

Deaths: Preliminary Data for 2007

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Abstract

Objectives—This report presents preliminary U.S. data on deaths, death rates, life expectancy, leading causes of death, and infant mortality for 2007 by selected characteristics such as age, sex, race, and Hispanic origin.

Methods—Data in this report are based on death records comprising approximately 91 percent of the demographic file and 87 percent of the medical file for all deaths in the United States in 2007. The records are weighted to independent control counts for 2007. For certain causes of death such as unintentional injuries, homicides, suicides, drug-induced deaths, and sudden infant death syndrome, preliminary and final data may differ because of the truncated nature of the preliminary file. Comparisons are made with 2006 final data.

Results—The age-adjusted death rate for the United States decreased from 776.5 deaths per 100,000 population in 2006 to 760.3 deaths per 100,000 population in 2007. Age-adjusted death rates in 2007 decreased significantly from 2006 for 8 of the 15 leading causes of death: Diseases of heart, Malignant neoplasms, Cerebrovascular diseases, Accidents (unintentional injuries), Diabetes mellitus, Influenza and pneumonia, Essential hypertension and hypertensive renal disease, and Assault (homicide). The rate for Chronic lower respiratory diseases increased in 2007 from 2006. Age-adjusted death rates for Alzheimer's disease, Septicemia, Intentional self-harm (suicide), Chronic liver disease and cirrhosis, Parkinson's disease, and Nephritis, nephrotic syndrome and nephrosis did not change significantly in 2007 from 2006. Life expectancy at birth rose by 0.2 years to 77.9 years.

Keywords: mortality rates • life expectancy • vital statistics • preliminary

Introduction

This report presents preliminary mortality data for the United States based on vital records for a substantial proportion of deaths occurring in 2007. Statistics in preliminary reports are generally considered reliable; past analyses reveal that most statistics shown in preliminary reports for 1995–2006 were confirmed by the final statistics for each of those years (1–12).

Data Sources and Methods

Preliminary data in this report are based on records of deaths that occurred in calendar year 2007, which were received from state vital statistics offices and processed by the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS) as of October 6, 2008. Estimates of the level of completeness of preliminary data for each state are shown in [Table I](#). Detailed information on the nature, sources, and qualifications of the preliminary data are given in "[Technical Notes](#)."

Each state vital statistics office reported to NCHS the number of deaths registered and processed for calendar year 2007. Those state counts were used as independent control counts for NCHS's 2007 preliminary national mortality file. A comparison of a) the number of 2007 death records received from the states for processing by NCHS with b) the state's independent control counts of the number of deaths in 2007 indicates that demographic information for the United States was available for an estimated 87 percent of infant deaths (under age 1 year) and about 91 percent of deaths of persons aged 1 year and over occurring in calendar year 2007 (see [Table I](#) in "[Technical Notes](#)"). For this report, state-specific estimates are presented in [Table 3](#) only for states for which the demographic file was at least 75 percent complete. In 2007, those states with less than 75 percent completeness were Texas (35.7 percent), Georgia (61.9 percent), and California (68.3 percent) (see [Table I](#)). Data for these states are included in U.S. totals but not shown separately. Analysis indicates no reason to expect any substantial bias in U.S. totals due to the lower levels of completeness for these three states. Medical or cause-of-death information was processed separately and available for an estimated 83 percent of infant deaths and 87 percent of deaths of persons aged 1 year and over in 2007.

To produce the preliminary estimates shown in this report, 2007 records were weighted using 2007 independent control counts of infant deaths and deaths of those aged 1 year and over received in state vital statistics offices. Two separate sets of weights were applied to the death records—one set for demographic information and another for medical information. This results in slight inconsistencies between demographic data from the mortality demographic tables and the medical tables

showing causes of death (see “Nature and sources of data” in “[Technical Notes](#)”). Preliminary estimates are subject to sampling variation as well as random variation.

Cause-of-death information is not always available when preliminary data are sent to NCHS, but is available later for final data processing. As a result, estimates of cause of death based on preliminary mortality data may differ from statistics developed from the final mortality data (see [Tables II](#) and [III](#) in “[Technical Notes](#)”). Such differences may affect certain causes of death where the cause is pending investigation, such as for Assault (homicide), Intentional self-harm (suicide), Accidents (unintentional injuries), Drug-induced deaths, and Sudden infant death syndrome (SIDS); see “Nonsampling error” in “[Technical Notes](#).”

This preliminary report includes national and state estimates of total deaths and death rates, as well as statistics on life expectancy, infant mortality, and causes of death. Data are shown for the following race and ethnic groups: white, non-Hispanic white, black, non-Hispanic black, American Indian or Alaska Native (AIAN), Asian or Pacific Islander (API), and Hispanic populations. Tabulations by race and ethnic group are based on the race and ethnic group reported for the decedent. Race and Hispanic origin are reported as separate items on the death certificate. Death rates for AIAN, API, and, to a lesser extent, Hispanic populations are known to be too low because of reporting problems (see “Race and Hispanic origin” in “[Technical Notes](#)”).

Changes in death rates in 2007 from 2006, as well as differences in death rates across demographic groups for 2007, were tested for statistical significance. Unless otherwise specified, reported differences in death rates are statistically significant.

Age-adjusted death rates are better indicators than crude death rates for showing changes in the risk of death over time when the age distribution of the population is changing, and for comparing the mortality of population subgroups that have different age compositions. All age-adjusted death rates are standardized to the year 2000 population (see “Computing rates and percentages” in “[Technical Notes](#)”).

Two measures of infant mortality are shown: the infant death rate and the infant mortality rate (see “Infant mortality” in “[Technical Notes](#)”). These measures typically are similar, although they can differ because they have different denominators. The denominator of the 2007 infant death rate is the estimated population under age 1 year on the reference date of July 1, 2007 (13). This estimated population includes a combination of infants born in 2006 who had not reached their first birthday by July 1, 2007, and infants born in 2007 before July 1. In contrast, the denominator of the 2007 infant mortality rate is all live births occurring in 2007. The infant mortality rate is a better indicator of the risk of dying during the first year of life than the infant death rate.

This report includes data for 25 reporting areas—California, Connecticut, Delaware, District of Columbia, Florida, Idaho, Kansas, Michigan, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York City, New York State (excluding New York City), Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Utah, Washington, and Wyoming—that had implemented the 2003 revision of the U.S. Standard Certificate of Death by the beginning of 2007. The remaining 27 reporting areas collected and reported death data in 2007 based on the 1989 revision of the U.S. Standard Certificate of Death. The 2003 revision is described in detail elsewhere (14,15). In this report, revised data are combined with unrevised but comparable data. More details on procedures used to combine revised with unrevised data on race are given in “[Technical Notes](#).”

The populations used to calculate death rates were produced under a collaborative arrangement with the U.S. Census Bureau and are based on year 2000 census counts. Death certificate data by race (i.e., the numerators for death rates) are not wholly comparable with the population data collected in the 2000 census (i.e., the denominators for the rates). Consistent with the population data collected in the 2000 census, multiple-race data were collected in 2007 by the 25 reporting areas that used the 2003 revision of the U.S. Standard Certificate of Death and four additional areas—Hawaii, Maine, Minnesota, and Wisconsin—that used the 1989 revision of the U.S. Standard Certificate of Death. The remaining 23 reporting areas did not collect multiple-race data in 2007. In order to produce national death rates for 2006 and 2007 for this report, the incompatible reported population data were “bridged” to be consistent with the 1977 Office of Management and Budget (OMB) single-race categories (16) for consistency; that is, the multiple-race categories had to be bridged to single-race categories. The data for Asian persons and Native Hawaiians or Other Pacific Islanders (NHOPI) were reported as the combined category API, and age was reflected as of the census reference date (17). The procedures used to produce the bridged populations are described in separate publications (18,19). As the remaining 23 reporting areas gradually begin to collect data on race according to the 1997 OMB standards (20), use of the bridged populations is expected to be discontinued.

Readers should keep in mind that the population data used to compile the death rates by race shown in this report are based on special estimation procedures. They are not true counts. The estimation procedures used to develop these populations are subject to error. Smaller population groups are affected much more than larger populations by this measurement error, especially the AIAN population (18).

Results

Trends in numbers and rates

The preliminary number of deaths in the United States for 2007 was 2,423,995, representing a decrease of 2,269 from the 2006 total ([Table 1](#)). The crude death rate of 803.7 per 100,000 population was 0.83 percent less than the rate of 810.4 per 100,000 in 2006. The estimated age-adjusted death rate, which accounts for changes in the age distribution of the population, reached a record low of 760.3 per 100,000 U.S. standard population, 2.1 percent lower than the 2006 rate of 776.5 ([Tables A](#) and [1](#)) (12). [Figure 1](#) illustrates the pattern of decline in both crude and age-adjusted death rates from 1980 through 2007. In 2007, age-adjusted death rates decreased from 2006 by 2.1 percent for males and by 2.2 percent for females. All of the sex, race, and Hispanic origin groups described in this report showed significant decreases in the age-adjusted death rate in 2007 from 2006, with the exception of AIAN males, who experienced a decrease that was not statistically significant. The relative magnitudes of these decreases in age-adjusted death rates by sex, race, and Hispanic origin ([Table 1](#)) are:

- White males (1.7 percent)
- White females (1.8 percent)
- Non-Hispanic white males (1.4 percent)
- Non-Hispanic white females (1.4 percent)
- Black males (4.1 percent)

Table A. Deaths, age-adjusted death rates, and life expectancy at birth, by race and sex; and infant deaths and mortality rates, by race: United States, final 2006 and preliminary 2007

[Data are based on a continuous file of records received from the states. Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals]

Measure and sex	All races ¹		White ²		Black ²	
	2007	2006	2007	2006	2007	2006
All deaths	2,423,995	2,426,264	2,079,424	2,077,549	285,118	289,971
Male	1,204,034	1,201,942	1,026,371	1,022,328	146,131	148,602
Female	1,219,962	1,224,322	1,053,053	1,055,221	138,988	141,369
Age-adjusted death rate ³	760.3	776.5	751.2	764.4	942.6	982.0
Male	905.8	924.8	892.7	908.2	1,165.8	1,215.6
Female	643.4	657.8	636.4	648.2	780.5	813.0
Life expectancy at birth (in years) ⁴	77.9	77.7	78.3	78.2	73.7	73.2
Male	75.3	75.1	75.8	75.7	70.2	69.7
Female	80.4	80.2	80.7	80.6	77.0	76.5
All infant deaths	29,241	28,527	19,049	18,403	8,793	8,858
Infant mortality rate ⁵	6.77	6.69	5.72	5.56	12.92	13.29

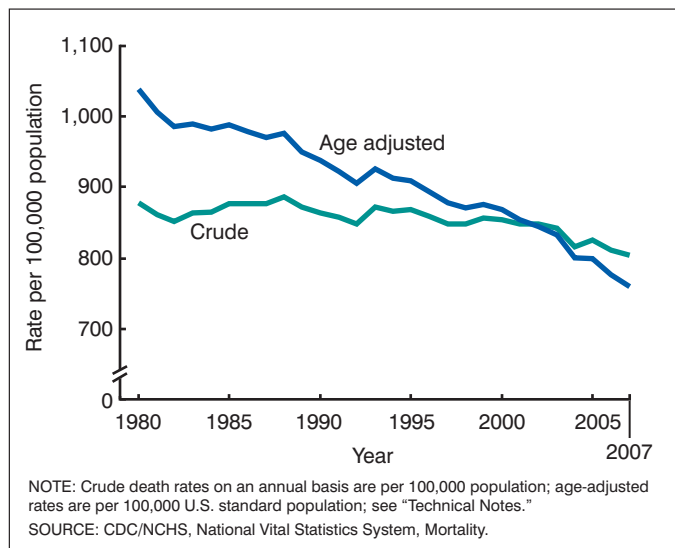
¹Includes races other than white and black.

²Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported for California, Connecticut, District of Columbia, Delaware, Florida, Hawaii, Idaho, Kansas, Maine, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Utah, Washington, Wisconsin, and Wyoming in 2007, and for California, Connecticut, District of Columbia, Florida, Hawaii, Idaho, Kansas, Maine, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Utah, Washington, Wisconsin, and Wyoming in 2006. The multiple-race data for these reporting areas were bridged to the single-race categories of the 1977 OMB standards for comparability with other reporting areas; see "Technical Notes."

³Age-adjusted death rates are per 100,000 U.S. standard population, based on the year 2000 standard.

⁴Life expectancies for 2006 and 2007 were calculated using a revised methodology and may differ from those previously published; see "Technical Notes."

⁵Infant mortality rates are deaths under 1 year per 1,000 live births in specified group.

**Figure 1. Crude and age-adjusted death rates: United States, 1980–2006 final and 2007 preliminary**

- Black females (4.0 percent)
- Non-Hispanic black males (4.1 percent)
- Non-Hispanic black females (3.9 percent)
- AIAN males (0.4 percent, not significant)
- AIAN females (4.7 percent)
- API males (4.2 percent)
- API females (4.8 percent)
- Hispanic males (5.5 percent)
- Hispanic females (6.6 percent)

Among the major race and Hispanic origin groups, the lowest mortality was reported for the API, Hispanic, and AIAN populations. Compared with the non-Hispanic white population, preliminary age-adjusted death rates were 46.5 percent lower for the API population, 30.8 percent lower for the Hispanic population, and 18.4 percent lower for the AIAN population. In contrast, the age-adjusted death rate for the non-Hispanic black population was 25.5 percent higher than that for the non-Hispanic white population (Table 1). However, mortality for races other than white and black may be seriously understated in some cases due to underreporting for some race groups and Hispanic origin on death certificates (21–23).

Statistically significant decreases in mortality in 2007 from 2006 were registered across all age groups except under 1 year, 1–4 years, and 5–14 years. The magnitude of the decreases in mortality (which are significant unless specified otherwise) by age group is (Table 1):

- Under 1 year (0.6 percent, not significant)
- 15–24 years (2.4 percent)
- 25–34 years (1.4 percent)
- 35–44 years (3.1 percent)
- 45–54 years (1.8 percent)
- 55–64 years (1.7 percent)
- 65–74 years (2.7 percent)
- 75–84 years (1.9 percent)
- 85 years and over (2.1 percent)

The death rate for age group 1–4 years increased by 0.7 percent, but was not statistically significant. The rate for age group 5–14 years remained unchanged.

The death rate for "under 1 year" shown above is based on a population estimate and is different from the infant mortality rate, which is based on live births (see "Infant mortality").

Life expectancy data shown in this report for data years 2000–2007 are based on a newly revised methodology and may differ from figures previously published. The revised methodology is similar to that developed for the 1999–2001 decennial life tables; see “Technical Notes.” The preliminary estimate of life expectancy at birth for the total population in 2007 reached a record high of 77.9 years. This represents an increase of 0.2 years relative to 2006 (see Tables A and 6). Life expectancy for males and females reached record levels in 2007. In 2007, both male and female life expectancies increased from 2006 by 0.2 years, from 75.1 to 75.3 years for males, and from 80.2 years to 80.4 years for females. The difference between male and female life expectancy at birth has been generally decreasing since its peak of 7.8 years in 1979 (24). However, the gap between male and female life expectancy was 5.1 years in 2007, the same as in 2006. Record-high life expectancies were reached for white males (75.8 years) and black males (70.2 years), as well as for white females (80.7 years) and black females (77.0 years). For black males and black females, life expectancies rose by 0.5 years, from 69.7 to 70.2 years for black males and from 76.5 to 77.0 years for black females. For the first time, life expectancy for black males reached 70 years. The gap between white and black life expectancy narrowed by 0.4 years, from 78.2 years (white population) and 73.2 years (black population) in 2006 to 78.3 years (white population) and 73.7 years (black population) in

2007. White females have the highest life expectancy (Figure 2), followed by, in order, black females, white males, and black males. Figure 2 also shows that this pattern has not changed from 1976 through 2007, even though life expectancy for all groups increased over this time period.

By state of residence, Hawaii had the lowest mortality in 2007 with an age-adjusted death rate of 607.7 deaths per 100,000 standard population (Table 3). Mortality was highest in West Virginia, with an age-adjusted death rate of 951.7 per 100,000 standard population.

Causes of death

The 15 leading causes of death in 2007 (Table B) remained the same as in 2006, with the exception of two causes that exchanged ranks. Alzheimer’s disease, the seventh leading cause of death in 2006, became the sixth leading cause in 2007, whereas Diabetes mellitus (diabetes), the sixth leading cause in 2006, became the seventh leading cause in 2007. The 15 leading causes of death in 2007 were:

1. Diseases of heart
2. Malignant neoplasms
3. Cerebrovascular diseases

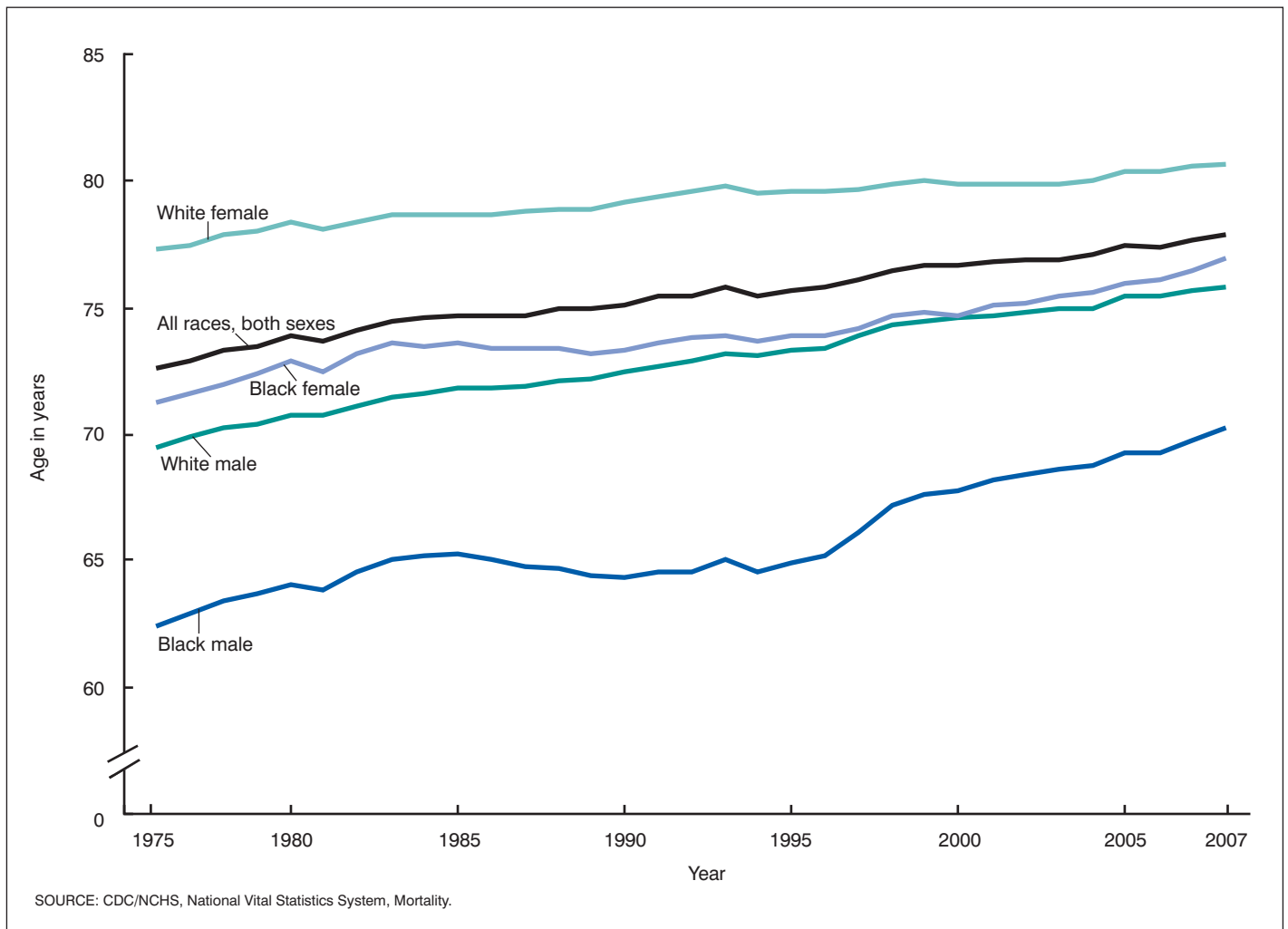


Figure 2. Life expectancy at birth, by race and sex: United States, 1975–2006 final and 2007 preliminary

Table B. Deaths and death rates for 2007 and age-adjusted death rates and percent changes in age-adjusted rates from 2006 to 2007 for the 15 leading causes of death: United States, final 2006 and preliminary 2007

[Data are based on a continuous file of records received from the states. Rates are per 100,000 population; age-adjusted rates per 100,000 U.S. standard population based on the year 2000 standard; see "Technical Notes." For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals]

Rank ¹	Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>)	Number	Death rate	Age-adjusted death rate		
				2007	2006	Percent change
...	All causes	2,424,059	803.7	760.3	776.5	-2.1
1	Diseases of heart (I00-I09,I11,I13,I20-I51)	615,651	204.1	190.7	200.2	-4.7
2	Malignant neoplasms (C00-C97)	560,187	185.7	177.5	180.7	-1.8
3	Cerebrovascular diseases (I60-I69)	133,990	44.4	41.6	43.6	-4.6
4	Chronic lower respiratory diseases (J40-J47)	129,311	42.9	41.2	40.5	1.7
5	Accidents (unintentional injuries) (V01-X59,Y85-Y86) ²	117,075	38.8	37.8	39.8	-5.0
6	Alzheimer's disease (G30)	74,944	24.8	22.8	22.8	0.9
7	Diabetes mellitus (E10-E14)	70,905	23.5	22.4	23.3	-3.9
8	Influenza and pneumonia (J09-J18) ³	52,847	17.5	16.3	17.8	-8.4
9	Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27)	46,095	15.3	14.4	14.5	-0.7
10	Septicemia (A40-A41)	34,851	11.6	11.0	11.0	0.0
11	Intentional self-harm (suicide) (*U03,X60-X84,Y87.0) ²	33,185	11.0	10.8	10.9	-0.9
12	Chronic liver disease and cirrhosis (K70,K73-K74)	28,504	9.5	8.9	8.8	1.1
13	Essential hypertension and hypertensive renal disease (I10,I12,I15)	23,769	7.9	7.3	7.5	-2.7
14	Parkinson's disease (G20-G21)	20,136	6.7	6.4	6.3	1.6
15	Assault (homicide) (*U01-*U02,X85-Y09,Y87.1) ²	17,520	5.8	5.8	6.2	-6.5
...	All other causes (residual)	465,089	154.2	...	...	...

... Category not applicable.

¹Rank based on number of deaths.

²For unintentional injuries, suicides, and homicides, preliminary and final data may differ significantly because of the truncated nature of the preliminary file.

³New code J09 (Influenza due to identified avian influenza virus) was added to the category in 2007.

NOTES: Data are subject to sampling and random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes."

4. Chronic lower respiratory diseases
5. Accidents (unintentional injuries)
6. Alzheimer's disease
7. Diabetes mellitus
8. Influenza and pneumonia
9. Nephritis, nephrotic syndrome and nephrosis
10. Septicemia
11. Intentional self-harm (suicide)
12. Chronic liver disease and cirrhosis
13. Essential hypertension and hypertensive renal disease
14. Parkinson's disease
15. Assault (homicide)

The age-adjusted death rate declined significantly for 8 of the 15 leading causes of death in 2007 from 2006. The preliminary age-adjusted death rate for the leading cause of death, Diseases of heart, decreased by 4.7 percent. The age-adjusted death rate for Malignant neoplasms decreased by 1.8 percent (see [Tables B](#) and [2](#)). Deaths from these two diseases combined accounted for about 1.18 million deaths, or 48.5 percent of all deaths in 2007. Although heart disease mortality has exhibited a downward trend since 1950, cancer mortality began to decline only in the early 1990s (10).

