	15,940,356	15,154,438	6,232,872	3,166,617	3,066,255	467,966	237,653	230,313	1,699,598	875,038	824,560
15-24 years . . . . .	37,773,512	19,334,049	18,439,463	30,014,705	15,441,143	14,573,562	5,740,422	2,881,622	2,858,800	428,979	215,783	213,196	1,589,406	795,501	793,905
25-34 years . . . . .	37,935,812	18,826,288	19,109,524	30,431,393	15,273,321	15,158,072	5,286,663	2,505,284	2,781,379	374,047	191,269	182,778	1,843,709	856,414	987,295
35-44 years . . . . .	44,812,649	22,254,316	22,558,333	36,946,545	18,540,240	18,406,305	5,652,358	2,653,695	2,998,663	358,769	178,119	180,650	1,854,977	882,262	972,715
45-54 years . . . . .	35,802,358	17,499,088	18,303,270	30,249,529	14,954,220	15,295,309	3,928,525	1,783,710	2,144,815	256,008	123,692	132,316	1,368,296	637,466	730,830
55-64 years . . . . .	23,389,085	11,150,407	12,238,678	20,133,661	9,710,115	10,423,546	2,345,099	1,014,648	1,330,451	148,113	69,600	78,513	762,212	356,044	406,168
65-74 years . . . . .	18,218,248	8,198,696	10,019,552	15,958,629	7,243,777	8,714,852	1,678,493	707,523	970,970	90,511	40,756	49,755	490,615	206,640	283,975
75-84 years . . . . .	12,146,695	4,871,134	7,275,561	10,965,640	4,414,172	6,551,468	889,080	333,297	555,783	50,534	21,212	29,322	241,441	102,453	138,988
85 years and over . . . . .	4,175,082	1,240,242	2,934,840	3,773,265	1,113,878	2,659,387	312,997	92,025	220,972	20,381	6,464	13,917	68,439	27,875	40,564

SOURCE: Unpublished Bureau of the Census file NESTV99.

**Table VI. Estimated population by 10-year age groups, according to specified Hispanic origin, race for non-Hispanic population, and sex: United States, 1999**

