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# **Deaths: Preliminary Data for 2000**

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# **Abstract**

*Objectives*—This report presents preliminary data on deaths for the year 2000 in the United States. U.S. data on deaths are shown by age, sex, race, and Hispanic origin. Data on life expectancy, leading causes of death, and infant mortality are also presented.

Methods—Data in this report are based on a large number of deaths comprising more than 94 percent of the demographic file and 85 percent of the medical file for all deaths in the United States in 2000. The records are weighted to independent control counts of infant deaths, and deaths 1 year and over received in State vital statistics offices for 2000. Unless otherwise indicated, comparisons are made with final data for 1999. For certain causes of death, preliminary data differ from final data because of the truncated nature of the preliminary file. These are, in particular, accidents, homicides, suicides, and respiratory diseases.

Results—The age-adjusted death rate in 2000 for the United States decreased slightly from 1999 to a record low in 2000. For causes of death, declines in age-adjusted rates occurred for heart disease, stroke, Chronic liver disease and cirrhosis, diabetes, and cancer. Age-adjusted rates for drug-induced deaths, alcohol-induced deaths, and firearm injuries also decreased during 2000. Declines also occurred for homicides, suicides, unintentional injuries, and Chronic lower respiratory diseases although the extent of the declines cannot be precisely assessed based on the preliminary data. Age-adjusted death rates increased between 1999 following causes: Pneumonitis from solids and liquids, disease, kidney disease, hypertension, Influenza and Septicemia.

The infant mortality rate for the black population lower, while the rate for the white population decreased cantly) by 2 percent. Life expectancy at birth rose by record high of 76.9 years.

Keywords: deaths • vital statistics

# Introduction

This report presents preliminary mortality data based on a substantial proportion of vital records occurring in 2000. This report includes only data on deaths; reports previous to 1999 in the preliminary series included data for births and deaths. Preliminary natality data for 2000 were published separately (1). Trends shown in preliminary reports for 1995–99 deaths, for most measures, were confirmed by final statistics for each year (2–6).

# Sources and methods

#### Data sources

Preliminary data in this series are based on records of deaths that occurred during the year 2000 and were received and processed by the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS) as of June 27, 2001. Demographic information was available for an estimated 94 percent of infant deaths (under 1 year of age) and about 95 percent of deaths to persons aged 1 year or older. Medical or cause-of-death information was

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processed separately and was available for an estimated 85 percent of infant deaths and 86 percent of deaths to persons aged 1 year and

To produce the preliminary estimates shown in this report, records were weighted using independent control counts of infant deaths and deaths 1 year and over received in the State vital statistics offices during 2000. Two separate sets of weights were applied to the death records—one set for the demographic information and one set for the medical information. This results in slight inconsistencies between comparable demographic data from the mortality demographic and medical tables (see section on "Nature and sources of data" in Technical notes). Preliminary estimates are subject to sampling variation as well as random variation.

Cause of death is not always available when the preliminary data are sent to NCHS, but is available later for final data processing. As a result, estimates based on preliminary mortality data may differ from statistics from the final mortality data. 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), and Sudden infant death syndrome (SIDS), or conditions that are highly seasonal, such as Influenza and pneumonia, and Chronic lower respiratory diseases (see section on "Bias estimation" in Technical notes).

In addition to national and State estimates of total deaths and death rates, this report includes preliminary statistics on life expectancy, infant mortality, and causes of death. Race and Hispanic origin are reported as separate items on the death certificate and are not mutually exclusive. Data are shown for the following race and ethnic groups: white, non-Hispanic white, black, American Indian, Asian or Pacific Islander (API), and Hispanic. Tabulations by race and ethnic group are based on the race and ethnic group reported for the decedent. Death rates for American Indian, API, and to a lesser extent, for Hispanics are known to be too low because of reporting problems (see section on "Race and Hispanic origin" in Technical notes).

The proportion of records processed by each State is shown in table I in the Technical notes. Changes in death rates between 1999 and 2000 and differences in death rates across demographic groups for 2000 were tested for statistical significance. Unless otherwise specified, reported differences in death rates are statistically significant. Detailed information on the nature, sources, and qualifications of the preliminary data is given in the Technical notes.

### Results

#### Trends in numbers and rates

The preliminary number of deaths in the United States for 2000 was 2,404,598, an increase of 13,199 from the 1999 total. The crude death rate decreased from 877.0 per 100,000 population in 1999 to 873.6 per 100,000 in 2000. The estimated age-adjusted death rate, which accounts for changes in the age distribution of the population, reached a record low of 872.4 per 100,000 U.S. standard population, 1.1 percent lower than the 1999 rate of 881.9 (table A) (2). 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 subgroups of the population that have different age compositions. All age-adjusted death rates are standardized to the year 2000 population (see section on "Computing rates and percents" in Technical notes).

The age-adjusted death rate followed a decreasing trend from 1994 to 1998, but increased in 1999 relative to 1998. The 1999 increase was associated with two influenza outbreaks (7, 8). The preliminary age-adjusted death rate for 2000 is 0.4 percent lower than the 1998 final rate despite a major influenza outbreak at the beginning of the year (8).

Relative to 1999, age-adjusted death rates decreased by 1.8 percent for males, and by 0.5 percent for females. For white non-Hispanic males, the age-adjusted death rate decreased 1.4 percent, while mortality for white non-Hispanic females remained virtually unchanged. Reductions in mortality also occurred for other groups as follows: black males, 2.9 percent; black females, 1.2 percent; API males, 3.2 percent; API females, 2.8 percent; Hispanic males, 3.1 percent; and Hispanic females, 3.2 percent. Decreases in mortality for American Indian males and females were not statistically significant. The age-adjusted death rate did not increase for any of the race and Hispanic origin and gender populations reported (table 1).

The general decrease in mortality between 1999 and 2000 resulted from decreases in the death rate for age groups 1-4 years, 55-64 years, 65-74 years, 75-84 years, and 85 years and over. A slight increase of less than 1 percent in the death rate occurred for age group 45-54 years. Other changes were not statistically significant.

The preliminary estimate of **life expectancy** at birth for the total population in 2000 reached a record high of 76.9 years. This represents an increase of 0.2 years relative to 1999 (see figure 1 and table 6). The gap between male and female life expectancy diminished again in 2000 to 5.4 years. The difference between male and female life expectancy at birth has been steadily decreasing since 1990 (figure 2). Life expectancy for males increased by 0.2 years, reaching a record 74.1 years. Female life expectancy also rose to 79.5 years, an increase of 0.1 years from 1999, equaling the record high achieved in 1998. Record-high life expectancies were reached for white and black males (74.8 years and 68.3 years, respectively), and for black females (75.0 years). White female levels for 2000 are the same as the record high attained in 1998. Life expectancy did not decrease for any of the race and gender groups reported.

## Causes of death

The list of 15 leading causes of death changed between 1999 and 2000. Fourteen of the 15 leading causes of death are on both lists for 1999 and 2000. Aortic aneurysm, which had debuted as the 15th leading cause of death for 1999, dropped from the list in 2000 and, in its place, homicide is the 15th leading cause of death. Making its first appearance among the leading causes of death is Pneumonitis due to solids and liquids, ranked 14th in 2000. This cause of death, concentrated among the elderly, is a pneumonia resulting from aspirating material into the lungs. Pneumonitis due to solids and liquids replaced homicide as the 14th leading cause of death. No changes occurred in the rank order of the leading 13 conditions between 1999 and 2000. In order, the 15 leading causes in 2000 were 1) Diseases of heart (heart disease), 2) Malignant neoplasms

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 1999 and preliminary 2000

	All races <sup>1</sup>		White		Black	
Measure and sex	2000	1999	2000	1999	2000	1999
All deaths	2,404,598	2,391,399	2,074,157	2,061,348	284,561	285,064
Age-adjusted death rate <sup>2</sup>	872.4	881.9	853.2	860.7	1,124.8	1,147.1
Male	1,042.7	1,061.8	1,019.3	1,035.8	1,371.3	1,412.5
Female	739.8	743.6	723.4	725.7	943.9	955.0
ife expectancy at birth <sup>3</sup>	76.9	76.7	77.4	77.3	71.8	71.4
Male	74.1	73.9	74.8	74.6	68.3	67.8
Female	79.5	79.4	80.0	79.9	75.0	74.7
nfant deaths	27,987	27,937	18,216	18,067	8,665	8,822
nfant mortality rate <sup>4</sup>	6.9	7.1	5.7	5.8	14.0	14.6

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

(cancer), 3) Cerebrovascular diseases (stroke), 4) Chronic lower respiratory diseases, 5) Accidents (unintentional injuries), 6) Diabetes mellitus (diabetes), 7) Influenza and pneumonia, 8) Alzheimer's disease, 9) Nephritis, nephrotic syndrome and nephrosis (kidney disease), 10) Septicemia, 11) suicide, 12) Chronic liver disease and cirrhosis, 13) Essential (primary) hypertension and hypertensive renal disease (hypertension), 14) Pneumonitis due to solids and liquids, and 15) homicide.

Reductions in mortality occurred for many leading causes of death. From 1999 to 2000 the preliminary age-adjusted death rate for the leading cause of death, **heart disease**, decreased by 3.8 percent. A total of 15,298 fewer deaths from heart disease occurred in 2000 than in 1999. The age-adjusted death rate for **cancer** decreased by 1.1 percent (see tables B and 2). Deaths from these two diseases combined accounted for more than 1.2 million deaths, or more than one-half of all deaths in 2000. While heart disease mortality has exhibited a downward trend since 1950, cancer mortality has declined only since 1990.

The preliminary age-adjusted death rate decreased for homicide by an estimated 6.5 percent, continuing the downward trend since 1991. This decline may be overstated because of bias in the preliminary file (see section on "Bias estimation" in Technical notes). Suicide decreased by 3.7 percent. As with homicide, declines in suicide should be interpreted with caution given the possible bias in the preliminary files for certain causes of death (see section on "Bias estimation" in Technical notes). The decline in mortality for homicide and suicide continued the downward trend for 1996, 1997, 1998, and 1999 (2–5). Unintentional injuries decreased by 5.6 percent continuing the general downward trend since the 1980s. Between 1999 and 2000 the age-adjusted death rate for stroke decreased by an estimated 2.6 percent. Decreases also occurred for Chronic liver disease and cirrhosis (2.1 percent), Chronic lower respiratory diseases (2.0 percent), and diabetes (1.2 percent).

Increases occurred for Pneumonitis due to solids and liquids (8.9 percent), Alzheimer's disease (7.9 percent), kidney disease (4.6 percent), hypertension (3.2 percent), Influenza and pneumonia (3.0 percent), and Septicemia (1.8 percent).

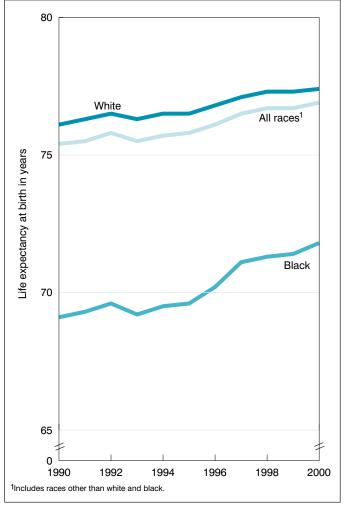


Figure 1. Trends in life expectancy at birth, by race: United States, 1990–2000

<sup>&</sup>lt;sup>2</sup>Age-adjusted death rates are per 100,000 U.S. standard population, based on the year 2000 standard; see Technical notes.

<sup>&</sup>lt;sup>3</sup>Life expectancy at birth stated in years.

<sup>&</sup>lt;sup>4</sup>Infant mortality rates are deaths under 1 year per 1,000 live births in specified group.

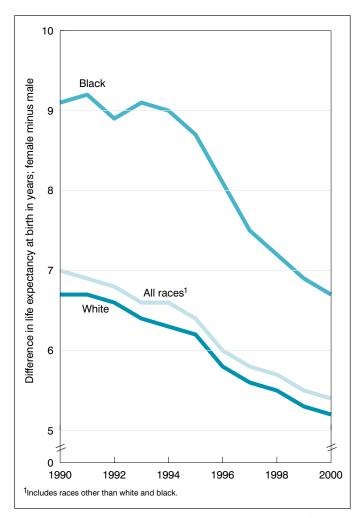


Figure 2. Difference in life expectancy between males and females, by race: United States, 1990–2000

The preliminary age-adjusted death rate for Human immunode-ficiency virus disease (HIV disease) decreased by 3.7 percent from 1999 to 2000 (table 2), continuing its slowing decrease from 1995. The rate decreased 28.8 percent from 1995 to 1996, 47.7 percent from 1996 to 1997, 20.6 percent from 1997 to 1998, and 3.6 percent from 1998 to 1999. In 1995 the rate for HIV disease was not significantly different from 1994. From 1987 until 1994 HIV disease mortality increased an average of 16 percent annually. For the age group 25–44 years, this cause is still the 5th leading cause of death for all races combined.

During 2000 preliminary age-adjusted death rates decreased for drug-induced deaths (17.1 percent), alcohol-induced causes (5.6 percent), and firearm injuries (3.8 percent). The rate for injuries at work also decreased (7.7 percent) between the two years (table 2).

Among the major race and Hispanic origin groups for 2000, the lowest mortality was reported for the API and Hispanic populations whose preliminary age-adjusted death rates were 42 percent and 33 percent lower, respectively, than those for the white non-Hispanic population. In contrast, the age-adjusted death rate for the black population was 30 percent higher than that for the white non-Hispanic population (table 1). Mortality for races other than white and black and Hispanic origin may be seriously understated due to under-

reporting of some race groups and Hispanic origin on death certificates and to undercounts of those population groups in the census (9, 10).

The preliminary **infant mortality rate** for 2000 was 6.9 infant deaths per 1,000 live births, compared with the rate of 7.1 in 1999 (see tables A and 4). This change was mostly due to a 4.1 percent decline in the rate for black infants (from 14.6 to 14.0). Although smaller reductions in the rate (ranging from 3.4 to 1.7 percent) were observed for other race and Hispanic-origin groups, none were statistically significant. Because of inconsistencies in reporting some race groups and Hispanic origin on birth and death certificates, infant mortality rates for these groups are likely to be underestimated (9, 10). The linked birth/infant death data set provides a better source of data for infant deaths and mortality rates by race and ethnicity (11).

The leading cause of infant mortality was Congenital malformations, deformations, and chromosomal abnormalities (congenital malformations), which accounted for 20.7 percent of all infant deaths. The increase in the infant mortality rate for this cause was not significant (table 5). The rate for Disorders related to short gestation and low birthweight (low birthweight), the second leading cause of death for all infants (accounting for 15.4 percent of infant deaths), dropped 4.6 percent from 1999 to 2000. The rate for the third leading cause of infant mortality, SIDS, dropped by an estimated 20.9 percent from 1999. Four hundred and ninety-seven (497) fewer infant deaths occurred in 2000 due to SIDS; however, the magnitude of this change may reflect a change in the way SIDS is diagnosed by the medical community as well as bias in the preliminary file. Deaths due to SIDS have been declining since 1988 (3).

By place of residence, **Hawaii** had the lowest mortality, with an age-adjusted death rate of 666.9 deaths per 100,000 U.S. standard population. Mortality was the highest for **Mississippi**, with an age-adjusted death rate of 1,074.8 (table 3).