The preliminary age-adjusted death rate also decreased significantly in 2007 from 2006 for Influenza and pneumonia (8.4 percent), Assault (homicide) (6.5 percent), Accidents (unintentional injuries) (5.0 percent), Cerebrovascular diseases (4.6 percent), Diabetes mellitus (3.9 percent), and Essential hypertension and hypertensive renal disease (2.7 percent). Declines occurred in the age-adjusted death rates for Intentional self-harm (suicide) (0.9 percent) and Nephritis, nephrotic syndrome and nephrosis (0.7 percent), but these declines

were not statistically significant. Age-adjusted death rates for Chronic lower respiratory diseases increased significantly by 1.7 percent. Although rates increased for Parkinson's disease (1.6 percent), Chronic liver disease and cirrhosis (1.1 percent), and Alzheimer's disease (0.9 percent), these gains were not statistically significant. The age-adjusted death rate for Septicemia remained unchanged in 2007 from 2006.

Although Human immunodeficiency virus (HIV) disease was not one of the 15 leading causes of death in 2007, it is still of concern. An estimated 11,061 deaths from HIV disease occurred in 2007. The preliminary age-adjusted death rate for this cause declined significantly by 10.0 percent in 2007 from 2006 ([Table 2](#)). Following a period of increase from 1987 through 1994, HIV disease mortality reached a plateau in 1995. Subsequently, the rate for this disease decreased an average of 33.0 percent per year from 1995 through 1998, and 3.9 percent per year from 1999 through 2006 (12). For all races combined, HIV disease was the 13th leading cause of death in 2007 for the age group 15-24 years, a decrease in rank from 8th place in 2006 (12). For the age group 25-44 years, HIV disease was the 6th leading cause of death, as well as the 11th leading cause of death for the age group 45-64 years, both remaining unchanged in 2007 from 2006 ([Table 7](#)) (12).

Enterocolitis due to *Clostridium difficile* (*C. difficile*), a predominantly antibiotic-associated inflammation of the intestines caused by *C. difficile*, a gram-positive, anaerobic, spore-forming bacillus, is of growing concern. The disease is often acquired in hospitals or other health-care facilities with long-term patients or residents and accounts for an increasing number of deaths (25,26). In 1999, 793 deaths were due to *C. difficile*, compared with 6,432 *C. difficile* deaths in 2007

(Table 2). The age-adjusted death rate for this cause increased significantly from 0.28 deaths per 100,000 standard population in 1999 to 2.01 deaths per 100,000 standard population in 2007. *C. difficile* is included among the rankable causes of death as of 2006 and is shown appended to the List of 113 Selected Causes of Death in Table 2; see "Technical Notes." In 2007, *C. difficile* was the 24th leading cause of death for the overall population. However, it ranked as the 18th leading cause of death for the population aged 65 years and older. Approximately 93 percent of deaths from *C. difficile* occurred to people 65 years and older (data not shown).

The preliminary age-adjusted death rate declined in 2007 from 2006 by 18.1 percent for Drug-induced deaths and 9.1 percent for Injury at work (Table 2). However, the decline for Drug-induced deaths likely overestimates the actual change, as information on cause of death in cases of drug-induced death is often delayed pending investigation. Additional information based on toxicology or autopsy reports is often not available in the preliminary file; as a result, the final number of Drug-induced deaths in 2007 may be substantially higher. The age-adjusted death rate declined for Alcohol-induced deaths by 1.4 percent and for Firearm injuries by 1.0 percent, but these decreases were not statistically significant.

Infant mortality

The preliminary infant mortality rate for 2007 was 6.77 infant deaths per 1,000 live births (see Tables A and 4). This increase of 1.2 percent from the 2006 rate of 6.69 was not statistically significant. With the exception of 2002 and 2005, the infant mortality rate has statistically remained the same or decreased significantly each successive year from 1958 through 2006 (12,27). The postneonatal mortality rate increased by 7.1 percent from 2.24 per 1,000 live births in 2006 to 2.40 per 1,000 live births in 2007; the neonatal mortality rate did not change significantly.

The 2007 preliminary infant mortality rate for black infants was 12.92 infant deaths per 1,000 live births, compared with 13.29 per 1,000 live births in 2006. This decrease was not statistically significant. The infant mortality rate for white infants was 5.72 per 1,000 live births, a statistically significant increase of 2.9 percent from 5.56 per 1,000 live births in 2006. The mortality rate for black infants was 2.3 times the rate for white infants (Table A). Because of inconsistencies in the reporting of some race groups and Hispanic origin on birth and death certificates, infant mortality rates for these groups are likely to be underestimated (23). The linked birth/infant death data set provides a better source of data for infant deaths and mortality rates by maternal race and ethnicity (28).

Although the infant mortality rate is the preferred indicator of the risk of dying during the first year of life, the infant death rate is also shown in this report. While similar, these two rates vary based on differences in their denominators. The denominator of the 2007 infant death rate is the estimated population under 1 year of age as of the reference date, July 1, 2007 (13). This population estimate includes a combination of infants born in 2006 who had not reached their first birthday before July 1, 2007, and infants born in 2007 before July 1, 2007. In contrast, the denominator of the 2007 infant mortality rate is all live births occurring during 2007. For example, the preliminary number of live births for 2007 is 1.4 percent greater than the midyear infant population in 2007. Therefore, the infant mortality rate for 2007 (677.3 deaths per 100,000 live births) is lower than the infant death rate

for 2007 (686.9 per 100,000 population). In addition, because the preliminary number of live births increased by 1.2 percent in 2007 from 2006 (29), much less than the increase in 2006 from 2005 (3.1 percent), the infant mortality rate in 2007 increased by 1.2 percent from 2006, whereas the infant death rate decreased for the same period by 0.6 percent. Both changes were not statistically significant.

The 10 leading causes of infant mortality for 2007 were:

1. Congenital malformations, deformations and chromosomal abnormalities
2. Disorders related to short gestation and low birth weight, not elsewhere classified
3. Sudden infant death syndrome
4. Newborn affected by maternal complications of pregnancy
5. Accidents (unintentional injuries)
6. Newborn affected by complications of placenta, cord and membranes
7. Bacterial sepsis of newborn
8. Respiratory distress of newborn
9. Neonatal hemorrhage
10. Diseases of the circulatory system

The only difference between the leading causes for 2006 (12) and those for 2007 (Table 8) is that Bacterial sepsis of newborn and Respiratory distress of newborn exchanged rank, the former moving from 8th to 7th and the latter moving from 7th to 8th.

The infant mortality rate decreased for 3 of 10 leading causes of death from 2006 to 2007. The infant mortality rate for Disorders related to short gestation and low birth weight, not elsewhere classified—the second leading cause of deaths—decreased by 4.5 percent (Tables 5 and 8). Deaths due to SIDS, currently the third leading cause of infant death, have been declining since 1988 (4). The decline in the mortality rate for SIDS was 9.9 percent in 2007 from 2006; however, this difference likely overestimates any actual decline. Because SIDS deaths often involve lengthy investigations, the mortality rate due to SIDS is typically lower based on preliminary data than that based on the final data. Recent declines in mortality due to SIDS also may reflect primarily a change in the way SIDS is diagnosed and reported by medical examiners and coroners (30). Respiratory distress of newborn, the eighth leading cause of death, dropped by 11.9 percent (Tables 5 and 8).

In 2007, declines in the infant mortality rate from 2006 for Congenital malformations, deformations and chromosomal abnormalities (2.1 percent); Newborn affected by complications of placenta, cord and membranes (1.1 percent); Bacterial sepsis of newborn (3.2 percent); and Neonatal hemorrhage (2.1 percent) were not statistically significant (Tables 5 and 8).

Among the leading causes of infant death, the infant mortality rate increased for three causes. Deaths attributed to Newborn affected by maternal complications of pregnancy increased by 3.8 percent, Accidents (unintentional injuries) increased by 6.7 percent, and Diseases of the circulatory system increased by 11.8 percent. None of these increases were statistically significant.

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Table 1. Deaths and death rates, by age, sex, and race and Hispanic origin and age-adjusted death rates, by sex and race and Hispanic origin: United States, final 2006 and preliminary 2007

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 27 states and the District of Columbia in 2007 and by 25 states and the District of Columbia in 2006; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

Age, sex, and race and Hispanic origin	2007		2006	
	Number	Rate	Number	Rate
All races, both sexes				
All ages	2,423,995	803.7	2,426,264	810.4
Under 1 year ¹	29,241	686.9	28,527	690.7
1-4 years	4,702	28.6	4,631	28.4
5-14 years	6,115	15.2	6,149	15.2
15-24 years	34,110	80.2	34,887	82.2
25-34 years	42,556	104.8	42,952	106.3
35-44 years	79,535	184.3	83,043	190.2
45-54 years	184,217	419.9	185,031	427.5
55-64 years	286,447	875.7	281,401	890.9
65-74 years	388,427	2,007.2	390,093	2,062.1
75-84 years	653,444	5,017.4	667,338	5,115.0
85 years and over	714,949	12,970.1	701,992	13,253.1
Not stated	254	...	220	...
Age-adjusted rate ² . . . . .	...	760.3	...	776.5
All races, male				
All ages	1,204,034	809.9	1,201,942	814.8
Under 1 year ¹	16,252	745.9	15,980	756.3
1-4 years	2,651	31.5	2,541	30.5
5-14 years	3,548	17.3	3,625	17.6
15-24 years	25,407	116.2	26,070	119.3
25-34 years	29,876	144.5	30,188	146.8
35-44 years	50,158	232.0	52,150	238.7
45-54 years	114,208	528.9	115,172	541.0
55-64 years	173,332	1,098.8	168,987	1,110.0
65-74 years	217,906	2,452.0	218,165	2,516.2
75-84 years	321,199	6,045.9	327,315	6,177.7
85 years and over	249,309	14,031.4	241,578	14,309.1
Not stated	188	...	171	...
Age-adjusted rate ² . . . . .	...	905.8	...	924.8
All races, female				
All ages	1,219,962	797.6	1,224,322	806.1
Under 1 year ¹	12,989	625.0	12,547	622.0
1-4 years	2,051	25.5	2,090	26.3
5-14 years	2,567	13.1	2,524	12.8
15-24 years	8,703	42.2	8,817	42.8
25-34 years	12,680	63.7	12,764	64.3
35-44 years	29,377	136.4	30,893	141.6
45-54 years	70,009	314.2	69,859	317.7
55-64 years	113,115	667.9	112,414	687.0
65-74 years	170,521	1,629.4	171,928	1,677.9
75-84 years	332,244	4,308.8	340,023	4,388.3
85 years and over	465,640	12,465.3	460,414	12,759.0
Not stated	66	...	49	...
Age-adjusted rate ² . . . . .	...	643.4	...	657.8

See footnotes at end of table.

Table 1. Deaths and death rates, by age, sex, and race and Hispanic origin and age-adjusted death rates, by sex and race and Hispanic origin: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 27 states and the District of Columbia in 2007 and by 25 states and the District of Columbia in 2006; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes."]

Age, sex, and race and Hispanic origin	2007		2006	
	Number	Rate	Number	Rate
Total white, both sexes				
All ages.	2,079,424	853.7	2,077,549	858.1
Under 1 year ¹	19,049	581.0	18,403	576.0
1–4 years	3,297	25.8	3,233	25.5
5–14 years	4,443	14.2	4,460	14.2
15–24 years	25,294	76.2	25,871	78.0
25–34 years	31,160	98.0	31,127	98.3
35–44 years	59,670	173.1	62,060	177.3
45–54 years	142,221	394.0	141,969	397.9
55–64 years	231,424	835.9	227,108	847.5
65–74 years	327,664	1,972.0	328,578	2,021.1
75–84 years	581,064	5,047.7	593,016	5,127.4
85 years and over	653,942	13,225.4	641,545	13,480.4
Not stated	195	...	179	...
Age-adjusted rate ² . . . . .	...	751.2	...	764.4
White male				
All ages.	1,026,371	850.1	1,022,328	852.3
Under 1 year ¹	10,594	631.0	10,345	632.7
1–4 years	1,861	28.5	1,781	27.5
5–14 years	2,572	16.1	2,639	16.4
15–24 years	18,608	108.6	19,175	111.8
25–34 years	22,047	134.5	22,083	135.4
35–44 years	38,274	219.1	39,770	224.4
45–54 years	89,541	498.3	89,681	505.2
55–64 years	140,994	1,044.3	137,161	1,050.6
65–74 years	184,991	2,398.8	184,925	2,455.8
75–84 years	287,645	6,066.5	293,004	6,182.2
85 years and over	229,090	14,340.5	221,622	14,576.8
Not stated	154	...	142	...
Age-adjusted rate ² . . . . .	...	892.7	...	908.2
White female				
All ages.	1,053,053	857.2	1,055,221	863.9
Under 1 year ¹	8,456	528.7	8,058	516.5
1–4 years	1,435	23.1	1,452	23.5
5–14 years	1,871	12.3	1,821	11.9
15–24 years	6,686	41.6	6,696	41.7
25–34 years	9,114	59.1	9,044	58.9
35–44 years	21,396	125.9	22,290	129.0
45–54 years	52,680	290.5	52,288	291.6
55–64 years	90,430	637.5	89,947	654.6
65–74 years	142,674	1,602.4	143,653	1,646.0
75–84 years	293,420	4,334.2	300,012	4,395.1
85 years and over	424,851	12,693.2	419,923	12,965.7
Not stated	41	...	37	...
Age-adjusted rate ² . . . . .	...	636.4	...	648.2

See footnotes at end of table.

Table 1. Deaths and death rates, by age, sex, and race and Hispanic origin and age-adjusted death rates, by sex and race and Hispanic origin: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 27 states and the District of Columbia in 2007 and by 25 states and the District of Columbia in 2006; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

Age, sex, and race and Hispanic origin	2007		2006	
	Number	Rate	Number	Rate
Non-Hispanic white, both sexes				
All ages.	1,947,743	968.1	1,944,617	968.5
Under 1 year ¹	13,242	570.2	12,906	564.2
1–4 years	2,316	25.4	2,279	25.0
5–14 years	3,340	14.1	3,353	14.0
15–24 years	19,740	75.0	20,055	76.1
25–34 years	24,726	102.2	24,606	102.1
35–44 years	51,192	182.3	53,198	184.8
45–54 years	128,209	404.8	127,969	406.6
55–64 years	214,531	852.2	210,318	861.2
65–74 years	307,311	2,012.5	307,475	2,055.0
75–84 years	552,400	5,137.7	564,113	5,205.2
85 years and over	630,635	13,477.3	618,253	13,688.2
Not stated	101	...	92	...
Age-adjusted rate ² . . . . .	...	766.5	...	777.0
Non-Hispanic white male				
All ages.	952,322	964.1	947,966	962.0
Under 1 year ¹	7,428	624.2	7,284	621.9
1–4 years	1,316	28.1	1,247	26.7
5–14 years	1,935	16.0	1,983	16.2
15–24 years	14,190	105.0	14,553	107.6
25–34 years	17,162	141.0	17,115	141.1
35–44 years	32,334	229.8	33,609	233.1
45–54 years	80,102	509.7	80,427	515.1
55–64 years	130,443	1,061.3	126,779	1,064.0
65–74 years	173,401	2,440.2	173,056	2,490.3
75–84 years	273,454	6,176.6	278,690	6,278.3
85 years and over	220,478	14,658.7	213,151	14,841.1
Not stated	78	...	72	...
Age-adjusted rate ² . . . . .	...	910.3	...	922.8
Non-Hispanic white female				
All ages.	995,421	971.9	996,651	974.7
Under 1 year ¹	5,815	513.5	5,622	503.7
1–4 years	1,000	22.5	1,032	23.2
5–14 years	1,405	12.2	1,370	11.8
15–24 years	5,550	43.3	5,502	42.9
25–34 years	7,564	63.0	7,491	62.5
35–44 years	18,858	134.6	19,589	136.3
45–54 years	48,107	301.4	47,542	299.8
55–64 years	84,087	652.8	83,539	668.0
65–74 years	133,910	1,640.3	134,419	1,677.4
75–84 years	278,945	4,410.5	285,423	4,460.7
85 years and over	410,157	12,917.6	405,102	13,150.7
Not stated	23	...	20	...
Age-adjusted rate ² . . . . .	...	650.6	...	660.0

See footnotes at end of table.

Table 1. Deaths and death rates, by age, sex, and race and Hispanic origin and age-adjusted death rates, by sex and race and Hispanic origin: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 27 states and the District of Columbia in 2007 and by 25 states and the District of Columbia in 2006; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

Age, sex, and race and Hispanic origin	2007		2006	
	Number	Rate	Number	Rate
Total black, both sexes				
All ages.	285,118	712.3	289,971	733.0
Under 1 year ¹	8,793	1,228.9	8,858	1,303.1
1–4 years	1,110	41.2	1,144	43.3
5–14 years	1,361	20.8	1,394	21.2
15–24 years	7,353	108.9	7,483	112.1
25–34 years	9,657	168.8	10,045	177.7
35–44 years	16,804	296.3	17,930	314.2
45–54 years	36,408	686.4	37,419	720.8
55–64 years	46,912	1,391.8	46,396	1,440.3
65–74 years	50,316	2,733.3	51,126	2,835.9
75–84 years	57,905	5,620.7	60,002	5,886.0
85 years and over	48,449	12,095.5	48,142	12,489.7
Not stated	51	...	32	...
Age-adjusted rate ² . . . . .	...	942.6	...	982.0
Black male				
All ages.	146,131	764.2	148,602	786.7
Under 1 year ¹	4,865	1,333.1	4,886	1,407.1
1–4 years	612	44.7	633	47.1
5–14 years	797	24.0	831	24.8
15–24 years	5,743	167.8	5,793	171.3
25–34 years	6,669	241.0	6,919	254.2
35–44 years	9,983	374.3	10,521	392.3
45–54 years	21,302	868.9	22,112	921.9
55–64 years	27,661	1,839.8	27,198	1,891.8
65–74 years	27,104	3,530.9	27,587	3,669.2
75–84 years	26,407	7,059.9	27,322	7,393.2
85 years and over	14,961	12,714.8	14,778	13,206.0
Not stated	28	...	22	...
Age-adjusted rate ² . . . . .	...	1,165.8	...	1,215.6
Black female				
All ages.	138,988	664.8	141,369	684.0
Under 1 year ¹	3,928	1,120.5	3,972	1,194.6
1–4 years	498	37.6	511	39.4
5–14 years	564	17.6	563	17.4
15–24 years	1,610	48.3	1,690	51.3
25–34 years	2,988	101.2	3,126	106.6
35–44 years	6,821	227.0	7,409	245.0
45–54 years	15,107	529.6	15,307	548.1
55–64 years	19,251	1,031.1	19,198	1,076.3
65–74 years	23,211	2,162.8	23,539	2,239.7
75–84 years	31,498	4,800.3	32,680	5,028.9
85 years and over	33,489	11,838.3	33,364	12,196.7
Not stated	24	...	10	...
Age-adjusted rate ² . . . . .	...	780.5	...	813.0

See footnotes at end of table.

Table 1. Deaths and death rates, by age, sex, and race and Hispanic origin and age-adjusted death rates, by sex and race and Hispanic origin: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 27 states and the District of Columbia in 2007 and by 25 states and the District of Columbia in 2006; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

Age, sex, and race and Hispanic origin	2007		2006	
	Number	Rate	Number	Rate
Non-Hispanic black, both sexes				
All ages.	281,662	738.4	286,581	759.1
Under 1 year ¹	8,489	1,287.8	8,507	1,339.2
1–4 years	1,077	42.7	1,108	44.3
5–14 years	1,330	21.5	1,361	21.9
15–24 years	7,199	112.0	7,347	115.6
25–34 years	9,495	175.7	9,920	185.7
35–44 years	16,580	306.9	17,700	325.2
45–54 years	36,015	704.4	36,990	738.5
55–64 years	46,362	1,420.6	45,961	1,472.4
65–74 years	49,793	2,786.4	50,574	2,887.7
75–84 years	57,272	5,710.7	59,416	5,980.8
85 years and over	48,010	12,275.9	47,678	12,655.4
Not stated	38	...	19	...
Age-adjusted rate ² . . . . .	...	961.9	...	1,001.4
Non-Hispanic black male				
All ages.	144,165	792.4	146,729	815.3
Under 1 year ¹	4,690	1,395.3	4,714	1,453.3
1–4 years	599	46.8	612	48.2
5–14 years	780	24.9	814	25.8
15–24 years	5,620	172.6	5,691	176.9
25–34 years	6,545	250.8	6,828	266.0
35–44 years	9,835	387.6	10,363	405.6
45–54 years	21,053	891.6	21,829	944.2
55–64 years	27,321	1,879.1	26,929	1,935.2
65–74 years	26,794	3,600.0	27,265	3,736.8
75–84 years	26,093	7,176.9	27,045	7,520.4
85 years and over	14,818	12,929.9	14,628	13,403.1
Not stated	18	...	11	...
Age-adjusted rate ² . . . . .	...	1,190.7	...	1,241.0
Non-Hispanic black female				
All ages.	137,496	689.0	139,852	708.0
Under 1 year ¹	3,799	1,176.0	3,793	1,220.1
1–4 years	478	38.5	496	40.3
5–14 years	551	18.1	547	17.9
15–24 years	1,579	49.8	1,656	52.8
25–34 years	2,951	105.6	3,092	111.4
35–44 years	6,745	235.4	7,337	254.1
45–54 years	14,962	543.7	15,161	562.2
55–64 years	19,042	1,052.2	19,032	1,100.2
65–74 years	22,999	2,205.7	23,309	2,281.4
75–84 years	31,179	4,876.9	32,371	5,107.2
85 years and over	33,193	12,005.1	33,050	12,350.5
Not stated	19	...	8	...
Age-adjusted rate ² . . . . .	...	796.1	...	828.4

See footnotes at end of table.

Table 1. Deaths and death rates, by age, sex, and race and Hispanic origin and age-adjusted death rates, by sex and race and Hispanic origin: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 27 states and the District of Columbia in 2007 and by 25 states and the District of Columbia in 2006; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes."]

Age, sex, and race and Hispanic origin	2007		2006	
	Number	Rate	Number	Rate
Total AIAN, ³ both sexes ⁴				
All ages.	14,347	443.4	14,037	438.5
Under 1 year ¹	435	928.1	393	878.0
1–4 years	102	57.8	94	54.4
5–14 years	95	18.4	91	16.9
15–24 years	612	101.6	664	110.9
25–34 years	742	148.8	708	145.1
35–44 years	1,214	265.1	1,252	272.0
45–54 years	1,939	451.9	1,937	463.3
55–64 years	2,400	870.3	2,226	851.5
65–74 years	2,524	1,845.0	2,452	1,884.2
75–84 years	2,526	3,730.8	2,542	3,939.1
85 years and over	1,757	6,655.1	1,676	6,927.3
Not stated	2	...	2	...
Age-adjusted rate ² . . . . .	...	625.3	...	642.1
AIAN male ⁴				
All ages.	7,895	488.8	7,630	477.1
Under 1 year ¹	243	1,018.3	242	1,057.8
1–4 years	59	65.8	51	58.1
5–14 years	61	23.2	47	17.2
15–24 years	432	140.8	478	156.1
25–34 years	522	201.4	492	194.0
35–44 years	770	333.3	784	338.5
45–54 years	1,180	566.8	1,199	591.9
55–64 years	1,398	1,056.6	1,294	1,029.5
65–74 years	1,345	2,112.9	1,295	2,146.7
75–84 years	1,217	4,203.8	1,156	4,198.0
85 years and over	665	7,615.7	591	7,540.2
Not stated	2	...	1	...
Age-adjusted rate ² . . . . .	...	736.9	...	739.9
AIAN female ⁴				
All ages.	6,452	398.2	6,407	399.9
Under 1 year ¹	191	830.3	151	689.9
1–4 years	42	48.3	43	50.5
5–14 years	34	13.3	44	16.6
15–24 years	179	60.6	186	63.5
25–34 years	220	91.8	216	92.1
35–44 years	444	195.6	468	204.6
45–54 years	760	344.1	738	342.4
55–64 years	1,003	699.1	932	686.6
65–74 years	1,179	1,611.9	1,157	1,657.3
75–84 years	1,308	3,374.9	1,386	3,746.4
85 years and over	1,092	6,180.3	1,085	6,633.7
Not stated	–	...	1	...
Age-adjusted rate ² . . . . .	...	529.8	...	555.7

See footnotes at end of table.