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 . . . . .	272,690,817	3,819,898	15,122,243	39,495,210	37,773,512	37,935,822	44,812,633	35,802,344	23,389,103	18,218,255	12,146,702	4,175,095
Male . . . . .	133,276,546	1,952,129	7,730,544	20,219,645	19,334,054	18,826,296	22,254,296	17,499,079	11,150,419	8,198,701	4,871,139	1,240,244
Female . . . . .	139,414,271	1,867,769	7,391,699	19,275,565	18,439,458	19,109,526	22,558,337	18,303,265	12,238,684	10,019,554	7,275,563	2,934,851
Hispanic . . . . .	31,337,161	721,505	2,745,603	5,982,424	5,470,190	5,230,172	4,748,231	2,914,649	1,679,035	1,101,735	554,434	189,183
Male . . . . .	15,761,486	367,917	1,401,922	3,054,760	2,839,902	2,694,460	2,423,093	1,423,924	778,134	485,849	227,993	63,532
Female . . . . .	15,575,675	353,588	1,343,681	2,927,664	2,630,288	2,535,712	2,325,138	1,490,725	900,901	615,886	326,441	125,651
Mexican . . . . .	20,488,782	512,263	1,982,862	4,165,118	3,787,811	3,503,948	2,925,177	1,708,153	924,033	597,836	292,282	89,299
Male . . . . .	10,548,482	261,059	997,510	2,151,110	2,004,072	1,838,773	1,530,723	876,699	450,397	271,914	132,653	33,572
Female . . . . .	9,940,300	251,204	985,352	2,014,008	1,783,739	1,665,175	1,394,454	831,454	473,636	325,922	159,629	55,727
Puerto Rican . . . . .	2,945,172	60,495	231,465	544,553	505,575	451,306	439,630	317,737	193,064	127,288	62,256	11,803
Male . . . . .	1,419,464	30,919	128,458	280,642	246,828	210,967	203,359	149,028	90,634	49,110	25,783	3,736
Female . . . . .	1,525,708	29,576	103,007	263,911	258,747	240,339	236,271	168,709	102,430	78,178	36,473	8,067
Cuban . . . . .	1,344,410	16,287	54,265	135,355	136,076	175,451	208,400	169,844	173,622	144,959	97,666	32,485
Male . . . . .	646,862	7,260	17,640	72,174	66,202	86,250	112,076	82,361	86,336	75,189	31,530	9,844
Female . . . . .	697,548	9,027	36,625	63,181	69,874	89,201	96,324	87,483	87,286	69,770	66,136	22,641
Other Hispanic <sup>1</sup> . . . . .	6,558,797	132,460	477,011	1,137,398	1,040,728	1,099,467	1,175,024	718,915	388,316	231,652	102,230	55,596
Male . . . . .	3,146,678	68,679	258,314	550,834	522,800	558,470	576,935	315,836	150,767	89,636	38,027	16,380
Female . . . . .	3,412,119	63,781	218,697	586,564	517,928	540,997	598,089	403,079	237,549	142,016	64,203	39,216
Non-Hispanic <sup>2</sup> . . . . .	241,353,656	3,098,393	12,376,640	33,512,786	32,303,322	32,705,650	40,064,402	32,887,695	21,710,068	17,116,520	11,592,268	3,985,912
Male . . . . .	117,515,060	1,584,212	6,328,622	17,164,885	16,494,152	16,131,836	19,831,203	16,075,155	10,372,285	7,712,852	4,643,146	1,176,712
Female . . . . .	123,838,596	1,514,181	6,048,018	16,347,901	15,809,170	16,573,814	20,233,199	16,812,540	11,337,783	9,403,668	6,949,122	2,809,200
White . . . . .	196,049,405	2,366,680	9,504,139	25,662,188	25,019,655	25,667,506	32,639,082	27,600,764	18,598,444	14,945,247	10,450,220	3,595,480
Male . . . . .	95,962,070	1,212,565	4,873,529	13,167,936	12,843,492	12,814,074	16,340,919	13,659,876	8,997,644	6,795,986	4,201,617	1,054,432
Female . . . . .	100,087,335	1,154,115	4,630,610	12,494,252	12,176,163	12,853,432	16,298,163	13,940,888	9,600,800	8,149,261	6,248,603	2,541,048
Black . . . . .	33,092,411	529,001	2,074,442	5,886,951	5,446,361	4,996,800	5,366,444	3,757,034	2,249,229	1,617,792	862,710	305,647
Male . . . . .	15,674,062	268,703	1,051,490	2,988,505	2,731,741	2,360,779	2,507,837	1,699,897	971,148	681,338	322,995	89,629
Female . . . . .	17,418,349	260,298	1,022,952	2,898,446	2,714,620	2,636,021	2,858,607	2,057,137	1,278,081	936,454	539,715	216,018

<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 VII. Estimated population for ages 15 years and over by marital status, 10-year age groups, race, and sex: United States, 1999**