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Table B. Deaths and death rates for 2000 and age-adjusted death rates and percent changes in age-adjusted rates from 1999 to 2000 for the 15 leading causes of death: United States, final 1999 and preliminary 2000

	Cause of death			Ą	ge-adjusted death	rate
Rank <sup>1</sup>	(Based on the <i>Tenth Revision,</i> International Classification of Diseases, 1992)	Number	Death rate	2000	1999	Percent change
	All causes	2,404,624	873.6	872.4	881.9	-1.1
1	Diseases of heart	709,894	257.9	257.5	267.8	-3.8
2	Malignant neoplasms	551,833	200.5	200.5	202.7	-1.1
3	Cerebrovascular diseases	166,028	60.3	60.2	61.8	-2.6
4	Chronic lower respiratory diseases <sup>2</sup>	123,550	44.9	44.9	45.8	-2.0
5	Accidents (unintentional injuries) <sup>2</sup>	93,592	34.0	33.9	35.9	-5.6
6	Diabetes mellitus	68,662	24.9	24.9	25.2	-1.2
7	Influenza and pneumonia <sup>2</sup>	67,024	24.3	24.3	23.6	3.0
8	Alzheimer's disease	49,044	17.8	17.8	16.5	7.9
9	Nephritis, nephrotic syndrome and nephrosis	37,672	13.7	13.7	13.1	4.6
10	Septicemia	31,613	11.5	11.5	11.3	1.8
11	Intentional self-harm (suicide) <sup>2</sup>	28,332	10.3	10.3	10.7	-3.7
12	Chronic liver disease and cirrhosis K70.K73–K74	26,219	9.5	9.5	9.7	-2.1
13	Essential (primary) hypertension and hypertensive renal disease	17,964	6.5	6.5	6.3	3.2
14	Pneumonitis due to solids and liquids	16,659	6.1	6.1	5.6	8.9
15	Assault (homicide) <sup>2</sup> X85–Y09,Y87.1	16,137	5.9	5.8	6.2	-6.5
	All other causes	400,401	145.5			

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

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<sup>- - -</sup> Data not available.

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

<sup>&</sup>lt;sup>2</sup>Preliminary estimates may differ from final data; see section on Bias estimation in Technical notes.

# List of detailed tables

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 1999 and preliminary 2000	7
2.	Deaths, death rates, and age-adjusted death rates for 113	
	selected causes, Injury by firearms, Drug-induced deaths,	
	Alcohol-induced deaths, and Injury at work: United States, final	
	1999 and preliminary 2000	14
3.	Deaths, death rates, and age-adjusted death rates: United	
	States, and each State and territory, final 1999 and	
	preliminary 2000	18
4.	Infant deaths and infant mortality rates, by age and race	
	and Hispanic origin: United States, final 1999 and prelimi-	
	nary 2000	19
5.	Infant deaths and infant mortality rates for 130 selected causes:	
	United States, final 1999 and preliminary 2000	20
6.	Expectation of life by age, race, and sex: United States, final 1999	
	and preliminary 2000	24
7.	Deaths and death rates for the 10 leading causes of death in	
	specified age groups: United States, preliminary 2000	25
8.	Infant deaths and infant mortality rates for the 10 leading causes	
	of infant death, by race and Hispanic origin: United States,	
	preliminary 2000	27

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 1999 and preliminary 2000

	200	00	1999		
Age, race, and sex	Number	Rate	Number	Rate	
All races, both sexes					
II ages	2,404,598	873.6	2,391,399	877.0	
nder 1 year <sup>1</sup>	27,987	727.4	27.027	731.4	
4 years	4,964	32.8	27,937 5,249	34.7	
*	7,386	18.6	7,595	19.2	
14 years			,		
5-24 years	31,259	81.5	30,656	81.2	
i-34 years	40,409	108.0	41,066	108.3	
-44 years	89,652	199.7	89,256	199.2	
i-54 years	160,014	430.7	152,974	427.3	
-64 years	241,029	1,005.4	238,979	1,021.8	
-74 years	441,991	2,432.9	452,600	2,484.3	
i-84 years	701,173	5,694.3	698,590	5,751.3	
years and over	658,295	15,324.4	646,141	15,476.1	
ot stated	437		356		
ge-adjusted rate <sup>2</sup>		872.4		881.9	
All races, male					
l ages	1,177,743	874.8	1,175,460	882.0	
agoo	1,111,110	07 1.0	1,170,100	002.0	
nder 1 year <sup>1</sup>	15.662	797.0	15,646	801.5	
4 years	2,815	36.4	2,975	38.5	
14 years	4,394	21.6	4,492	22.2	
•	23,041	117.3	22.414	115.9	
i-24 years			28,276		
5-34 years	27,875	149.9	,	150.2	
5-44 years	57,137	256.1	57,118	256.7	
i-54 years	100,131	551.1	95,659	546.7	
-64 years	143,388	1,254.0	142,724	1,280.0	
i-74 years	247,741	3,019.8	254,920	3,109.3	
i-84 years	340,382	6,858.0	340,970	6,999.8	
years and over	214,851	16,613.8	209,989	16,931.3	
ot stated	326		277		
ge-adjusted rate <sup>2</sup>		1,042.7		1,061.8	
All races, female					
l ages	1,226,854	872.3	1,215,939	872.2	
nder 1 year <sup>1</sup>	12,325	654.7	12,291	658.1	
4 years	2,149	29.0	2,274	30.8	
14 years	2,149	15.5	3,103	16.1	
· ·	,	43.9	8.242	44.7	
5-24 years	8,218		-,		
5-34 years	12,534	66.6	12,790	66.9	
i-44 years	32,515	144.0	32,138	142.5	
5-54 years	59,884	315.5	57,315	313.1	
5-64 years	97,641	778.7	96,255	786.5	
5-74 years	194,250	1,949.6	197,680	1,972.9	
i-84 years	360,792	4,908.6	357,620	4,915.4	
5 years and over	443,445	14,769.1	436,152	14,861.1	
your and over					
of stated	111		79		

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 1999 and preliminary 2000 - Con.

	20	00	19	99
Age, race, and sex	Number	Rate	Number	Rate
White, total <sup>3</sup> , both sexes				
ıll ages	2,074,157	2,074,157       916.7       2,061,348         18,216       600.8       18,067         3,490       29.0       3,690         5,449       17.5       5,493         23,004       75.5       22,352         28,714       96.1       29,400         66,480       180.2       65,607         122,540       391.4       117,011         195,920       950.7       193,582         377,937       2,381.1       387,437         628,830       5,662.3       626,489         603,256       15,545.2       591,949         320        271          853.2		917.7
Jnder 1 year <sup>1</sup>	18 216	600.8	18 067	596.8
-4 years				30.7
i-14 years	,		,	17.7
5-24 years				74.5
5-34 years	,		,	96.6
5-44 years				177.6
•				386.8
5-54 years	,		,	
5-64 years				961.5
5-74 years			,	2,427.8
5-84 years				5,713.2
5 years and over				15,688.0
ot stated	320		271	
ge-adjusted rate <sup>2</sup>		853.2		860.7
White <sup>3</sup> , male				
Il ages	1,008,313	906.8	1,005,335	911.2
nder 1 year <sup>1</sup>	10,208	658.2	10,197	658.1
4 years	1,998	32.4	2,084	33.9
14 years	3,268	20.4	3,228	20.3
5-24 years	16,869	107.6	16,203	104.9
5-34 years	20,143	134.4	20,549	134.5
•		233.9	42,914	231.5
5-44 years	43,307		,	
5-54 years	77,756	502.0	73,908	494.2
5-64 years	117,315	1,179.8	116,537	1,200.2
5-74 years	213,781	2,955.3	220,442	3,043.2
5-84 years	306,762	6,826.5	307,450	6,965.1
5 years and over	196,653	16,918.7	191,610	17,202.1
ot stated	253		213	
ge-adjusted rate <sup>2</sup>		1,019.3		1,035.8
White <sup>3</sup> , female				
II ages	1,065,844	926.4	1,056,013	924.1
nder 1 year <sup>1</sup>	8,009	540.7	7,870	532.6
· ·	1,492	25.4	1,606	27.4
4 years	,	25.4 14.3	,	14.9
14 years	2,181		2,265	42.2
5-24 years	6,135	41.5	6,149	
5-34 years	8,571	57.6	8,851	58.4
5-44 years	23,173	126.1	22,693	123.3
5-54 years	44,785	283.1	43,103	281.8
5-64 years	78,605	737.1	77,045	739.1
5-74 years	164,156	1,900.3	166,995	1,916.2
5-84 years	322,068	4,871.1	319,039	4,869.7
5 years and over	406,603	14,957.9	400,339	15,053.8
lot stated	68		58	
ge-adjusted rate <sup>2</sup>		723.4		725.7
je-aujusieu raie		123.4		125.1

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 1999 and preliminary 2000 - Con.

	20	00	199	99
Age, race, and sex	Number	Rate	Number	Rate
White, non-Hispanic, both sexes				
Il ages	1,963,254	998.3	1,953,197	996.3
Inder 1 year <sup>1</sup>	13,579	576.7	13,553	572.7
-4 years	2,652	28.1	2,819	29.7
-14 years	4,411	17.3	4,488	17.5
5-24 years	18,277	72.2	17,868	71.4
·	23,218	92.7	23,986	93.4
5-34 years				
5-44 years	58,237	179.7	57,630	176.6
5-54 years	111,939	393.0	106,808	387.0
5-64 years	182,828	962.5	180,793	972.1
5-74 years	357,880	2,416.2	367,490	2,458.9
5-84 years	605,805	5,739.6	604,344	5,783.1
5 years and over	584,308	15,841.3	573,327	15,945.8
ot stated	120		91	
ge-adjusted rate <sup>2</sup>		863.4		869.4
White, non-Hispanic, male				
Il ages	946,268	982.5	944,913	984.7
Inder 1 year <sup>1</sup>	7,679	637.0	7,718	636.5
4 years	1,545	31.9	1,605	32.9
,	,			
14 years	2,670	20.4	2,643	20.1
5-24 years	13,083	100.7	12,677	98.7
5-34 years	15,969	127.6	16,449	128.4
5-44 years	37,568	231.6	37,291	228.2
5-54 years	70,767	501.7	67,151	491.6
5-64 years	109,302	1,188.6	108,692	1,208.0
5-74 years	202,478	2,993.3	209,155	3,077.6
5-84 years	295,307	6,924.1	296,528	7,057.5
5 years and over	189,816	17,294.4	184,938	17,539.1
of stated	83		66	
ge-adjusted rate <sup>2</sup>		1,030.2		1,045.1
White, non-Hispanic, female				
II ages	1,016,986	1,013.6	1,008,284	1,007.4
nder 1 year <sup>1</sup>	5,900	513.4	5,835	505.6
	1,107	24.0	1,214	26.2
4 years	,	24.0 14.0		14.8
14 years	1,740		1,845	
5-24 years	5,194	42.2	5,191	42.6
5-34 years	7,249	57.8	7,537	58.6
5-44 years	20,669	127.7	20,339	124.8
5-54 years	41,172	286.3	39,657	284.5
5-64 years	73,526	750.4	72,101	751.0
5-74 years	155,402	1,931.1	158,335	1,942.9
5-84 years	310,498	4,936.4	307,816	4,926.2
5 years and over	394,492	15,225.8	388,389	15,284.6
ot stated	37		25	
and adjusted rate 2		7040		7040
ge-adjusted rate <sup>2</sup>		734.0		734.9

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 1999 and preliminary 2000 - Con.

Black, total <sup>3</sup> , both sexes  All ages				
All ages	lumber	Rate	Number	Rate
A years   A ye				
4 years 14 years 14 years 5-24 years 5-24 years 5-34 years 5-44 years 5-54 years 5-64 years 5-64 years 5-74 years 5-84 years 5-84 years 5-84 years 5 years and over 5 stated  ge-adjusted rate 2  Black 3, male  I ages  I age	284,561	806.0	285,064	817.7
-4 years	0.005	4 407 4	0.000	4 554 4
-14 years	8,665	1,487.4	8,822	1,551.1
5-24 years 5-34 years 5-44 years 5-44 years 5-54 years 5-64 years 5-64 years 5-74 years 5-84 years 5 years and over ot stated  Black <sup>3</sup> , male  Il ages  Inder 1 year <sup>1</sup> 4 years 5-24 years 5-54 years 5-64 years 5-64 years 5-65 years and over ot stated  Black <sup>3</sup> , male	1,235	55.5	1,311	58.9
5-34 years 5-44 years 5-54 years 5-64 years 5-74 years 5-74 years 5-84 years 5 years and over of stated  ge-adjusted rate <sup>2</sup> Black <sup>3</sup> , male  Il ages  Il	1,619	25.9	1,789	28.7
5-44 years 5-54 years 5-64 years 5-64 years 5-74 years 5-74 years 5-84 years 5 years and over of stated  Black <sup>3</sup> , male  Il ages	7,037	120.6	7,066	123.1
5-54 years -64 years -74 years -78 years -89 years and over ot stated  Black <sup>3</sup> , male  I ages -74 years -75 years -77 years -	10,213	195.0	10,115	191.3
i-54 years i-64 years i-74 years i-74 years i-84 years is years and over of stated  Black <sup>3</sup> , male  I ages  I	20,464	358.6	21,041	372.3
5-64 years 5-74 years 5-84 years 5 years and over ot stated  Black <sup>3</sup> , male  I ages  mder 1 year <sup>1</sup> 4 years 5-24 years 5-34 years 5-44 years 5-54 years 5-74 years 5-84 years 5-84 years 5-84 years 5-95 years and over ot stated  Black <sup>3</sup> , female  I ages  Black <sup>3</sup> , female	33,137	802.4	31,759	808.4
5-74 years -84 years -95 years and over -95 to stated  Black <sup>3</sup> , male  I ages -96 adjusted rate <sup>2</sup> Black <sup>3</sup> , male  I ages -97 adjusted -98 adjusted -99 adjus	39,118	1,621.8	39,476	1,683.3
i-84 years so years and over so that stated see adjusted rate 2 see adjusted rate 2 see adjusted rate 3 see adjusted rate 4 years see adjusted rate 4 see adjusted rate 5 see adjusted rate 5 see adjusted rate 6 see adjusted rate 7 see adjusted rate 8 see adjusted rate 9 see adjusted rat	,	3,241.9	,	,
Black <sup>3</sup> , male	55,033		56,122	3,343.6
Black <sup>3</sup> , male  I ages  I age	61,161	6,795.0	61,201	6,883.6
Black <sup>3</sup> , male  I ages	46,771	14,668.4	46,285	14,787.7
Black <sup>3</sup> , male  I ages	108		77	
Il ages  Inder 1 year 1  4 years  14 years  15-24 years  5-34 years  5-44 years  5-54 years  5-54 years  5-54 years  5-64 years  5-74 years  5 years and over  of stated  Il ages  Il a		1,124.8		1,147.1
A years   A ye				
4 years 14 years 14 years 14 years 15-24 years 5-24 years 5-34 years 5-44 years 5-54 years 5-64 years 5-674 years 5-74 years 5-84 years 5 years and over of stated  ge-adjusted rate <sup>2</sup> Black <sup>3</sup> , female  Il ages  Il ages  Il 4 years 5-24 years 5-34 years 5-35 years	144,494	861.3	145,703	880.0
4 years 14 years 14 years 14 years 15-24 years 5-24 years 5-34 years 5-44 years 5-54 years 5-64 years 5-674 years 5-74 years 5-84 years 5 years and over of stated  ge-adjusted rate <sup>2</sup> Black <sup>3</sup> , female  Il ages  Il ages  Il 4 years 5-24 years 5-34 years 5-35 years	4 926	1,627.9	4.897	1.694.0
14 years	4,826	•	,	,
5-24 years 5-34 years 5-44 years 5-54 years 5-54 years 5-64 years 5-74 years 5-74 years 5-74 years 6-84 years 79 years and over 70 t stated  70 ge-adjusted rate 2   8 Black 3, female  1 ages 7 der 1 year 1 7 4 years 7 4 years 7 5-24 years 7 5-34 years	687	60.8	746	66.0
5-34 years 5-44 years 5-54 years 5-54 years 5-64 years 5-74 years 5-74 years 5-74 years 5-84 years 9 years and over 50 t stated  Black <sup>3</sup> , female  I ages 1 ages 1 4 years 1 4 years 1 4 years 1 4 years 1 5-24 years 5-34 years 5-34 years 5-34 years 5-34 years 5-34 years	955	30.0	1,096	34.6
-44 years -54 years -64 years -64 years -64 years -64 years -64 years -64 years -65 years -68 years -68 years -68 years -69 years and over -69 stated -69	5,306	181.0	5,348	185.6
-54 years -64 years -64 years -64 years -74 years -84 years -99 years and over -90 t stated  Black <sup>3</sup> , female  I ages -90 der 1 year <sup>1</sup> -4 years -14 years -14 years -14 years -154 years -164 years -174 years -184 years -185 years -186 years -186 years -186 years -187 years -188 years	6,722	270.7	6,723	268.4
Section   Sect	12,185	454.2	12,567	473.6
5-64 years 5-74 years 5-84 years 5-84 years 5-84 years 5-84 years 5-94 years  Black 3, female  I ages  I ages  I years 14 years 14 years 15-34 years 5-34 years 5-54 years 5-54 years	19,806	1,054.6	19,298	1,081.9
5-74 years	22,570	2,162.6	22,769	2,244.0
5-84 years 5 years and over 5 years 5 ye	,	4,058.1	,	,
Black <sup>3</sup> , female  I ages	29,018		29,594	4,182.8
Black <sup>3</sup> , female  I ages	27,856	8,190.2	27,839	8,352.6
Black <sup>3</sup> , female  I ages  I ages  I ages  I ages  I ages  I years	14,497	15,427.6	14,768	16,047.8
Black <sup>3</sup> , female  I ages	65		58	
Il ages Inder 1 year 1		1,371.3		1,412.5
nder 1 year <sup>1</sup> -4 years -14 years -5-24 years -5-34 years -5-44 years -5-54 years				
4 years	140,067	756.0	139,361	761.3
4 years	3,839	1,341.9	3,925	1,403.3
.14 years	548	50.1	565	51.5
5-24 years	663	21.5	693	22.6
i-34 years i-44 years i-54 years	1.731	59.6	1.718	60.1
5-44 years5-54 years	, -		, -	
i-54 years	3,491	126.8	3,392	122.0
•	8,279	273.8	8,474	282.6
: 64 years	13,331	592.1	12,461	581.0
5-64 years	16,547	1,209.3	16,707	1,255.7
5-74 years	26,015	2.647.9	26,528	2.732.1
5-84 years	33,306	5,947.8	33,362	6,002.7
5 years and over	32,274	14,351.1	31,517	14,262.9
ot stated	42	14,331.1	19	14,202.9
	12	•••	10	
ge-adjusted rate <sup>2</sup>		943.9		955.0

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 1999 and preliminary 2000 - Con.