Table 1. Deaths and death rates, by age, sex, and race and Hispanic origin and age-adjusted death rates, by sex and race and Hispanic origin: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 27 states and the District of Columbia in 2007 and by 25 states and the District of Columbia in 2006; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

Age, sex, and race and Hispanic origin	2007		2006	
	Number	Rate	Number	Rate
Total API, ⁵ both sexes				
All ages.	45,106	305.3	44,707	307.4
Under 1 year ¹	964	445.9	873	414.7
1–4 years	194	23.1	160	19.6
5–14 years	215	11.3	204	10.8
15–24 years	852	43.6	869	44.0
25–34 years	997	38.9	1,072	41.1
35–44 years	1,848	72.1	1,801	72.2
45–54 years	3,648	178.7	3,706	186.3
55–64 years	5,710	414.2	5,671	433.6
65–74 years	7,923	1,044.3	7,937	1,092.6
75–84 years	11,949	2,885.1	11,778	2,965.7
85 years and over	10,801	7,673.5	10,629	8,298.9
Not stated	6	...	7	...
Age-adjusted rate ² . . . . .	...	409.7	...	428.6
API male				
All ages.	23,637	328.9	23,382	330.6
Under 1 year ¹	550	495.3	507	469.7
1–4 years	119	27.6	76	18.1
5–14 years	117	12.1	108	11.3
15–24 years	624	62.3	624	61.7
25–34 years	639	50.7	694	54.2
35–44 years	1,131	90.6	1,075	88.5
45–54 years	2,186	226.4	2,180	232.5
55–64 years	3,279	514.4	3,334	550.7
65–74 years	4,466	1,298.5	4,358	1,329.2
75–84 years	5,931	3,527.1	5,833	3,606.4
85 years and over	4,593	8,683.6	4,587	9,524.7
Not stated	4	...	6	...
Age-adjusted rate ² . . . . .	...	494.4	...	516.0
API female				
All ages.	21,469	283.0	21,325	285.6
Under 1 year ¹	414	393.8	366	356.9
1–4 years	75	18.3	84	21.1
5–14 years	98	10.4	96	10.3
15–24 years	228	24.0	245	25.4
25–34 years	358	27.5	378	28.5
35–44 years	717	54.6	726	56.8
45–54 years	1,463	136.0	1,526	145.2
55–64 years	2,431	328.0	2,337	332.7
65–74 years	3,457	833.4	3,579	897.9
75–84 years	6,018	2,446.3	5,945	2,525.5
85 years and over	6,208	7,065.4	6,042	7,560.2
Not stated	1	...	1	...
Age-adjusted rate ² . . . . .	...	345.2	...	362.6

See footnotes at end of table.

Table 1. Deaths and death rates, by age, sex, and race and Hispanic origin and age-adjusted death rates, by sex and race and Hispanic origin: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Age-specific rates are per 100,000 population in specified group. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on the death certificate. Data for Hispanic origin and specified races other than white and black should be interpreted with caution because of inconsistencies between reporting Hispanic origin and race on death certificates and on censuses and surveys; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 27 states and the District of Columbia in 2007 and by 25 states and the District of Columbia in 2006; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes."]

Age, sex, and race and Hispanic origin	2007		2006	
	Number	Rate	Number	Rate
Hispanic, both sexes ⁶				
All ages.	132,035	290.2	133,004	300.1
Under 1 year ¹	6,063	586.9	5,735	590.6
1–4 years	1,019	26.2	987	26.4
5–14 years	1,134	13.8	1,137	14.2
15–24 years	5,685	76.5	5,932	80.4
25–34 years	6,521	79.8	6,592	81.5
35–44 years	8,478	123.9	8,951	134.4
45–54 years	13,983	294.4	14,035	310.7
55–64 years	16,859	626.4	16,705	657.6
65–74 years	20,363	1,423.7	21,061	1,531.0
75–84 years	28,700	3,579.8	28,772	3,745.7
85 years and over	23,198	8,294.7	23,061	9,022.8
Not stated	33	...	36	...
Age-adjusted rate ² . . . . .	...	530.7	...	564.0
Hispanic male ⁶				
All ages.	74,100	315.0	74,250	323.9
Under 1 year ¹	3,305	625.5	3,179	640.7
1–4 years	565	28.5	549	28.8
5–14 years	648	15.5	673	16.4
15–24 years	4,516	115.5	4,712	120.7
25–34 years	4,959	110.1	5,024	112.7
35–44 years	5,928	163.3	6,223	176.5
45–54 years	9,394	389.2	9,234	403.8
55–64 years	10,479	809.4	10,271	843.6
65–74 years	11,559	1,797.5	11,780	1,910.7
75–84 years	14,156	4,279.6	14,209	4,492.6
85 years and over	8,568	8,708.7	8,367	9,435.5
Not stated	23	...	29	...
Age-adjusted rate ² . . . . .	...	638.7	...	675.6
Hispanic female ⁶				
All ages.	57,935	263.6	58,754	274.6
Under 1 year ¹	2,758	546.5	2,556	538.3
1–4 years	453	23.8	438	24.0
5–14 years	486	12.1	464	11.8
15–24 years	1,169	33.1	1,220	35.2
25–34 years	1,562	42.6	1,568	43.1
35–44 years	2,550	79.4	2,728	87.1
45–54 years	4,588	196.4	4,801	215.3
55–64 years	6,381	456.9	6,434	486.5
65–74 years	8,804	1,118.3	9,281	1,222.7
75–84 years	14,543	3,088.1	14,563	3,222.9
85 years and over	14,630	8,070.1	14,694	8,803.5
Not stated	9	...	7	...
Age-adjusted rate ² . . . . .	...	437.7	...	468.6

... Category not applicable.

– Quantity zero.

¹Death rates for under 1 year (based on population estimates) differ from infant mortality rates (based on live births). See text for additional information on the infant mortality rate.

²For method of computation, see "Technical Notes."

³AIAN is American Indian or Alaska Native.

⁴Includes deaths among Aleuts and Eskimos.

⁵API is Asian or Pacific Islander.

⁶Includes all persons of Hispanic origin of any race; see "Technical Notes."

NOTE: Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes."

Table 2. Deaths, death rates, and age-adjusted death rates for 113 selected causes, Injury by firearms, Drug-induced deaths, Alcohol-induced deaths, Injury at work, and Enterocolitis due to *Clostridium difficile*: United States, final 2006 and preliminary 2007

[Data are based on a continuous file of records received from the states. Rates per 100,000 population. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>)	2007			2006		
	Number	Rate	Age-adjusted rate	Number	Rate	Age-adjusted rate
All causes	2,424,059	803.7	760.3	2,426,264	810.4	776.5
Salmonella infections (A01–A02)	30	0.0	0.0	34	0.0	0.0
Shigellosis and amebiasis (A03,A06)	4	*	*	6	*	*
Certain other intestinal infections (A04,A07–A09)	6,822	2.3	2.1	6,639	2.2	2.1
Tuberculosis (A16–A19)	541	0.2	0.2	652	0.2	0.2
Respiratory tuberculosis (A16)	410	0.1	0.1	490	0.2	0.2
Other tuberculosis (A17–A19)	131	0.0	0.0	162	0.1	0.1
Whooping cough (A37)	11	*	*	9	*	*
Scarlet fever and erysipelas (A38,A46)	3	*	*	2	*	*
Meningococcal infection (A39)	73	0.0	0.0	105	0.0	0.0
Septicemia (A40–A41)	34,851	11.6	11.0	34,234	11.4	11.0
Syphilis (A50–A53)	50	0.0	0.0	38	0.0	0.0
Acute poliomyelitis (A80)	–	*	*	–	*	*
Arthropod-borne viral encephalitis (A83–A84,A85.2)	2	*	*	5	*	*
Measles (B05)	–	*	*	–	*	*
Viral hepatitis (B15–B19)	7,313	2.4	2.2	7,250	2.4	2.3
Human immunodeficiency virus (HIV) disease (B20–B24)	11,061	3.7	3.6	12,113	4.0	4.0
Malaria (B50–B54)	4	*	*	9	*	*
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)	5,774	1.9	1.8	5,897	2.0	1.9
Malignant neoplasms (C00–C97)	560,187	185.7	177.5	559,888	187.0	180.7
Malignant neoplasms of lip, oral cavity and pharynx (C00–C14)	7,950	2.6	2.5	7,720	2.6	2.5
Malignant neoplasm of esophagus (C15)	13,488	4.5	4.2	13,686	4.6	4.4
Malignant neoplasm of stomach (C16)	11,308	3.7	3.6	11,345	3.8	3.7
Malignant neoplasms of colon, rectum and anus (C18–C21)	53,100	17.6	16.7	53,549	17.9	17.2
Malignant neoplasms of liver and intrahepatic bile ducts (C22)	17,033	5.6	5.3	16,525	5.5	5.3
Malignant neoplasm of pancreas (C25)	34,032	11.3	10.8	33,454	11.2	10.8
Malignant neoplasm of larynx (C32)	3,680	1.2	1.1	3,821	1.3	1.2
Malignant neoplasms of trachea, bronchus and lung (C33–C34)	158,258	52.5	50.5	158,664	53.0	51.5
Malignant melanoma of skin (C43)	8,499	2.8	2.7	8,441	2.8	2.7
Malignant neoplasm of breast (C50)	40,514	13.4	12.7	41,210	13.8	13.2
Malignant neoplasm of cervix uteri (C53)	3,942	1.3	1.3	3,976	1.3	1.3
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54–C55)	7,319	2.4	2.3	7,384	2.5	2.4
Malignant neoplasm of ovary (C56)	14,535	4.8	4.6	14,857	5.0	4.8
Malignant neoplasm of prostate (C61)	28,823	9.6	9.1	28,372	9.5	9.2
Malignant neoplasms of kidney and renal pelvis (C64–C65)	12,569	4.2	4.0	12,379	4.1	4.0
Malignant neoplasm of bladder (C67)	13,827	4.6	4.4	13,474	4.5	4.3
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70–C72)	13,172	4.4	4.2	12,886	4.3	4.2
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81–C96)	54,950	18.2	17.5	55,045	18.4	17.9
Hodgkin's disease (C81)	1,251	0.4	0.4	1,327	0.4	0.4
Non-Hodgkin's lymphoma (C82–C85)	20,537	6.8	6.5	20,594	6.9	6.7
Leukemia (C91–C95)	21,696	7.2	6.9	21,944	7.3	7.1
Multiple myeloma and immunoproliferative neoplasms (C88,C90)	11,420	3.8	3.6	11,111	3.7	3.6

See footnotes at end of table.

Table 2. Deaths, death rates, and age-adjusted death rates for 113 selected causes, Injury by firearms, Drug-induced deaths, Alcohol-induced deaths, Injury at work, and Enterocolitis due to *Clostridium difficile*: United States, final 2006 and preliminary 2007—Con.

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Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>)	2007			2006		
	Number	Rate	Age-adjusted rate	Number	Rate	Age-adjusted rate
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96)	47	0.0	0.0	69	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)	63,186	20.9	20.0	63,100	21.1	20.3
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00–D48)	14,151	4.7	4.5	14,122	4.7	4.5
Anemias (D50–D64)	4,848	1.6	1.5	3,996	1.3	1.3
Diabetes mellitus (E10–E14)	70,905	23.5	22.4	72,449	24.2	23.3
Nutritional deficiencies (E40–E64)	2,810	0.9	0.8	2,556	0.9	0.8
Malnutrition (E40–E46)	2,600	0.9	0.8	2,377	0.8	0.7
Other nutritional deficiencies (E50–E64)	210	0.1	0.1	179	0.1	0.1
Meningitis (G00,G03)	626	0.2	0.2	634	0.2	0.2
Parkinson's disease (G20–G21)	20,136	6.7	6.4	19,566	6.5	6.3
Alzheimer's disease (G30)	74,944	24.8	22.8	72,432	24.2	22.6
Major cardiovascular diseases (I00–I78)	803,504	266.4	249.1	823,746	275.1	261.2
Diseases of heart (I00–I09,I11,I13,I20–I51)	615,651	204.1	190.7	631,636	211.0	200.2
Acute rheumatic fever and chronic rheumatic heart diseases (I00–I09)	3,188	1.1	1.0	3,257	1.1	1.1
Hypertensive heart disease (I11)	30,354	10.1	9.3	29,788	9.9	9.4
Hypertensive heart and renal disease (I13)	2,954	1.0	0.9	2,918	1.0	0.9
Ischemic heart diseases (I20–I25)	403,741	133.9	125.2	425,425	142.1	134.9
Acute myocardial infarction (I21–I22)	132,841	44.0	41.4	141,462	47.2	45.0
Other acute ischemic heart diseases (I24)	4,046	1.3	1.2	3,932	1.3	1.2
Other forms of chronic ischemic heart disease (I20,I25)	266,854	88.5	82.6	280,031	93.5	88.7
Atherosclerotic cardiovascular disease, so described (I25.0)	57,639	19.1	17.8	61,030	20.4	19.3
All other forms of chronic ischemic heart disease (I20,I25.1–I25.9)	209,215	69.4	64.7	219,001	73.1	69.4
Other heart diseases (I26–I51)	175,413	58.2	54.3	170,248	56.9	53.9
Acute and subacute endocarditis (I33)	1,206	0.4	0.4	1,216	0.4	0.4
Diseases of pericardium and acute myocarditis (I30–I31,I40)	843	0.3	0.3	816	0.3	0.3
Heart failure (I50)	57,235	19.0	17.5	60,337	20.2	18.9
All other forms of heart disease (I26–I28,I34–I38,I42–I49,I51)	116,129	38.5	36.1	107,879	36.0	34.3
Essential hypertension and hypertensive renal disease (I10,I12,I15)	23,769	7.9	7.3	23,855	8.0	7.5
Cerebrovascular diseases (I60–I69)	133,990	44.4	41.6	137,119	45.8	43.6
Atherosclerosis (I70)	8,223	2.7	2.5	8,652	2.9	2.7
Other diseases of circulatory system (I71–I78)	21,872	7.3	6.9	22,484	7.5	7.2
Aortic aneurysm and dissection (I71)	12,887	4.3	4.1	13,238	4.4	4.3
Other diseases of arteries, arterioles and capillaries (I72–I78)	8,985	3.0	2.8	9,246	3.1	2.9
Other disorders of circulatory system (I80–I99)	3,981	1.3	1.3	3,995	1.3	1.3
Influenza and pneumonia (J09–J18) ¹	52,847	17.5	16.3	56,326	18.8	17.8
Influenza (J09–J11) ¹	457	0.2	0.1	849	0.3	0.3
Pneumonia (J12–J18)	52,389	17.4	16.1	55,477	18.5	17.5
Other acute lower respiratory infections (J20–J22,U04) ²	268	0.1	0.1	297	0.1	0.1
Acute bronchitis and bronchiolitis (J20–J21)	225	0.1	0.1	214	0.1	0.1
Other and unspecified acute lower respiratory infections (J22,U04) ^{2,3}	43	0.0	0.0	83	0.0	0.0
Chronic lower respiratory diseases (J40–J47)	129,311	42.9	41.2	124,583	41.6	40.5

See footnotes at end of table.

Table 2. Deaths, death rates, and age-adjusted death rates for 113 selected causes, Injury by firearms, Drug-induced deaths, Alcohol-induced deaths, Injury at work, and Enterocolitis due to *Clostridium difficile*: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Rates per 100,000 population. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>)	2007			2006		
	Number	Rate	Age-adjusted rate	Number	Rate	Age-adjusted rate
Bronchitis, chronic and unspecified (J40–J42)	704	0.2	0.2	740	0.2	0.2
Emphysema (J43)	12,963	4.3	4.1	12,551	4.2	4.1
Asthma (J45–J46)	3,355	1.1	1.1	3,613	1.2	1.2
Other chronic lower respiratory diseases (J44, J47)	112,289	37.2	35.8	107,679	36.0	34.9
Pneumoconioses and chemical effects (J60–J66, J68)	907	0.3	0.3	924	0.3	0.3
Pneumonitis due to solids and liquids (J69)	17,302	5.7	5.3	16,887	5.6	5.3
Other diseases of respiratory system (J00–J06, J30–J39, J67, J70–J98)	28,773	9.5	9.1	27,644	9.2	8.9
Peptic ulcer (K25–K28)	3,000	1.0	0.9	3,323	1.1	1.1
Diseases of appendix (K35–K38)	413	0.1	0.1	424	0.1	0.1
Hernia (K40–K46)	1,663	0.6	0.5	1,744	0.6	0.5
Chronic liver disease and cirrhosis (K70, K73–K74)	28,504	9.5	8.9	27,555	9.2	8.8
Alcoholic liver disease (K70)	13,891	4.6	4.3	13,050	4.4	4.1
Other chronic liver disease and cirrhosis (K73–K74)	14,613	4.8	4.6	14,505	4.8	4.6
Cholelithiasis and other disorders of gallbladder (K80–K82)	3,178	1.1	1.0	3,114	1.0	1.0
Nephritis, nephrotic syndrome and nephrosis (N00–N07, N17–N19, N25–N27)	46,095	15.3	14.4	45,344	15.1	14.5
Acute and rapidly progressive nephritic and nephrotic syndrome (N00–N01, N04)	191	0.1	0.1	138	0.0	0.0
Chronic glomerulonephritis, nephrosis and nephropathy not specified as acute or chronic, and renal sclerosis unspecified (N02–N03, N05–N07, N26)	2,821	0.9	0.9	1,841	0.6	0.6
Renal failure (N17–N19)	43,064	14.3	13.5	43,344	14.5	13.9
Other disorders of kidney (N25, N27)	19	*	*	21	0.0	0.0
Infections of kidney (N10–N12, N13.6, N15.1)	612	0.2	0.2	673	0.2	0.2
Hyperplasia of prostate (N40)	498	0.2	0.1	514	0.2	0.2
Inflammatory diseases of female pelvic organs (N70–N76)	100	0.0	0.0	112	0.0	0.0
Pregnancy, childbirth and the puerperium (O00–O99)	762	0.3	0.2	760	0.3	0.2
Pregnancy with abortive outcome (O00–O07)	28	0.0	0.0	26	0.0	0.0
Other complications of pregnancy, childbirth and the puerperium (O10–O99)	734	0.2	0.2	734	0.2	0.2
Certain conditions originating in the perinatal period (P00–P96)	14,293	4.7	4.6	14,442	4.8	4.8
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	10,277	3.4	3.3	10,489	3.5	3.5
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99)	49,960	16.6	15.6	31,725	10.6	10.1
All other diseases (residual)	237,037	78.6	73.4	237,421	79.3	75.2
Accidents (unintentional injuries) (V01–X59, Y85–Y86)	117,075	38.8	37.8	121,599	40.6	39.8
Transport accidents (V01–V99, Y85)	45,832	15.2	15.0	48,412	16.2	16.0
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)	43,098	14.3	14.1	45,316	15.1	15.0
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)	1,017	0.3	0.3	1,181	0.4	0.4
Water, air and space, and other and unspecified transport accidents and their sequelae (V90–V99, Y85)	1,716	0.6	0.6	1,915	0.6	0.6
Nontransport accidents (W00–X59, Y86)	71,244	23.6	22.8	73,187	24.4	23.8
Falls (W00–W19)	22,736	7.5	7.1	20,823	7.0	6.6
Accidental discharge of firearms (W32–W34)	721	0.2	0.2	642	0.2	0.2

See footnotes at end of table.

Table 2. Deaths, death rates, and age-adjusted death rates for 113 selected causes, Injury by firearms, Drug-induced deaths, Alcohol-induced deaths, Injury at work, and Enterocolitis due to *Clostridium difficile*: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Rates per 100,000 population. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>)	2007			2006		
	Number	Rate	Age-adjusted rate	Number	Rate	Age-adjusted rate
Accidental drowning and submersion (W65–W74)	3,237	1.1	1.1	3,579	1.2	1.2
Accidental exposure to smoke, fire and flames (X00–X09)	3,276	1.1	1.0	3,109	1.0	1.0
Accidental poisoning and exposure to noxious substances (X40–X49)	24,313	8.1	8.0	27,531	9.2	9.1
Other and unspecified nontransport accidents and their sequelae (W20–W31, W35–W64, W75–W99, X10–X39, X50–X59, Y86)	16,961	5.6	5.3	17,503	5.8	5.6
Intentional self-harm (suicide) (*U03, X60–X84, Y87.0)	33,185	11.0	10.8	33,300	11.1	10.9
Intentional self-harm (suicide) by discharge of firearms (X72–X74)	17,348	5.8	5.6	16,883	5.6	5.5
Intentional self-harm (suicide) by other and unspecified means and their sequelae (*U03, X60–X71, X75–X84, Y87.0)	15,837	5.3	5.2	16,417	5.5	5.4
Assault (homicide) (*U01–*U02, X85–Y09, Y87.1)	17,520	5.8	5.8	18,573	6.2	6.2
Assault (homicide) by discharge of firearms (*U01.4, X93–X95)	12,129	4.0	4.0	12,791	4.3	4.3
Assault (homicide) by other and unspecified means and their sequelae (*U01.0–*U01.3, *U01.5–*U01.9, *U02, X85–X92, X96–Y09, Y87.1)	5,391	1.8	1.8	5,782	1.9	1.9
Legal intervention (Y35, Y89.0)	371	0.1	0.1	434	0.1	0.2
Events of undetermined intent (Y10–Y34, Y87.2, Y89.9)	4,888	1.6	1.6	5,131	1.7	1.7
Discharge of firearms, undetermined intent (Y22–Y24)	256	0.1	0.1	220	0.1	0.1
Other and unspecified events of undetermined intent and their sequelae (Y10–Y21, Y25–Y34, Y87.2, Y89.9)	4,632	1.5	1.5	4,911	1.6	1.6
Operations of war and their sequelae (Y36, Y89.1)	19	*	*	28	0.0	0.0
Complications of medical and surgical care (Y40–Y84, Y88)	2,566	0.9	0.8	2,521	0.8	0.8
Injury by firearms (*U01.4, W32–W34, X72–X74, X93–X95, Y22–Y24, Y35.0) ⁴	30,769	10.2	10.1	30,896	10.3	10.2
Drug-induced deaths (D52.1, D59.0, D59.2, D61.1, D64.2, E06.4, E16.0, E23.1, E24.2, E27.3, E66.1, F11.0–F11.5, F11.7–F11.9, F12.0–F12.5, F12.7–F12.9, F13.0–F13.5, F13.7–F13.9, F14.0–14.5, 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, F18.7–18.9, F19.0–F19.5, F19.7–F19.9, G21.1, G24.0, G25.1, G25.4, G25.6, G44.4, G62.0, G72.0, I95.2, J70.2–J70.4, K85.3, L10.5, L27.0–L27.1, M10.2, M32.0, M80.4, M81.4, M83.5, M87.1, R50.2, R78.1–R78.5, X40–X44, X60–X64, X85, Y10–14) ⁴	31,785	10.5	10.4	38,396	12.8	12.7
Alcohol-induced deaths (E24.4, F10, G31.2, G62.1, G72.1, I42.6, K29.2, K70, K85.2, K86.0, R78.0, X45, X65, Y15) ⁴	22,067	7.3	6.9	22,073	7.4	7.0
Injury at work ⁵	4,884	2.0	2.0	5,298	2.2	2.2
Enterocolitis due to <i>Clostridium difficile</i> (A04.7) ⁶	6,432	2.1	2.0	6,225	2.1	2.0

0.0 Quantity more than zero but less than 0.05.

* Figure does not meet standards of reliability or precision; see "Technical Notes."

– Quantity zero.

¹New ICD–10 code J09 (Influenza due to identified avian influenza virus) was added to the category in 2007.

²New ICD–10 code U04 (Severe acute respiratory syndrome [SARS], unspecified) was added to the category in 2007.

³Cause-of-death title has been changed in 2007 to reflect the addition of SARS (Code U04).

⁴Included in selected categories above.

⁵Injury at work is described in "Technical Notes."

⁶Included in Certain other intestinal infections (A04, A07–A09) shown above; see "Technical Notes."

NOTES: For certain causes of death such as unintentional injuries, homicides, suicides, and respiratory diseases, preliminary and final data differ because of the truncated nature of the preliminary file. Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes."