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>	214,253,450	37,773,516	37,935,789	44,812,661	35,802,370	23,389,072	18,218,238	16,321,804
Never married	59,325,869	33,280,736	13,443,119	7,028,745	3,023,419	1,216,086	694,728	639,036
Ever married	154,927,581	4,492,780	24,492,670	37,783,916	32,778,951	22,172,986	17,523,510	15,682,768
Married	120,319,059	4,170,254	21,821,638	31,386,346	26,347,606	17,153,203	12,121,780	7,318,232
Widowed	14,703,589	14,013	92,354	404,593	874,824	1,818,109	3,848,043	7,651,653
Divorced	19,904,933	308,513	2,578,678	5,992,977	5,556,521	3,201,674	1,553,687	712,883
All races, <sup>1</sup> male	103,374,198	19,334,060	18,826,271	22,254,312	17,499,075	11,150,399	8,198,689	6,111,392
Never married	32,158,349	17,663,740	7,700,596	4,084,523	1,555,183	611,445	307,972	234,890
Ever married	71,215,849	1,670,320	11,125,675	18,169,789	15,943,892	10,538,954	7,890,717	5,876,502
Married	59,887,583	1,558,121	10,014,050	15,284,800	13,366,454	8,881,852	6,520,127	4,262,179
Widowed	2,697,871	1,205	17,991	104,440	174,507	319,701	710,507	1,369,520
Divorced	8,630,395	110,994	1,093,634	2,780,549	2,402,931	1,337,401	660,083	244,803
All races, <sup>1</sup> female	110,879,252	18,439,456	19,109,518	22,558,349	18,303,295	12,238,673	10,019,549	10,210,412
Never married	27,167,520	15,616,996	5,742,523	2,944,222	1,468,236	604,643	386,756	404,146
Ever married	83,711,732	2,822,460	13,366,995	19,614,127	16,835,059	11,634,032	9,632,793	9,806,266
Married	60,431,476	2,612,133	11,807,588	16,101,546	12,981,152	8,271,351	5,601,653	3,056,053
Widowed	12,005,718	12,808	74,363	300,153	700,317	1,498,408	3,137,536	6,282,133
Divorced	11,274,538	197,519	1,485,044	3,212,428	3,153,590	1,864,273	893,604	468,080
White	178,473,363	30,014,708	30,431,387	36,946,548	30,249,543	20,133,641	15,958,634	14,738,902
Never married	44,853,837	26,047,748	9,676,554	4,926,191	2,188,638	915,291	536,697	562,718
Ever married	133,619,526	3,966,960	20,754,833	32,020,357	28,060,905	19,218,350	15,421,937	14,176,184
Married	104,652,644	3,693,245	18,538,676	26,783,108	22,788,468	15,158,095	10,910,637	6,780,415
Widowed	12,439,757	8,727	66,107	315,778	662,094	1,414,227	3,190,185	6,782,639
Divorced	16,527,125	264,988	2,150,050	4,921,471	4,610,343	2,646,028	1,321,115	613,130
White male	86,690,843	15,441,144	15,273,309	18,540,233	14,954,211	9,710,105	7,243,785	5,528,056
Never married	24,941,567	13,975,201	5,786,730	3,069,701	1,190,999	481,755	236,661	200,520
Ever married	61,749,276	1,465,943	9,486,579	15,470,532	13,763,212	9,228,350	7,007,124	5,327,536
Married	52,237,112	1,366,346	8,563,878	13,068,602	11,581,204	7,856,009	5,873,623	3,927,450
Widowed	2,247,711	846	17,414	80,029	132,439	244,324	577,045	1,195,614
Divorced	7,264,453	98,751	905,287	2,321,901	2,049,569	1,128,017	556,456	204,472
White female	91,782,520	14,573,564	15,158,078	18,406,315	15,295,332	10,423,536	8,714,849	9,210,846
Never married	19,912,270	12,072,547	3,889,824	1,856,490	997,639	433,536	300,036	362,198
Ever married	71,870,250	2,501,017	11,268,254	16,549,825	14,297,693	9,990,000	8,414,813	8,848,648
Married	52,415,532	2,326,899	9,974,798	13,714,506	11,207,264	7,302,086	5,037,014	2,852,965
Widowed	10,192,046	7,881	48,693	235,749	529,655	1,169,903	2,613,140	5,587,025
Divorced	9,262,672	166,237	1,244,763	2,599,570	2,560,774	1,518,011	764,659	408,658
Black	25,833,663	5,740,427	5,286,661	5,652,362	3,928,525	2,345,107	1,678,490	1,202,091
Never married	11,191,899	5,401,212	2,830,960	1,776,005	713,843	271,582	136,849	61,448
Ever married	14,641,764	339,215	2,455,701	3,876,357	3,214,682	2,073,525	1,541,641	1,140,643
Married	9,986,018	307,153	2,093,204	2,914,336	2,237,024	1,268,666	810,750	354,885
Widowed	1,835,077	2,256	24,685	72,818	173,022	330,517	527,831	703,948
Divorced	2,820,669	29,806	337,812	889,203	804,636	474,342	203,060	81,810
Black male	11,971,816	2,881,630	2,505,282	2,653,699	1,783,711	1,014,651	707,518	425,325
Never married	5,475,863	2,750,533	1,374,466	830,959	315,717	116,805	62,027	25,356
Ever married	6,495,953	131,097	1,130,816	1,822,740	1,467,994	897,846	645,491	399,969
Married	4,962,125	122,449	975,428	1,418,674	1,128,887	659,012	441,587	216,088
Widowed	381,222	0	0	20,097	39,804	60,441	111,753	149,127
Divorced	1,152,606	8,648	155,388	383,969	299,303	178,393	92,151	34,754
Black female	13,861,847	2,858,797	2,781,379	2,998,663	2,144,814	1,330,456	970,972	776,766
Never married	5,716,036	2,650,679	1,456,494	945,046	398,126	154,777	74,822	36,092
Ever married	8,145,811	208,118	1,324,885	2,053,617	1,746,688	1,175,679	896,150	740,674
Married	5,023,893	184,704	1,117,776	1,495,662	1,108,137	609,654	369,163	138,797
Widowed	1,453,855	2,256	24,685	52,721	133,218	270,076	416,078	554,821
Divorced	1,668,063	21,158	182,424	505,234	505,333	295,949	110,909	47,056

<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.

relative indexes rather than as actual measures of mortality risk. They were computed by the direct method, that is, by applying age-specific death rates to the U.S. standard population.