	200	00	1999		
Age, race, and sex	Number	Rate	Number	Rate	
American Indian, total <sup>3</sup> , <sup>4</sup> , both sexes					
Il ages	11,366       466.6       11,312         326       737.6       343         91       55.8       82         112       24.0       105         511       116.1       540         595       158.2       645         1,075       297.6       1,027         1,342       504.4       1,328         1,696       1,112.2       1,674         2,157       2,332.0       2,164         2,072       3,944.7       2,064         1,384       6,386.1       1,339         4        1          697.7		471.8		
Inder 1 year <sup>1</sup>	326	737.6	343	806.3	
-4 years			51.4		
-14 years				22.4	
5-24 years				125.9	
5-34 years				172.4	
5-44 years				286.3	
	,		, -	518.7	
5-54 years	,		,	1.130.2	
5-64 years		,	, -	,	
5-74 years	,			2,390.9	
5-84 years				4,084.4	
5 years and over	,	,	,	6,569.8	
ot stated	4		1	• • •	
ge-adjusted rate <sup>2</sup>		697.7		716.1	
American Indian <sup>3</sup> , <sup>4</sup> , male					
ıll ages	6,169	511.5	6,092	513.3	
nder 1 year <sup>1</sup>	193	867.2	180	839.5	
4 years	48	58.2	48	59.4	
14 years	60	25.4	55	23.1	
5-24 years	364	164.8	396	183.5	
5-34 years	411	213.0	418	218.5	
5-44 years	666	370.1	645	362.1	
5-54 years	845	656.9	845	683.1	
•	962	1,344.5	920	1,321.8	
5-64 years			1.148	,	
5-74 years	1,120	2,693.4	, -	2,816.8	
5-84 years	993	4,460.1	987	4,653.0	
5 years and overot stated	503 4	7,328.1	449 1	6,946.2	
ge-adjusted rate <sup>2</sup>	• • •	828.2	• • •	842.0	
American Indian <sup>3</sup> , <sup>4</sup> , female					
Il ages	5,197	422.5	5,220	431.2	
nder 1 year <sup>1</sup>	133	606.1	163	772.5	
-4 years	42	52.1	34	43.1	
14 years	52	22.7	50	21.7	
5-24 years	147	67.0	144	67.5	
5-34 years	184	100.4	227	124.2	
5-44 years	409	225.6	382	211.5	
5-54 years	498	362.4	483	365.0	
5-64 years	734	906.8	754	960.4	
5-74 years	1,036	2,034.9	1,016	2,042.0	
5-84 years	1,079	3,565.5	1,077	3,673.0	
5 years and over	881	5,949.5	890	6,395.1	
lot stated	-	5,949.5	-	0,393.1	
ge-adjusted rate <sup>2</sup>		588.7		608.5	

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 1999 and preliminary 2000 - Con.

	200	00	1999		
Age, race, and sex	Number	Rate	Number	Rate	
Asian or Pacific Islander, total <sup>3</sup> , both sexes					
l ages	34,515	306.2	33,675	311.2	
1	700	440.5	705	200.0	
nder 1 year <sup>1</sup>	780	413.5	705	388.6	
4 years	149	20.2	166	23.0	
14 years	207	11.8	208	12.2	
5-24 years	706	43.4	698	43.9	
-34 years	887	45.4	906	49.1	
-44 years	1,633	84.4	1,581	85.2	
-54 years	2,995	206.9	2,876	210.2	
-64 years	4,296	536.0	4,247	557.2	
-74 years	6,864	1,358.4	6,877	1,401.7	
-84 years	9,110	3,567.9	8,836	3,659.7	
years and over	6,884	9,234.6	6,568	9,596.9	
t stated	5	• • • •	7	• • •	
ge-adjusted rate <sup>2</sup>		502.0		517.5	
Asian or Pacific Islander <sup>3</sup> , male					
Il ages	18,768	344.6	18,330	352.7	
nder 1 year <sup>1</sup>	435	456.2	372	403.4	
4 years	82	22.1	97	26.6	
14 years	111	12.3	113	12.9	
-24 years	501	61.7	467	58.7	
i-34 years	599	63.9	586	68.4	
•					
i-44 years	979	105.3	992	112.4	
i-54 years	1,725	255.3	1,608	252.2	
5-64 years	2,540	677.7	2,498	701.6	
-74 years	3,822	1,789.5	3,736	1,808.0	
i-84 years	4,771	4,451.7	4,694	4,581.6	
years and over	3,198	10,647.6	3,162	11,343.5	
stated	4		5		
ge-adjusted rate <sup>2</sup>		620.1	• • •	640.6	
Asian or Pacific Islander <sup>3</sup> , female					
l ages	15,747	270.3	15,345	272.8	
nder 1 year <sup>1</sup>	345	369.9	333	373.4	
4 years	66	18.1	69	19.4	
14 years	96	11.3	95	11.5	
-24 years	204	25.0	231	29.1	
i-34 years	288	28.4	320	32.4	
•	288 654	28.4 65.1	589	32.4 60.6	
5-44 years					
i-54 years	1,270	164.5	1,268	173.5	
5-64 years	1,755	411.3	1,749	430.6	
5-74 years	3,042	1,042.8	3,141	1,106.1	
-84 years	4,339	2,928.6	4,142	2,980.1	
5 years and over	3,686	8,281.1	3,406	8,396.6	
ot stated	1		2		
ge-adjusted rate <sup>2</sup>		412.3		424.0	
go dajaotod tato		712.0	• • •	727.0	

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 1999 and preliminary 2000 - Con.

	200	00	199	99
Age, race, and sex	Number	Rate	Number	Rate
Hispanic <sup>5</sup> , both sexes				
All ages	106,661	328.6	103,740	331.0
Under 1 year <sup>1</sup>	4,572	4,572 618.2 4,412		611.5
1-4 years	856	30.4	882	32.1
5-14 years	1,050	16.9	1,014	16.9
15-24 years	4,763	84.5	4,505	82.4
25-34 years	5,478	103.7	5,397	103.2
5-44 years	8,065	163.3	7.798	164.2
5-54 years	10,258	329.9	9,876	338.8
5-64 years	12,641	716.1	12.319	733.7
5-74 years	19,337	1,676.2	19,201	1,742.8
•	21,885	3,692.9	20,912	3,771.8
5-84 years		8,654.8	17,358	9,175.7
5 years and over	17,695	,	•	,
lot stated	61		66	• • •
Age-adjusted rate <sup>2</sup>	• • •	582.5	• • •	601.0
Hispanic <sup>5</sup> , male				
All ages	59,757	366.3	57,991	367.9
Inder 1 year <sup>1</sup>	2,502	663.4	2,411	655.3
-4 years	464	32.3	481	34.3
-14 years	616	19.4	592	19.4
5-24 years	3,823	130.7	3,547	124.9
5-34 years	4,172	154.1	4,084	151.6
5-44 years	5,587	221.5	5,476	226.0
5-54 years	6,727	442.0	6.497	456.3
5-64 years	7,693	940.5	7,490	962.6
5-74 years	10,794	2,118.3	10,783	2,219.4
5-84 years	10,893	4,437.6	10,317	4,525.1
5 years and over	6,431	9,295.6	6,253	9,842.3
ot stated	54	9,295.0	60	9,042.5
ge-adjusted rate <sup>2</sup>		713.5		736.0
Hispanic <sup>5</sup> , female				
ıll ages	46,905	290.4	45,749	293.7
Inder 1 year <sup>1</sup>	2,071	571.4	2,001	565.9
-4 years	392	28.5	401	29.8
-14 years	435	14.3	422	14.4
5-24 years	939	34.6	958	36.4
5-34 years	1,306	50.7	1,313	51.8
5-44 years	2,477	102.5	2,322	99.9
5-54 years	3,531	222.4	3,379	226.7
5-64 years	4,948	522.3	4,829	536.0
5-74 years	8,543	1,326.5	8,418	1,366.8
5-84 years	10,992	3,166.4	10,595	3,245.6
5 years and over	11,264	8,327.0	11,105	8,838.7
lot stated	7		6	
.ge-adjusted rate <sup>2</sup>		474.2		490.1

Category not applicable. Quantity zero.

NOTE: Data are subject to sampling and/or random variation. For information on the relative standard errors of the data and further discussion, see Technical notes.

Quantity zero.

Death rates are based on population estimates; they differ from infant mortality rates, which are based on live births and are shown separately for "Under 1 year."

For method of computation, see Technical notes

<sup>3</sup> Race and Hispanic origin are reported separately on the death certificate. Data for persons of Hispanic origin included in the data for each race group, according to the decedent's reported race; see Technical notes.

<sup>4</sup> Includes deaths among Aleuts and Eskimos.
5 Includes all persons of Hispanic origin of any race; 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, and Injury at work: United States, final 1999 and preliminary 2000

		2000			1999	
Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate	Age-adjusted rate	Number	Rate	Age-adjusted rate
All causes	2,404,624	873.6	872.4	2,391,399	877.0	881.9
Salmonella infections (A01-A02)	26	0.0	0.0	38	0.0	0.0
Shigellosis and amebiasis (A03,A06)	11	*	*	10	*	*
Certain other intestinal infections (A04.A07-A09)	1,352	0.5	0.5	1.108	0.4	0.4
Tuberculosis (A16-A19)	751	0.3	0.3	930	0.3	0.3
Respiratory tuberculosis (A16)	595	0.2	0.2	764	0.3	0.3
Other tuberculosis (A17-A19)	156	0.1	0.0	166	0.1	0.1
Whooping cough (A37)	12	*	*	7	*	*
Scarlet fever and erysipelas (A38,A46)	-	*	*	5	*	*
Meningococcal infection (A39)	200	0.1	0.0	227	0.1	0.1
Septicemia (A40-A41)	31,613	11.5	11.5	30.680	11.3	11.3
Syphilis (A50-A53)	41	0.0	0.0	33	0.0	0.0
Acute poliomyelitis (A80)	71	*	*	33	0.0	*
Arthropod-borne viral encephalitis (A83-A84,A85.2)	2	*	*	3	*	*
	3	*	*	2	*	*
Measles (B05)	3 4.544	1.7	4.6		1.8	1.8
Viral hepatitis (B15-B19)			1.6	4,853		
Human immunodeficiency virus (HIV) disease (B20-B24)	14,370	5.2	5.2	14,802	5.4	5.4
Malaria (B50-B54)	3			7		
B06-B09,B25-B49,B55-B99)	6,266	2.3	2.3	7,279	2.7	2.7
Malignant neoplasms (C00-C97)	551,833	200.5	200.5	549,838	201.6	202.7
Malignant neoplasms of lip, oral cavity, and pharynx (C00-C14)	7,436	2.7	2.7	7,486	2.7	2.8
Malignant neoplasm of esophagus (C15)	12,212	4.4	4.4	11,918	4.4	4.4
Malignant neoplasm of stomach (C16)	12,620	4.6	4.6	12,711	4.7	4.7
Malignant neoplasms of colon, rectum and anus (C18-C21)	57.344	20.8	20.8	57.155	21.0	21.1
Malignant neoplasms of liver and intrahepatic bile ducts (C22)	12,736	4.6	4.6	12.382	4.5	4.6
Malignant neoplasm of pancreas (C25)	29,139	10.6	10.6	29.082	10.7	10.7
Malignant neoplasm of larynx (C32)	3,785	1.4	1.4	3,815	1.4	1.4
Malignant neoplasm of trachea, bronchus and lung (C33-C34)	154.981	56.3	56.3	152.156	55.8	56.0
Malignant melanoma of skin (C43)	7,432	2.7	2.7	7.215	2.6	2.7
Malignant neoplasm of breast (C50)	42,290	15.4	15.3	41,528	15.2	15.3
Malignant neoplasm of cervix uteri (C53)	42,290	1.5	1.5	4.205	1.5	1.6
Malignant neoplasms of corpus uteri and uterus, part unspecified (C54-C55)	6.499	2.4	2.4	6.468	2.4	2.4
Malignant neoplasm of ovary (C56)	14.044	2.4 5.1	2.4 5.1	13.627	5.0	5.0
	31.225	11.3	11.3	31.729	11.6	11.7
Malignant neoplasm of prostate (C61)				- , -		
Malignant neoplasms of kidney and renal pelvis (C64-C65)	11,751	4.3	4.3	11,116	4.1	4.1
Malignant neoplasm of bladder (C67)	11,965	4.3	4.3	11,911	4.4	4.4
Malignant neoplasms of meninges, brain and other parts of central nervous system (C70-C72)	12,574	4.6	4.6	12,765	4.7	4.7
Malignant neoplasms of lymphoid, hematopoietic and related tissue (C81-C96)	56,262	20.4	20.4	56,318	20.7	20.7
Hodgkin's disease (C81)	1,254	0.5	0.5	1,403	0.5	0.5
Non-Hodgkin's lymphoma (C82-C85)	22,548	8.2	8.2	22,802	8.4	8.4
Leukemia (C91-C95)	21,298	7.7	7.7	21,014	7.7	7.7
Multiple myeloma and immunoproliferative neoplasms (C88,C90)	11,053	4.0	4.0	11,016	4.0	4.1
Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue						
(C96)	108	0.0	0.0	83	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)	63,397	23.0	23.0	66,251	24.3	24.4

Table 2. Deaths, death rates, and age-adjusted death rates for 113 selected causes, Injury by firearms, Drug-induced deaths, Alcohol-induced deaths, and Injury at work: United States, final 1999 and preliminary 2000 - Con.