Table 3. Deaths, death rates, and age-adjusted death rates: United States, and each state and territory, final 2006 and preliminary 2007

[By place of residence. Data are based on a continuous file of records received from the states. Rates are per 100,000 population. Age-adjusted rates are per 100,000 U.S. standard population; see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals]

Area	2007			2006		
	Number	Rate	Age-adjusted rate	Number	Rate	Age-adjusted rate rate
United States ¹	2,423,995	803.7	760.3	2,426,264	810.4	776.5
Alabama	46,671	1,008.5	930.3	46,977	1,021.5	952.4
Alaska	3,470	507.7	756.5	3,354	500.6	775.9
Arizona	45,595	719.3	682.5	46,365	751.9	724.1
Arkansas	28,164	993.5	881.8	27,901	992.6	888.9
California ²	---	---	---	237,126	650.4	700.2
Colorado	29,993	616.9	700.8	29,521	621.1	716.8
Connecticut	28,654	818.1	694.1	29,260	834.9	714.8
Delaware	7,330	847.6	774.1	7,204	844.1	784.0
District of Columbia	5,190	882.2	866.9	5,344	919.0	892.9
Florida	168,043	920.7	685.7	170,066	940.1	711.3
Georgia ²	---	---	---	67,808	724.1	858.8
Hawaii	9,499	740.2	607.7	9,432	733.7	629.6
Idaho	10,829	722.2	734.9	10,613	723.7	747.4
Illinois	100,318	780.5	758.5	102,171	796.2	781.1
Indiana	54,172	853.7	812.5	55,622	881.0	847.6
Iowa	27,247	911.9	719.3	27,362	917.5	730.3
Kansas	24,477	881.7	782.5	24,553	888.3	794.7
Kentucky	40,120	945.9	897.6	40,102	953.4	915.2
Louisiana	39,765	926.2	921.8	40,045	933.9	930.1
Maine	12,491	948.3	773.5	12,294	930.3	775.0
Maryland	43,772	779.1	782.9	43,582	776.1	793.0
Massachusetts	52,936	820.7	707.7	53,450	830.3	719.7
Michigan	86,727	861.1	806.1	86,042	852.3	813.7
Minnesota	37,176	715.3	662.2	37,028	716.6	672.8
Mississippi	28,271	968.6	943.5	28,564	981.4	961.2
Missouri	54,174	921.6	826.8	54,681	935.9	848.3
Montana	8,629	900.9	772.9	8,472	896.9	781.4
Nebraska	15,261	860.0	743.5	14,899	842.5	735.3
Nevada	18,642	726.7	801.6	18,872	756.2	843.7
New Hampshire	10,305	783.2	727.2	10,060	765.1	724.9
New Jersey	69,648	801.8	724.0	70,356	806.4	736.6
New Mexico	15,388	781.2	751.0	15,296	782.6	775.5
New York	147,727	765.5	686.5	148,806	770.8	701.2
North Carolina	76,033	839.1	834.3	74,716	843.6	843.6
North Dakota	5,571	870.9	681.0	5,868	922.8	726.9
Ohio	106,534	929.1	830.8	106,825	930.7	840.8
Oklahoma	36,014	995.6	919.9	35,427	989.8	920.4
Oregon	31,418	838.4	753.9	31,380	847.9	770.5
Pennsylvania	125,200	1,007.0	790.7	125,539	1,009.1	800.8
Rhode Island	9,721	919.0	749.8	9,690	907.6	747.4
South Carolina	39,497	896.1	851.4	38,761	897.0	864.6
South Dakota	6,824	857.1	693.4	7,084	906.0	740.5
Tennessee	57,078	927.1	885.0	56,838	941.2	908.3
Texas ²	---	---	---	157,150	668.5	783.9
Utah	14,143	534.6	694.2	13,764	539.8	706.3
Vermont	5,186	834.8	730.3	5,048	809.1	721.7
Virginia	58,220	754.9	770.6	57,690	754.8	781.0
Washington	47,363	732.2	722.8	46,120	721.1	722.5
West Virginia	21,087	1,163.7	951.7	20,672	1,136.8	941.3
Wisconsin	46,271	826.0	732.8	46,153	830.6	746.6
Wyoming	4,264	815.6	801.6	4,311	837.1	822.8
Puerto Rico	28,975	735.0	721.6	28,206	718.1	724.6
Virgin Islands	699	636.5	696.7	624	574.6	648.7
Guam	778	448.5	695.0	679	397.0	615.5
American Samoa	250	390.5	1,054.4	266	460.3	1,312.0
Northern Marianas	141	166.8	969.2	170	206.2	997.6

¹Excludes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas.

²California, Georgia, and Texas data are not shown separately but are included in U.S. total because the percent completeness for these three states did not meet the criterion of at least 75 percent of a state's demographic file for the 12-month period; see "Technical Notes."

NOTE: Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes."

Table 4. Infant deaths and infant mortality rates, by age and race and Hispanic origin: United States, final 2006 and preliminary 2007

[Data are based on the continuous file of records received from the states. Rates per 1,000 live births. Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals. Race and Hispanic origin are reported separately on both the birth and death certificate. Rates for Hispanic origin should be interpreted with caution because of the inconsistencies between reporting Hispanic origin on birth and death certificates; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported for deaths by 27 states and the District of Columbia in 2007 and by 25 states and the District of Columbia in 2006, and were reported for births by 25 states in 2007 and by 23 states in 2006; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other States; see "Technical Notes"]

Age and race and Hispanic origin	2007		2006	
	Number	Rate	Number	Rate
All races ¹				
Under 1 year	29,241	6.77	28,527	6.69
Under 28 days	18,867	4.37	18,989	4.45
28 days–11 months	10,374	2.40	9,538	2.24
Total white				
Under 1 year	19,049	5.72	18,403	5.56
Under 28 days	12,340	3.70	12,302	3.72
28 days–11 months	6,709	2.01	6,101	1.84
Non-Hispanic white				
Under 1 year	13,242	5.73	12,906	5.59
Under 28 days	8,513	3.68	8,508	3.69
28 days–11 months	4,730	2.05	4,398	1.91
Total black				
Under 1 year	8,793	12.92	8,858	13.29
Under 28 days	5,648	8.30	5,876	8.82
28 days–11 months	3,145	4.62	2,982	4.47
Hispanic ²				
Under 1 year	6,063	5.71	5,735	5.52
Under 28 days	3,963	3.73	3,938	3.79
28 days–11 months	2,100	1.98	1,797	1.73

¹Includes races other than white or black.

²Includes all persons of Hispanic origin of any race; see "Technical Notes."

NOTES: Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes." Although the infant mortality rate is the preferred indicator of the risk of dying during the first year of life, another measure of infant mortality, the infant death rate, is shown elsewhere in this report. The two measures typically are similar, yet they can differ because the denominators used for these measures are different. For more information on these measures of risk, see section Infant mortality in the "Technical Notes."

Table 5. Infant deaths and infant mortality rates for 130 selected causes: United States, final 2006 and preliminary 2007

[Data are based on a continuous file of records from the states. Rates per 100,000 live births. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>)	2007		2006	
	Number	Rate	Number	Rate
All causes	29,241	677.3	28,527	668.8
Certain infectious and parasitic diseases (A00–B99)	484	11.2	479	11.2
Certain intestinal infectious diseases (A00–A08)	20	0.5	16	*
Diarrhea and gastroenteritis of infectious origin (A09)	–	*	1	*
Tuberculosis (A16–A19)	2	*	–	*
Tetanus (A33,A35)	–	*	–	*
Diphtheria (A36)	–	*	–	*
Whooping cough (A37)	8	*	8	*
Meningococcal infection (A39)	9	*	11	*
Septicemia (A40–A41)	271	6.3	269	6.3
Congenital syphilis (A50)	4	*	–	*
Gonococcal infection (A54)	–	*	–	*
Viral diseases (A80–B34)	112	2.6	120	2.8
Acute poliomyelitis (A80)	–	*	–	*
Varicella (chickenpox) (B01)	–	*	–	*
Measles (B05)	–	*	–	*
Human immunodeficiency virus (HIV) disease (B20–B24)	7	*	7	*
Mumps (B26)	–	*	–	*
Other and unspecified viral diseases (A81–B00,B02–B04,B06–B19,B25,B27–B34)	105	2.4	113	2.6
Candidiasis (B37)	15	*	15	*
Malaria (B50–B54)	–	*	–	*
Pneumocystosis (B59)	1	*	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)	42	1.0	38	0.9
Neoplasms (C00–D48)	149	3.5	141	3.3
Malignant neoplasms (C00–C97)	92	2.1	76	1.8
Hodgkin's disease and non-Hodgkin's lymphomas (C81–C85)	6	*	1	*
Leukemia (C91–C95)	20	0.5	31	0.7
Other and unspecified malignant neoplasms (C00–C80,C88,C90,C96–C97)	66	1.5	44	1.0
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00–D48)	57	1.3	65	1.5
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	108	2.5	102	2.4
Anemias (D50–D64)	16	*	11	*
Hemorrhagic conditions and other diseases of blood and blood-forming organs (D65–D76)	72	1.7	62	1.5
Certain disorders involving the immune mechanism (D80–D89)	20	0.5	29	0.7
Endocrine, nutritional and metabolic diseases (E00–E88)	255	5.9	207	4.9
Short stature, not elsewhere classified (E34.3)	3	*	11	*
Nutritional deficiencies (E40–E64)	4	*	9	*
Cystic fibrosis (E84)	11	*	11	*
Volume depletion, disorders of fluid, electrolyte and acid-base balance (E86–E87)	62	1.4	53	1.2
All other endocrine, nutritional and metabolic diseases (E00–E32,E34.0–E34.2, E34.4–E34.9,E65–E83,E85,E88)	175	4.1	123	2.9
Diseases of the nervous system (G00–G98)	424	9.8	373	8.7
Meningitis (G00,G03)	88	2.0	61	1.4
Infantile spinal muscular atrophy, type I (Werdnig-Hoffman) (G12.0)	15	*	8	*

See footnotes at end of table.

Table 5. Infant deaths and infant mortality rates for 130 selected causes: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records from the states. Rates per 100,000 live births. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>)	2007		2006	
	Number	Rate	Number	Rate
Infantile cerebral palsy (G80)	11	*	7	*
Anoxic brain damage, not elsewhere classified (G93.1)	53	1.2	60	1.4
Other diseases of nervous system (G04,G06–G11,G12.1–G12.9,G20–G72,G81–G92,G93.0, G93.2–G93.9,G95–G98)	257	6.0	237	5.6
Diseases of the ear and mastoid process (H60–H93)	3	*	3	*
Diseases of the circulatory system (I00–I99)	612	14.2	543	12.7
Pulmonary heart disease and diseases of pulmonary circulation (I26–I28)	96	2.2	81	1.9
Pericarditis, endocarditis and myocarditis (I30,I33,I40)	17	*	9	*
Cardiomyopathy (I42)	117	2.7	115	2.7
Cardiac arrest (I46)	34	0.8	15	*
Cerebrovascular diseases (I60–I69)	136	3.2	142	3.3
All other diseases of circulatory system (I00–I25,I31,I34–I38,I44–I45,I47–I51,I70–I99)	212	4.9	181	4.2
Diseases of the respiratory system (J00–J98,U04) ¹	641	14.8	692	16.2
Acute upper respiratory infections (J00–J06)	15	*	11	*
Influenza and pneumonia (J09–J18) ²	218	5.0	263	6.2
Influenza (J09–J11) ²	9	*	18	*
Pneumonia (J12–J18)	209	4.8	245	5.7
Acute bronchitis and acute bronchiolitis (J20–J21)	44	1.0	52	1.2
Bronchitis, chronic and unspecified (J40–J42)	23	0.5	19	*
Asthma (J45–J46)	5	*	6	*
Pneumonitis due to solids and liquids (J69)	11	*	11	*
Other and unspecified diseases of respiratory system (J22,J30–J39,J43–J44,J47–J68,J70–J98,U04) ¹	324	7.5	330	7.7
Diseases of the digestive system (K00–K92)	650	15.1	582	13.6
Gastritis, duodenitis, and noninfective enteritis and colitis (K29,K50–K55)	394	9.1	323	7.6
Hernia of abdominal cavity and intestinal obstruction without hernia (K40–K46,K56)	68	1.6	67	1.6
All other and unspecified diseases of digestive system (K00–K28,K30–K38,K57–K92)	189	4.4	192	4.5
Diseases of the genitourinary system (N00–N95)	169	3.9	180	4.2
Renal failure and other disorders of kidney (N17–N19,N25,N27)	137	3.2	154	3.6
Other and unspecified diseases of genitourinary system (N00–N15,N20–N23,N26,N28–N95)	32	0.7	26	0.6
Certain conditions originating in the perinatal period (P00–P96)	14,141	327.6	14,321	335.7
Newborn affected by maternal factors and by complications of pregnancy, labor and delivery (P00–P04)	3,280	76.0	3,150	73.8
Newborn affected by maternal hypertensive disorders (P00.0)	96	2.2	84	2.0
Newborn affected by other maternal conditions which may be unrelated to present pregnancy (P00.1–P00.9)	99	2.3	80	1.9
Newborn affected by maternal complications of pregnancy (P01)	1,770	41.0	1,683	39.5
Newborn affected by incompetent cervix (P01.0)	505	11.7	444	10.4
Newborn affected by premature rupture of membranes (P01.1)	852	19.7	824	19.3
Newborn affected by multiple pregnancy (P01.5)	222	5.1	214	5.0
Newborn affected by other maternal complications of pregnancy (P01.2–P01.4,P01.6–P01.9)	191	4.4	201	4.7
Newborn affected by complications of placenta, cord and membranes (P02)	1,139	26.4	1,140	26.7
Newborn affected by complications involving placenta (P02.0–P02.3)	586	13.6	563	13.2
Newborn affected by complications involving cord (P02.4–P02.6)	46	1.1	54	1.3
Newborn affected by chorioamnionitis (P02.7)	503	11.7	522	12.2
Newborn affected by other and unspecified abnormalities of membranes (P02.8–P02.9)	4	*	1	*
Newborn affected by other complications of labor and delivery (P03)	120	2.8	102	2.4

See footnotes at end of table.

Table 5. Infant deaths and infant mortality rates for 130 selected causes: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records from the states. Rates per 100,000 live births. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>)	2007		2006	
	Number	Rate	Number	Rate
Newborn affected by noxious influences transmitted via placenta or breast milk (P04)	55	1.3	61	1.4
Disorders related to length of gestation and fetal malnutrition (P05–P08)	4,782	110.8	4,940	115.8
Slow fetal growth and fetal malnutrition (P05)	105	2.4	99	2.3
Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	4,678	108.4	4,841	113.5
Extremely low birth weight or extreme immaturity (P07.0,P07.2)	3,573	82.8	3,683	86.3
Other low birth weight or preterm (P07.1,P07.3)	1,104	25.6	1,158	27.1
Disorders related to long gestation and high birth weight (P08)	–	*	–	*
Birth trauma (P10–P15)	14	*	22	0.5
Intrauterine hypoxia and birth asphyxia (P20–P21)	349	8.1	344	8.1
Intrauterine hypoxia (P20)	108	2.5	109	2.6
Birth asphyxia (P21)	241	5.6	235	5.5
Respiratory distress of newborn (P22)	735	17.0	825	19.3
Other respiratory conditions originating in the perinatal period (P23–P28)	1,077	24.9	1,207	28.3
Congenital pneumonia (P23)	102	2.4	104	2.4
Neonatal aspiration syndromes (P24)	50	1.2	50	1.2
Interstitial emphysema and related conditions originating in the perinatal period (P25)	131	3.0	150	3.5
Pulmonary hemorrhage originating in the perinatal period (P26)	154	3.6	178	4.2
Chronic respiratory disease originating in the perinatal period (P27)	225	5.2	258	6.0
Atelectasis (P28.0–P28.1)	354	8.2	398	9.3
All other respiratory conditions originating in the perinatal period (P28.2–P28.9)	61	1.4	69	1.6
Infections specific to the perinatal period (P35–P39)	1,039	24.1	998	23.4
Bacterial sepsis of newborn (P36)	790	18.3	807	18.9
Omphalitis of newborn with or without mild hemorrhage (P38)	5	*	–	*
All other infections specific to the perinatal period (P35,P37,P39)	244	5.7	191	4.5
Hemorrhagic and hematological disorders of newborn (P50–P61)	723	16.7	725	17.0
Neonatal hemorrhage (P50–P52,P54)	614	14.2	618	14.5
Hemorrhagic disease of newborn (P53)	–	*	1	*
Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice (P55–P59)	20	0.5	13	*
Hematological disorders (P60–P61)	89	2.1	93	2.2
Syndrome of infant of a diabetic mother and neonatal diabetes mellitus (P70.0–P70.2)	12	*	12	*
Necrotizing enterocolitis of newborn (P77)	529	12.3	530	12.4
Hydrops fetalis not due to hemolytic disease (P83.2)	195	4.5	168	3.9
Other perinatal conditions (P29,P70.3–P76,P78–P81,P83.0–P83.1,P83.3–P96)	1,405	32.5	1,400	32.8
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	5,769	133.6	5,819	136.4
Anencephaly and similar malformations (Q00)	306	7.1	336	7.9
Congenital hydrocephalus (Q03)	92	2.1	88	2.1
Spina bifida (Q05)	21	0.5	23	0.5
Other congenital malformations of nervous system (Q01–Q02,Q04,Q06–Q07)	408	9.5	390	9.1
Congenital malformations of heart (Q20–Q24)	1,345	31.2	1,396	32.7
Other congenital malformations of circulatory system (Q25–Q28)	256	5.9	236	5.5
Congenital malformations of respiratory system (Q30–Q34)	393	9.1	437	10.2
Congenital malformations of digestive system (Q35–Q45)	129	3.0	108	2.5
Congenital malformations of genitourinary system (Q50–Q64)	495	11.5	518	12.1
Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65–Q85)	608	14.1	619	14.5
Down's syndrome (Q90)	78	1.8	97	2.3

See footnotes at end of table.

Table 5. Infant deaths and infant mortality rates for 130 selected causes: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records from the states. Rates per 100,000 live births. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures for 2007 are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>)	2007		2006	
	Number	Rate	Number	Rate
Edward's syndrome (Q91.0–Q91.3)	547	12.7	509	11.9
Patau's syndrome (Q91.4–Q91.7)	302	7.0	322	7.5
Other congenital malformations and deformations (Q10–Q18,Q86–Q89)	575	13.3	538	12.6
Other chromosomal abnormalities, not elsewhere classified (Q92–Q99)	216	5.0	202	4.7
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99)	4,162	96.4	3,462	81.2
Sudden infant death syndrome (R95)	2,118	49.1	2,323	54.5
Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R53,R55–594,R96–R99)	2,044	47.3	1,139	26.7
All other diseases (residual)	27	0.6	25	0.6
External causes of mortality (*U01,V01–Y84)	1,646	38.1	1,598	37.5
Accidents (unintentional injuries) (V01–X59)	1,238	28.7	1,147	26.9
Transport accidents (V01–V99)	136	3.2	142	3.3
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)	133	3.1	140	3.3
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)	4	*	2	*
Falls (W00–W19)	33	0.8	23	0.5
Accidental discharge of firearms (W32–W34)	2	*	–	*
Accidental drowning and submersion (W65–W74)	54	1.3	51	1.2
Accidental suffocation and strangulation in bed (W75)	628	14.5	588	13.8
Other accidental suffocation and strangulation (W76–W77,W81–W84)	203	4.7	193	4.5
Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract (W78–W80)	62	1.4	62	1.5
Accidents caused by exposure to smoke, fire and flames (X00–X09)	38	0.9	27	0.6
Accidental poisoning and exposure to noxious substances (X40–X49)	16	*	16	*
Other and unspecified accidents (W20–W31,W35–W64,W85–W99,X10–X39,X50–X59)	66	1.5	45	1.1
Assault (homicide) (*U01,X85–Y09)	322	7.5	336	7.9
Assault (homicide) by hanging, strangulation and suffocation (X91)	32	0.7	34	0.8
Assault (homicide) by discharge of firearms (*U01.4,X93–X95)	13	*	6	*
Neglect, abandonment and other maltreatment syndromes (Y06–Y07)	74	1.7	75	1.8
Assault (homicide) by other and unspecified means (*U01.0–*U01.3, *U01.5–*U01.9,X85–X90,X92,X96–X99,Y00–Y05,Y08–Y09)	203	4.7	221	5.2
Complications of medical and surgical care (Y40–Y84)	24	0.6	23	0.5
Other external causes (Y10–Y36)	62	1.4	92	2.2

* Figure does not meet standards of reliability or precision; see "Technical Notes."

– Quantity zero.

¹New ICD-10 code U04 (Severe acute respiratory syndrome [SARS], unspecified) was added to the category in 2007.

²New ICD-10 code J09 (Influenza due to identified avian influenza virus) was added to the category in 2007.

NOTES: For certain causes of death such as unintentional injuries, homicides, suicides, and respiratory diseases, preliminary and final data differ because of the truncated nature of the preliminary file. Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes." Although the infant mortality rate is the preferred indicator of the risk of dying during the first year of life, another measure of infant mortality, the infant death rate, is shown elsewhere in this report. The two measures typically are similar, yet they can differ because the denominators used for these measures are different. For more information on these measures of risk, see section Infant mortality in the "Technical Notes."

Table 6. Expectation of life, by age, race, and sex: United States, final 2006 and preliminary 2007

[Data are based on a continuous file of records from the states. Calculations of life expectancy employ populations estimated as of July 1 for 2006 and 2007; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 27 states and the District of Columbia in 2007 and by 25 states and the District of Columbia in 2006; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes"]

Age (years) and race	Both sexes		Male		Female	
	2007 ¹	2006 ¹	2007 ¹	2006 ¹	2007 ¹	2006 ¹
All races²						
0	77.9	77.7	75.3	75.1	80.4	80.2
1	77.4	77.2	74.9	74.7	79.9	79.7
5	73.5	73.3	71.0	70.8	75.9	75.8
10	68.6	68.4	66.0	65.8	71.0	70.8
15	63.6	63.4	61.1	60.9	66.0	65.9
20	58.8	58.6	56.3	56.1	61.2	61.0
25	54.1	53.9	51.7	51.5	56.3	56.1
30	49.3	49.2	47.1	46.9	51.4	51.3
35	44.6	44.4	42.4	42.2	46.6	46.4
40	39.9	39.7	37.8	37.6	41.9	41.7
45	35.3	35.2	33.3	33.1	37.2	37.0
50	30.9	30.7	28.9	28.8	32.6	32.5
55	26.6	26.5	24.8	24.7	28.2	28.0
60	22.5	22.4	20.8	20.7	23.9	23.8
65	18.6	18.5	17.1	17.0	19.8	19.7
70	14.9	14.9	13.6	13.6	15.9	15.9
75	11.6	11.6	10.5	10.5	12.4	12.3
80	8.8	8.7	7.9	7.8	9.3	9.3
85	6.4	6.4	5.7	5.7	6.8	6.8
90	4.6	4.6	4.1	4.1	4.8	4.8
95	3.2	3.2	2.9	2.9	3.3	3.3
100	2.2	2.3	2.0	2.0	2.3	2.3
White						
0	78.3	78.2	75.8	75.7	80.7	80.6
1	77.7	77.6	75.3	75.1	80.1	80.0
5	73.8	73.7	71.4	71.2	76.2	76.1
10	68.9	68.7	66.4	66.3	71.2	71.1
15	63.9	63.8	61.5	61.3	66.3	66.1
20	59.1	59.0	56.7	56.6	61.4	61.3
25	54.4	54.2	52.1	51.9	56.5	56.4
30	49.6	49.5	47.4	47.3	51.7	51.5
35	44.8	44.7	42.7	42.6	46.8	46.7
40	40.1	40.0	38.1	37.9	42.1	41.9
45	35.5	35.4	33.5	33.4	37.4	37.2
50	31.1	30.9	29.2	29.0	32.8	32.6
55	26.7	26.6	25.0	24.9	28.3	28.2
60	22.6	22.5	21.0	20.9	24.0	23.8
65	18.6	18.6	17.2	17.1	19.8	19.8
70	15.0	14.9	13.7	13.6	15.9	15.9
75	11.6	11.5	10.5	10.5	12.4	12.3
80	8.7	8.7	7.8	7.8	9.3	9.3
85	6.4	6.3	5.7	5.7	6.7	6.7
90	4.5	4.5	4.0	4.0	4.7	4.7
95	3.2	3.2	2.8	2.8	3.3	3.3
100	2.2	2.2	2.0	2.0	2.2	2.2

See footnotes at end of table.