Beginning with the 1999 data year, a new population standard was adopted by NCHS for use in age-adjusting death rates. Based on the year 2000 projected population of the United States, the new

standard replaces the 1940 standard population that had been used for over 50 years. The new population standard affects levels of mortality and to some extent trends and group comparisons. Of particular note are the effects on race comparison of mortality. For detailed discussion see *Age Standardization of Death Rates: Implementation of the Year 2000 Standard* (7).

**Table VIII. Estimated population for ages 25–64 years, by educational attainment and sex: Total of 46 reporting States and the District of Columbia, 1999**

Years of school completed and sex	25-64 years	25-34 years	35-44 years	45-54 years	55-64 years
Both sexes . . . . .	134,833,509	36,084,064	42,608,999	33,842,243	22,298,203
Under 12 years . . . . .	17,266,667	4,433,942	4,933,222	3,819,020	4,080,483
12 years . . . . .	44,118,610	11,032,314	14,373,871	10,601,169	8,111,256
13 or more years . . . . .	73,448,232	20,617,808	23,301,906	19,422,054	10,106,464
Male . . . . .	66,309,181	17,920,066	21,187,418	16,562,700	10,638,997
Under 12 years . . . . .	8,790,283	2,371,126	2,629,132	1,855,186	1,934,839
12 years . . . . .	21,261,941	5,762,296	7,282,051	4,733,429	3,484,165
13 or more years . . . . .	36,256,957	9,786,644	11,276,235	9,974,085	5,219,993
Female . . . . .	68,524,328	18,163,998	21,421,581	17,279,543	11,659,206
Under 12 years . . . . .	8,476,384	2,062,816	2,304,090	1,963,834	2,145,644
12 years . . . . .	22,856,669	5,270,018	7,091,820	5,867,740	4,627,091
13 or more years . . . . .	37,191,275	10,831,164	12,025,671	9,447,969	4,886,471

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

**Table IX. Estimated population for the United States, each division, each State, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 1999**

Area	Total	Area	Total
United States . . . . .	272,690,813	East South Central . . . . .	16,582,841
New England . . . . .	13,495,933	Kentucky . . . . .	3,960,825
Maine . . . . .	1,253,040	Tennessee . . . . .	5,483,535
New Hampshire . . . . .	1,201,134	Alabama . . . . .	4,369,862
Vermont . . . . .	593,740	Mississippi . . . . .	2,768,619
Massachusetts . . . . .	6,175,169	West South Central . . . . .	30,325,593
Rhode Island . . . . .	990,819	Arkansas . . . . .	2,551,373
Connecticut . . . . .	3,282,031	Louisiana . . . . .	4,372,035
Middle Atlantic . . . . .	38,334,029	Oklahoma . . . . .	3,358,044
New York . . . . .	18,196,601	Texas . . . . .	20,044,141
New Jersey . . . . .	8,143,412	Mountain . . . . .	17,127,479
Pennsylvania . . . . .	11,994,016	Montana . . . . .	882,779
East North Central . . . . .	44,442,146	Idaho . . . . .	1,251,700
Ohio . . . . .	11,256,654	Wyoming . . . . .	479,602
Indiana . . . . .	5,942,901	Colorado . . . . .	4,056,133
Illinois . . . . .	12,128,370	New Mexico . . . . .	1,739,844
Michigan . . . . .	9,863,775	Arizona . . . . .	4,778,332
Wisconsin . . . . .	5,250,446	Utah . . . . .	2,129,836
West North Central . . . . .	18,800,138	Nevada . . . . .	1,809,253
Minnesota . . . . .	4,775,508	Pacific . . . . .	44,022,633
Iowa . . . . .	2,869,413	Washington . . . . .	5,756,361
Missouri . . . . .	5,468,338	Oregon . . . . .	3,316,154
North Dakota . . . . .	633,666	California . . . . .	33,145,121
South Dakota . . . . .	733,133	Alaska . . . . .	619,500
Nebraska . . . . .	1,666,028	Hawaii . . . . .	1,185,497
Kansas . . . . .	2,654,052	Puerto Rico . . . . .	3,889,507
South Atlantic . . . . .	49,560,021	Virgin Islands . . . . .	119,615
Delaware . . . . .	753,538	Guam . . . . .	151,968
Maryland . . . . .	5,171,634	American Samoa . . . . .	63,781
District of Columbia . . . . .	519,000	Northern Marianas . . . . .	69,216
Virginia . . . . .	6,872,912		
West Virginia . . . . .	1,806,928		
North Carolina . . . . .	7,650,789		
South Carolina . . . . .	3,885,736		
Georgia . . . . .	7,788,240		
Florida . . . . .	15,111,244		

SOURCE: Unpublished Bureau of the Census file STRES991.txt.