		2000		1999			
Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate	Age-adjusted rate	Number	Rate	Age-adjusted rate	
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior		_					
(D00-D48)	13,657	5.0	5.0	13,227	4.9	4.9	
Anemias (D50-D64)	4,450	1.6	1.6	4,503	1.7	1.6	
Diabetes mellitus (E10-E14)	68,662	24.9	24.9	68,399	25.1	25.2	
Nutritional deficiencies (E40-E64)	4.342	1.6	1.6	4.289	1.6	1.6	
Malnutrition (E40-E46)	3,922	1.4	1.4	3,985	1.5	1.5	
Other nutritional deficiencies (E50-E64)	421	0.2	0.1	304	0.1	0.1	
Meningitis (G00,G03)	770	0.3	0.3	850	0.3	0.3	
Parkinson's disease (G20-G21)	15.690	5.7	5.7	14.593	5.4	5.4	
Alzheimer's disease (G30)	49,044	17.8	17.8	44,536	16.3	16.5	
Major cardiovascular diseases (I00-I78)	934,110	339.3	338.8	950,314	348.5	350.9	
Diseases of heart (I00-I09,I11,I13,I20-I51)	709,894	257.9	257.5	725,192	265.9	267.8	
Acute rheumatic fever and chronic rheumatic heart disease (I00-I09)	3,585	1.3	1.3	3,676	1.3	1.4	
Hypertensive heart disease (I11)	23,330	8.5	8.5	22,702	8.3	8.4	
Hypertensive heart and renal disease (I13)	2,707	1.0	1.0	3,327	1.2	1.2	
Ischemic heart disease (I20-I25)	513,758	186.6	186.4	529,659	194.2	195.6	
Acute myocardial infarction (I21-I22)	192,811	70.0	70.0	199,454	73.1	73.6	
Other acute ischemic heart diseases (I24)	3,390	1.2	1.2	3,232	1.2	1.2	
Other forms of chronic ischemic heart disease (I20,I25)	317,558	115.4	115.2	326,973	119.9	120.8	
Atherosclerotic cardiovascular disease, so described (I25.0)	68,652	24.9	24.9	71,926	26.4	26.5	
All other forms of chronic ischemic heart disease (I20, I25.1-I25.9)	248,906	90.4	90.3	255,047	93.5	94.2	
Other heart diseases (I26-I51)	166,515	60.5	60.4	165,828	60.8	61.2	
Acute and subacute endocarditis (I33)	1,162	0.4	0.4	1,116	0.4	0.4	
Diseases of pericardium and acute myocarditis (I30-I31,I40)	698	0.3	0.3	890	0.3	0.3	
Heart failure (I50)	56,863	20.7	20.6	54,913	20.1	20.3	
All other forms of heart disease (I26-I28,I34-I38,I42-I49,I51)	107,792	39.2	39.1	108,909	39.9	40.2	
Essential (primary) hypertension and hypertensive renal disease (I10,I12)	17,964	6.5	6.5	16,968	6.2	6.3	
Cerebrovascular diseases (I60-I69)	166,028	60.3	60.2	167,366	61.4	61.8	
Atherosclerosis (I70)	14,413	5.2	5.2	14,979	5.5	5.5	
Other diseases of circulatory system (I71-I78)	25,812	9.4	9.4	25,809	9.5	9.5	
Aortic aneurysm and dissection (I71)	15,659	5.7	5.7	15,807	5.8	5.8	
Other diseases of arteries, arterioles and capillaries (I72-I78)	10,153	3.7	3.7	10,002	3.7	3.7	
Other disorders of circulatory system (I80-I99)	4,564	1.7	1.7	4,025	1.5	1.5	
Influenza and pneumonia (J10-J18)	67,024	24.3	24.3	63,730	23.4	23.6	
Influenza (J10-J11)	2,175 64,849	0.8	0.8	1,665	0.6 22.8	0.6 22.9	
Pneumonia (J12-J18)		23.6	23.5 0.1	62,065			
Other acute lower respiratory infections (J20-J22)	453 318	0.2 0.1	0.1	540 388	0.2 0.1	0.2 0.1	
Unspecified acute lower respiratory infection (J22)	136	0.1	0.1	366 152	0.1	0.1	
Chronic lower respiratory diseases (J40-J47)	123.550	44.9	44.9	124.181	45.5	45.8	
Bronchitis, chronic and unspecified (J40-J42)	1.188	0.4	0.4	1.172	0.4	0.4	
Emphysema (J43)	16.936	6.2	6.1	17.787	6.5	6.5	
Asthma (J45-J46)	4.426	1.6	1.6	4.657	1.7	1.7	
Other chronic lower respiratory diseases (J44,J47)	100,999	36.7	36.7	100,565	36.9	37.0	
Pneumoconioses and chemical effects (J60-J66,J68)	1,143	0.4	0.4	1,113	0.4	0.4	
Pneumonitis due to solids and liquids (J69)	16.659	6.1	6.1	15.268	5.6	5.6	
Other diseases of respiratory system (J00-J06,J30-J39,J67,J70-J98)	25,608	9.3	9.3	25,031	9.2	9.2	
Peptic ulcer (K25-K28)	4,507	1.6	1.6	4.604	1.7	1.7	
Diseases of appendix (K35-K38)	422	0.2	0.1	390	0.1	0.1	
Hernia (K40-K46)	1,510	0.5	0.5	1.464	0.5	0.5	
Chronic liver disease and cirrhosis (K70,K73-K74)	26,219	9.5	9.5	26,259	9.6	9.7	

Table 2. Deaths, death rates, and age-adjusted death rates for 113 selected causes, Injury by firearms, Drug-induced deaths, Alcohol-induced deaths, and Injury at work: United States, final 1999 and preliminary 2000 - Con.

_		2000		1999		
Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate	Age-adjusted rate	Number	Rate	Age-adjusted rate
Alcoholic liver disease (K70)	11.755	4.3	4.3	11,958	4.4	4.4
Other chronic liver disease and cirrhosis (K73-K74)	14,464	5.3	5.3	14,301	5.2	5.3
Cholelithiasis and other disorders of gallbladder (K80-K82)	2.769	1.0	1.0	2.830	1.0	1.0
Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27)	37,672	13.7	13.7	35,525	13.0	13.1
Acute and rapidly progressive nephritic and nephrotic syndrome (N00-N01,N04)	176	0.1	0.1	182	0.1	0.1
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and	110	0.1	0.1	102	0.1	0.1
renal sclerosis, unspecified (N02-N03,N05-N07,N26)	546	0.2	0.2	589	0.2	0.2
Renal failure (N17-N19)	36.904	13.4	13.4	34.719	12.7	12.8
Other disorders of kidney (N25,N27)	47	0.0	0.0	35	0.0	0.0
Infections of kidney (N10-N12,N13.6,N15.1)	781	0.3	0.3	846	0.3	0.3
Hyperplasia of prostate (N40)	441	0.3	0.2	430	0.3	0.2
Inflammatory diseases of female pelvic organs (N70-N76)	113	0.0	0.2	108	0.2	0.2
Pregnancy, childbirth and the puerperium (O00-O99)	370	0.0	0.0	406	0.0	0.0
Pregnancy, with abortive outcome (O00-O07)	370	0.0	0.0	31	0.0	0.2
Other complications of pregnancy, childbirth and the puerperium (O10-O99)	333	0.0	0.0	375	0.0	0.0
Certain conditions originating in the perinatal period (P00-P96)	13.831	5.0				
	,		4.9	14,259	5.2	5.1
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	10,472	3.8	3.8	10,393	3.8	3.8
Symptoms, signs, and abnormal clinical and laboratory findings, not elsewhere classified	40.040	45.0	45.0	00.070	0.0	0.0
(R00-R99)	42,049	15.3	15.2	26,672	9.8	9.8
All other diseases (Residual)	177,980	64.7	64.6	171,683	63.0	63.4
Accidents (unintentional injuries) (V01-X59,Y85-Y86)	93,592	34.0	33.9	97,860	35.9	35.9
Transport accidents (V01-V99,Y85)	45,103	16.4	16.4	46,423	17.0	17.0
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)	41,804	15.2	15.2	42,401	15.5	15.5
Other land transport accidents						
(V01,V05-V06,V09.1,V09.3-V09.9,V10-V11,V15-V18,V19.3,V19.8-V19.9,V80.0-V80.2,						
V80.6-V80.9,V81.2-V81.9,V82.2-V82.9,V87.9,V88.9,V89.1,V89.3,V89.9)	1,513	0.5	0.5	2,118	0.8	0.8
Water, air and space, and other and unspecified transport accidents and their sequelae						
(V90-V99,Y85)	1,786	0.6	0.6	1,904	0.7	0.7
Nontransport accidents (W00-X59,Y86)	48,489	17.6	17.6	51,437	18.9	18.9
Falls (W00-W19)	12,604	4.6	4.6	13,162	4.8	4.8
Accidental discharge of firearms (W32-W34)	808	0.3	0.3	824	0.3	0.3
Accidental drowning and submersion (W65-W74)	3,343	1.2	1.2	3,529	1.3	1.3
Accidental exposure to smoke, fire and flames (X00-X09)	3,265	1.2	1.2	3,348	1.2	1.2
Accidental poisoning and exposure to noxious substances (X40-X49)	9,893	3.6	3.6	12,186	4.5	4.5
Other and unspecified nontransport accidents and their sequelae						
(W20-W31,W35-W64,W75-W99,X10-X39,X50-X59,Y86)	18,575	6.7	6.7	18,388	6.7	6.8
Intentional self-harm (suicide) (X60-X84,Y87.0)	28,332	10.3	10.3	29,199	10.7	10.7
Intentional self-harm (suicide) by discharge of firearms (X72-X74)	16,418	6.0	6.0	16,599	6.1	6.1
Intentional self-harm (suicide) by other and unspecified means and their sequelae						
(X60-X71,X75-X84,Y87.0)	11,914	4.3	4.4	12,600	4.6	4.6
Assault (homicide) (X85-Y09,Y87.1)	16,137	5.9	5.8	16,889	6.2	6.2
Assault (homicide) by discharge of firearms (X93-X95)	10,417	3.8	3.8	10,828	4.0	4.0
Assault (homicide) by other and unspecified means and their sequelae						
	F 740	0.4	0.4	0.004		
(X85-X92,X96-Y09,Y87.1)	5,719	2.1	2.1	6,061	2.2	2.2

National Vital Statistics Report, Vol. 49, No. 12, October 9, 2001

Table 2. Deaths, death rates, and age-adjusted death rates for 113 selected causes, Injury by firearms, Drug-induced deaths, Alcohol-induced deaths, and Injury at work: United States, final 1999 and preliminary 2000 - Con.

		2000			1999	
Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate	Age-adjusted rate	Number	Rate	Age-adjusted rate
Events of undetermined intent (Y10-Y34,Y87.2,Y89.9)	3,422 214	1.2 0.1	1.2 0.1	3,917 324	1.4 0.1	1.4 0.1
(Y10-Y21,Y25-Y34,Y87.2,Y89.9)  Operations of war and their sequelae (Y36,Y89.1)  Complications of medical and surgical care (Y40-Y84,Y88)	3,208 17 2,886	1.2 * 1.0	1.1 * 1.0	3,593 23 2,823	1.3 0.0 1.0	1.3 0.0 1.0
Injury by firearms <sup>1</sup> (W32-W34,X72-X74,X93-X95,Y22-Y24,Y35.0)	28,117	10.2	10.2	28,874	10.6	10.6
(F11.0-F11.5,F11.7-F11.9,F12.0-F12.5,F12.7-F12.9,F13.0-F13.5,F13.7-F13.9,F14.0-F14.5, F14.7-F14.9,F15.0-F15.5,F15.7-F15.9,F16.0-F16.5,F16.7-F16.9,F17.0,F17.3-F17.5, F17.7-F17.9,F18.0-F18.5,F18.7-F18.9,F19.0-F19.5,F19.7-F19.9,X40-X44,X60-X64,X85, Y10-Y14) Alcohol-induced deaths <sup>1</sup> (F10,G31.2,G62.1,I42.6,K29.2,K70,R78.0,X45,X65,Y15)	15,852 18,539	5.8 6.7	5.8 6.7	19,102 19,171	7.0 7.0	7.0 7.1
Injury at work <sup>2</sup>	5,291	2.4	2.4	5,651	2.6	2.6

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

NOTE: Data are subject to sampling and/or random variation. For information on the relative standard errors of the data and further discussion, see Technical notes.

<sup>-</sup> Quantity zero.

1 Included in selected categories.
2 Injury at work described in Technical notes.

		2000			9		
			Age-adjusted			Age-adjusted	
Area	Number	Rate	rate	Number	Rate	rate	
nited States <sup>1</sup>	2,404,598	873.6	872.4	2,391,399	877.0	881.9	
labama	45,075	1,027.3	1,013.6	44,806	1,025.3	1,021.1	
laska	2,911	467.9	863.0	2,708	437.1	834.4	
rizona	40,524	830.0	844.5	40,050	838.2	850.1	
rkansas	28,231	1,095.7	1,002.1	27,925	1,094.5	1,005.4	
alifornia	229,535	682.5	765.7	229,380	692.0	791.0	
olorado	27,335	660.8	789.7	27,114	668.5	801.2	
onnecticut	30,237	917.0	799.6	29,446	897.2	792.3	
elaware	6,862	900.2	918.4	6,666	884.6	904.6	
istrict of Columbia	5,957	1,149.2	1,036.2	6,076	1,170.7	1,082.7	
orida	164,401	1,072.3	828.9	163,224	1,080.1	833.9	
eorgia	63,980	805.5	1,004.2	62,028	796.4	983.9	
awaii	8,292	703.2	666.9	8,270	697.6	680.3	
aho	9,564	751.1	811.7	9,579	765.3	825.2	
inois	106,712	875.7	877.5	108,436	894.1	903.1	
diana	55,848	934.5	942.8	55,303	930.6	941.4	
wa	28,082	976.0	802.9	28,411	990.1	815.3	
ansas	24,720	927.3	852.0	24,472	922.1	850.5	
entucky	39,532	991.9	1,005.2	39,321	992.7	1,012.8	
ouisiana	41,150	940.6	1,020.4	41,238	943.2	1,040.7	
aine	12,377	983.4	888.4	12,261	978.5	896.3	
aryland	43,779	838.9	912.1	43,089	833.2	911.2	
assachusetts	56,475	910.3	815.3	55,840	904.3	816.7	
ichigan	86,967	876.8	892.8	87,232	884.4	906.9	
innesota	37,752	782.0	767.2	38,537	807.0	792.2	
ississippi	28,671	1,028.7	1,074.8	28,185	1,018.0	1,064.9	
issouri	54,880	997.4	928.3	55,931	1,022.8	954.1	
ontana	8,104	912.7	843.8	8,128	920.7	861.2	
ebraska	14,988	897.3	798.1	15,579	935.1	838.7	
evada	15,263	811.7	951.5	15,082	833.6	967.1	
ew Hampshire	9,703	798.0	837.6	9,537	794.0	835.2	
ew Jersey	75,681	922.4	863.6	73,981	908.5	857.8	
ew Mexico	13,488	771.7	839.9	13,676	786.0	875.7	
ew York	158,137	865.2	808.3	159,927	878.9	836.0	
orth Carolina	71,995	929.3	964.5	69,600	909.7	943.6	
	,						
orth Dakota	5,860	931.2	766.9 *	6,103	963.1	802.6	
hio <sup>2</sup>	25.065	1.042.2		108,517	964.0	933.6	
klahoma	35,265	1,043.3	991.7	34,700	1,033.3	985.0	
regon	29,562	884.8	834.5	29,422	887.2	839.2	
ennsylvania	130,814	1,091.5	903.6	130,283	1,086.2	907.5	
hode Island	10,030	1,006.9	827.2	9,708	979.8	812.8	
outh Carolina	36,948	941.5	993.4	36,053	927.8	996.0	
outh Dakota	7,024	952.7	813.5	6,953	948.4	820.2	
ennessee	55,318	999.7	1,021.2	53,765	980.5	1,001.9	
exas	148,554	728.6	887.8	146,858	732.7	892.2	
tah	12,370	571.5	786.7	12,058	566.1	787.1	
ermont	5,142	860.1	856.5	4,993	840.9	843.9	
rginia	56,161	805.7	897.9	55,320	804.9	905.9	
ashington	43,976	756.8	807.2	43,865	762.0	816.1	
est Virginia	21.078	1,169.5	1,010.7	21,049	1,164.9	1,013.3	
isconsin	46,519	878.5	827.6	46,672	888.9	838.1	
yoming	3,918	814.7	860.1	4,042	842.8	909.0	
uerto Rico <sup>3</sup>	56,738	1,449.0	1,762.2	57,934	1,489.4	1,833.9	
irgin Islands <sup>3</sup>	644	532.6	733.5	659	550.9	805.2	
uam <sup>3</sup>	648	419.1	723.5	693	456.0	832.9	
merican Samoa <sup>3</sup>							
				246	385.7	832.8	
orthern Marianas 3				162	234.0	1,016.9	

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

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

-- Data not available.