Table 6. Expectation of life, by age, race, and sex: United States, final 2006 and preliminary 2007—Con.

[Data are based on a continuous file of records from the states. Calculations of life expectancy employ populations estimated as of July 1 for 2006 and 2007; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported by 27 states and the District of Columbia in 2007 and by 25 states and the District of Columbia in 2006; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes"]

Age (years) and race	Both sexes		Male		Female	
	2007 ¹	2006 ¹	2007 ¹	2006 ¹	2007 ¹	2006 ¹
Black						
0	73.7	73.2	70.2	69.7	77.0	76.5
1	73.7	73.2	70.2	69.7	76.9	76.5
5	69.8	69.4	66.3	65.8	73.0	72.6
10	64.9	64.4	61.4	60.9	68.0	67.7
15	59.9	59.5	56.4	56.0	63.1	62.7
20	55.2	54.7	51.8	51.3	58.2	57.8
25	50.5	50.1	47.3	46.8	53.4	53.0
30	45.9	45.5	42.8	42.4	48.6	48.2
35	41.3	40.9	38.3	37.9	43.9	43.5
40	36.8	36.4	33.9	33.5	39.3	38.9
45	32.4	32.0	29.6	29.2	34.8	34.5
50	28.2	27.9	25.5	25.2	30.5	30.2
55	24.3	24.1	21.8	21.6	26.4	26.1
60	20.7	20.4	18.4	18.2	22.4	22.2
65	17.3	17.1	15.3	15.1	18.7	18.6
70	14.1	13.9	12.4	12.3	15.3	15.1
75	11.2	11.1	9.9	9.8	12.1	12.0
80	8.8	8.7	7.7	7.7	9.4	9.3
85	6.7	6.7	6.0	5.9	7.1	7.1
90	5.1	5.1	4.6	4.5	5.3	5.3
95	3.8	3.8	3.5	3.5	3.9	3.9
100	2.8	2.8	2.6	2.6	2.8	2.8

¹Life expectancies for 2006 and 2007 were calculated using a revised methodology and may differ from those previously published; see "Technical Notes."

²Includes races other than white and black.

NOTE: Data are subject to sampling or random variation.

Table 7. Deaths and death rates for the 10 leading causes of death in specified age groups: United States, preliminary 2007

[Data are based on a continuous file of records received from the states. Rates are per 100,000 population in specified group. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

Rank ¹	Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>) and age	Number	Rate
All age ²			
...	All causes	2,424,059	803.7
1	Diseases of heart (I00–I09,I11,I13,I20–I51)	615,651	204.1
2	Malignant neoplasms (C00–C97)	560,187	185.7
3	Cerebrovascular diseases (I60–I69)	133,990	44.4
4	Chronic lower respiratory diseases (J40–J47)	129,311	42.9
5	Accidents (unintentional injuries) (V01–X59,Y85–Y86)	117,075	38.8
...	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)	43,098	14.3
...	All other accidents (V01,V05–V06,V09.1,V09.3–V09.9,V10–V12,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,W00–X59,Y85–Y86)	73,977	24.5
6	Alzheimer's disease (G30)	74,944	24.8
7	Diabetes mellitus (E10–E14)	70,905	23.5
8	Influenza and pneumonia (J09–J18) ³	52,847	17.5
9	Nephritis, nephrotic syndrome and nephrosis (N00–N07,N17–N19,N25–N27)	46,095	15.3
10	Septicemia (A40–A41)	34,851	11.6
...	All other causes (residual)	588,203	195.0
1–4 years			
...	All causes	4,651	28.2
1	Accidents (unintentional injuries) (V01–X59,Y85–Y86)	1,566	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)	529	3.2
...	All other accidents (V01,V05–V06,V09.1,V09.3–V09.9,V10–V12,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,W00–X59,Y85–Y86)	1,037	6.3
2	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	506	3.1
3	Assault (homicide) (*U01–*U02,X85–Y09,Y87.1)	365	2.2
4	Malignant neoplasms (C00–C97)	361	2.2
5	Diseases of heart (I00–I09,I11,I13,I20–I51)	163	1.0
6	Influenza and pneumonia (J09–J18) ³	106	0.6
7	Certain conditions originating in the perinatal period (P00–P96)	77	0.5
8	Septicemia (A40–A41)	74	0.4
9	In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00–D48)	55	0.3
10	Cerebrovascular diseases (I60–I69)	52	0.3
...	All other causes (residual)	1,326	8.1
5–14 years			
...	All causes	6,091	15.2
1	Accident (unintentional injuries) (V01–X59,Y85–Y86)	2,157	5.4
...	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)	1,264	3.1
...	All other accidents (V01,V05–V06,V09.1,V09.3–V09.9,V10–V12,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,W00–X59,Y85–Y86)	893	2.2
2	Malignant neoplasms (C00–C97)	929	2.3
3	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	356	0.9
4	Assault (homicide) (*U01–*U02,X85–Y09,Y87.1)	337	0.8
5	Diseases of heart (I00–I09,I11,I13,I20–I51)	209	0.5
6	Intentional self-harm (suicide) (*U03,X60–X84,Y87.0)	195	0.5
7	Influenza and pneumonia (J09–J18) ³	111	0.3
8	Chronic lower respiratory diseases (J40–J47)	98	0.2
9	Cerebrovascular diseases (I60–I69)	85	0.2
10	In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00–D48)	82	0.2
...	All other causes (residual)	1,532	3.8

See footnotes at end of table.

Table 7. Deaths and death rates for the 10 leading causes of death in specified age groups: United States, preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Rates are per 100,000 population in specified group. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

Rank ¹	Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>) and age	Number	Rate
15–24 years			
...	All causes	33,788	79.5
1	Accidents (unintentional injuries) (V01–X59, Y85–Y86)	15,356	36.1
...	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)	10,507	24.7
...	All other accidents . . . (V01, V05–V06, V09.1, V09.3–V09.9, V10–V12, 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, W00–X59, Y85–Y86)	4,849	11.4
2	Assault (homicide) (*U01–*U02, X85–Y09, Y87.1)	5,284	12.4
3	Intentional self-harm (suicide) (*U03, X60–X84, Y87.0)	4,030	9.5
4	Malignant neoplasms (C00–C97)	1,609	3.8
5	Diseases of heart (I00–I09, I11, I13, I20–I51)	991	2.3
6	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	373	0.9
7	Cerebrovascular diseases (I60–I69)	197	0.5
8	Pregnancy, childbirth and the puerperium (O00–O99)	166	0.4
9	Septicemia (A40–A41)	156	0.4
10	Influenza and pneumonia (J09–J18) ³	154	0.4
...	All other causes (residual)	5,472	12.9
25–44 years			
...	All causes	121,087	144.6
1	Accidents (unintentional injuries) (V01–X59, Y85–Y86)	29,085	34.7
...	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)	13,139	15.7
...	All other accidents . . . (V01, V05–V06, V09.1, V09.3–V09.9, V10–V12, 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, W00–X59, Y85–Y86)	15,946	19.0
2	Malignant neoplasms (C00–C97)	16,577	19.8
3	Diseases of heart (I00–I09, I11, I13, I20–I51)	14,110	16.8
4	Intentional self-harm (suicide) (*U03, X60–X84, Y87.0)	11,528	13.8
5	Assault (homicide) (*U01–*U02, X85–Y09, Y87.1)	7,457	8.9
6	Human immunodeficiency virus (HIV) disease (B20–B24)	4,552	5.4
7	Chronic liver disease and cirrhosis (K70, K73–K74)	2,849	3.4
8	Cerebrovascular diseases (I60–I69)	2,568	3.1
9	Diabetes mellitus (E10–E14)	2,495	3.0
10	Septicemia (A40–A41)	1,191	1.4
...	All other causes (residual)	28,675	34.2
45–64 years			
...	All causes	469,491	613.0
1	Malignant neoplasms (C00–C97)	152,059	198.5
2	Diseases of heart (I00–I09, I11, I13, I20–I51)	100,751	131.6
3	Accidents (unintentional injuries) (V01–X59, Y85–Y86)	29,417	38.4
...	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)	10,596	13.8
...	All other accidents . . . (V01, V05–V06, V09.1, V09.3–V09.9, V10–V12, 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, W00–X59, Y85–Y86)	18,821	24.6
4	Chronic lower respiratory diseases (J40–J47)	16,886	22.0
5	Diabetes mellitus (E10–E14)	16,862	22.0
6	Cerebrovascular diseases (I60–I69)	16,713	21.8
7	Chronic liver disease and cirrhosis (K70, K73–K74)	15,738	20.5
8	Intentional self-harm (suicide) (*U03, X60–X84, Y87.0)	12,138	15.8
9	Septicemia (A40–A41)	6,698	8.7
10	Nephritis, nephrotic syndrome and nephrosis (N00–N07, N17–N19, N25–N27)	6,604	8.6
...	All other causes (residual)	95,625	124.9

See footnotes at end of table.

Table 7. Deaths and death rates for the 10 leading causes of death in specified age groups: United States, preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Rates are per 100,000 population in specified group. For explanation of asterisks (*) preceding cause-of-death codes, see "Technical Notes." Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals]

Rank ¹	Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>) and age	Number	Rate
	65 years and over		
...	All causes	1,759,472	4,643.9
1	Diseases of heart (I00–I09,I11,I13,I20–I51)	498,980	1,317.0
2	Malignant neoplasms (C00–C97)	388,548	1,025.5
3	Cerebrovascular diseases (I60–I69)	114,237	301.5
4	Chronic lower respiratory diseases (J40–J47)	111,087	293.2
5	Alzheimer's disease (G30)	74,106	195.6
6	Diabetes mellitus (E10–E14)	51,359	135.6
7	Influenza and pneumonia (J09–J18) ³	46,135	121.8
8	Nephritis, nephrotic syndrome and nephrosis (N00–N07,N17–N19,N25–N27)	38,249	101.0
9	Accidents (unintentional injuries) (V01–X59,Y85–Y86)	38,222	100.9
	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)	6,925	18.3
...	All other accidents . . . (V01,V05–V06,V09.1,V09.3–V09.9,V10–V12,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,W00–X59,Y85–Y86)	31,297	82.6
10	Septicemia (A40–A41)	26,388	69.6
...	All other causes (residual)	372,161	982.3

... Category not applicable.

¹Rank based on number of deaths; see "Technical Notes."

²Includes deaths under 1 year of age.

³New ICD-10 code J09 (Influenza due to identified avian influenza virus) was added to the category in 2007.

NOTES: For certain causes of death such as unintentional injuries, homicides, suicides, and respiratory diseases, preliminary and final data differ because of the truncated nature of the preliminary file. Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes."

Table 8. Infant deaths and infant mortality rates for the 10 leading causes of infant death, by race and Hispanic origin: United States, preliminary 2007

[Data are based on a continuous file of records received from the states. Rates are per 100,000 live births. Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals. Race and Hispanic origin are reported separately on both the birth and death certificate. Rates for Hispanic origin should be interpreted with caution because of inconsistencies between reporting Hispanic origin on birth and death certificates; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported for deaths by 27 states and the District of Columbia and for births by 25 states; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

Rank ¹	Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>) and race and Hispanic origin	Number	Rate
All races ²			
...	All causes	29,241	677.3
1	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	5,769	133.6
2	Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	4,678	108.4
3	Sudden infant death syndrome (R95)	2,118	49.1
4	Newborn affected by maternal complications of pregnancy (P01)	1,770	41.0
5	Accidents (unintentional injuries) (V01–X59)	1,238	28.7
6	Newborn affected by complications of placenta, cord and membranes (P02)	1,139	26.4
7	Bacterial sepsis of newborn (P36)	790	18.3
8	Respiratory distress of newborn (P22)	735	17.0
9	Neonatal hemorrhage (P50–P52,P54)	614	14.2
10	Diseases of the circulatory system (I00–I99)	612	14.2
...	All other causes (residual)	9,778	226.5
Total white			
...	All causes	19,081	572.5
1	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	4,360	130.8
2	Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	2,722	81.7
3	Sudden infant death syndrome (R95)	1,402	42.1
4	Newborn affected by maternal complications of pregnancy (P01)	1,074	32.2
5	Accidents (unintentional injuries) (V01–X59)	776	23.3
6	Newborn affected by complications of placenta, cord and membranes (P02)	736	22.1
7	Bacterial sepsis of newborn (P36)	490	14.7
8	Respiratory distress of newborn (P22)	464	13.9
9	Neonatal hemorrhage (P50–P52,P54)	437	13.1
10	Diseases of the circulatory system (I00–I99)	383	11.5
...	All other causes (residual)	6,237	187.1
Non-Hispanic white			
...	All causes	13,283	574.4
1	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	2,921	126.3
2	Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	1,848	79.9
3	Sudden infant death syndrome (R95)	1,145	49.5
4	Newborn affected by maternal complications of pregnancy (P01)	784	33.9
5	Accidents (unintentional injuries) (V01–X59)	628	27.2
6	Newborn affected by complications of placenta, cord and membranes (P02)	503	21.8
7	Respiratory distress of newborn (P22)	348	15.0
8	Bacterial sepsis of newborn (P36)	342	14.8
9	Neonatal hemorrhage (P50–P52,P54)	295	12.8
10	Diseases of the circulatory system (I00–I99)	259	11.2
...	All other causes (residual)	4,210	182.1
Total black			
...	All causes	8,747	1,285.5
1	Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	1,749	257.0
2	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	1,109	163.0
3	Sudden infant death syndrome (R95)	630	92.6
4	Newborn affected by maternal complications of pregnancy (P01)	611	89.8
5	Accidents (unintentional injuries) (V01–X59)	413	60.7
6	Newborn affected by complications of placenta, cord and membranes (P02)	364	53.5
7	Bacterial sepsis of newborn (P36)	261	38.4
8	Respiratory distress of newborn (P22)	240	35.3
9	Necrotizing enterocolitis of newborn (P77)	198	29.1
10	Diseases of the circulatory system (I00–I99)	192	28.2
...	All other causes (residual)	2,980	437.9

See footnotes at end of table.

Table 8. Infant deaths and infant mortality rates for the 10 leading causes of infant death, by race and Hispanic origin: United States, preliminary 2007—Con.

[Data are based on a continuous file of records received from the states. Rates are per 100,000 live births. Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals or subtotals. Race and Hispanic origin are reported separately on both the birth and death certificate. Rates for Hispanic origin should be interpreted with caution because of inconsistencies between reporting Hispanic origin on birth and death certificates; see "Technical Notes." Race categories are consistent with the 1977 Office of Management and Budget (OMB) standards. Multiple-race data were reported for deaths by 27 states and the District of Columbia and for births by 25 states; see "Technical Notes." The multiple-race data for these states were bridged to the single-race categories of the 1977 OMB standards for comparability with other states; see "Technical Notes." Data for persons of Hispanic origin are included in the data for each race group, according to the decedent's reported race; see "Technical Notes"]

Rank ¹	Cause of death (based on the <i>International Classification of Diseases, Tenth Revision, Second Edition, 2004</i>) and race and Hispanic origin	Number	Rate
	Hispanic ³		
...	All causes	6,056	570.3
1	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	1,474	138.8
2	Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	903	85.0
3	Newborn affected by maternal complications of pregnancy (P01)	313	29.5
4	Sudden infant death syndrome (R95)	275	25.9
5	Newborn affected by complications of placenta, cord and membranes (P02)	252	23.7
6	Accidents (unintentional injuries) (V01–X59)	149	14.0
7	Bacterial sepsis of newborn (P36)	148	13.9
8	Neonatal hemorrhage (P50–P52, P54)	141	13.3
9	Diseases of the circulatory system (I00–I99)	128	12.1
10	Respiratory distress of newborn (P22)	124	11.7
...	All other causes (residual)	2,149	202.4

... Category not applicable.

¹Rank based on number of deaths; see "Technical Notes."

²Includes races other than white and black.

³Includes all persons of Hispanic origin of any race; see "Technical Notes."

NOTE: For certain causes of death such as unintentional injuries, homicides, suicides, and sudden infant death syndrome, preliminary and final data differ because of the truncated nature of the preliminary file. Data are subject to sampling or random variation. For information regarding the calculation of standard errors and further discussion of the variability of the data, see "Technical Notes." Although the infant mortality rate is the preferred indicator of the risk of dying during the first year of life, another measure of infant mortality, the infant death rate, is shown elsewhere in the report. The two measures typically are similar, yet they can differ because the denominators used for these measures are different.

Technical Notes

Nature and sources of data

Preliminary mortality data for 2007 are based on the continuous receipt and processing of statistical records by the National Center for Health Statistics (NCHS) through October 6, 2008. NCHS received the data from states' vital registration systems through the Vital Statistics Cooperative Program. Demographic information for the United States was available in calendar year 2007 for an estimated 86.9 percent of infant decedents and 91.1 percent of decedents aged 1 year and over. Medical information for the United States was available in calendar year 2007 for an estimated 82.6 percent of infant decedents and 86.6 percent of decedents aged 1 year and over. In this report, U.S. totals include only events occurring within the 50 states and the District of Columbia. Data for Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Marianas that are included in tables showing data by state are not included in U.S. totals.

For 2007, individual records of infant deaths (under 1 year of age) and deaths of persons aged 1 year and over are weighted, when necessary, to independent counts of deaths occurring in each state. These state-specific counts serve as control totals and are the basis for the record weights in the preliminary file. If the number of records in the preliminary file is greater than the count received from the state, the state-specific number of records in the preliminary file is used instead and the weight is set at 1.0.

For this report, two separate files are processed. The medical file, or cause of death file, contains records that include both demographic and medical information used to generate tables showing cause of death. The demographic file, which includes records from the medical file as well as additional records containing demographic information only, is used to generate tables showing mortality by demographic characteristics only. A state-specific weight is computed for each file by dividing the state control total by the number of records in the preliminary sample.

Each record is assigned two weights, a state-specific weight and a U.S. weight. State weights are used for state-specific tabulations and U.S. weights are used for national tabulations. For the medical file, the state weight makes the death counts comparable with those in the demographic file. The U.S. weight combines two factors: one to make the medical file counts for the individual record's state comparable with those for the demographic file, and one to compensate for any states not represented in the file. This second factor is equivalent to zero if all states are represented in the file. Thus, when all states are represented in the preliminary files, the state and U.S. weights are the same.

Because there are two separate files, each with two separate sets of weights, slight inconsistencies may occur between the demographic and medical tables in this report. [Table I](#) shows the percent completeness of the preliminary files by place of occurrence for the United States and each state. The percent completeness is obtained by dividing the number of records in the preliminary files by the control total and multiplying by 100. Although data by place of occurrence are used to compute the weights, all data in this report are tabulated by place of residence. Based on a criterion of at least 75 percent completeness of a state's demographic file for the 12-month period as a basis for providing state-specific estimates, the demographic mortality files for

2007 contained less than 35.7 percent of their records for Texas, 61.9 percent for Georgia, and 68.3 percent for California ([Table I](#)); therefore, data for those three states are included in the U.S. total but are not shown separately in [Table 3](#), which shows deaths and death rates by state.

For selected variables in the mortality files, unknown or not stated values are imputed. The percentage not stated was less than 1.7 percent for all variables discussed in this report. Detailed information on reporting completeness and imputation procedures may be found in *Technical Appendix, Vital Statistics of the United States: Mortality, 1999* (31).

2003 revision of U.S. Standard Certificate of Death

This report includes data for the 25 reporting areas—California, Connecticut, Delaware, District of Columbia, Florida, Idaho, Kansas, Michigan, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York City, New York State (excluding New York City), Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Utah, Washington, and Wyoming—that implemented the 2003 revision of the U.S. Standard Certificate of Death by the beginning of 2007. The remaining 27 areas, all states, collected and reported death data in 2007 based on the 1989 revision of the U.S. Standard Certificate of Death. The 2003 revision is described in detail elsewhere (14,15). Because the items presented in this report appear largely comparable despite changes to item wording and format in the 2003 revision, data from both groups of states are combined.

Race and Hispanic origin

The 2003 revision of the U.S. Standard Certificate of Death allows the reporting of more than one race (multiple races) (14). This change was implemented to reflect the increasing diversity of the population of the United States, to be consistent with the decennial census, and to reflect standards issued in 1997 by the Office of Management and Budget (OMB). OMB standards mandate the collection of more than one race for federal data (see "Population denominators") (20). In addition, the new certificate is compliant with the OMB-mandated minimum set of five races to be reported for federal data. These are white, black or African American, American Indian or Alaska Native (AIAN), Asian, and Native Hawaiian or Other Pacific Islander (NHOPi).

For 2007 mortality data, multiple races were reported on the revised death certificates of California, Connecticut, Delaware, District of Columbia, Florida, Idaho, Kansas, Michigan, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York City, New York State (excluding New York City), Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Utah, Washington, and Wyoming. Multiple races were also reported on the unrevised certificates of Hawaii, Maine, Minnesota, and Wisconsin. Data from the vital records of the remaining 23 states are based on the 1989 revision of the U.S. Standard Certificate of Death, which follows the 1977 OMB standards, allowing only a single race to be reported (15,16). In addition, these 23 states report a minimum set of four races as stipulated in the 1977 standards. These are white, black or African American, American Indian or Alaska Native (AIAN), and Asian or Pacific Islander (API).

Table I. Total count of records and percent completeness of preliminary files of infant deaths and deaths to those aged 1 year and over: United States, each state and territory, preliminary 2007

[By place of occurrence]

Area	Infant deaths (under 1 year of age)			Deaths to those aged 1 year and over		
	Count of records	Percent completeness		Count of records	Percent completeness	
		Demographic file	Medical file		Demographic file	Medical file
United States ¹	29,327	87.0	82.6	2,399,110	91.1	86.6
Alabama	669	100.0	100.0	45,454	100.0	100.0
Alaska	68	100.0	100.0	3,353	99.9	99.9
Arizona	710	100.0	100.0	45,622	100.0	99.9
Arkansas	318	100.0	100.0	27,456	100.0	100.0
California	3,030	62.7	62.7	231,288	68.4	68.4
Colorado	465	100.0	100.0	30,082	100.0	100.0
Connecticut	267	100.0	100.0	28,514	100.0	100.0
Delaware	94	100.0	94.7	7,223	100.0	99.5
District of Columbia	264	100.0	95.5	6,009	99.9	96.0
Florida	1,713	100.0	100.0	167,260	100.0	100.0
Georgia	1,265	52.9	52.9	67,589	62.1	62.1
Hawaii	121	100.0	100.0	9,505	100.0	100.0
Idaho	138	100.0	100.0	10,583	100.0	100.0
Illinois	1,138	84.5	46.4	96,428	90.4	50.0
Indiana	656	100.0	100.0	54,122	100.0	100.0
Iowa	187	100.0	100.0	26,883	100.0	100.0
Kansas	289	100.0	100.0	23,574	100.0	100.0
Kentucky	385	82.9	82.9	39,351	99.4	99.4
Louisiana	604	96.5	50.8	39,155	96.6	62.9
Maine	93	100.0	97.8	12,318	100.0	99.8
Maryland	520	100.0	99.6	43,129	100.0	100.0
Massachusetts	406	100.0	100.0	53,207	100.0	100.0
Michigan	998	100.0	100.0	84,570	100.0	100.0
Minnesota	432	100.0	100.0	36,799	100.0	100.0
Mississippi	402	100.0	100.0	27,241	100.0	100.0
Missouri	736	100.0	100.0	55,152	100.0	100.0
Montana	68	100.0	100.0	8,540	100.0	100.0
Nebraska	200	100.0	98.5	15,227	100.0	100.0
Nevada	252	99.6	58.3	19,204	100.0	83.2
New Hampshire	58	100.0	100.0	10,093	100.0	100.0
New Jersey	525	99.2	59.4	67,713	100.0	41.8
New Mexico	168	99.4	23.8	14,954	100.0	32.4
New York	1,406	99.6	99.6	145,791	100.0	100.0
New York excluding New York City	717	100.0	100.0	92,406	100.0	100.0
New York City	689	99.1	99.1	53,385	100.0	100.0
North Carolina	1,115	100.0	100.0	75,661	100.0	100.0
North Dakota	60	100.0	100.0	5,963	100.0	100.0
Ohio	1,189	99.7	99.7	105,407	100.0	100.0
Oklahoma	449	100.0	99.1	34,776	100.0	100.0
Oregon	312	95.2	95.2	31,026	96.9	96.9
Pennsylvania	1,206	100.0	93.9	125,170	100.0	98.9
Rhode Island	100	100.0	100.0	9,843	100.0	100.0
South Carolina	503	99.8	99.0	37,991	97.6	95.8
South Dakota	93	100.0	100.0	6,959	100.0	100.0
Tennessee	817	100.0	100.0	59,291	100.0	100.0
Texas	2,598	30.7	30.2	160,416	35.8	35.5
Utah	319	100.0	100.0	14,249	100.0	100.0
Vermont	35	100.0	100.0	5,126	100.0	100.0
Virginia	797	100.0	100.0	56,813	100.0	100.0
Washington	428	100.0	100.0	47,095	100.0	100.0
West Virginia	164	100.0	99.4	20,499	100.0	99.8
Wisconsin	461	100.0	100.0	45,472	100.0	100.0
Wyoming	36	100.0	100.0	3,965	100.0	99.9
Puerto Rico	387	100.0	23.5	28,699	99.9	21.6
Virgin Islands	9	100.0	100.0	716	100.0	99.3
Guam	36	100.0	100.0	756	99.7	99.6
American Samoa	11	100.0	100.0	240	100.0	92.9
Northern Marianas	6	100.0	0.0	136	98.5	97.1

0.0 Quantity more than zero but less than 0.05.

¹Excludes data for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas.