All age-adjusted rates shown in this report are based on the year 2000 standard population. The year 2000 standard population and corresponding weights used for computing age-adjusted rates and relative standard errors (RSEs), excluding those by marital status, education, injury at work, and the U.S. territories, are shown in [table X](#).

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

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

Age	Number	Weights ( $w_i$ )
All ages . . . . .	1,000,000	1.000000
Under 1 year . . . . .	13,818	0.013818
1–4 years . . . . .	55,317	0.055317
5–14 years . . . . .	145,565	0.145565
15–24 years . . . . .	138,646	0.138646
25–34 years . . . . .	135,573	0.135573
35–44 years . . . . .	162,613	0.162613
45–54 years . . . . .	134,834	0.134834
55–64 years . . . . .	87,247	0.087247
65–74 years . . . . .	66,037	0.066037
75–84 years . . . . .	44,842	0.044842
85 years and over . . . . .	15,508	0.015508

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 year 2000 standard population and corresponding weights used for computing age-adjusted rates and relative standard errors by marital status are shown in [table XI](#).

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

Age	Number	Weights ( $w_i$ )
25 years and over . . . . .	646,654	1.000000
25–34 years . . . . .	135,573	0.209653
35–44 years . . . . .	162,613	0.251468
45–54 years . . . . .	134,834	0.208510
55–64 years . . . . .	87,247	0.134921
65–74 years . . . . .	66,037	0.102121
75 years and over . . . . .	60,350	0.093327

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 (46). The year 2000 standard population and corresponding weights used for computing age-adjusted rates and relative standard errors by education are shown in [table XII](#).

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

Age	Number	Weights ( $w_i$ )
25–64 years . . . . .	520,267	1.000000
25–34 years . . . . .	135,573	0.260584
35–44 years . . . . .	162,613	0.312557
45–54 years . . . . .	134,834	0.259163
55–64 years . . . . .	87,247	0.167697

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 year 2000 standard population and corresponding weights used for computing age-adjusted rates and relative standard errors for injury at work are shown in [table XIII](#).

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

Age	Number	Weights ( $w_i$ )
15 years and over . . . . .	785,300	1.000000
15–24 years . . . . .	138,646	0.176552
25–34 years . . . . .	135,573	0.172638
35–44 years . . . . .	162,613	0.207071
45–54 years . . . . .	134,834	0.171697
55–64 years . . . . .	87,247	0.111100
65 years and over . . . . .	126,387	0.160941

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 year 2000 standard population and corresponding weights used for computing age-adjusted rates and relative standard errors for the territories are shown in [table XIV](#).

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

Age	Number	Weights ( $w_i$ )
All ages . . . . .	1,000,000	1.000000
Under 1 year . . . . .	13,818	0.013818
1–4 years . . . . .	55,317	0.055317
5–14 years . . . . .	145,565	0.145565
15–24 years . . . . .	138,646	0.138646
25–34 years . . . . .	135,573	0.135573
35–44 years . . . . .	162,613	0.162613
45–54 years . . . . .	134,834	0.134834
55–64 years . . . . .	87,247	0.087247
65–74 years . . . . .	66,037	0.066037
75 years and over . . . . .	60,350	0.060350

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.

Death rates for the Hispanic population are based only on events to persons reported as Hispanic. Rates for non-Hispanic white persons are based on the sum of all events to white decedents reported as non-Hispanic and white decedents with origin not stated. Hispanic origin is not imputed if it is not reported.

### 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. Random variation is discussed for demographic data and cause-of-death data separately because of problems in comparing cause-of-death between ICD revisions.

*Demographic data*—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 RSEs in percent, this formula may be used for all tables except for the death rates shown in tables 4, 22, and 23 (see subsection below):

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

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 RSE( $R$ ) of 23 percent or more. A 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 4, 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

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

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 <http://www.cdc.gov/nchs> and refer to "Technical Appendix from *Vital Statistics of United States: Mortality, 1999*."