1 Excludes data for U.S. territories.

2 Due to data processing problems, Ohio data for 12 months ending December 2000 are not shown separately but are included in U.S. totals; see Technical notes.

3 Age-adjusted death rates for U.S. territories are calculated using different age groups in the weighting procedure; see Technical notes.

Table 4. Infant deaths and infant mortality rates, by age and race and Hispanic origin: United States, final 1999 and preliminary 2000

[Data are based on a continuous file of records received from the States. Rates per 1,000 live births. Figures for 2000 are based on weighted data rounded to the nearest individual, so categories may not add to totals. Rates for Hispanic origin should be interpreted with caution because of inconsistencies between reporting Hispanic origin on birth and death certificates; see Technical notes]

	200	00	199	99
Age and race/Hispanic origin	Number	Rate	Number	Rate
All races <sup>1</sup>				
Under 1 year	27,987 18,737 9,250	6.9 4.6 2.3	27,937 18,728 9,209	7.1 4.7 2.3
White, total <sup>2</sup>	3,200	2.0	3,203	2.0
Under 1 year Under 28 days28 days-11 months	18,216 12,263 5,954	5.7 3.8 1.9	18,067 12,164 5,903	5.8 3.9 1.9
White, non-Hispanic				
Under 1 year	13,579 9,127 4,452	5.7 3.8 1.9	13,553 9,054 4,499	5.8 3.9 1.9
Black, total <sup>2</sup>				
Under 1 year Under 28 days 28 days-11 months	8,665 5,750 2,915	14.0 9.3 4.7	8,822 5,920 2,902	14.6 9.8 4.8
Hispanic <sup>3</sup>				
Under 1 year Under 28 days	4,572 3,034 1,538	5.6 3.7 1.9	4,412 2,986 1,426	5.8 3.9 1.9

NOTE: Data are subject to sampling and/or random variation. For information on the relative standard errors of the data and further discussion, see Technical notes.

<sup>1</sup> Includes races other than white and black.
2 Race and Hispanic origin are reported separately on both the birth and death certificates. 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.

Includes all persons of Hispanic origin of any race; see Technical notes.

Table 5. Infant deaths and infant mortality rates for 130 selected causes: United States, final 1999 and preliminary 2000

	200	00	199	1999		
Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate	Number	Rate		
All causes	27,983	688.4	27,937	705.6		
Certain infectious and parasitic diseases (A00-B99)	528	13.0	562	14.2		
Certain intestinal infectious diseases (A00-A08)	8	*	21	0.5		
Diarrhea and gastroenteritis of infectious origin (A09)	1	*	-	*		
Tuberculosis (A16-A19)	1	*	2	*		
Tetanus (A33,A35)	-	*	-	*		
Diphtheria (A36)	-	*	-	*		
Whooping cough (A37)	12	*	7	*		
Meningococcal infection (A39)	20	0.5	32	0.8		
Septicemia (A40-A41)	289	7.1	283	7.1		
Congenital syphilis (A50)		*	2	*		
Gonococcal infection (A54)	-	*	-	*		
Viral diseases (A80-B34)		2.7	134	3.4		
Acute poliomyelitis (A80)	-	*	-	*		
Varicella (chickenpox) (B01)	1	*	3	*		
Measles (B05)	1	*	1	*		
Human immunodeficiency virus (HIV) disease (B20-B24)	8	*	14	*		
Mumps (B26)		*	-	*		
Other and unspecified viral diseases (A81-B00,B02-B04,B06-B19,B25,B27-B34)	98	2.4	116	2.9		
Candidiasis (B37)		0.8	27	0.7		
Malaria (B50-B54)		*	1	*		
Pneumocystosis (B59)		*	4	*		
All other and unspecified infectious and parasitic diseases	ŭ		·			
(A20-A32,A38,A42-A49,A51-A53,A55-A79,B35-B36,B38-B49,B55-B58,B60-B99)	53	1.3	49	1.2		
Neoplasms (C00-D48)		3.8	126	3.2		
Malignant neoplasms (C00-C97)		2.4	68	1.7		
Hodgkin's disease and non-Hodgkin's lymphomas (C81-C85)		*	2	*		
Leukemia (C91-C95)		1.1	27	0.7		
Other and unspecified malignant neoplasms (C00-C80,C88,C90,C96-C97)		1.3	39	1.0		
In situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48)		1.4	58	1.5		
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50-D89)	71	1.7	94	2.4		
Anemias (D50-D64)		*	12	*		
Hemorrhagic conditions and other diseases of blood and blood-forming organs (D65-D76)		1.0	64	1.6		
Certain disorders involving the immune mechanism (D80-D89)		*	18	*		
Endocrine, nutritional and metabolic diseases (E00-E88)		6.6	261	6.6		
Short stature, not elsewhere classified (E34.3)		0.6	24	0.6		
Nutritional deficiencies (E40-E64)		v.0	9	v.0		
Cystic fibrosis (E84)		*	12	*		
Volume depletion, disorders of fluid, electrolyte and acid-base balance (E86-E87)	-	2.0	73	1.8		
All other endocrine, nutritional and metabolic diseases (E00-E32,E34.0-E34.2,E34.4-E34.9,E65-E83,E85,E88)		3.7	143	3.6		
		3.7 9.7	143 441			
Diseases of the nervous system (G00-G98)		9.7 2.4		11.1		
Meningitis (G00,G03)			116	2.9		
Infantile spinal muscular atrophy, type I (Werdnig-Hoffman) (G12.0)		0.9	42 13	1.1		
Infantile cerebral palsy (G80)				4.0		
Anoxic brain damage, not elsewhere classified (G93.1)		0.9	39	1.0		
Other diseases of nervous system (G04,G06-G11,G12.1-G12.9,G20-G72,G81-G92,G93.0,G93.2-G93.9,G95-G98)		5.4	231	5.8		
Diseases of the ear and mastoid process (H60-H93)		45.5	4	*		
Diseases of the circulatory system (I00-I99)		15.5	667	16.8		
Pulmonary heart disease and diseases of pulmonary circulation (I26-I28)	182	4.5	218	5.5		

Table 5. Infant deaths and infant mortality rates for 130 selected causes: United States, final 1999 and preliminary 2000 - Con.

		00	1999	
Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate	Number	Rate
Pericarditis, endocarditis and myocarditis (I30,I33,I40)	13	*	20	0.5
Cardiomyopathy (I42)	96	2.4	132	3.3
Cardiac arrest (146)	31	0.8	27	0.7
Cerebrovascular díseases (I60-I69)	125	3.1	103	2.6
All other diseases of circulatory system (I00-I25,I31,I34-I38,I44-I45,I47-I51,I70-I99)	185	4.6	167	4.2
Diseases of the respiratory system (J00-J98)		15.1	687	17.4
Acute upper respiratory infections (J00-J06)		*	10	*
Influenza and pneumonia (J10-J18)		6.4	320	8.1
Influenza (J10-J11)		*	13	*
Pneumonia (J12-J18)		6.2	307	7.8
Acute bronchitis and acute bronchiolitis (J20-J21)		1.3	62	1.6
Bronchitis, chronic and unspecified (J40-J42)		*	20	0.5
Asthma (J45-J46)		*	5	*
Pneumonitis due to solids and liquids (J69)		*	16	*
Other and unspecified diseases of respiratory system (J22,J30-J39,J43-J44,J47-J68,J70-J98)		6.5	254	6.4
Diseases of the digestive system (K00-K92)		12.4	500	12.6
Gastritis, duodenitis, and noninfective enteritis and colitis (K29,K50-K55)		6.0	242	6.1
Hernia of abdominal cavity and intestinal obstruction without hernia (K40-K46,K56)		2.0	66	1.7
All other and unspecified diseases of digestive system (K00-K28,K30-K38,K57-K92)		4.4	192	4.8
Diseases of the genitourinary system (N00-N98)		4.9	192	4.8
Renal failure and other disorders of kidney (N17-N19,N25,N27)		3.7	163	4.1
Other and unspecified diseases of genitourinary system (N00-N15,N20-N23,N26,N28-N98)		1.2	29	0.7
Certain conditions originating in the perinatal period (P00-P96)		334.6	14,084	355.7
Newborn affected by maternal factors and by complications of pregnancy, labor and delivery (P00-P04)		66.1	2,738	69.2
Newborn affected by maternal hypertensive disorders (P00.0)		1.4	71	1.8
Newborn affected by other maternal conditions which may be unrelated to present pregnancy (P00.1-P00.9)		1.7	68	1.7
Newborn affected by maternal complications of pregnancy (P01)		33.8	1,399	35.3
Newborn affected by incompetent cervix (P01.0)	402	9.9	384	9.7
Newborn affected by premature rupture of membranes (P01.1)	588	14.5	647	16.3
Newborn affected by multiple pregnancy (P01.5)	215	5.3	225	5.7
Newborn affected by other maternal complications of pregnancy (P01.2-P01.4.P01.6-P01.9)	167	4.1	143	3.6
Newborn affected by complications of placenta, cord and membranes (P02)	1,028	25.3	1,025	25.9
Newborn affected by complications involving placenta (P02.0-P02.3)	550	13.5	530	13.4
Newborn affected by complications involving cord (P02.4-P02.6)		1.4	64	1.6
Newborn affected by chorioamnionitis (P02.7)		10.3	430	10.9
Newborn affected by other and unspecified abnormalities of membranes (P02.8-P02.9)		*	1	*
Newborn affected by other complications of labor and delivery (P03)		3.2	145	3.7
Newborn affected by noxious influences transmitted via placenta or breast milk (P04)		0.7	30	0.8
Disorders related to length of gestation and fetal malnutrition (P05-P08)		107.5	4.454	112.5
Slow fetal growth and fetal malnutrition (POS)		1.6	62	1.6
Disorders related to short gestation and low birth weight, not elsewhere classified (P07)		105.8	4,392	110.9
Extremely low birth weight or extreme immaturity (P07.0,P07.2)		79.2	3,324	84.0
Other low birth weight or preterm (P07.1,P07.3)		26.5	1,068	27.0
Disorders related to long gestation and high birth weight (P08)		0.0	-	0.5
Birth trauma (P10-P15)		0.8	20	0.5
Intrauterine hypoxia and birth asphyxia (P20-P21)		15.8	613	15.5
Intrauterine hypoxia (P20)		2.9	114	2.9
Birth asphyxia (P21)		12.9	499	12.6
Respiratory distress of newborn (P22)		25.0	1,110	28.0
Other respiratory conditions originating in the perinatal period (P23-P28)	1.485	36.5	1.718	43.4

Table 5. Infant deaths and infant mortality rates for 130 selected causes: United States, final 1999 and preliminary 2000 - Con.

Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)   Number   Rate   Number   Rate	-		00	1999	
Neonatal aspiration syndromes (P24)   84   21   Interstitial emphysema and related conditions originating in the perinatal period (P25)   255   5.8   230   5.8   Pulmonary hemorrhage originating in the perinatal period (P26)   269   6.6   269   6.8   Chronic respiratory diseases originating in the perinatal period (P27)   304   7.5   336   8.5   Atlectasis (P28.0-P28.1)   465   11.4   647   16.3   All other respiratory conditions originating in the perinatal period (P28-P28.9)   66   11.6   70   1.8   Infections specific to the perinatal period (P36-P39)   876   21.6   871   22.0   Bacterial spessos of newborn (P36)   723   17.8   691   17.5   Omphalitis of newborn with or without mild hemorrhage (P38)   1   1   1   1   1   1   1   1   1	Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate	Number	Rate
Intenstitial emphysema and related conditions originating in the perinatal period (P25)			2.1	82	2.1
Pulmonary hemorrhage originating in the perinatal period (P28)   6.8   269   6.8   269   6.8   269   6.8   260			1.4	84	2.1
Chronic respiratory disease originating in the perinatal period (P27)	Interstitial emphysema and related conditions originating in the perinatal period (P25)	235	5.8	230	5.8
All other respiratory conditions originating in the perinatal period (P28.2-P28.9)  All other respiratory conditions originating in the perinatal period (P28.2-P28.9)  Bacterial sepsis of newborn (P36)  723 17.8 661 17.5  Omphalitis of newborn with or without mild hemorrhage (P38)  All other inections specific to the perinatal period (P35.P37)  Menhalitis of newborn with or without mild hemorrhage (P38)  All other infections specific to the perinatal period (P35.P37.P39)  1	Pulmonary hemorrhage originating in the perinatal period (P26)	269	6.6	269	6.8
All other respiratory conditions originating in the perinatal period (P28.2-P28.9).  All other respiratory conditions originating in the perinatal period (P36-P39).  Bacterial sepsis of newborn (P36).  T23 17.8 691 17.5  Comphalitis of newborn with or without mild hemorrhage (P38).  All other infections specific to the perinatal period (P36,P37,P39).  152 3.7 180 4.5  All other infections specific to the perinatal period (P36,P37,P39).  152 3.7 180 4.5  Hemorrhagic and hematological disorders of newborn (P50-P61).  154 14.1 506 12.8  Neonatal hemorrhage (P50-P52,P54).  155 4 14.1 506 12.8  Neonatal hemorrhage (P50-P52,P54).  156 12.8  Hemorrhagic disease of newborn (P53).  157 16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Chronic respiratory disease originating in the perinatal period (P27)	304	7.5	336	8.5
Infections specific to the perinatal period (P35-P39)			11.4	647	16.3
Bacterial sepsis of newborn (P36)					
Omphalitis of newborn with or without mild hemorrhage (P38)   152   3.7   180   4.5			21.6	871	22.0
All other infections specific to the perinatal period (P35, P37, P39)  Hemorrhagic and hematological disorders of newborn (P50-P61)  Neonatal hemorrhage (P50-P52, P54)  Hemorrhagic (ledesae of newborn (P53)  Hemorrhagic (ledesae of newborn (P57)  Hemorrhagic (ledesae of newborn (P50-P61)  Norcotizing enterocolitis of newborn (P57)  Nor			17.8	691	17.5
Hemorrhagic and hematological disorders of newborn (P50-P61)	Omphalitis of newborn with or without mild hemorrhage (P38)	1	*	-	*
Neonatal hemorrhage (P50-P52,P54)   14.1   506   12.8	All other infections specific to the perinatal period (P35,P37,P39)	152	3.7	180	4.5
Hemorthagic disease of newborn (P53)			17.1	619	15.6
Hematological disorders (P60-P61)			14.1	506	12.8
Hematological disorders (P60-P61)	Hemorrhagic disease of newborn (P53)		*	1	*
Syndrome of infant of a diabetic mother and neonatal diabetes mellitus (P70.0-P70.2)			0.5	16	*
Necrotizing enterocolitis of newborn (P77)   366   9.0   404   10.2			2.5	96	2.4
Hydrops fetalis not due to hemolytic disease (P83.2)   159   3.9   189   4.8   3.0   3.8			*	8	*
Other perinatal conditions (P29,P70.3-P70.9,P71-P76,P78-P81,P83.0-P83.1,P83.3-P83.9,P90-P96)         1,265         31.1         1,340         33.8           Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)         5,779         142.2         5,473         138.2           Anencephaly and similar malformations (Q00)         328         8.1         311         7.9           Congenital hydrocephalus (Q03)         97         2.4         93         2.3           Spina bifida (Q05)         28         0.7         22         0.6           Other congenital malformations of nervous system (Q01-Q02,Q04,Q06-Q07)         314         7.7         264         6.7           Congenital malformations of heart (Q20-Q24)         1,660         40.8         1,598         40.4           Other congenital malformations of circulatory system (Q30-Q34)         187         4.6         220         5.6           Congenital malformations of digestive system (Q30-Q34)         82         2.0         93         2.3           Congenital malformations of genitourinary system (Q30-Q44)         82         2.0         93         2.3           Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85)         437         10.8         486         12.3           Down's syndrome (Q90)			9.0	404	10.2
Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)   5,779   142.2   5,473   138.2     Anencephaly and similar malformations (Q00)   328   8.1   311   7.9     Congenital hydrocephalus (Q03)   97   2.4   93   2.3     Spina bifidia (Q05)   28   0.7   22   0.6     Other congenital malformations of nervous system (Q01-Q02,Q04,Q06-Q07)   314   7.7   264   6.7     Congenital malformations of heart (Q20-Q24)   1,660   40.8   1,598   40.4     Other congenital malformations of circulatory system (Q25-Q28)   187   4.6   220   5.6     Congenital malformations of respiratory system (Q30-Q34)   681   16.8   564   14.2     Congenital malformations of digestive system (Q35-Q45)   82   2.0   93   2.3     Congenital malformations of digestive system (Q35-Q45)   82   2.0   93   2.3     Congenital malformations of genitourinary system (Q50-Q64)   326   8.0   366   9.2     Congenital malformations of musculoskeletal system, limbs and integument (Q65-Q85)   437   10.8   446   12.3     Down's syndrome (Q90)   88   2.2   94   2.4     Edward's syndrome (Q91-Q91.3)   523   12.9   439   11.1     Patau's syndrome (Q91-Q91.7)   523   12.9   439   11.1     Cother congenital malformations and deformations (Q10-Q18,Q86-Q89)   568   14.0   507   12.8     Other chromosomal abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)   3.997   98.3   3.538   89.4     Sudden infant death syndrome (R95)   2,151   52.9   2,648   66.9     Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)   1,846   45.4   890   22.5     All other diseases (Residual)   32   0.8   23   0.6     External causes of mortality (V01-Y84)   32.5   32.5     Accidents (unintentional injuries) (V01-X59)   826   20.3   845   21.3			3.9	189	4.8
Anencephaly and similar malformations (Q00) Congenital hydrocephalus (Q03) 97 24 93 2.3 Spina biffida (Q05) 28 0.7 Cother congenital malformations of nervous system (Q01-Q02,Q04,Q06-Q07) 314 7.7 Congenital malformations of heart (Q20-Q24) 1,660 Other congenital malformations of circulatory system (Q25-Q28) 1,660 Cother congenital malformations of circulatory system (Q25-Q28) 1,660 Congenital malformations of circulatory system (Q30-Q34) 1,660 Congenital malformations of digestive system (Q30-Q34) 1,660 Congenital malformations of digestive system (Q35-Q45) 1,660 Congenital malformations of digestive system (Q35-Q45) 1,660	Other perinatal conditions (P29,P70.3-P70.9,P71-P76,P78-P81,P83.0-P83.1,P83.3-P83.9,P90-P96)	1,265	31.1	1,340	33.8
Congenital hydrocephalus (Q03)   97   2.4   93   2.3	Congenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	5,779	142.2	5,473	138.2
Spina bifida (Q05)         28         0.7         22         0.6           Other congenital malformations of nervous system (Q01-Q02,Q04,Q06-Q07)         314         7.7         264         6.7           Congenital malformations of heart (Q20-Q24)         1,660         40.8         1,598         40.4           Other congenital malformations of circulatory system (Q25-Q28)         187         4.6         220         5.6           Congenital malformations of circulatory system (Q35-Q45)         681         16.8         564         14.2           Congenital malformations of digestive system (Q35-Q45)         82         2.0         93         2.3           Congenital malformations of genitourinary system (Q50-Q64)         326         8.0         366         9.2           Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85)         437         10.8         486         12.3           Down's syndrome (Q90)         8         2.2         94         2.4           Edward's syndrome (Q91.0-Q91.3)         523         12.9         439         11.1           Patau's syndrome (Q91.4-Q91.7)         301         7.4         250         6.3           Other congenital malformations and deformations (Q10-Q18,Q86-Q89)         568         14.0         507 <t< td=""><td></td><td></td><td>8.1</td><td>311</td><td>7.9</td></t<>			8.1	311	7.9
Spina bifida (Q05)         28         0.7         22         0.6           Other congenital malformations of nervous system (Q01-Q02,Q04,Q06-Q07)         314         7.7         264         6.7           Congenital malformations of heart (Q20-Q24)         1,660         40.8         1,598         40.4           Other congenital malformations of circulatory system (Q25-Q28)         187         4.6         220         5.6           Congenital malformations of circulatory system (Q35-Q45)         681         16.8         564         14.2           Congenital malformations of digestive system (Q35-Q45)         82         2.0         93         2.3           Congenital malformations of genitourinary system (Q50-Q64)         326         8.0         366         9.2           Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85)         437         10.8         486         12.3           Down's syndrome (Q90)         8         2.2         94         2.4           Edward's syndrome (Q91.0-Q91.3)         523         12.9         439         11.1           Patau's syndrome (Q91.4-Q91.7)         301         7.4         250         6.3           Other congenital malformations and deformations (Q10-Q18,Q86-Q89)         568         14.0         507 <t< td=""><td>Congenital hydrocephalus (Q03)</td><td>97</td><td>2.4</td><td>93</td><td>2.3</td></t<>	Congenital hydrocephalus (Q03)	97	2.4	93	2.3
Congenital malformations of heart (Q20-Q24)         1,660         40.8         1,598         40.4           Other congenital malformations of circulatory system (Q25-Q28)         187         4.6         220         5.6           Congenital malformations of respiratory system (Q30-Q34)         681         16.8         564         14.2           Congenital malformations of digestive system (Q35-Q45)         82         2.0         93         2.3           Congenital malformations of genitourinary system (Q50-Q64)         326         8.0         366         9.2           Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85)         437         10.8         486         12.3           Down's syndrome (Q90)         88         2.2         94         2.4           Edward's syndrome (Q91.0-Q91.3)         523         12.9         439         11.1           Patau's syndrome (Q91.0-Q91.3)         301         7.4         250         6.3           Other congenital malformations and deformations (Q10-Q18,Q86-Q89)         568         14.0         507         12.8           Other chromosomal abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)         3.99         98.3         3,538         89.4           Sudden infant death syndrome (R95)         2,151	Spina bifida (Q05)	28	0.7	22	0.6
Other congenital malformations of circulatory system (Q25-Q28)         187         4.6         220         5.6           Congenital malformations of respiratory system (Q30-Q34)         681         16.8         564         14.2           Congenital malformations of digestive system (Q35-Q45)         82         2.0         93         2.3           Congenital malformations of genitourinary system (Q50-Q64)         326         8.0         366         9.2           Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85)         437         10.8         486         12.3           Down's syndrome (Q90)         88         2.2         94         2.4           Edward's syndrome (Q91.0-Q91.3)         523         12.9         439         11.1           Patau's syndrome (Q91.4-Q91.7)         301         7.4         250         6.3           Other congenital malformations and deformations (Q10-Q18,Q86-Q89)         568         14.0         507         12.8           Other chromosomal abnormalities, not elsewhere classified (Q92-Q99)         159         3.9         166         4.2           Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)         3,997         98.3         3,538         89.4           (R00-R53,R55-R94,R96-R99) <td< td=""><td></td><td></td><td>7.7</td><td>264</td><td>6.7</td></td<>			7.7	264	6.7
Congenital malformations of respiratory system (Q30-Q34)         681         16.8         564         14.2           Congenital malformations of digestive system (Q35-Q45)         82         2.0         93         2.3           Congenital malformations of genitourinary system (Q50-Q64)         326         8.0         366         9.2           Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85)         437         10.8         486         12.3           Down's syndrome (Q90)         88         2.2         94         2.4           Edward's syndrome (Q91.0-Q91.3)         523         12.9         439         11.1           Patau's syndrome (Q91.4-Q91.7)         301         7.4         250         6.3           Other congenital malformations and deformations (Q10-Q18,Q86-Q89)         568         14.0         507         12.8           Other congenital malformations and deformations (Q10-Q18,Q86-Q89)         568         14.0         507         12.8           Other congenital malformations and deformations (Q10-Q18,Q86-Q89)         568         14.0         507         12.8           Other congenital malformations and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)         3,997         98.3         3,538         89.4           Sudden infant death sy	Congenital malformations of heart (Q20-Q24)	1,660	40.8	1,598	40.4
Congenital malformations of digestive system (Q35-Q45)         82         2.0         93         2.3           Congenital malformations of genitourinary system (Q50-Q64)         326         8.0         366         9.2           Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85)         437         10.8         486         12.3           Down's syndrome (Q90)         88         2.2         94         2.4           Edward's syndrome (Q91.0-Q91.3)         523         12.9         439         11.1           Patau's syndrome (Q91.4-Q91.7)         301         7.4         250         6.3           Other congenital malformations and deformations (Q10-Q18,Q86-Q89)         568         14.0         507         12.8           Other congenital malformations, not elsewhere classified (Q92-Q99)         159         3.9         166         4.2           Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)         3,997         98.3         3,538         89.4           Sudden infant death syndrome (R95)         2,151         52.9         2,648         66.9           Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R93)         1,846         45.4         890         22.5           All other diseas			4.6	220	5.6
Congenital malformations of genitourinary system (Q50-Q64)       326       8.0       366       9.2         Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85)       437       10.8       486       12.3         Down's syndrome (Q90)       88       2.2       94       2.4         Edward's syndrome (Q91.0-Q91.3)       523       12.9       439       11.1         Patau's syndrome (Q91.4-Q91.7)       301       7.4       250       6.3         Other congenital malformations and deformations (Q10-Q18,Q86-Q89)       568       14.0       507       12.8         Other chromosomal abnormalities, not elsewhere classified (Q92-Q99)       159       3.9       166       4.2         Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)       3,997       98.3       3,538       89.4         Sudden infant death syndrome (R95)       2,151       52.9       2,648       66.9         Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R93)       1,846       45.4       890       22.5         All other diseases (Residual)       32       0.8       23       0.6         External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5 <t< td=""><td></td><td></td><td>16.8</td><td>564</td><td>14.2</td></t<>			16.8	564	14.2
Congenital malformations and deformations of musculoskeletal system, limbs and integument (Q65-Q85)       437       10.8       486       12.3         Down's syndrome (Q90)       88       2.2       94       2.4         Edward's syndrome (Q91.0-Q91.3)       523       12.9       439       11.1         Patau's syndrome (Q91.4-Q91.7)       301       7.4       250       6.3         Other congenital malformations and deformations (Q10-Q18,Q86-Q89)       568       14.0       507       12.8         Other chromosomal abnormalities, not elsewhere classified (Q92-Q99)       159       3.9       166       4.2         Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)       3,997       98.3       3,538       89.4         Sudden infant death syndrome (R95)       2,151       52.9       2,648       66.9         Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified       1,846       45.4       890       22.5         All other diseases (Residual)       32       0.8       23       0.6         External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5         Accidents (unintentional injuries)(V01-X59)       826       20.3       845       21.3	Congenital malformations of digestive system (Q35-Q45)	82			
Down's syndrome (Q90)         88         2.2         94         2.4           Edward's syndrome (Q91.0-Q91.3)         523         12.9         439         11.1           Patau's syndrome (Q91.4-Q91.7)         301         7.4         250         6.3           Other congenital malformations and deformations (Q10-Q18,Q86-Q89)         568         14.0         507         12.8           Other chromosomal abnormalities, not elsewhere classified (Q92-Q99)         159         3.9         166         4.2           Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)         3,997         98.3         3,538         89.4           Sudden infant death syndrome (R95)         2,151         52.9         2,648         66.9           Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)         1,846         45.4         890         22.5           All other diseases (Residual)         32         0.8         23         0.6           Ketternal causes of mortality (V01-Y84)         32         0.8         23         0.6           Accidents (unintentional injuries)(V01-X59)         826         20.3         845         21.3	Congenital malformations of genitourinary system (Q50-Q64)	326	8.0	366	9.2
Edward's syndrome (Q91.0-Q91.3)       523       12.9       439       11.1         Patau's syndrome (Q91.4-Q91.7)       301       7.4       250       6.3         Other congenital malformations and deformations (Q10-Q18,Q86-Q89)       568       14.0       507       12.8         Other chromosomal abnormalities, not elsewhere classified (Q92-Q99)       159       3.9       166       4.2         Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)       3,997       98.3       3,538       89.4         Sudden infant death syndrome (R95)       2,151       52.9       2,648       66.9         Other symptoms, signs and abnormal clinical and laboratory findings,not elsewhere classified (R00-R53,R55-R94,R96-R99)       1,846       45.4       890       22.5         All other diseases (Residual)       32       0.8       23       0.6         External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5         Accidents (unintentional injuries)(V01-X59)       826       20.3       845       21.3				486	12.3
Patau's syndrome (Q91.4-Q91.7)       301       7.4       250       6.3         Other congenital malformations and deformations (Q10-Q18,Q86-Q89)       568       14.0       507       12.8         Other chromosomal abnormalities, not elsewhere classified (Q92-Q99)       159       3.9       166       4.2         Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)       3,997       98.3       3,538       89.4         Sudden infant death syndrome (R95)       2,151       52.9       2,648       66.9         Other symptoms, signs and abnormal clinical and laboratory findings,not elsewhere classified (R00-R53,R55-R94,R96-R99)       1,846       45.4       890       22.5         All other diseases (Residual)       32       0.8       23       0.6         External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5         Accidents (unintentional injuries)(V01-X59)       826       20.3       845       21.3	Down's syndrome (Q90)	88	2.2	94	2.4
Other congenital malformations and deformations (Q10-Q18,Q86-Q89)       568       14.0       507       12.8         Other chromosomal abnormalities, not elsewhere classified (Q92-Q99)       159       3.9       166       4.2         Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)       3,997       98.3       3,538       89.4         Sudden infant death syndrome (R95)       2,151       52.9       2,648       66.9         Other symptoms, signs and abnormal clinical and laboratory findings,not elsewhere classified (R00-R53,R55-R94,R96-R99)       1,846       45.4       890       22.5         All other diseases (Residual)       32       0.8       23       0.6         External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5         Accidents (unintentional injuries)(V01-X59)       826       20.3       845       21.3	Edward's syndrome (Q91.0-Q91.3)	523	12.9	439	11.1
Other chromosomal abnormalities, not elsewhere classified (Q92-Q99)       159       3.9       166       4.2         Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)       3,997       98.3       3,538       89.4         Sudden infant death syndrome (R95)       2,151       52.9       2,648       66.9         Other symptoms, signs and abnormal clinical and laboratory findings,not elsewhere classified (R00-R53,R55-R94,R96-R99)       1,846       45.4       890       22.5         All other diseases (Residual)       32       0.8       23       0.6         External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5         Accidents (unintentional injuries) (V01-X59)       826       20.3       845       21.3	Patau's syndrome (Q91.4-Q91.7)	301	7.4	250	6.3
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)       3,997       98.3       3,538       89.4         Sudden infant death syndrome (R95)       2,151       52.9       2,648       66.9         Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified       1,846       45.4       890       22.5         All other diseases (Residual)       32       0.8       23       0.6         External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5         Accidents (unintentional injuries)(V01-X59)       826       20.3       845       21.3			14.0	507	12.8
Sudden infant death syndrome (R95)       2,151       52.9       2,648       66.9         Other symptoms, signs and abnormal clinical and laboratory findings,not elsewhere classified         1,846       45.4       890       22.5         All other diseases (Residual)       32       0.8       23       0.6         External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5         Accidents (unintentional injuries)(V01-X59)       826       20.3       845       21.3			3.9	166	4.2
Other symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R53, R55-R94, R96-R99)       1,846       45.4       890       22.5         All other diseases (Residual)       32       0.8       23       0.6         External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5         Accidents (unintentional injuries)(V01-X59)       826       20.3       845       21.3	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00-R99)	3,997	98.3	3,538	89.4
(R00-R53,R55-R94,R96-R99)       1,846       45.4       890       22.5         All other diseases (Residual)       32       0.8       23       0.6         External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5         Accidents (unintentional injuries)(V01-X59)       826       20.3       845       21.3		2,151	52.9	2,648	66.9
All other diseases (Residual)       32       0.8       23       0.6         External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5         Accidents (unintentional injuries)(V01-X59)       826       20.3       845       21.3					
External causes of mortality (V01-Y84)       1,205       29.6       1,285       32.5         Accidents (unintentional injuries)(V01-X59)       826       20.3       845       21.3	(R00-R53,R55-R94,R96-R99)	1,846	45.4	890	22.5
Accidents (unintentional injuries)(V01-X59)				23	0.6
	External causes of mortality (V01-Y84)	1,205	29.6	1,285	32.5
	Accidents (unintentional injuries)(V01-X59)	826	20.3	845	21.3
	Transport accidents (V01-V99)	171	4.2	189	4.8
Motor vehicle accidents	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)	V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2)	167	4.1	184	4.6
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)	V82.2-V82.9,V87.9,V88.9,V89.1,V89.3,V89.9,V90-V99)	4	*	5	*

National Vital Statistics Report, Vol. 49, No. 12, October 9, 2001

Table 5. Infant deaths and infant mortality rates for 130 selected causes: United States, final 1999 and preliminary 2000 - Con.