NOTE: Percent completeness equals 100 times the number of records in preliminary file divided by the count of records.

In order to provide uniformity and comparability of data during the transition period—before all or most of the data becomes available in the new multiple-race format—it is necessary to adjust the data for those states reporting multiple race by “bridging” the multiple-race information reported for decedents to a single race. The bridging procedure used for mortality numerators is similar to the procedure used to bridge multiracial population estimates (see “Population denominators”) (18,19). Multiracial decedents are imputed to a single race (either white, black, AIAN, or API) according to the combination of races, Hispanic origin, sex, and age indicated on the death certificate. The imputation procedure is described in detail at

http://www.cdc.gov/nchs/data/dvs/Multiple_race_docu_5-10-04.pdf.

Since race and Hispanic origin are reported separately on the death certificate, 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 persons of Hispanic origin are included in the totals for each race group—white, black, AIAN, and 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 on the Hispanic-origin population are based on deaths in all states. Death rates for Hispanic, AIAN, and API persons should be interpreted with caution because of inconsistencies in reporting race on death certificates compared with such reporting on censuses, surveys, and birth certificates. Studies have shown under-reporting on death certificates of AIAN, API, and Hispanic decedents, as well as undercounts of these groups in censuses (21–23).

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, crude death rates, and age-adjusted death rates for injury at work for those aged 15 years and over, excluding age not stated, are shown in [Table 2](#). Age-adjusted death rates presented in this report 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, excluding age not stated ([Table V](#)). If the estimated “employed” population aged 15 years and over had been used instead in the denominator, higher death rates would have resulted, especially for population groups with lower employment rates; see “Computing rates and percentages.”

Cause-of-death classification

Mortality statistics are compiled in accordance with World Health Organization regulations specifying 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. It provides not only disease, injury, and poisoning categories but also the rules used to select the single underlying cause of death for tabulation from the several diagnoses that may be reported on a single death certificate, as well as definitions, tabulation lists, the format of the

death certificate, and regulations on the use of the classification. Causes of death for data presented in this report were coded by procedures described in annual issues of part 2a of the *NCHS Instruction Manual* (32).

Effective with deaths occurring in 1999, the United States began using the Tenth Revision of this classification (ICD–10) (33). In 2004, the Second Edition of ICD–10 was adopted (34). During 1979–1998, causes of death were coded and classified according to the Ninth Revision (ICD–9) (35). The change from ICD–9 to ICD–10 resulted in discontinuities for selected cause-of-death trends. These discontinuities are measured using comparability ratios derived from a comparability study (36).

Beginning with data for 2001, NCHS introduced categories *U01–*U03 for classifying and coding deaths due to acts of terrorism. The asterisks before the category codes indicate that they are not part of ICD–10. Deaths classified to the terrorism categories are included in the categories Assault (homicide) and Intentional self-harm (suicide) for the 113 causes-of-death list ([Table 2](#)), and Assault (homicide) in the 130 causes-of-infant-death list ([Table 5](#)). Additional information on the new terrorism categories can be found at http://www.cdc.gov/nchs/about/otheract/icd9/terrorism_code.htm. No deaths occurring in 2006 and 2007 were classified to the terrorism categories.

Enterocolitis due to Clostridium difficile (*C. difficile*)—Due to growing concerns about the increasing number of deaths from Enterocolitis due to *Clostridium difficile* (ICD–10 code A04.7), beginning in 2006, *C. difficile* deaths are included separately as a rankable cause of death in tables showing data for 113 selected causes of death ([Table 2](#)). The number of deaths due to this cause increased dramatically from 793 in 1999 to 6,432 in 2007. The age-adjusted death rate for this cause increased from 0.28 per 100,000 population in 1999 to 2.01 per 100,000 population in 2007.

Codes for drug-induced deaths—In data year 2003, the list of codes included in drug-induced causes was expanded to be more comprehensive. The following 37 ICD–10 codes were added to the previous list of drug-induced codes: D52.1, D59.0, D59.2, D61.1, D64.2, E06.4, E16.0, E23.1, E24.2, E27.3, E66.1, G21.1, G24.0, G25.1, G25.4, G25.6, G44.4, G62.0, G72.0, I95.2, J70.2, J70.3, J70.4, L10.5, L27.0, L27.1, M10.2, M32.0, M80.4, M81.4, M83.5, M87.1, R78.1, R78.2, R78.3, R78.4, and R78.5. In addition to expansion of the list in 2003, ICD codes K85.3 (drug-induced acute pancreatitis) and R50.2 (drug-induced fever) were added to the list of drug-induced codes in 2006. No deaths were classified to these two new codes in 2006 and 2007.

Codes for alcohol-induced deaths—The list of codes included in alcohol-induced causes was expanded in data year 2003 to be more comprehensive. Three ICD–10 codes were added to the previous list of alcohol-induced codes: E24.4, G72.1, and K86.0. Additionally, K85.2 (alcohol-induced acute pancreatitis) was added to the list in 2006.

Numbers of deaths and death rates based on the newly modified list of causes may differ slightly from those previously published. For example, in 2006, addition of the code K85.2 increased the total number of deaths from alcohol-induced causes from 21,771 to 22,073, an increase of 302 deaths, and increased the age-adjusted death rate from 6.9 to 7.0 and the total crude death rate from 7.3 to 7.4, although neither rate increase is statistically significant. For data year 2007, addition of K85.2 resulted in an increase in the number of alcohol-induced deaths

from 21,679 to 22,067, an increase of 388 deaths; the death rate for this cause increased, from 7.2 to 7.3, as did the age-adjusted death rate, from 6.8 to 6.9, although neither rate increase is statistically significant.

Beginning with data for 2007, NCHS introduced category J09 for classifying and coding deaths for influenza due to identified avian influenza virus; U04.9 for Severe Acute Respiratory Syndrome; X59.0 for exposure to unspecified factor causing fracture; and X59.9 for exposure to unspecified factor causing other and unspecified injury. Deaths for code J09 are included in the category Influenza and pneumonia, code U40.9 in the category Other acute lower respiratory infections, and codes X59.0 and X59.9 in Other and unspecified nontransport accidents and their sequelae for the 113 causes-of-death list (Table 2, 7) and the 130 causes-of-infant-death list (Table 5). Additional information on these new categories can be found at <http://www.cdc.gov/nchs/data/dvs/Part9InstructionManual2007.pdf>.

Nonsampling error

Causes of death in this report are subject to nonsampling error because of the nature of the preliminary file. Because the preliminary file is processed before a full year of data is available, it is subject to the seasonality of certain causes of death that may not be equally distributed throughout the year. It is known, for example, that external causes such as unintentional injuries occur disproportionately during the summer months, and that fatal respiratory conditions are more prevalent during the winter months. Accordingly, the truncated nature of the preliminary file may systematically overemphasize or underemphasize causes with pronounced seasonality, particularly when these deaths cluster at the end of the year. However, in years where the preliminary file completeness is more than 90 percent, it is unlikely that seasonality is a major factor.

Furthermore, for some deaths, especially those subject to medicolegal investigation such as unintentional injuries, homicides, suicides, and sudden infant death syndrome (SIDS), the final cause may not be available at the time the preliminary file is processed. In those cases, the causes of death may be reported in the preliminary file as unknown or pending investigation and coded to the category Other ill-defined and unspecified causes of mortality (ICD-10 code R99), a subcategory of Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (ICD-10 codes R00-R99). In the final data, some of the deaths of unknown cause in the preliminary file will be reassigned to specific causes if further, more specific cause-of-death information is provided.

A quantitative assessment of the degree of the nonsampling error can be made by comparing final data and preliminary data for the same year. A comparison of such data for the selected 113 causes of death for the total U.S. population from 2004-2006 indicates that preliminary estimates for some causes of death are sometimes underestimated and sometimes overestimated in the preliminary file (Table II). Thus, the number of deaths for unintentional injuries was underestimated in the preliminary file by 3.0 percent in 2004, 2.5 percent in 2005, and 3.2 percent in 2006. Similar error occurred for suicide with preliminary underestimates of 2.4 percent in 2004, 2.7 percent in 2005, and 3.3 percent in 2006. Likewise, homicide showed a 4.3 percent underestimate in the preliminary file in 2004, 2.4 percent in 2005, and 2.9 percent in 2006. Chronic lower respiratory disease was overestimated in the preliminary file by 1.62 percent in 2004 but stayed the same in 2005 and 2006 (Table II).

Comparisons showing nonsampling error in preliminary estimates for causes of infant death are shown in Table III, where Congenital malformations, deformations and chromosomal abnormalities were overestimated by 0.1 percent in 2004, 0.2 percent in 2005, and 0.1 percent in 2006. Unintentional injuries and SIDS were underestimated in the preliminary data for each of the three years, with unintentional injuries being underestimated between 1.3 percent and 5.4 percent and SIDS between 5.5 percent and 7.7 percent (Table III).

Tabulation lists and cause-of-death ranking

Tabulation lists for ICD-10 are published in the *NCHS Instruction Manual, Part 9, ICD-10 Cause-of-Death Lists for Tabulating Mortality Statistics, Updated October 2007* (37). For this report, two tabulation lists are used: 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. Modifications in the lists reflecting changes in ICD codes are footnoted in the report tables. These lists are also used to rank leading causes of death for the two population groups (38). 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.

Infant mortality

The infant mortality rate is 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 preliminary number of infant deaths that occurred during 2007 by the number of live births for the same period and are presented as rates per 1,000 or per 100,000 live births. For preliminary birth figures used in the denominator for infant mortality rates, see *Births: Preliminary Data for 2007* (29). In contrast to infant mortality rates based on live births, infant death rates are based on the estimated population under 1 year of age (Table 1). Infant death rates that appear in tabulations of age-specific death rates in this report are calculated by dividing the number of infant deaths in 2007 by the estimated population of persons under 1 year of age on July 1, 2007, and are presented as rates per 100,000 population in this age group. Because of differences in their denominators, infant death rates may differ from infant mortality rates. Information on infant deaths can also be obtained from a file where the infant's death certificate is linked to the birth certificate. The linked birth/infant death data set (linked file) is a better source of data for infant deaths and mortality rates by race and ethnicity because the race of the mother, as reported by the mother on the birth certificate, is used in both the numerator and denominator of the infant mortality rate. In contrast, for infant deaths and mortality rates in this report, race information for the denominator is

Table II. Ratios of preliminary to final reported numbers of deaths from 113 selected causes: United States, 2004–2006

[For explanation of asterisk preceding cause-of-death codes, see "Technical Notes"]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision</i> (ICD–10), Second Edition, 2004 ¹)	Preliminary number of deaths 2006	Final number of deaths 2006	Ratio of preliminary to final 2006	Preliminary number of deaths 2005	Final number of deaths 2005	Ratio of preliminary to final 2005	Preliminary number of deaths 2004	Final number of deaths 2004	Ratio of preliminary to final 2004
All causes	2,425,901	2,426,264	0.9999	2,447,910	2,448,017	1.0000	2,398,365	2,397,615	1.0003
Salmonella infections (A01–A02)	33	34	0.9706	30	30	1.0000	30	30	1.0000
Shigellosis and amebiasis (A03,A06)	4	6	0.6667	9	10	0.9000	2	3	0.6667
Certain other intestinal infections (A04,A07–A09)	6,671	6,639	1.0048	5,694	5,667	1.0048	4,357	4,357	1.0000
Tuberculosis (A16–A19)	644	652	0.9877	646	648	0.9969	662	657	1.0076
Respiratory tuberculosis (A16)	485	490	0.9898	477	480	0.9938	509	504	1.0099
Other tuberculosis (A17–A19)	159	162	0.9815	169	168	1.0060	153	153	1.0000
Whooping cough (A37)	9	9	1.0000	32	31	1.0323	13	16	0.8125
Scarlet fever and erysipelas (A38,A46)	2	2	1.0000	3	3	1.0000	2	3	0.6667
Meningococcal infection (A39)	103	105	0.9810	119	123	0.9675	141	138	1.0217
Septicemia (A40–A41)	34,031	34,234	0.9941	34,142	34,136	1.0002	33,464	33,373	1.0027
Syphilis (A50–A53)	35	38	0.9211	46	47	0.9787	38	43	0.8837
Acute poliomyelitis (A80)	–	–	–	4	–	–	–	–	–
Arthropod-borne viral encephalitis (A83–A84,A85.2)	5	5	1.0000	6	6	1.0000	5	5	1.0000
Measles (B05)	–	–	–	1	1	1.0000	1	–	–
Viral hepatitis (B15–B19)	6,021	7,250	0.8305	5,524	5,529	0.9991	5,392	5,382	1.0019
Human immunodeficiency virus (HIV) disease (B20–B24)	12,045	12,113	0.9944	12,456	12,543	0.9931	12,995	13,063	0.9948
Malaria (B50–B54)	9	9	1.0000	6	6	1.0000	10	8	1.2500
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)	7,110	5,897	1.2057	7,695	7,727	0.9959	7,526	7,540	0.9981
Malignant neoplasms (C00–C97)	560,102	559,888	1.0004	559,300	559,312	1.0000	550,270	553,888	0.9935
Malignant neoplasms of lip, oral cavity and pharynx (C00–C14)	7,727	7,720	1.0009	7,775	7,773	1.0003	7,712	7,826	0.9854
Malignant neoplasm of esophagus (C15)	13,674	13,686	0.9991	13,512	13,499	1.0010	12,916	13,023	0.9918
Malignant neoplasm of stomach (C16)	11,354	11,345	1.0008	11,473	11,514	0.9964	11,635	11,859	0.9811
Malignant neoplasms of colon, rectum and anus (C18–C21)	53,465	53,549	0.9984	53,228	53,252	0.9995	53,614	53,772	0.9971
Malignant neoplasms of liver and intrahepatic bile ducts (C22)	16,447	16,525	0.9953	16,049	16,076	0.9983	15,133	15,321	0.9877
Malignant neoplasm of pancreas (C25)	33,437	33,454	0.9995	32,741	32,760	0.9994	31,447	31,772	0.9898
Malignant neoplasm of larynx (C32)	3,824	3,821	1.0008	3,790	3,797	0.9982	3,646	3,668	0.9940
Malignant neoplasms of trachea, bronchus and lung (C33–C34)	158,525	158,664	0.9991	159,415	159,292	1.0008	157,218	158,091	0.9945
Malignant melanoma of skin (C43)	8,487	8,441	1.0054	8,368	8,345	1.0028	7,895	7,952	0.9928
Malignant neoplasm of breast (C50)	41,223	41,210	1.0003	41,471	41,491	0.9995	40,880	41,316	0.9894
Malignant neoplasm of cervix uteri (C53)	3,926	3,976	0.9874	3,914	3,924	0.9975	3,806	3,850	0.9886
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54–C55)	7,374	7,384	0.9986	7,070	7,096	0.9963	6,912	6,990	0.9888
Malignant neoplasm of ovary (C56)	14,906	14,857	1.0033	14,770	14,787	0.9989	14,604	14,716	0.9924
Malignant neoplasm of prostate (C61)	28,331	28,372	0.9986	28,916	28,905	1.0004	28,922	29,004	0.9972
Malignant neoplasms of kidney and renal pelvis (C64–C65)	12,376	12,379	0.9998	12,513	12,517	0.9997	12,127	12,313	0.9849
Malignant neoplasm of bladder (C67)	13,492	13,474	1.0013	13,258	13,253	1.0004	12,862	13,030	0.9871
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70–C72)	12,853	12,886	0.9974	13,149	13,152	0.9998	12,668	12,829	0.9875
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81–C96)	55,241	55,045	1.0036	55,023	55,028	0.9999	54,485	54,645	0.9971
Hodgkin's disease (C81)	1,331	1,327	1.0030	1,272	1,272	1.0000	1,265	1,276	0.9914
Non-Hodgkin's lymphoma (C82–C85)	20,663	20,594	1.0034	20,863	20,873	0.9995	20,867	20,938	0.9966
Leukemia (C91–C95)	22,022	21,944	1.0036	21,616	21,623	0.9997	21,367	21,395	0.9987
Multiple myeloma and immunoproliferative neoplasms (C88,C90)	11,153	11,111	1.0038	11,213	11,200	1.0012	10,919	10,965	0.9958

See footnotes at end of table.

Table II. Ratios of preliminary to final reported numbers of deaths from 113 selected causes: United States, 2004–2006—Con.

[For explanation of asterisk preceding cause-of-death codes, see “Technical Notes”]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision</i> (ICD–10), Second Edition, 2004 ¹)	Preliminary number of deaths 2006	Final number of deaths 2006	Ratio of preliminary to final 2006	Preliminary number of deaths 2005	Final number of deaths 2005	Ratio of preliminary to final 2005	Preliminary number of deaths 2004	Final number of deaths 2004	Ratio of preliminary to final 2004
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue (C96)	71	69	1.0290	60	60	1.0000	66	71	0.9296
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)	63,441	63,100	1.0054	62,865	62,851	1.0002	61,788	61,911	0.9980
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00–D48)	14,101	14,122	0.9985	13,732	13,710	1.0016	13,521	13,580	0.9957
Anemias (D50–D64)	4,007	3,996	1.0028	4,611	4,624	0.9972	4,569	4,575	0.9987
Diabetes mellitus (E10–E14)	72,507	72,449	1.0008	74,817	75,119	0.9960	72,815	73,138	0.9956
Nutritional deficiencies (E40–E64)	2,568	2,556	1.0047	3,185	3,183	1.0006	3,042	3,019	1.0076
Malnutrition (E40–E46)	2,383	2,377	1.0025	3,004	3,003	1.0003	2,860	2,847	1.0046
Other nutritional deficiencies (E50–E64)	185	179	1.0335	181	180	1.0056	181	172	1.0523
Meningitis (G00,G03)	632	634	0.9968	652	669	0.9746	720	674	1.0682
Parkinson’s disease (G20–G21)	19,660	19,566	1.0048	19,547	19,544	1.0002	18,018	17,989	1.0016
Alzheimer’s disease (G30)	72,914	72,432	1.0067	71,696	71,599	1.0014	65,829	65,965	0.9979
Major cardiovascular diseases (I00–I78)	821,494	823,746	0.9973	853,188	856,030	0.9967	862,800	861,190	1.0019
Diseases of heart (I00–I09,I11,I13,I20–I51)	629,191	631,636	0.9961	649,399	652,091	0.9959	654,092	652,486	1.0025
Acute rheumatic fever and chronic rheumatic heart diseases (I00–I09)	3,257	3,257	1.0000	3,359	3,365	0.9982	3,254	3,254	0.9982
Hypertensive heart disease (I11)	29,217	29,788	0.9808	28,902	29,282	0.9870	28,262	28,585	0.9887
Hypertensive heart and renal disease (I13)	2,919	2,918	1.0003	3,148	3,172	0.9924	2,971	3,046	0.9754
Ischemic heart diseases (I20–I25)	424,892	425,425	0.9987	443,891	445,687	0.9960	452,327	451,326	1.0022
Acute myocardial infarction (I21–I22)	141,965	141,462	1.0036	150,852	151,004	0.9990	157,559	156,816	1.0047
Other acute ischemic heart diseases (I24)	3,938	3,932	1.0015	3,556	3,565	0.9975	2,435	2,462	0.9890
Other forms of chronic ischemic heart disease (I20,I25)	278,988	280,031	0.9963	289,483	291,118	0.9944	292,333	292,048	1.0010
Atherosclerotic cardiovascular disease, so described (I25.0)	59,734	61,030	0.9788	61,864	62,799	0.9851	63,355	63,661	0.9952
All other forms of chronic ischemic heart disease (I20,I25.1–I25.9)	219,254	219,001	1.0012	227,619	228,319	0.9969	228,978	228,387	1.0026
Other heart diseases (I26–I51)	168,906	170,248	0.9921	170,099	170,585	0.9972	167,285	166,275	1.0061
Acute and subacute endocarditis (I33)	1,209	1,216	0.9942	1,203	1,209	0.9950	1,214	1,196	1.0151
Diseases of pericardium and acute myocarditis (I30–I31,I40)	784	816	0.9608	836	864	0.9676	766	779	0.9833
Heart failure (I50)	60,315	60,337	0.9996	59,001	58,933	1.0012	57,700	57,120	1.0102
All other forms of heart disease (I26–I28,I34–I38,I42–I49,I51)	106,598	107,879	0.9881	109,059	109,579	0.9953	107,604	107,180	1.0040
Essential hypertension and hypertensive renal disease (I10,I12,I15) ¹	23,985	23,855	1.0054	24,865	24,902	0.9985	22,953	23,076	0.9947
Cerebrovascular diseases (I60–I69)	137,265	137,119	1.0011	143,497	143,579	0.9994	150,147	150,074	1.0005
Atherosclerosis (I70)	8,619	8,652	0.9962	11,833	11,841	0.9993	11,898	11,861	1.0031
Other diseases of circulatory system (I71–I78)	22,435	22,484	0.9978	23,594	23,617	0.9990	23,709	23,693	1.0007
Aortic aneurysm and dissection (I71)	13,178	13,238	0.9955	13,811	13,843	0.9977	13,765	13,753	1.0009
Other diseases of arteries, arterioles and capillaries (I72–I78)	9,258	9,246	1.0013	9,783	9,774	1.0009	9,944	9,940	1.0004
Other disorders of circulatory system (I80–I99)	3,941	3,995	0.9865	4,777	4,813	0.9925	4,734	4,673	1.0131
Influenza and pneumonia (J10–J18)	56,247	56,326	0.9986	62,804	63,001	0.9969	61,472	59,664	1.0303
Influenza (J10–J11)	860	849	1.0130	1,806	1,812	0.9967	1,265	1,100	1.1500
Pneumonia (J12–J18)	55,387	55,477	0.9984	60,998	61,189	0.9969	60,207	58,564	1.0281
Other acute lower respiratory infections (J20–J22)	289	297	0.9731	403	404	0.9975	310	319	0.9718
Acute bronchitis and bronchiolitis (J20–J21)	203	214	0.9486	281	283	0.9929	221	226	0.9779
Unspecified acute lower respiratory infection (J22)	86	83	1.0361	121	121	1.0000	89	93	0.9570
Chronic lower respiratory diseases (J40–J47)	124,614	124,583	1.0002	130,957	130,933	1.0002	123,884	121,987	1.0156
Bronchitis, chronic and unspecified (J40–J42)	740	740	1.0000	860	866	0.9931	798	773	1.0323
Emphysema (J43)	12,570	12,551	1.0015	13,982	14,002	0.9986	13,913	13,639	1.0201
Asthma (J45–J46)	3,563	3,613	0.9862	3,857	3,884	0.9930	3,780	3,816	0.9906

See footnotes at end of table.