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 4, 22, and 23, the chances are 95 in 100 that the actual rate falls within the confidence interval as computed using the following formula:

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

For computing 95-percent confidence intervals for  $R$  when  $D$  is less than 100 deaths, see the Web site 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:

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

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 4, 22, and 23, the RSEs in formulas 3 and 4 above would be substituted by this formula:

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

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 X 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 RSEs in formulas 3 and 4 would be substituted by the following formula:

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

where

$B$  = number of live births

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

Tables 4, 22, and 23—Rates for Mexicans, Puerto Ricans, Cubans, and Other Hispanics in table 4, 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 4, 22, and 23 the following RSE formulas were used to determine an RSE of 23 percent or more for the purpose of showing the rate or an asterisk.

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

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

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

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

where

$D$  = number of deaths  
 $P$  = population estimate used for computing the rate (see table VI for population estimates used for computing rates in table 4; see table VII for population estimates used for computing rates in table 22; and see table VIII 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 VI for population estimates used for computing rates in table 4; see table VII for population estimates used for computing rates in table 22; and see table VIII 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 X for weights ( $w_i$ ) used for computing age-adjusted rates in table 4; see table XI for weights used for computing age-adjusted rates in table 22; and see table XII 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 4, 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,

$$a = -0.000238 \text{ and } b = 7,486$$

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,

$$a = -0.000213 \text{ and } b = 7,486$$

In table 23, for all education groups combined,

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

and for each education group,

$$a = -0.000011 \text{ and } b = 2,369$$

The  $a$  and  $b$  parameters are averages of the 1998 and 1999 CPS standard error parameters (60,61).

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

*Cause-of-death data*—The calculation of measures of variability by cause of death take into account the variability of the comparability ratio modified 1998 data for comparison with the 1999 data. For additional information on the statistical tests below, please refer to *A Guide to State Implementation of ICD-10 for Mortality, Part II: Applying Comparability Ratios* (62) at the following Web site: <http://www.cdc.gov/nchs/datawh/statab/unpubd/comp.htm>.

Two issues arise in the analysis of mortality data across the boundary of two ICD revisions (ICD-9 and ICD-10):

1. data presentation and analysis
2. statistical tests to ascertain whether the change in mortality between the last year of the old revision (1998) and the first year of the new revision (1999) is a statistically significant change

Table 8 presents death rates for the 15 leading causes of death in 1999 according to ICD-10, compared with death rates for 1998 for the most nearly comparable ICD-9 titles (tables I and II) multiplied by the ICD-10:ICD-9 comparability ratios (comparability-modified death rates). Also shown are the 1998 rates that are not comparability-modified for the same 15 leading causes.

The second issue is determining whether the change in death rates between 1998 and 1999 was statistically significant, taking into account comparability. This is accomplished in a manner similar to statistical analysis of mortality trends within the same revision (8), but

incorporating into the comparisons and the statistical tests explicit regard for comparability. This section focuses on presenting methods for analyzing differences in mortality *between* revisions. The key difference is that the latter analysis must take explicitly into account comparability ratios that measure the quantitative impact of the new revisions on causes of death.

Formulas shown below address the general problem of evaluating differences between two population-based death rates estimated for successive years, between revisions of the ICD. Rates used throughout the section are specific for cause of death. Rates computed using data from an initial year ( $R_1$ ) are assumed to be based on ICD-9, while those for the following year ( $R_2$ ) are assumed to be based on ICD-10. A comparability ratio ( $C$ ) measures the level of agreement between classification systems. The cause-specific comparability ratio will be applied to  $R_1$  to adjust for the change in the way these deaths were classified for the later revision compared with the earlier revision. In addition to 1998 mortality data, this factor ( $C$ ) should also be applicable to at least 1994, 1995, 1996, and 1997. The comparability ratio needs to be considered in statistical tests that compare the changes in rates from one year to a subsequent one between revisions.

In applying the formulas, distinctions should be made for cases involving large (100 or more) and small (1-99) numbers of deaths. All formulas in this section are for cases involving large numbers of deaths (100 or more). Formulas for constructing 95 percent confidence intervals for small numbers of deaths are shown in the publication mentioned above (62).

The general formula for obtaining (estimated) RSE's for a point estimate,  $\theta$  (like a comparability ratio), is the following:

$$9. \text{ RSE}(\hat{\theta}) = 100 \frac{S(\hat{\theta})}{\hat{\theta}}$$

where

$$S(\theta) = \text{standard error of Theta}$$

The estimated RSE for an age-specific death rate or a crude death rate is given by the formula below:

$$10. \text{ RSE}(R) = \text{RSE}(D) = 100 \sqrt{\frac{1}{D}}$$

where

$R$  = the cause-specific death rate produced by dividing the number of deaths attributed to a given cause at a given time by the population-at-risk for that same time period

$D$  = the estimated number of deaths due to a given cause on a given time

The following procedures for constructing approximate 95 percent confidence intervals are ordered depending on whether the death rate was computed based on the recently introduced ICD-10 revision or on the previous (ICD-9) revision, respectively. The rate based on the ICD-9 revision is adjusted by the application of a cause-specific comparability ratio.