	2000		199	9
Cause of death (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate	Number	Rate
Falls (W00-W19)	7	*	12	*
Falls (W00-W19) Accidental discharge of firearms (W32-W34) Accidental drowning and submersion (W65-W74) Accidental suffocation and strangulation in bed (W75)	-	*	-	*
Accidental drowning and submersion (W65-W74)	77	1.9	68	1.7
Accidental suffocation and strangulation in bed (W75)	235	5.8	255	6.4
Other accidental suffocation and strangulation (W76-W77,W81-W84)	167	4.1	154	3.9
Accidental inhalation and ingestion of food or other objects causing obstruction of respiratory tract (W78-W80)	66	1.6	63	1.6
Accidents caused by exposure to smoke, fire and flames (X00-X09)	36	0.9	41	1.0
Accidental poisoning and exposure to noxious substances (X40-X49)	10	*	12	*
Other and unspecified accidents (W20-W31,W35-W64,W85-W99,X10-X39,X50-X59)	57	1.4	51	1.3
ssault (homicide) (X85-Y09)	304	7.5	331	8.4
Assault (homicide) by hanging, strangulation and suffocation (X91)	21	0.5	34	0.9
Assault (homicide) by discharge of firearms (X93-X95)	13	*	8	*
Neglect, abandonment and other maltreatment syndromes (Y06-Y07)	105	2.6	125	3.2
Assault (homicide) by other and unspecified means (X85-X90,X92,X96-X99,Y00-Y05,Y08-Y09)	165	4.1	164	4.
omplications of medical and surgical care (Y40-Y84)ther external causes (X60-X84,Y10-Y36)	24	0.6	54	1.4
hther external causes (X60-X84,Y10-Y36)	51	1.3	55	1.4

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

NOTE: Data are subject to sampling and/or random variation. For information on the relative standard errors of the data and further discussion, see Technical notes.

<sup>-</sup> Quantity zero.

Table 6. Expectation of life by age, race, and sex: United States, final 1999 and preliminary 2000

[Data are based on a continuous file of records received from the States]

	Both	sexes	M	ale	Fen	nale
Age (Years) and race	2000	1999	2000	1999	2000	1999
All races <sup>1</sup>						
All Taces						
0	76.9	76.7	74.1	73.9	79.5	79.4
1	76.4	76.3	73.7	73.5	79.0	78.9
5	72.5	72.4	69.8	69.6	75.1	75.0
16	67.6 62.6	67.4 62.5	64.9 60.0	64.7 59.8	70.1 65.2	70.1 65.1
15 20	57.8	57.7	55.2	55.0	60.3	60.2
25	53.1	53.0	50.6	50.4	55.4	55.4
30	48.4	48.2	45.9	45.7	50.6	50.5
35	43.6	43.5	41.3	41.1	45.8	45.7
40	39.0	38.8	36.7	36.5	41.0	41.0
45	34.4	34.3	32.2	32.0	36.3	36.3
50	30.0	29.8	27.9	27.7	31.8	31.7
55	25.7	25.5	23.8	23.5	27.3	27.3
60	21.6	21.5	19.9	19.6	23.1	23.1
65	17.9	17.7	16.3	16.1	19.2	19.1
70	14.4	14.3	13.0	12.8	15.5	15.4
75	11.3	11.2	10.2	10.0	12.1	12.1
30	8.6	8.5	7.6	7.5	9.1	9.1
35	6.3	6.3	5.6	5.5	6.7	6.6
90	4.7	4.6	4.2	4.1	4.8	4.8
95	3.5	3.4	3.1	3.0	3.5	3.5
100	2.6	2.6	2.4	2.4	2.7	2.7
White						
0	77.4	77.3	74.8	74.6	80.0	79.9
1	76.9	76.8	74.3	74.1	79.4	79.3
5	73.0	72.9	70.3	70.2	75.4	75.4
0	68.0	67.9	65.4	65.3	70.5	70.5
5	63.1	63.0	60.5	60.3	65.5	65.5
20	58.3	58.2	55.7	55.6	60.7	60.7
25	53.5	53.4	51.1	50.9	55.8	55.8
30	48.7	48.6	46.4	46.2	50.9	50.9
35	44.0	43.9	41.7	41.5	46.1	46.1
40	39.3	39.2	37.1	36.9	41.3	41.3
45	34.7	34.6	32.5	32.4	36.6	36.6
50	30.2	30.1	28.2	28.0	32.0	32.0
55	25.8	25.7	24.0	23.8	27.5	27.5
60	21.7	21.6	20.0	19.8	23.2	23.2
55	17.9 14.4	17.8 14.4	16.3 13.0	16.1 12.9	19.2 15.5	19.2 15.5
70 75	11.3	11.2	10.1	10.0	12.1	12.1
30	8.5	8.5	7.6	7.5	9.1	9.1
35	6.3	6.2	5.5	5.5	6.6	6.6
90	4.5	4.5	4.0	4.0	4.7	4.7
95	3.3	3.2	3.0	2.9	3.3	3.3
100	2.4	2.3	2.2	2.2	2.4	2.4
Black						
	71.8	71.4	60.2	67.8	75.0	74.7
1	71.8 71.8	71.4 71.5	68.3 68.3	67.9	75.0 75.0	74.7
5	68.0	67.6	64.5	64.1	71.1	70.9
10	63.0	62.7	59.6	59.2	66.2	66.0
15	58.1	57.8	54.7	54.3	61.2	61.0
20	53.4	53.1	50.0	49.6	56.4	56.2
25	48.8	48.5	45.6	45.2	51.6	51.4
30	44.2	43.9	41.1	40.7	46.8	46.6
35	39.6	39.3	36.7	36.3	42.2	41.9
40	35.2	34.8	32.3	31.9	37.6	37.4
15	30.9	30.6	28.2	27.8	33.2	33.0
50	26.8	26.6	24.3	24.0	29.0	28.7
55	23.1	22.8	20.8	20.4	24.9	24.7
50	19.5	19.3	17.5	17.2	21.0	20.9
55	16.2	16.0	14.6	14.3	17.5	17.3
<b>'</b> 0	13.2	13.0	11.8	11.6	14.1	14.0
75	10.5	10.4	9.4	9.2	11.2	11.1
30	8.2	8.2	7.4	7.3	8.7	8.6
35	6.3	6.2	5.8	5.6	6.5	6.5
55						
90	4.8	4.8	4.5	4.4	4.9	4.8
	4.8 3.7	4.8 3.6 2.8	4.5 3.6 2.9	4.4 3.5 2.8	4.9 3.6 2.7	4.8 3.6 2.7

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

NOTE: Data are subject to sampling and/or random variation.

# Table 7. Deaths and death rates for the 10 leading causes of death in specified age groups: United States, preliminary 2000

[Data are based on a continuous file of records received from the States. Rates per 100,000 population in specified group. Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals]

nk <sup>1</sup>	Cause of death and age (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate
	All ages <sup>2</sup>		
Α	Il causes	2,404,624	873.6
D	iseases of heart (100-109,111,113,120-151)	709,894	257.9
	lalignant neoplasms (C00-C97)		200.5
	erebrovascular diseases (I60-I69)		60.3
	hronic lower respiratory diseases (J40-J47)		44.9
	ccidents (unintentional injuries) (V01-X59,Y85-Y86)		34.0
	Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79,V80.3-V80.5, V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2)	,	15.2
,	All other 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,W00-X59,Y85,Y86)	,	18.8
D	iabetes mellitus (E10-E14)		24.9
	fluenza and pneumonia (Ĵ10-J18)		24.3
	Izheimer's disease (G30)		17.8
	ephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27)		13.7
	epticemia (A40-A41)		11.5
	Il other causes (Residual)		183.7
А		505,712	103.
	1-4 years		
	Il causes	,	32.6
	ccidents (unintentional injuries) (V01-X59,Y85-Y86)	1,780	11.7
	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)	630	4.2
	All other 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,W00-X59,Y85,Y86)	1,150	7.6
С	ongenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	471	3.1
M	lalignant neoplasms (C00-C97)	393	2.6
	ssault (homicide) (X85-Y09,Y87.1)		2.1
	iseases of heart (100-109,111,113,120-151)		1.1
	fluenza and pneumonia (J10-J18)		0.6
	epticemia (A40-A41)		0.6
	ertain conditions originating in the perinatal period (P00-P96)		0.6
	situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48)		0.4
	Perebrovascular diseases (160-169)		0.3
	Il other causes (Residual)		9.5
	5-14 years		
Δ	ll causes	7,340	18.5
	ccidents (unintentional injuries) (V01-X59,Y85-Y86)	,	7.3
	Motor vehicle accidents (V02-V04,V09.0,V09.2,V12-V14,V19.0-V19.2,V19.4-V19.6,V20-V79,V80.3-V80.5,		
	V81.0-V81.1,V82.0-V82.1,V83-V86,V87.0-V87.8,V88.0-V88.8,V89.0,V89.2)	1,716	4.3
,	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)	1,163	2.9
	lalignant neoplasms (C00-C97)		2.0
	ongenital malformations, deformations and chromosomal abnormalities (Q00-Q99)		1.0
	ssault (homicide) (X85-Y09,Y87.1)		0.9
	tentional self-harm (suicide) (X60-X84,Y87.0)		0.7
_	iseases of heart (100-109,111,113,120-151)		0.6
	hronic lower respiratory diseases (J40-J47)		0.3
	situ neoplasms, benign neoplasms and neoplasms of uncertain or unknown behavior (D00-D48)		0.0
	ıfluenza and pneumonia (J10-J18)		0.2
(	Cerebrovascular diseases (I60-I69)	78	0.2
Α	Il other causes (Residual)	1,764	4.4
	15-24 years		
Α	Il causes	30,959	80.7
	ccidents (unintentional injuries) (V01-X59,Y85-Y86)	,	35.
	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)	10,357	27.0
,	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)	3,259	8.8
Δ	ssault (homicide) (X85-Y09,Y87.1)		12.5
	ssaut (nonicide) (xoo-109,107.1) tentional self-harm (suicide) (X60-X84,Y87.0)		10.1
	lalignant neoplasms (C00-C97)		4.3
	iseases of heart (100-109,111,113,120-151)		2.4
	ongenital malformations, deformations and chromosomal abnormalities (Q00-Q99)		1.1
C	erebrovascular diseases (I60-I69)		0.5
	ıfluenza and pneumonia (J10-J18)	188	0.5
In			
In C	hronic lower respiratory diseases (J40-J47)	180	0.5
In C		180	0.5 0.5

Table 7. Deaths and death rates for the 10 leading causes of death in specified age groups: United States, preliminary 2000 - Con.

[Data are based on a continuous file of records received from the States. Rates per 100,000 population in specified group. Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals]

Rank <sup>1</sup>	Cause of death and age (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate
	25-44 years		
	All causes	128,779	156.4
1	Accidents (unintentional injuries) (V01-X59,Y85-Y86)	24,817	30.1
	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)	13,261	16.1
	All other 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,W00-X59,Y85,Y86)	11,556	14.0
	Malignant neoplasms (C00-C97)	20,200	24.5
	Diseases of heart (I00-I09,I11,I13,I20-I51)	15,267	18.5
	Intentional self-harm (suicide) (X60-X84,Y87.0)	10.884	13.2
	Human immunodeficiency virus (HIV) disease (B20-B24)	8.302	10.1
	Assault (homicide) (X85-Y09,Y87.1)	7,156	8.7
	Chronic liver disease and cirrhosis (K70,K73-K74)	3,644	4.4
	Cerebrovascular diseases (160-169)	3,122	3.8
	Diabetes mellitus (E10-E14)	2,416	2.9
	Influenza and pneumonia (J10-J18)	1,437	1.7
	All other causes (Residual)	31,534	38.3
	45-64 years		
	All causes	399,008	652.8
	Malignant neoplasms (C00-C97)	136,363	223.1
	Diseases of heart (100-109,111,113,120-151)	97.334	159.2
	Accidents (unintentional injuries) (V01-X59.Y85-Y86)	18.252	29.9
	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)	8,483	13.9
	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)	9,769	16.0
	Cerebrovascular diseases (I60-I69)	15.735	25.7
	Chronic lower respiratory diseases (J40-J47)	14.086	23.0
	Diabetes mellitus (E10-E14)	13,958	22.8
	Chronic liver disease and cirrhosis (K70,K73-K74)	12,206	20.0
	Intentional self-harm (suicide) (X60-X84,Y87.0)	8.052	13.2
	Human immunodeficiency virus (HIV) disease (B20-B24)	5,336	8.7
		,	
	Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27)	4,821	7.9
	All other causes (Residual)	72,865	119.2
	65 years and over		
	All causes	1,805,187	5,190.8
	Diseases of heart (100-109,111,113,120-151)	595,440	1,712.2
	Malignant neoplasms (C00-C97)		1,127.4
	Cerebrovascular diseases (I60-I69)	146,725	421.9
	Chronic lower respiratory diseases (J40-J47)	107,888	310.2
	Influenza and pneumonia (J10-J18)	60,261	173.3
	Diabetes mellitus (E10-E14)	52,102	149.8
	Alzheimer's disease (G30)	48,492	139.4
	Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27)	31,588	90.8
	Accidents (unintentional injuries) (V01-X59,Y85-Y86)	31,332	90.8
	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)	7,165	20.6
	All other 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,W00-X59,Y85,Y86)	24,167	69.5
	Septicemia (A40-A41)	25,143	72.3
_	All other causes (Residual)	314,134	903.3

NOTE: Data are subject to sampling and/or random variation. For information on the relative standard errors of the data and further discussion, see Technical notes.