Table II. Ratios of preliminary to final reported numbers of deaths from 113 selected causes: United States, 2004–2006—Con.

[For explanation of asterisk preceding cause-of-death codes, see "Technical Notes"]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision (ICD-10), Second Edition, 2004</i> ¹)	Preliminary number of deaths 2006	Final number of deaths 2006	Ratio of preliminary to final 2006	Preliminary number of deaths 2005	Final number of deaths 2005	Ratio of preliminary to final 2005	Preliminary number of deaths 2004	Final number of deaths 2004	Ratio of preliminary to final 2004
Other chronic lower respiratory diseases (J44,J47)	107,741	107,679	1.0006	112,259	112,181	1.0007	105,393	103,759	1.0157
Pneumoconioses and chemical effects (J60–J66,J68)	923	924	0.9989	999	1,007	0.9921	1,018	1,033	0.9855
Pneumonitis due to solids and liquids (J69)	16,961	16,887	1.0044	17,351	17,279	1.0042	16,959	16,780	1.0107
Other diseases of respiratory system (J00–J06,J30–J39,J67,J70–J98)	27,676	27,644	1.0012	27,065	27,056	1.0003	27,391	27,310	1.0030
Peptic ulcer (K25–K28)	3,286	3,323	0.9889	3,453	3,478	0.9928	3,770	3,682	1.0239
Diseases of appendix (K35–K38)	429	424	1.0118	434	439	0.9886	446	452	0.9867
Hernia (K40–K46)	1,738	1,744	0.9966	1,629	1,639	0.9939	1,605	1,602	1.0019
Chronic liver disease and cirrhosis (K70,K73–K74)	27,299	27,555	0.9907	27,393	27,530	0.9950	26,549	27,013	0.9828
Alcoholic liver disease (K70)	12,925	13,050	0.9904	12,865	12,928	0.9951	12,283	12,548	0.9789
Other chronic liver disease and cirrhosis (K73–K74)	14,374	14,505	0.9910	14,529	14,602	0.9950	14,265	14,465	0.9862
Cholelithiasis and other disorders of gallbladder (K80–K82)	3,123	3,114	1.0029	3,062	3,072	0.9967	3,045	3,086	0.9867
Nephritis, nephrotic syndrome and nephrosis (N00–N07,N17–N19,N25–N27)	44,791	45,344	0.9878	43,679	43,901	0.9949	42,762	42,480	1.0066
Acute and rapidly progressive nephritic and nephrotic syndrome (N00–N01,N04)	135	138	0.9783	137	137	1.0000	164	157	1.0446
Chronic glomerulonephritis, nephrosis and nephropathy not specified as acute or chronic, and renal sclerosis unspecified (N02–N03,N05–N07,N26)	1,365	1,841	0.7414	588	867	0.6782	559	553	1.0108
Renal failure (N17–N19)	43,270	43,344	0.9983	42,925	42,868	1.0013	42,000	41,732	1.0064
Other disorders of kidney (N25,N27)	20	21	0.9524	29	29	1.0000	39	38	1.0263
Infections of kidney (N10–N12,N13.6,N15.1)	661	673	0.9822	767	767	1.0000	769	764	1.0065
Hyperplasia of prostate (N40)	518	514	1.0078	527	525	1.0038	493	507	0.9724
Inflammatory diseases of female pelvic organs (N70–N76)	113	112	1.0089	120	120	1.0000	106	112	0.9464
Pregnancy, childbirth and the puerperium (O00–O99)	787	760	1.0355	678	760	0.8921	654	697	0.9383
Pregnancy with abortive outcome (O00–O07)	21	26	0.8077	32	33	0.9697	26	32	0.8125
Other complications of pregnancy, childbirth and the puerperium (O10–O99)	765	734	1.0422	646	727	0.8886	628	665	0.9444
Certain conditions originating in the perinatal period (P00–P96)	14,384	14,442	0.9960	14,539	14,549	0.9993	14,046	14,213	0.9883
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	10,434	10,489	0.9948	10,349	10,410	0.9941	10,459	10,498	0.9963
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99)	40,759	31,725	1.2848	40,962	31,999	1.2801	34,708	30,126	1.1521
All other diseases (residual)	236,614	237,421	0.9966	217,020	217,632	0.9972	201,989	201,914	1.0004
Accidents (unintentional injuries) (V01–X59,Y85–Y86)	117,748	121,599	0.9683	114,876	117,809	0.9751	108,694	112,012	0.9704
Transport accidents (V01–V99,Y85)	47,601	48,412	0.9832	48,140	48,441	0.9938	46,933	48,053	0.9767
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)	44,572	45,316	0.9836	45,053	45,343	0.9936	43,947	44,933	0.9781
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)	1,177	1,181	0.9966	1,251	1,241	1.0081	1,131	1,199	0.9433
Water, air and space, and other and unspecified transport accidents and their sequelae (V90–V99,Y85)	1,852	1,915	0.9671	1,837	1,857	0.9892	1,855	1,921	0.9656
Nontransport accidents (W00–X59,Y86)	70,147	73,187	0.9585	66,736	69,368	0.9621	61,761	63,959	0.9656
Falls (W00–W19)	20,533	20,823	0.9861	19,488	19,656	0.9915	18,535	18,807	0.9855
Accidental discharge of firearms (W32–W34)	777	642	1.2103	810	789	1.0266	661	649	1.0185
Accidental drowning and submersion (W65–W74)	3,483	3,579	0.9732	3,468	3,582	0.9682	3,180	3,308	0.9613
Accidental exposure to smoke, fire and flames (X00–X09)	3,066	3,109	0.9862	3,144	3,197	0.9834	3,223	3,229	0.9981
Accidental poisoning and exposure to noxious substances (X40–X49)	24,702	27,531	0.8972	21,416	23,618	0.9068	19,250	20,950	0.9189
Other and unspecified nontransport accidents and their sequelae (W20–W31,W35–W64,W75–W99,X10–X39,X50–X59,Y86)	17,586	17,503	1.0047	18,409	18,526	0.9937	16,912	17,016	0.9939

See footnotes at end of table.

Table II. Ratios of preliminary to final reported numbers of deaths from 113 selected causes: United States, 2004–2006—Con.

[For explanation of asterisk preceding cause-of-death codes, see “Technical Notes”]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision</i> (ICD–10), Second Edition, 2004 ¹)	Preliminary number of deaths 2006	Final number of deaths 2006	Ratio of preliminary to final 2006	Preliminary number of deaths 2005	Final number of deaths 2005	Ratio of preliminary to final 2005	Preliminary number of deaths 2004	Final number of deaths 2004	Ratio of preliminary to final 2004
Intentional self-harm (suicide) (*U03,X60–X84,Y87.0)	32,185	33,300	0.9665	31,769	32,637	0.9734	31,647	32,439	0.9756
Intentional self-harm (suicide) by discharge of firearms (X72–X74)	16,650	16,883	0.9862	16,932	17,002	0.9959	16,603	16,750	0.9912
Intentional self-harm (suicide) by other and unspecified means and their sequelae (*U03,X60–X71,X75–X84,Y87.0)	15,535	16,417	0.9463	14,838	15,635	0.9490	15,044	15,689	0.9589
Assault (homicide) (*U01–*U02,X85–Y09,Y87.1)	18,029	18,573	0.9707	17,694	18,124	0.9763	16,611	17,357	0.9570
Assault (homicide) by discharge of firearms (*U01.4,X93–X95)	12,509	12,791	0.9780	12,121	12,352	0.9813	11,250	11,624	0.9678
Assault (homicide) by other and unspecified means and their sequelae (*U01.0–*U01.3,*U01.5–*U01.9,*U02,X85–X92,X96–Y09,Y87.1)	5,520	5,782	0.9547	5,573	5,772	0.9655	5,360	5,733	0.9349
Legal intervention (Y35,Y89.0)	411	434	0.9470	377	414	0.9106	356	372	0.9570
Events of undetermined intent (Y10–Y34,Y87.2,Y89.9)	4,706	5,131	0.9172	4,423	4,742	0.9327	4,750	4,976	0.9546
Discharge of firearms, undetermined intent (Y22–Y24)	214	220	0.9727	215	221	0.9729	222	235	0.9447
Other and unspecified events of undetermined intent and their sequelae (Y10–Y21,Y25–Y34,Y87.2,Y89.9)	4,492	4,911	0.9147	4,209	4,521	0.9310	4,529	4,741	0.9553
Operations of war and their sequelae (Y36,Y89.1)	30	28	1.0714	27	27	1.0000	28	28	1.0000
Complications of medical and surgical care (Y40–Y84,Y88)	2,492	2,521	0.9885	2,630	2,653	0.9913	2,889	2,883	1.0021

– Quantity zero.

. . . Category not applicable.

¹Cause-of-death title has been changed in 2006 to reflect the addition of Secondary hypertension (ICD–10 code I15).

SOURCE: Preliminary and final data from CDC/NCHS, National Vital Statistics System.

Table III. Ratios of preliminary to final reported numbers of deaths from 130 selected causes of infant death: United States, 2004–2006

[For explanation of asterisks preceding cause-of-death codes, see "Technical Notes"]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision</i> (ICD-10), Second Edition, 2004)	Preliminary number of deaths 2006	Final number of deaths 2006	Ratio of preliminary to final 2006	Preliminary number of deaths 2005	Final number of deaths 2005	Ratio of preliminary to final 2005	Preliminary number of deaths 2004	Final number of deaths 2004	Ratio of preliminary to final 2004
All causes	28,609	28,527	1.0029	28,534	28,440	1.0033	27,835	27,936	0.9964
Certain infectious and parasitic diseases (A00–B99)	500	479	1.0438	528	530	0.9962	492	480	1.0250
Certain intestinal infectious diseases (A00–A08)	15	16	0.9375	8	9	0.8889	9	14	0.6429
Diarrhea and gastroenteritis of infectious origin (A09)	2	1	2.0000	1	1	1.0000	–	–	...
Tuberculosis (A16–A19)	1	–	...	2	2	1.0000	1	1	1.0000
Tetanus (A33,A35)	–	–	...	–	–	...	–	–	...
Diphtheria (A36)	–	–	...	–	–	...	–	–	...
Whooping cough (A37)	8	8	1.0000	28	28	1.0000	13	15	0.8667
Meningococcal infection (A39)	10	11	0.9091	17	17	1.0000	11	8	1.3750
Septicemia (A40–A41)	293	269	1.0892	301	302	0.9967	288	271	1.0627
Congenital syphilis (A50)	–	–	...	–	–	...	–	–	...
Gonococcal infection (A54)	–	–	...	–	–	...	–	–	...
Viral diseases (A80–B34)	116	120	0.9667	113	119	0.9496	120	117	1.0256
Acute poliomyelitis (A80)	–	–	...	–	–	...	–	–	...
Varicella (chickenpox) (B01)	–	–	...	–	–	...	–	–	...
Measles (B05)	–	–	...	–	–	...	–	–	...
Human immunodeficiency virus (HIV) disease (B20–B24)	7	7	1.0000	2	2	1.0000	3	3	1.0000
Mumps (B26)	–	–	...	–	–	...	–	–	...
Other and unspecified viral diseases (A81–B00,B02–B04,B06–B19,B25,B27–B34)	109	113	0.9646	111	117	0.9487	117	114	1.0263
Candidiasis (B37)	15	15	1.0000	21	20	1.0500	17	19	0.8947
Malaria (B50–B54)	–	–	...	–	–	...	–	–	...
Pneumocystosis (B59)	–	1	...	2	2	1.0000	1	2	0.5000
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)	38	38	1.0000	34	30	1.1333	32	33	0.9697
Neoplasms (C00–D48)	139	141	0.9858	141	134	1.0522	152	145	1.0483
Malignant neoplasms (C00–C97)	77	76	1.0132	78	75	1.0400	79	74	1.0676
Hodgkin's disease and non-Hodgkin's lymphomas (C81–C85)	1	1	1.0000	1	1	1.0000	2	1	2.0000
Leukemia (C91–C95)	31	31	1.0000	22	22	1.0000	30	23	1.3043
Other and unspecified malignant neoplasms (C00–C80,C88–C90,C96–C97)	45	44	1.0227	54	52	1.0385	47	50	0.9400
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00–D48)	62	65	0.9538	63	59	1.0678	73	71	1.0282
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	104	102	1.0196	94	94	1.0000	95	94	1.0106
Anemias (D50–D64)	10	11	0.9091	19	19	1.0000	16	15	1.0667
Hemorrhagic conditions and other diseases of blood and blood-forming organs (D65–D76)	63	62	1.0161	60	60	1.0000	60	61	0.9836
Certain disorders involving the immune mechanism (D80–D89)	31	29	1.0690	15	15	1.0000	19	18	1.0556
Endocrine, nutritional and metabolic diseases (E00–E88)	200	207	0.9662	222	226	0.9823	241	233	1.0343
Short stature, not elsewhere classified (E34.3)	8	11	0.7273	8	8	1.0000	6	6	1.0000
Nutritional deficiencies (E40–E64)	7	9	0.7778	5	5	1.0000	5	7	0.7143
Cystic fibrosis (E84)	10	11	0.9091	5	5	1.0000	7	7	1.0000
Volume depletion, disorders of fluid, electrolyte and acid-base balance (E86–E87)	56	53	1.0566	65	63	1.0317	76	66	1.1515
All other endocrine, nutritional and metabolic diseases (E00–E32,E34.0–E34.2, E34.4–E34.9,E65–E83,E85,E88)	118	123	0.9593	139	145	0.9586	147	147	1.0000
Diseases of the nervous system (G00–G98)	361	373	0.9678	348	354	0.9831	370	377	0.9814

See footnotes at end of table.

Table III. Ratios of preliminary to final reported numbers of deaths from 130 selected causes of infant death: United States, 2004–2006—Con.

[For explanation of asterisks preceding cause-of-death codes, see “Technical Notes”]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision</i> (ICD–10), Second Edition, 2004)	Preliminary number of deaths 2006	Final number of deaths 2006	Ratio of preliminary to final 2006	Preliminary number of deaths 2005	Final number of deaths 2005	Ratio of preliminary to final 2005	Preliminary number of deaths 2004	Final number of deaths 2004	Ratio of preliminary to final 2004
Meningitis (G00,G03)	57	61	0.9344	56	57	0.9825	68	66	1.0303
Infantile spinal muscular atrophy, type I (Werdnig-Hoffman) (G12.0)	9	8	1.1250	15	15	1.0000	9	13	0.6923
Infantile cerebral palsy (G80)	8	7	1.1429	7	8	0.8750	12	12	1.0000
Anoxic brain damage, not elsewhere classified (G93.1)	55	60	0.9167	40	42	0.9524	41	45	0.9111
Other diseases of nervous system (G04,G06–G11,G12.1–G12.9,G20–G72,G81–G92,G93.0,G93.2–G93.9,G95–G98)	232	237	0.9789	229	232	0.9871	240	241	0.9959
Diseases of the ear and mastoid process (H60–H93)	2	3	0.6667	7	7	1.0000	6	4	1.5000
Diseases of the circulatory system (I00–I99)	539	543	0.9926	523	529	0.9887	605	593	1.0202
Pulmonary heart disease and diseases of pulmonary circulation (I26–I28)	81	81	1.0000	98	98	1.0000	173	155	1.1161
Pericarditis, endocarditis and myocarditis (I30,I33,I40)	7	9	0.7778	13	13	1.0000	12	15	0.8000
Cardiomyopathy (I42)	109	115	0.9478	82	82	1.0000	104	116	0.8966
Cardiac arrest (I46)	14	15	0.9333	23	24	0.9583	24	23	1.0435
Cerebrovascular diseases (I60–I69)	145	142	1.0211	127	126	1.0079	131	127	1.0315
All other diseases of circulatory system (I00–I25,I31,I34–I38,I44–I45,I47–I51,I70–I99)	181	181	1.0000	181	186	0.9731	161	157	1.0255
Diseases of the respiratory system (J00–J98)	644	692	0.9306	650	669	0.9716	635	646	0.9830
Acute upper respiratory infections (J00–J06)	11	11	1.0000	10	10	1.0000	6	5	1.2000
Influenza and pneumonia (J10–J18)	244	263	0.9278	255	265	0.9623	275	273	1.0073
Influenza (J10–J11)	17	18	0.9444	17	19	0.8947	16	18	0.8889
Pneumonia (J12–J18)	228	245	0.9306	238	246	0.9675	259	255	1.0157
Acute bronchitis and acute bronchiolitis (J20–J21)	45	52	0.8654	48	50	0.9600	53	58	0.9138
Bronchitis, chronic and unspecified (J40–J42)	19	19	1.0000	22	25	0.8800	17	17	1.0000
Asthma (J45–J46)	5	6	0.8333	3	4	0.7500	5	7	0.7143
Pneumonitis due to solids and liquids (J69)	9	11	0.8182	17	17	1.0000	9	12	0.7500
Other and unspecified diseases of respiratory system (J22,J30–J39,J43–J44,J47–J68,J70–J98)	311	330	0.9424	294	298	0.9866	270	274	0.9854
Diseases of the digestive system (K00–K92)	588	582	1.0103	630	626	1.0064	566	580	0.9759
Gastritis, duodenitis, and noninfective enteritis and colitis (K29,K50–K55)	326	323	1.0093	344	341	1.0088	302	309	0.9773
Hernia of abdominal cavity and intestinal obstruction without hernia (K40–K46,K56)	70	67	1.0448	76	77	0.9870	76	72	1.0556
All other and unspecified diseases of digestive system (K00–K28,K30–K38,K57–K92)	192	192	1.0000	209	208	1.0048	188	199	0.9447
Diseases of the genitourinary system (N00–N98)	181	180	1.0056	181	180	1.0056	213	200	1.0650
Renal failure and other disorders of kidney (N17–N19,N25,N27)	159	154	1.0325	152	151	1.0066	180	166	1.0843
Other and unspecified diseases of genitourinary system (N00–N15,N20–N23,N26,N28–N98)	22	26	0.8462	29	29	1.0000	33	34	0.9706
Certain conditions originating in the perinatal period (P00–P96)	14,223	14,321	0.9932	14,405	14,423	0.9988	13,908	14,079	0.9879
Newborn affected by maternal factors and by complications of pregnancy, labor and delivery (P00–P04)	3,125	3,150	0.9921	3,230	3,228	1.0006	3,050	3,108	0.9813
Newborn affected by maternal hypertensive disorders (P00.0)	85	84	1.0119	89	88	1.0114	83	81	1.0247
Newborn affected by other maternal conditions which may be unrelated to present pregnancy (P00.1–P00.9)	68	80	0.8500	69	70	0.9857	72	82	0.8780
Newborn affected by maternal complications of pregnancy (P01)	1,694	1,683	1.0065	1,786	1,776	1.0056	1,705	1,715	0.9942
Newborn affected by incompetent cervix (P01.0)	444	444	1.0000	498	496	1.0040	462	455	1.0154
Newborn affected by premature rupture of membranes (P01.1)	830	824	1.0073	842	837	1.0060	768	779	0.9859
Newborn affected by multiple pregnancy (P01.5)	213	214	0.9953	256	255	1.0039	262	263	0.9962
Newborn affected by other maternal complications of pregnancy (P01.2–P01.4,P01.6–P01.9)	207	201	1.0299	189	188	1.0053	213	218	0.9771

See footnotes at end of table.

Table III. Ratios of preliminary to final reported numbers of deaths from 130 selected causes of infant death: United States, 2004–2006—Con.

[For explanation of asterisks preceding cause-of-death codes, see "Technical Notes"]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision</i> (ICD-10), Second Edition, 2004)	Preliminary number of deaths 2006	Final number of deaths 2006	Ratio of preliminary to final 2006	Preliminary number of deaths 2005	Final number of deaths 2005	Ratio of preliminary to final 2005	Preliminary number of deaths 2004	Final number of deaths 2004	Ratio of preliminary to final 2004
Newborn affected by complications of placenta, cord and membranes (P02)	1,123	1,140	0.9851	1,111	1,110	1.0009	998	1,042	0.9578
Newborn affected by complications involving placenta (P02.0–P02.3)	561	563	0.9964	586	585	1.0017	526	557	0.9443
Newborn affected by complications involving cord (P02.4–P02.6)	54	54	1.0000	50	50	1.0000	58	56	1.0357
Newborn affected by chorioamnionitis (P02.7)	507	522	0.9713	471	471	1.0000	414	429	0.9650
Newborn affected by other and unspecified abnormalities of membranes (P02.8–P02.9)	1	1	1.0000	4	4	1.0000	–	–	...
Newborn affected by other complications of labor and delivery (P03)	97	102	0.9510	131	134	0.9776	147	139	1.0576
Newborn affected by noxious influences transmitted via placenta or breast milk (P04)	58	61	0.9508	44	50	0.8800	47	49	0.9592
Disorders related to length of gestation and fetal malnutrition (P05–P08)	4,943	4,940	1.0006	4,793	4,798	0.9990	4,755	4,713	1.0089
Slow fetal growth and fetal malnutrition (P05)	102	99	1.0303	84	83	1.0120	70	71	0.9859
Disorders related to short gestation and low birth weight, not elsewhere classified (P07)	4,841	4,841	1.0000	4,709	4,714	0.9989	4,685	4,642	1.0093
Extremely low birth weight or extreme immaturity (P07.0,P07.2)	3,678	3,683	0.9986	3,644	3,645	0.9997	3,596	3,572	1.0067
Other low birth weight or preterm (P07.1,P07.3)	1,163	1,158	1.0043	1,064	1,069	0.9953	1,089	1,070	1.0178
Disorders related to long gestation and high birth weight (P08)	–	–	...	1	1	...	–	–	...
Birth trauma (P10–P15)	23	22	1.0455	25	26	0.9615	21	22	0.9545
Intrauterine hypoxia and birth asphyxia (P20–P21)	344	344	1.0000	522	529	0.9868	502	530	0.9472
Intrauterine hypoxia (P20)	109	109	1.0000	116	119	0.9748	92	107	0.8598
Birth asphyxia (P21)	236	235	1.0043	406	410	0.9902	410	423	0.9693
Respiratory distress of newborn (P22)	801	825	0.9709	861	860	1.0012	877	875	1.0023
Other respiratory conditions originating in the perinatal period (P23–P28)	1,199	1,207	0.9934	1,163	1,160	1.0026	1,202	1,217	0.9877
Congenital pneumonia (P23)	89	104	0.8558	103	104	0.9904	88	106	0.8302
Neonatal aspiration syndromes (P24)	49	50	0.9800	45	46	0.9783	40	40	1.0000
Interstitial emphysema and related conditions originating in the perinatal period (P25)	155	150	1.0333	122	121	1.0083	134	142	0.9437
Pulmonary hemorrhage originating in the perinatal period (P26)	179	178	1.0056	183	181	1.0110	173	169	1.0237
Chronic respiratory disease originating in the perinatal period (P27)	262	258	1.0155	271	270	1.0037	255	270	0.9444
Atelectasis (P28.0–P28.1)	396	398	0.9950	379	377	1.0053	443	419	1.0573
All other respiratory conditions originating in the perinatal period (P28.2–P28.9)	69	69	1.0000	61	61	1.0000	68	71	0.9577
Infections specific to the perinatal period (P35–P39)	979	998	0.9810	1,033	1,039	0.9942	995	1,038	0.9586
Bacterial sepsis of newborn (P36)	786	807	0.9740	834	834	1.0000	798	827	0.9649
Omphalitis of newborn with or without mild hemorrhage (P38)	–	–	...	6	6	1.0000	2	3	0.6667
All other infections specific to the perinatal period (P35,P37,P39)	193	191	1.0105	193	199	0.9698	195	208	0.9375
Hemorrhagic and hematological disorders of newborn (P50–P61)	708	725	0.9766	782	782	1.0000	697	733	0.9509
Neonatal hemorrhage (P50–P52,P54)	598	618	0.9676	664	665	0.9985	593	616	0.9627
Hemorrhagic disease of newborn (P53)	1	1	...	–	–	...	–	–	...
Hemolytic disease of newborn due to isoimmunization and other perinatal jaundice (P55–P59)	10	13	0.7692	16	16	1.0000	9	13	0.6923
Hematological disorders (P60–P61)	99	93	1.0645	102	101	1.0099	95	104	0.9135
Syndrome of infant of a diabetic mother and neonatal diabetes mellitus (P70.0–P70.2)	16	12	1.3333	19	19	1.0000	7	5	1.4000
Necrotizing enterocolitis of newborn (P77)	528	530	0.9962	549	546	1.0055	438	441	0.9932
Hydrops fetalis not due to hemolytic disease (P83.2)	171	168	1.0179	168	165	1.0182	198	196	1.0102
Other perinatal conditions (P29,P70.3–P76,P78–P81,P83.0–P83.1,P83.3–P96)	1,385	1,400	0.9893	1,258	1,271	0.9898	1,167	1,201	0.9717
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	5,827	5,819	1.0014	5,562	5,552	1.0018	5,627	5,622	1.0009
Anencephaly and similar malformations (Q00)	332	336	0.9881	313	313	1.0000	288	293	0.9829

See footnotes at end of table.