For an age-specific or crude death rate based on the ICD-10 revision, the 95 percent confidence interval may be captured as follows:

$$11. \text{ Lower limit: } R_2 - \left( 1.96 \cdot R_2 \cdot \frac{\text{RSE}(R_2)}{100} \right)$$

$$12. \text{ Upper limit: } R_2 + \left( 1.96 \cdot R_2 \cdot \frac{\text{RSE}(R_2)}{100} \right)$$

For an age-specific or crude death rate based on the ICD-9 revision, the 95 percent confidence interval may be captured as follows:

$$13. \text{ Lower limit: } C \cdot R_1 - \left( 1.96 \cdot C \cdot R_1 \cdot \frac{\text{RSE}(C \cdot R_1)}{100} \right)$$

$$14. \text{ Upper limit: } C \cdot R_1 + \left( 1.96 \cdot C \cdot R_1 \cdot \frac{\text{RSE}(C \cdot R_1)}{100} \right)$$

where

$R_2$  = death rate (per 100,000) computed for data year under ICD-10

$C$  = ICD-10:ICD-9 comparability ratio specific for the cause-of-death of interest

$R_1$  = death rate (per 100,000) computed for data year under ICD-9

Let us suppose that the respective ICD-9 and ICD-10 death rates for a cause of death were 11.7 ( $R_1$ ) and 6.2 ( $R_2$ ) per 100,000 population. The ICD-10:ICD-9 comparability ratio ( $C$ ) obtained for this cause was 1.0600. Its standard error,  $S(C)$ , is 0.0096.

Assume that the numbers of deaths for this cause were 31,130 for ICD-9 and 16,516 for ICD-10. By inserting the number of deaths ( $D$ ) into formula 10, we obtain the RSEs for both yearly rates: 0.5668 for the ICD-9 rate and 0.7781 for the ICD-10 rate [ $\text{RSE}(R_1)$  and  $\text{RSE}(R_2)$ , respectively].

By inserting the comparability ratio and its standard error into Formula 9, we obtain  $\text{RSE}(C) = (0.0096 / 1.0600) \cdot 100 = 0.9057$ .

Since we wish to modify the ICD-9 rate ( $R_1$ ) to compensate for the difference in classification systems, we must multiply this rate times the comparability ratio  $C \cdot R_1 = 12.40$ . To obtain the standard error of this modified ICD-9 rate,  $S(C \cdot R_1)$ , we must refer to Formula 17. This formula requires knowing the RSEs for the ICD-9 rate and for the comparability ratio. By substituting these values into the formula, we have that  $\text{RSE}(C \cdot R_1) = 1.0684$ .

Lower 95-percent confidence interval limit for  $C \cdot R_1 = 12.40 - (1.96 \cdot 0.1325) = 12.14$ .

Upper 95-percent confidence interval limit for  $C \cdot R_1 = 12.40 + (1.96 \cdot 0.1325) = 12.66$ .

Lower 95-percent confidence interval limit for  $R_2 = 6.2 - (1.96 \cdot 0.0482) = 6.10$ .

Upper 95-percent confidence interval limit for  $R_2 = 6.2 + (1.96 \cdot 0.0482) = 6.29$ .

For testing the difference between two rates ( $R_1$  and  $R_2$ , each based on 100 or more deaths), the following z-test that considers the use of a comparability ratio applied to ICD-9 death rates, may be used to define a significance test statistic:

$$15. \ z = \frac{C \cdot R_1 - R_2}{\sqrt{C^2 \cdot R_1^2 \left[ \left( \frac{\text{RSE}(R_1)}{100} \right)^2 + \left( \frac{\text{RSE}(C)}{100} \right)^2 \cdot \left[ 1 + \left( \frac{\text{RSE}(R_1)}{100} \right)^2 \right] \right] + R_2^2 \left( \frac{\text{RSE}(R_2)}{100} \right)^2}}$$

where

$C$  = ICD-10:ICD-9 comparability ratio for the specific cause category

$R_1, R_2$  = cause-specific death rates based on ICD-9 and ICD-10 years, respectively

$\text{RSE}(R_1)$  = relative standard error of the ICD-9 cause-specific death rate

$\text{RSE}(R_2)$  = relative standard error of the ICD-10 cause-specific death rate

$\text{RSE}(C)$  = relative standard error of the ICD-10:ICD-9 comparability ratio specific for the cause of death

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 *A Guide to State Implementation of ICD-10 for Mortality, Part II: Applying Comparability Ratios* (62).

For tables showing an age-adjusted death rate, ( $R'$ ), the RSE in formula 5 above would be substituted by this formula:

$$16. \ \text{RSE}(R'_2) = 100 \frac{\sqrt{\sum \left[ w_i^2 \cdot R_{i2}^2 \left( \frac{1}{D_{i2}} \right) \right]}}{R'_2}$$

where

$R'_2$  = age-adjusted death rate for a specific cause of interest, based on ICD-10

$i$  = each age group

$R_{i2}$  = age-specific death rate for the  $i$ th age group (ICD-10 file)

$w_i$  =  $i$ th age-specific U.S. Standard Population weight such that  $\sum w_i = 1.000000$

$D_{i2}$  = number of deaths for the  $i$ th age group (ICD-10 file) attributed to the cause of interest

$C_i$ 's are treated as constants in this report ( $C_i = C$ ). Assuming that we have both an age-specific rate and comparability ratio, we may proceed to compute the RSE for  $C_i R_{i1}$  for each age group. This is the first of two steps necessary for obtaining the RSE of an age-adjusted rate based on ICD-9 data that has been modified through a comparability ratio,  $R'_1$ . For an age-specific comparability ratio and death rate based on the ICD-9 revision, the RSE can be calculated as follows:

$$17. \ \text{RSE}(C_i \cdot R_{i1}) = 100 \sqrt{\left( \frac{\text{RSE}(R_{i1})}{100} \right)^2 + \left( \frac{\text{RSE}(C_i)}{100} \right)^2 \left[ 1 + \left( \frac{\text{RSE}(R_{i1})}{100} \right)^2 \right]}$$

where

$C_i$  = age-specific comparability ratio for the cause of interest

$R_{i1}$  = age-specific death rate for the  $i$ th age group (ICD-9 file)

Let  $R'_1 = \sum w_i C_i R_{i1}$ . The RSE for  $R'_1$  would incorporate all 11 values (corresponding to each age group) computed through the



previous formula. For age-adjusted and comparability-modified death rates based on the ICD-9 revision, the RSE can be calculated as follows:

$$18. \text{RSE}(R''_1) = 100 \frac{\sqrt{\sum \left[ w_i^2 (C_i R_{i1})^2 \cdot \left( \frac{\text{RSE}(C_i R_{i1})}{100} \right)^2 \right]}}{R''_1}$$

where

$R''_1$  = age-adjusted death rate for a specific cause of interest based on ICD-9 data and modified by a comparability ratio

The following procedures for constructing approximate 95 percent confidence intervals are ordered depending on whether the age-adjusted death rate was computed based on the recently introduced ICD-10 revision or on the previous (ICD-9) revision, respectively. The rate based on the ICD-9 revision is adjusted by the application of a cause-specific comparability ratio.

For an age-adjusted death rate based on the ICD-10 revision, the 95 percent confidence interval may be captured as follows:

$$19. \text{Lower limit: } R'_2 - \left( 1.96 \cdot R'_2 \cdot \frac{\text{RSE}(R'_2)}{100} \right)$$

$$20. \text{Upper limit: } R'_2 + \left( 1.96 \cdot R'_2 \cdot \frac{\text{RSE}(R'_2)}{100} \right)$$

For an age-adjusted and comparability-modified death rate based on the ICD-9 revision, the 95 percent confidence interval may be captured as follows:

$$21. \text{Lower limit: } R''_1 - \left( 1.96 \cdot R''_1 \cdot \frac{\text{RSE}(R''_1)}{100} \right)$$

$$22. \text{Upper limit: } R''_1 + \left( 1.96 \cdot R''_1 \cdot \frac{\text{RSE}(R''_1)}{100} \right)$$

where

$R'_2$  = age-adjusted death rate (per 100,000) computed for data year under ICD-10

$R''_1$  = age-adjusted death rate (per 100,000) computed for data year under ICD-9

## Availability of mortality data

Mortality data are available in publications, unpublished tables, and electronic products as described on the NCHS Web site at the following address: <http://www.cdc.gov/nchs>. 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 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 (63).

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