Table III. Ratios of preliminary to final reported numbers of deaths from 130 selected causes of infant death: United States, 2004–2006—Con.

[For explanation of asterisks preceding cause-of-death codes, see “Technical Notes”]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision</i> (ICD–10), Second Edition, 2004)	Preliminary number of deaths 2006	Final number of deaths 2006	Ratio of preliminary to final 2006	Preliminary number of deaths 2005	Final number of deaths 2005	Ratio of preliminary to final 2005	Preliminary number of deaths 2004	Final number of deaths 2004	Ratio of preliminary to final 2004
Congenital hydrocephalus (Q03)	82	88	0.9318	92	90	1.0222	88	95	0.9263
Spina bifida (Q05)	24	23	1.0435	22	22	1.0000	20	18	1.1111
Other congenital malformations of nervous system (Q01–Q02,Q04,Q06–Q07)	389	390	0.9974	318	314	1.0127	343	344	0.9971
Congenital malformations of heart (Q20–Q24)	1,399	1,396	1.0021	1,378	1,377	1.0007	1,396	1,391	1.0036
Other congenital malformations of circulatory system (Q25–Q28)	232	236	0.9831	246	245	1.0041	239	255	0.9373
Congenital malformations of respiratory system (Q30–Q34)	449	437	1.0275	599	598	1.0017	631	633	0.9968
Congenital malformations of digestive system (Q35–Q45)	109	108	1.0093	103	105	0.9810	99	100	0.9900
Congenital malformations of genitourinary system (Q50–Q64)	523	518	1.0097	377	375	1.0053	338	328	1.0305
Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65–Q85)	627	619	1.0129	552	558	0.9892	534	528	1.0114
Down’s syndrome (Q90)	93	97	0.9588	123	123	1.0000	107	113	0.9469
Edward’s syndrome (Q91.0–Q91.3)	518	509	1.0177	413	405	1.0198	509	492	1.0346
Patau’s syndrome (Q91.4–Q91.7)	327	322	1.0155	314	310	1.0129	311	302	1.0298
Other congenital malformations and deformations (Q10–Q18,Q86–Q89)	523	538	0.9721	519	526	0.9867	525	528	0.9943
Other chromosomal abnormalities, not elsewhere classified (Q92–Q99)	200	202	0.9901	190	191	0.9948	201	202	0.9950
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99)	3,749	3,462	1.0829	3,760	3,589	1.0476	3,501	3,361	1.0417
Sudden infant death syndrome (R95)	2,145	2,323	0.9234	2,107	2,230	0.9448	2,109	2,246	0.9390
Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R53,R55–R94,R96–R99)	1,604	1,139	1.4083	1,653	1,359	1.2163	1,392	1,115	1.2484
All other diseases (residual)	42	25	1.6800	19	15	1.2667	22	25	0.8800
External causes of mortality (*U01,V01–Y84)	1,510	1,598	0.9449	1,463	1,512	0.9676	1,403	1,497	0.9372
Accidents (unintentional injuries) (V01–X59)	1,119	1,147	0.9756	1,069	1,083	0.9871	995	1,052	0.9458
Transport accidents (V01–V99)	136	142	0.9577	148	147	1.0068	156	145	1.0759
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)	133	140	0.9500	147	146	1.0068	154	143	1.0769
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)	2	2	1.0000	1	1	1.0000	2	2	1.0000
Falls (W00–W19)	22	23	0.9565	15	16	0.9375	21	23	0.9130
Accidental discharge of firearms (W32–W34)	–	–	–	1	1	1.0000	1	1	1.0000
Accidental drowning and submersion (W65–W74)	51	51	1.0000	64	64	1.0000	53	62	0.8548
Accidental suffocation and strangulation in bed (W75)	559	588	0.9507	504	514	0.9805	480	513	0.9357
Other accidental suffocation and strangulation (W76–W77,W81–W84)	193	193	1.0000	181	186	0.9731	138	154	0.8961
Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract (W78–W80)	64	62	1.0323	45	48	0.9375	51	58	0.8793
Accidents caused by exposure to smoke, fire and flames (X00–X09)	27	27	1.0000	34	34	1.0000	28	26	1.0769
Accidental poisoning and exposure to noxious substances (X40–X49)	15	16	0.9375	20	20	1.0000	13	13	1.0000
Other and unspecified accidents (W20–W31,W35–W64,W85–W99, X10–X39,X50–X59)	51	45	1.1333	56	53	1.0566	55	57	0.9649

See footnotes at end of table.

Table III. Ratios of preliminary to final reported numbers of deaths from 130 selected causes of infant death: United States, 2004–2006—Con.

[For explanation of asterisks preceding cause-of-death codes, see “Technical Notes”]

Cause of death (based on the <i>International Classification of Diseases, Tenth Revision</i> (ICD–10), Second Edition, 2004)	Preliminary number of deaths 2006	Final number of deaths 2006	Ratio of preliminary to final 2006	Preliminary number of deaths 2005	Final number of deaths 2005	Ratio of preliminary to final 2005	Preliminary number of deaths 2004	Final number of deaths 2004	Ratio of preliminary to final 2004
Assault (homicide)(*U01,X85–Y09)	292	336	0.8690	281	306	0.9183	299	325	0.9200
Assault (homicide) by hanging, strangulation and suffocation (X91)	23	34	0.6765	24	27	0.8889	38	42	0.9048
Assault (homicide) by discharge of firearms(*U01.4,X93–X95)	6	6	1.0000	7	6	1.1667	7	6	1.1667
Neglect, abandonment and other maltreatment syndromes (Y06–Y07)	67	75	0.8933	93	99	0.9394	89	101	0.8812
Assault (homicide) by other and unspecified means(*U01.0–*U01.3, *U01.5–*U01.9,X85–X90,X92,X96–X99,Y00–Y05,Y08–Y09)	195	221	0.8824	157	174	0.9023	164	176	0.9318
Complications of medical and surgical care (Y40–Y84)	21	23	0.9130	20	19	1.0526	19	16	1.1875
Other external causes and their sequelae (Y10–Y36)	78	92	0.8478	94	104	0.9038	90	104	0.8654

– Quantity zero.

... Category not applicable.

SOURCE: Preliminary and final data from the CDC/NCHS, National Vital Statistics System.

the race of the mother as reported on the birth certificate, but race information for the numerator is the race of the infant decedent as reported on the death certificate. Race information reported on the birth certificate is considered to be more accurate than that on the death certificate, because the race of each parent is usually reported on the birth certificate by the mother at the time of delivery, whereas on the death certificate, the race of the deceased infant is reported by the funeral director based on information provided by an informant or by observation. This difference in the method of reporting race data has a larger impact for races other than white and black and can lead to differences in race-specific infant mortality rates between the two data sources (28,39).

Life tables

The period life table provides a measure of the effect of current 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 (40). 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 (41), using a methodology similar to that of the decennial life tables (42).

The advantages of the new methodology 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 (41). 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 85 years and over. Medicare data were used to model the probability of dying at ages 85 years and over because the data are shown to be significantly more reliable than vital statistics data at the oldest ages (43). The methodology used to produce the life table data shown in this report for data years 2006–2007 (Table 6) has again been revised and estimates may differ from figures previously published. Complete life tables by single years of age that extend to age 100 years were constructed using a methodology similar to that developed for the 1999–2001 decennial life tables (44). To calculate the probability of dying at each age, two major changes were made to the methodology: 1) Probabilities for ages 66–100 years were based on blended vital statistics and Medicare probabilities of dying, and probabilities of death for ages 65 years and under were based on vital statistics data as before. 2) Smoothing and extrapolation of death rates for ages 66–100 years was performed using a mathematical model (44). In the previous method, Medicare probabilities were modeled for ages 85 years and over; no blending or smoothing was done. Complete life tables for 2000–2006, based on the newly revised methodology, along with a more comprehensive description of the methodology, will be published in a forthcoming report.

Population denominators

The rates in this report use population estimates based on the 2000 census and are estimated as of July 1, 2006, and July 1, 2007. These population estimates are available on the NCHS website (13,45).

The population estimates have been produced under a collaborative arrangement with the U.S. Census Bureau and are based on the 2000 census counts. Reflecting the new standards issued in 1997 by OMB, the 2000 census included an option for persons to report more than one race as appropriate for themselves and household members (20). In addition, the 1997 OMB standards called for reporting of Asian persons separately from NHOPI. In the 1977 OMB standards, data for API persons were collected as a single group (16). Death certificates for 23 states currently collect only one race in the same categories as specified in the 1977 OMB standards (see “2003 revision of U.S. Standard Certificate of Death”). In addition, those death certificate data do not report Asians separately from NHOPI. Thus, for nearly one-half of the states, the death certificate data by race (numerators for death rates) are incompatible with population data collected in the 2000 census (denominators for the rates).

In order to produce national death rates for 2006 and 2007, the reported population data for multiple-race persons had to be “bridged” to single-race categories. In addition, the census counts were modified to be consistent with the 1977 OMB racial categories; that is, to report the data for Asian persons and NHOPI as one combined category, API, and to reflect age as of the census reference date. The procedures used to produce the bridged populations are described in separate publications (18,19). Bridged data are anticipated to be used over the next few years for computing population-based rates. As more states collect data on race according to the 1997 OMB standards (20), use of the bridged populations is expected to be discontinued.

Computing rates and percentages

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

Age-adjusted death rates (R') are used to compare relative mortality risks among groups and over time. However, they should be viewed as 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 (R_i) to the U.S. standard population (relative age distribution of year 2000 projected population of the United States); see the following formula for age-adjusted death rate and the table of U.S. standard population (Table IV):

$$R' = \sum_i \frac{P_{si}}{P_s} R_i$$

where

P_{si} = standard population for age group i

P_s = total U.S. standard population [all ages combined (Table IV)].

Age-adjusted death rates for injury at work were computed by applying age-specific death rates to the U.S. standard population for ages 15 years and over. The year 2000 standard population used for computing age-adjusted rates and standard errors for injury at work is shown in Table V.

Table IV. United States year 2000 standard population

Age	Population
All ages	274,633,642
Under 1 year	3,794,901
1–4 years	15,191,619
5–14 years	39,976,619
15–24 years	38,076,743
25–34 years	37,233,437
35–44 years	44,659,185
45–54 years	37,030,152
55–64 years	23,961,506
65–74 years	18,135,514
75–84 years	12,314,793
85 years and over	4,259,173

Table V. United States year 2000 standard population for those aged 15 years and over

Age	Population
15 years and over	215,670,503
15–24 years	38,076,743
25–34 years	37,233,437
35–44 years	44,659,185
45–54 years	37,030,152
55–64 years	23,961,506
65 years and over	34,709,480

Age-adjusted rates for Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas were computed by applying 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 79 years. The year 2000 standard population used for computing age-adjusted rates and standard errors for the territories is shown in [Table VI](#).

Effective with 1999 data, the standard population was changed from 1940 to the year 2000 population in accordance with the new statistical policy promulgated by the Secretary of Health and Human Services in August 1998 (46). 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; see *Age Standardization of Death Rates: Implementation of the Year 2000 Standard* (46). Beginning with 2003 data, the traditional standard million population along with corresponding

Table VI. United States year 2000 standard population for the territories

Age	Population
All ages	274,633,642
Under 1 year	3,794,901
1–4 years	15,191,619
5–14 years	39,976,619
15–24 years	38,076,743
25–34 years	37,233,437
35–44 years	44,659,185
45–54 years	37,030,152
55–64 years	23,961,506
65–74 years	18,135,514
75 years and over	16,573,966

standard weights to six decimal places were replaced by the projected year 2000 population age distribution. The effect of the change is negligible and does not significantly affect comparability with age-adjusted rates calculated using the previous method.

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. Likewise, rates for non-Hispanic black persons are based on the sum of all events to black decedents reported as non-Hispanic and black decedents with origin not stated. Hispanic origin is not imputed if it is not reported. For calculating death rates, deaths with age not stated are not distributed. The number of deaths with age not stated was 254, or 0.01 percent of all deaths.

An asterisk (*) indicates that the figure does not meet standards of reliability or precision. In this report, two sets of criteria determine whether a figure meets these standards:

- Reporting for any particular variable is at least 80 percent complete. In this report, no data were suppressed based on this criterion.
- A rate or percentage is based on at least 20 deaths. Rates based on fewer than 20 deaths have a relative standard error (RSE) of about 23 percent or more, and therefore are considered highly variable. For age-adjusted death rates, this criterion is applied to the sum of the age-specific deaths. However, some death rates (based on data files that are less than 100 percent complete and on 20–31 deaths) may have RSEs of 23 percent or more but are still shown instead of asterisks. As a result, caution should be exercised in analyzing rates based on 20–31 events. Additional information on random variation in numbers of events, rates, ratios, and percentages may be found in “Reliability of estimates.”

Reliability of estimates

Because the preliminary estimates of deaths in this report are based on files that may not be complete, they are subject to sampling variability. This concept is reflected in the fact that record weights are used to adjust record counts to independent control totals. The lack of completeness of the vital statistics files is due to delays in receiving and processing the death records. Although the proportion of records making up the preliminary file does not constitute a veritable random sample, for the sake of convenience, the variability associated with this error (sampling variability) is treated as if it were from a random sample.

Even where the number of vital events in this report is 100 percent complete and not subject to sampling variability, it might be affected by random variation. Thus, when the number of events is small 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. The first column of [Table VII](#) shows the estimated RSEs of a file that is nearly 100 percent complete.

Data in a file that is less than 100 percent complete are affected by sampling variation as well as by random variation. The estimated RSEs in columns 2–6 of [Table VII](#) for various levels of file completeness are measures of the sampling errors and the random errors of the estimates. They do not include nonsampling error.

Table VII. Relative standard errors for preliminary number of deaths by percent of file completeness

[Relative standard errors are expressed as a percentage of the estimate]

Estimated number of deaths	Percent of file completeness					
	100	95	90	80	70	60
	Relative standard error (percent)					
1	100.0	102.6	105.4	111.8	119.5	129.1
5	44.7	45.9	47.1	50.0	53.5	57.7
10	31.6	32.4	33.3	35.4	37.8	40.8
20	22.4	22.9	23.6	25.0	26.7	28.9
30	18.3	18.7	19.2	20.4	21.8	23.6
40	15.8	16.2	16.7	17.7	18.9	20.4
50	14.1	14.5	14.9	15.8	16.9	18.3
60	12.9	13.2	13.6	14.4	15.4	16.7
70	12.0	12.3	12.6	13.4	14.3	15.4
80	11.2	11.5	11.8	12.5	13.4	14.4
90	10.5	10.8	11.1	11.8	12.6	13.6
100	10.0	10.3	10.5	11.2	12.0	12.9
200	7.1	7.3	7.5	7.9	8.5	9.1
300	5.8	5.9	6.1	6.5	6.9	7.5
400	5.0	5.1	5.3	5.6	6.0	6.5
500	4.5	4.6	4.7	5.0	5.3	5.8
600	4.1	4.2	4.3	4.6	4.9	5.3
700	3.8	3.9	4.0	4.2	4.5	4.9
800	3.5	3.6	3.7	4.0	4.2	4.6
900	3.3	3.4	3.5	3.7	4.0	4.3
1,000	3.2	3.2	3.3	3.5	3.8	4.1
2,000	2.2	2.3	2.4	2.5	2.7	2.9
5,000	1.4	1.5	1.5	1.6	1.7	1.8
10,000	1.0	1.0	1.1	1.1	1.2	1.3
20,000	0.7	0.7	0.7	0.8	0.8	0.9
50,000	0.4	0.5	0.5	0.5	0.5	0.6
100,000	0.3	0.3	0.3	0.4	0.4	0.4
200,000	0.2	0.2	0.2	0.2	0.3	0.3
500,000	0.1	0.1	0.1	0.2	0.2	0.2
1,000,000	0.1	0.1	0.1	0.1	0.1	0.1
2,000,000	0.1	0.1	0.1	0.1	0.1	0.1
4,000,000	0.1	0.1	0.1	0.1	0.1	0.1

The estimated RSEs in Table VII were computed using this formula:

$$1. RSE = 100 \sqrt{\frac{1}{\bar{X}^2} + \frac{(1-f)(N-X)}{fX(N-(1/f))}}$$

where

f = sampling fraction or percent of file completeness/100 from Table I. For mortality data based on deaths under 1 year of age, use f for “infant deaths” for either the demographic or medical file as appropriate. For mortality data based on all ages combined or any age group that is 1 year and over, use f for “deaths 1 year of age and over” for either the demographic or medical files as appropriate.

X = estimated number of infant deaths or deaths.

N = total count of infant deaths or deaths for the United States or any state. (NOTE: The RSEs shown in Table VII are based on $N = 4,000,000$. If N is smaller, the RSEs may be slightly smaller than those shown.)

RSEs may be used to compute 95 percent confidence intervals for the number of events (X), for a rate (R), or for a percentage (P), and to compute statistical tests concerning the equality of two rates (R_1 and R_2) or two percentages (P_1 and P_2).

For the number of deaths, the 95 percent confidence interval may be computed as:

$$2. \text{ Lower limit: } X_1 - \left(1.96 \cdot X_1 \cdot \frac{RSE(X_1)}{100} \right)$$

$$3. \text{ Upper limit: } X_1 + \left(1.96 \cdot X_1 \cdot \frac{RSE(X_1)}{100} \right)$$

As a hypothetical example, assume the number of deaths, X_1 , is 70 from a file with 80-percent completeness. Then

$$\text{Lower limit: } 70 - \left(1.96 \cdot 70 \cdot \frac{13.4}{100} \right) = 51.6$$

$$\text{Upper limit: } 70 + \left(1.96 \cdot 70 \cdot \frac{13.4}{100} \right) = 88.4$$

This means that the chances are 95 out of 100 that the confidence interval (51.6–88.4) will cover the “true” number of deaths.

For rates based on population estimates in the denominator, the 95-percent confidence interval may be computed as:

$$4. \text{ Lower limit: } R_1 - \left(1.96 \cdot R_1 \cdot \frac{RSE(R_1)}{100} \right)$$

$$5. \text{ Upper limit: } R_1 + \left(1.96 \cdot R_1 \cdot \frac{RSE(R_1)}{100} \right)$$

As a hypothetical example, assume the death rate, R_1 , is 20.0, which is based on 70 deaths from a file with 80-percent completeness. Then

$$\text{Lower limit: } 20.0 - \left(1.96 \cdot 20.0 \cdot \frac{13.4}{100}\right) = 14.7$$

$$\text{Upper limit: } 20.0 + \left(1.96 \cdot 20.0 \cdot \frac{13.4}{100}\right) = 25.3$$

This means that the chances are 95 out of 100 that the confidence interval (14.7–25.3) will cover the “true” rate.

For age-adjusted death rates, R' , the 95-percent confidence interval may be computed as:

$$6. \text{ Lower limit: } R' - \left(1.96 \cdot R' \cdot \frac{\text{RSE}(R')}{100}\right)$$

$$7. \text{ Upper limit: } R' + \left(1.96 \cdot R' \cdot \frac{\text{RSE}(R')}{100}\right)$$

where

$$8. \text{ RSE}(R') = 100 \sqrt{\frac{\sum_i \left\{ w_i^2 R_i^2 \left[\frac{1}{X_i} + \frac{(1-f_i)(N_i - X_i)}{f_i X_i \left(N_i - \frac{1}{f_i} \right)} \right] \right\}}{R'^2}}$$

where

i = each age group where $i = 1$ for infant deaths, $i = 2$ for 1–4 years, $i = 3$ for 5–14 years, . . . and $i = 11$ for 85 years and over.

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 “Computing rates and percentages”).

X_i = estimated number of deaths for the i^{th} age group.

N_i = total count of deaths from Table I for each i^{th} age group (for infant deaths, use the count of records as shown; for all age groups 1–4 through 85 years and over, use the count of records as shown for deaths at ages 1 year and over).

f_i = percentage of file completeness/100 from Table I (for infant deaths, use the percent completeness for the demographic or medical file as appropriate for deaths under age 1 year; for all age groups 1–4 through 85 years and over, use the percent completeness for the demographic or medical file as appropriate for deaths at ages 1 year and over).

For testing the equality of two rates, R_1 and R_2 , the following z-test may be used to define a significance test statistic:

$$9. z = \frac{R_1 - R_2}{\sqrt{R_1^2 \left(\frac{\text{RSE}(R_1)}{100} \right)^2 + R_2^2 \left(\frac{\text{RSE}(R_2)}{100} \right)^2}}$$

The two-tailed 0.95 critical value for a z statistic is 1.96. Therefore, if $|z| \geq 1.96$, the difference is significant at the 0.05 level. If $|z| < 1.96$, then the difference would be considered not statistically significant at the 0.05 level.

As a hypothetical example, assume R_1 is the same as the above example for the current 12-month period and that R_2 , 15.0, is based on 50 deaths occurring in the prior 12-month period (which implies that the file is approximately 100 percent complete for R_2). The z-test may be determined as:

$$z = \frac{20.0 - 15.0}{\sqrt{(20.0)^2 \left(\frac{13.4}{100} \right)^2 + (15.0)^2 \left(\frac{14.1}{100} \right)^2}} = 1.46$$

Because $|z| < 1.96$, there is not a statistically significant difference between the two rates at the 0.05 level of significance.

For rates or percentages based on denominators having random variation only or random and sampling variation, the RSE must take into account the variation in both the numerator and denominator. For example, for a rate, R_3 , based on the number of live births in the denominator, the RSE is computed as:

$$10. \text{ RSE}(R_3) = 100 \sqrt{\frac{\text{RSE}(D)^2}{100} + \frac{\text{RSE}(B)^2}{100}}$$

where

$\text{RSE}(D)$ = the RSE of the number of deaths, D

$\text{RSE}(B)$ = the RSE of the number of births, B

The 95 percent confidence interval of R_3 may be computed as:

$$11. \text{ Lower limit: } R_3 - \left(1.96 \cdot R_3 \cdot \frac{\text{RSE}(R_3)}{100}\right)$$

$$12. \text{ Upper limit: } R_3 + \left(1.96 \cdot R_3 \cdot \frac{\text{RSE}(R_3)}{100}\right)$$

As a hypothetical example, assume the infant mortality rate, R_3 , is 15.0, which is based on 30 infant deaths (D) from a file with 70 percent completeness and 2,000 live births (B) from a file with 80 percent completeness. Then

$$\text{RSE}(R_3) = 100 \sqrt{\frac{(21.8)^2}{100} + \frac{(2.5)^2}{100}} = 21.9$$

$$\text{Lower limit: } 15.0 - \left(1.96 \cdot 15.0 \cdot \frac{21.9}{100}\right) = 8.6$$

$$\text{Upper limit: } 15.0 + \left(1.96 \cdot 15.0 \cdot \frac{21.9}{100}\right) = 21.4$$

This means the chances are 95 out of 100 that the confidence interval (8.6–21.4) will cover the “true” rate. The same formulas are applicable to a percentage (P_1) that has variation in both the numerator and denominator. To compare the equality of two infant mortality rates or two percentages that have variation in the numerator and denominator, the above-mentioned z-test may be used.

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