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

1 Rank based on number of deaths; see Technical notes.

2 Includes deaths under 1 year of age.

# Table 8. Infant deaths and infant mortality rates for the 10 leading causes of infant death, by race and Hispanic origin: United States, preliminary 2000

[Data are based on a continuous file of records received from the States. Rates per 100,000 live births. Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals. Rates for Hispanic origin should be interpreted with caution because of inconsistencies between reporting Hispanic origin on birth and death certificates; see Technical notes]

ank <sup>1</sup>	Cause of death and race (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate
	All races <sup>2</sup>		
	causes	27,983	688.4
	ngenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	5,779	142.2
	orders related to short gestation and low birth weight, not elsewhere classified (P07)	4,299	105.8
Suc	dden infant death syndrome (R95)	2,151	52.9
	wborn affected by maternal complications of pregnancy (P01)	1,372	33.8
Ne	wborn affected by complications of placenta, cord and membranes (P02)	1.028	25.3
	spiratory distress of newborn (P22)	1,018	25.0
	cidents (unintentional injuries)(V01-X59)	826	20.3
	cterial sepsis of newborn (P36)	723	17.8
	auterine hypoxia and birth asphyxia (P20-P21)	642	15.8
	eases of the circulatory system (I00-I99)	632	15.5
	other causes (Residual)	9,513	234.0
All		9,515	204.0
	White, total <sup>3</sup>		
	causes	18,340	572.6
Co	ngenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	4,458	139.2
Dis	orders related to short gestation and low birth weight, not elsewhere classified (P07)	2,396	74.8
	dden infant death syndrome (R95)	1,374	42.9
	wborn affected by maternal complications of pregnancy (P01)	851	26.6
	wborn affected by complications of placenta, cord and membranes (P02)	706	22.0
Re	spiratory distress of newborn (P22)	642	20.0
Acc	cidents (unintentional injuries)(V01-X59)	537	16.8
Bad	cterial sepsis of newborn (P36)	450	14.0
Intr	auterine hypoxia and birth asphyxia (P20-P21)	443	13.8
	eases of the circulatory system (I00-199)	442	13.8
	other causes (Residual)	6,041	188.6
	White, non-Hispanic		
All	Causes	13.647	575.6
	ngenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	3,281	138.4
	orders related to short gestation and low birth weight, not elsewhere classified (P07)	1,700	71.7
	dden infant death syndrome (R95)	1,154	48.7
	wborn affected by maternal complications of pregnancy (P01)	672	28.3
No	wborn affected by complications of placenta, cord and membranes (P02)	558	23.5
Po	spiratory distress of newborn (P22)	462	19.5
	cidents (unintentional injuries)(V01-X59)	432	18.2
	auterine hypoxia and birth asphyxia (P20-P21)	344	14.5
DIS	eases of the circulatory system (100-199)	329	13.9
	other causes (Residual)	323 4,392	13.6 185.3
	Black, total <sup>3</sup>	•	
	causes	8,529	1,375.7
	orders related to short gestation and low birth weight, not elsewhere classified (P07)	1,763	284.4
	ngenital malformations, deformations and chromosomal abnormalities (Q00-Q99)	1,065	171.8
	dden infant death syndrome (R95)	700	112.9
Ne	wborn affected by maternal complications of pregnancy (P01)	477	76.9
	spiratory distress of newborn (P22)	348	56.1
	wborn affected by complications of placenta, cord and membranes (P02)	291	46.9
Bad	cterial sepsis of newborn (P36)	253	40.8
	cidents (unintentional injuries)(V01-X59)	252	40.6
Intr	auterine hypoxia and birth asphyxia (P20-P21)	165	26.6
	eases of the circulatory system (100-199)	160	25.8
1 110	CUSCS OF THE OFFORMULOTY SYSTEM (100-133)	100	20.0

[Data are based on a continuous file of records received from the States. Rates per 100,000 live births. Figures are based on weighted data rounded to the nearest individual, so categories may not add to totals. Rates for Hispanic origin should be interpreted with caution because of inconsistencies between reporting Hispanic origin on birth and death certificates; see Technical notes]

Rank <sup>1</sup>	Cause of death and race (Based on the Tenth Revision, International Classification of Diseases, 1992)	Number	Rate
	Hispanic <sup>4</sup>		
. All ca	uses	4,601	564.0
Cong	enital malformations, deformations and chromosomal abnormalities (Q00-Q99)	1,170	143.4
Diso	ders related to short gestation and low birth weight, not elsewhere classified (PO7)	634	77.7
Sudo	len infant death syndrome (R95)	234	28.7
Newl	porn affected by maternal complications of pregnancy (P01)	175	21.5
Resp	iratory distress of newborn (P22)	175	21.5
Newl	porn affected by complications of placenta, cord and membranes (P02)	138	16.9
	erial sepsis of newborn (P36)	127	15.6
Disea	ases of the circulatory system (100-199)	112	13.7
Accid	lents (unintentional injuries)(VÒ1-X59)	111	13.6
Neon	lents (unintentional injuries)(V01-X59)	106	13.0
Neon	her causes (Residual)	1.619	198.5

NOTE: Data are subject to sampling and/or random variation. For information on the relative standard errors of the data and further discussion, see Technical notes.

<sup>.</sup> Category not applicable. Rank based on number of deaths; see Technical notes.

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

Race and Hispanic origin are reported separately on both the birth and death certificate. 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.

<sup>4</sup> Includes all persons of Hispanic origin of any race; see Technical notes.

# **Technical notes**

#### Nature and sources of data

Preliminary mortality data for 2000 are based on a substantial proportion of death records for that year. The data for 2000 are based on a continuous receipt and processing of statistical records through June 27, 2001, by the Centers for Disease Control and Prevention's National Center for Health Statistics. NCHS received the data from the States' vital registration systems through the Vital Statistics Cooperative Program. 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 year 2000 individual records of infant deaths (deaths under 1 year of age) and deaths of persons 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, and the demographic file. The medical file contains records that include demographic and medical information that is used to generate tables showing cause of death. The demographic file includes the records from the medical file as well as additional records containing demographic information only and 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. Because there are two separate files, with two separate sets of weights, slight inconsistencies may occur between the demographic and medical tables. Table I shows the percent completeness of the preliminary file by place of occurrence. The percent completeness is obtained by dividing the number of records in the preliminary file 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.

For selected variables in the mortality files, unknown or notstated values are imputed. The percent not stated was less than 1 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*, 1995 (12).

#### Cause-of-death classification

Mortality statistics are compiled in accordance with the World Health Organization (WHO) regulations that specify that member nations classify and code causes of death in accordance with the current revision of the *International Statistical Classification of Diseases*, and Related Health Problems. The International Classification of Diseases (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. Effective with deaths occurring in 1999, the United States began use of the Tenth Revision of this classification, (ICD–10) (13). During the period 1979–98 causes were coded and classified according to the Ninth Revision (ICD–9) (14). The change from ICD–9 to ICD–10 resulted in discontinuities for selected cause-of-death trends. These discontinuities are measured using comparability ratios from a comparability study described in the Technical notes of the preliminary report for 1999 (15) under the section "Comparability between ICD–9 and ICD–10 for mortality."

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* (16).

#### Bias estimation

Causes of death in this report are subject to nonsampling bias because of the nature of the preliminary file. Inasmuch as 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 accidents 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.

Further, for some deaths, especially those subject to medicolegal investigation such as unintentional injuries, homicides, and suicides, 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 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 these biases can be made by comparing final data and preliminary data for the same year. Such a comparison for the leading causes of death for the total U.S. population during 1996, 1997, and 1998, coded and classified under ICD-9, indicates that preliminary estimates for influenza and pneumonia are sometimes underestimated and sometimes overestimated in the preliminary file (see table II). Thus, for 1996 the preliminary data underestimated the number of deaths for pneumonia and influenza by 1.4 percent, but in contrast during the two succeeding years, when there were major influenza outbreaks, the preliminary data overestimated the number of deaths for these causes by over 2 and 3 percent, respectively. Similar bias occurred in chronic obstructive lung disease with overestimates up to 2 percent for all three years. In contrast, suicide deaths may be underrepresented as much as 5 percent, homicide by up to 6 percent, and unintentional injuries by 1-5 percent. The comparisons upon which these estimates of nonsampling bias are made are shown in tables II and III.

Table I. Total count of records and percent completeness of preliminary files of infant deaths and deaths 1 year and over: United States, each State and territory, preliminary 2000

[By place of occurrence]

	Infant deaths (under 1 year)			Deaths 1 year and over			
-		Percent com	pleteness		Percent com	npleteness	
Area	Count of records	Demographic file	Medical file	Count of records	Demographic file	Medical file	
United States <sup>1</sup>	28,045	94.2	84.6	2,380,675	94.9	86.0	
	,						
Alabama	597	100.0	99.7	43,808	100.0	100.0	
Alaska	64	100.0	96.9	2,772	99.2	95.3	
Arizona	571	100.0	100.0	40,949	100.0	100.0	
Arkansas	295	100.0	100.0	27,410	99.9	99.9	
California	2,895	78.8	78.1	227,680	78.4	77.4	
Colorado	431	98.8	98.8	27,285	100.0	99.9	
Connecticut	270	90.7	90.7	30,055	95.6	95.6	
Delaware	123	97.6	97.6	6,658	99.8	99.8	
District of Columbia	194	89.2	86.1	6,961	100.0	99.4	
Florida	1,458	100.0	99.7	164,131	100.0	100.0	
Georgia	1,121	100.0	100.0	63,415	100.0	100.0	
Hawaii	138	100.0	86.2	8,375	100.0	90.2	
Idaho	122	99.2	99.2	9,237	100.0	100.0	
Illinois	1,486	100.0	93.2	102,432	99.8	94.1	
Indiana	633	99.7	99.7	55,672	97.9	97.8	
lowa	224	99.6	99.6	27,521	99.9	99.9	
Kansas	239	99.2	99.2	23,886	100.0	100.0	
Kentucky	340	86.2	78.5	38,679	94.5	86.8	
Louisiana	638	100.0	98.0	40,941	100.0	99.6	
Maine	63	98.4	92.1	12,242	98.7	94.2	
Maryland	452	100.0	99.8	43,193	100.0	100.0	
Massachusetts	385	99.2	53.0	56,888	97.5	69.0	
Michigan	1,118	100.0	99.9	84,689	100.0	100.0	
Minnesota	373	98.4	86.1	37,462	99.7	88.8	
Mississippi	421	100.0	100.0	27,489	100.0	99.9	
Missouri	670	100.0	78.8	55,745	100.0	88.4	
Montana	61	95.1	95.1	7,985	100.0	99.8	
Nebraska	189	100.0	59.8	14,994	100.0	58.1	
Nevada	190	100.0	100.0	15,605	100.0	100.0	
New Hampshire	74	100.0	87.8	9,559	100.0	84.0	
New Jersey	704	87.9	42.5	73,050	81.2	51.1	
New Mexico	193	84.5	77.2	13,148	100.0	88.9	
New York	1,668	100.0	68.5	155,813	99.9	77.8	
New York excluding New York City	828	100.0	97.2	95,810	99.9	98.8	
New York City	840	100.0	40.2	60,003	100.0	44.3	
North Carolina	1,052	100.0	97.9	71,545	100.0	99.9	
North Dakota	70	98.6	98.6	6,212	100.0	100.0	
Ohio	1,265	58.6	28.1	107,301	63.3	32.7	
Oklahoma	392	100.0	100.0	33,914	97.2	97.2	
Oregon	270	100.0	100.0	29,306	100.0	100.0	
Pennsylvania	1,104	94.5	68.5	130,716	96.9	73.3	
Rhode Island	89	100.0	100.0	10,053	99.8	99.8	
South Carolina	452	70.4	70.4	35,711	79.8	79.8	
South Dakota	65	100.0	100.0	7,167	100.0	100.0	
Tennessee	820	100.0	100.0	57,744	100.0	100.0	
Texas	2,050	97.5	93.3	148,494	99.5	97.1	
Utah	2,030	100.0	99.6	12,411	100.0	100.0	
Vermont	39	100.0	100.0	5,084	100.0	99.6	
Virginia	646	100.0	97.8	55,178	99.7	97.5	
Washington	422	100.0	78.2	43,508	100.0	77.4	
West Virginia	158	100.0	77.8	20,911	100.0	86.6	
Wisconsin	450	100.0	43.1	45,963	100.0	46.2	
Wyoming	20	100.0	100.0	3,728	100.0	100.0	
Puorto Pico	600	00 4	40.0	27.020	90 F	24.2	
Puerto Rico	633	83.1	18.3	27,928	89.5	21.2	
Virgin Islands	18	66.7	38.9	610	99.8	63.3	
Guam	23	82.6	82.6	644	73.9	73.9	
American Samoa							
Northern Marianas							

NOTE: Percent completeness = Number of records in preliminary file \* 100 Count of records

<sup>- - -</sup> Data not available.

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

National Vital Statistics Report, Vol. 49, No. 12, October 9, 2001

Table II. Ratios of preliminary to final reported numbers of deaths from 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease: United States, 1996–98

Cause of death (Based on the Ninth Revision, International Classification of Diseases, 1975)	Preliminary number of deaths 1996	Final number of deaths 1996	Ratio of preliminary to final deaths 1996	Preliminary number of deaths 1997	Final number of deaths 1997	Ratio of preliminary to final deaths 1997	Preliminary number of deaths 1998	Final number of deaths 1998	Ratio of preliminary to final deaths 1998
All causes	2,322,421	2,314,690	1.0033	2,314,729	2,314,245	1.0002	2,338,075	2,337,256	1.0004
Shigellosis and amebiasis	7	9	0.7778	6	6	1.0000	10	8	1.2500
Certain other intestinal infections	842	824	1.0218	1,012	1,023	0.9892	1,092	1,059	1.0312
Tuberculosis	1,194	1,202	0.9933	1,165	1,166	0.9991	1,110	1,112	0.9982
Tuberculosis of respiratory system	902	912	0.9890	872	875	0.9966	816	815	1.0012
Other tuberculosis	291	290	1.0034	293	291	1.0069	295	297	0.9933
Whooping cough	5	4	1.2500	6	6	1.0000	7	5	1.4000
Streptococcal sore throat, scarlatina, and erysipelas	14	13	1.0769	5	8	0.6250	7	8	0.8750
Meningococcal infection	285	290	0.9828	327	309	1.0583	244	234	1.0427
Septicemia	21,395	21,423	0.9987	22,604	22,396	1.0093	23,643	23,731	0.9963
Acute poliomyelitis	1	_		1	_		3	_	
Measles	_	1	0.0000	3	2	1.5000	3	_	
Viral hepatitis	3,811	3,780	1.0082	3,908	4,057	0.9633	4,729	4,796	0.9860
Syphilis	65	73	0.8904	60	62	0.9677	44	45	0.9778
All other infectious and parasitic									
diseases									
042-044,071-088,098-139	39,695	38,172	1.0399	23,441	23,336	1.0045	19,988	20,254	0.9869
Malignant neoplasms, including neoplasms of lymphatic and									
hematopoietic tissues	544,278	539,533	1.0088	537,390	539,577	0.9959	538,947	541,532	0.9952
Malignant neoplasms of lip, oral cavity, and pharynx	7,803	7,854	0.9935	7,823	7,894	0.9910	7,902	7,965	0.9921
Malignant neoplasms of digestive organs and peritoneum 150–159	127,726	126,495	1.0097	126,109	127,054	0.9926	127,685	128,683	0.9922
Malignant neoplasms of respiratory and intrathoracic organs 160–165	158,606	157,271	1.0085	158,234	158,465	0.9985	159,207	159,736	0.9967
Malignant neoplasm of breast	44,062	43,448	1.0141	42,181	42,297	0.9973	41,862	42,086	0.9947
Malignant neoplasms of genital organs	60,441	60,080	1.0060	58,539	59,010	0.9920	58,097	58,367	0.9954
Malignant neoplasms of urinary organs	23,152	23,004	1.0064	23,271	23,395	0.9947	23,722	23,768	0.9981
Malignant neoplasms of all other and unspecified sites 170–173,190–199	67,151	66,451	1.0105	65,616	65,627	0.9998	65,305	65,389	0.9987
Leukemia	20,506	20,340	1.0082	20,197	20,313	0.9943	20,160	20,324	0.9919
Other malignant neoplasms of lymphatic and hematopoietic tissues 200–203	34,831	34,590	1.0070	35,421	35,522	0.9972	35,007	35,214	0.9941
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and									
of unspecified nature	7,798	7,647	1.0197	7,784	7,659	1.0163	7,909	7,933	0.9970
Diabetes mellitus	61,559	61,767	0.9966	62,332	62,636	0.9951	64,574	64,751	0.9973
Nutritional deficiencies	3,710	3,706	1.0011	3,946	3,928	1.0046	4,088	4,077	1.0027
Anemias	4,376	4,332	1.0102	4,477	4,471	1.0013	4,509	4,544	0.9923
Meningitis	769	758	1.0145	797	781	1.0205	767	768	0.9987
Major cardiovascular diseases	951,302	950,164	1.0012	942,680	944,148	0.9984	939,610	940,565	0.9990
Diseases of heart	733,834	733,361	1.0006	725,790	726,974	0.9984	724,269	724,859	0.9992
Rheumatic fever and rheumatic heart disease	5,043	5,006	1.0074	4,922	5,014	0.9817	4,833	4,792	1.0086
Hypertensive heart disease	25,907	26,188	0.9893	26,088	26,607	0.9805	27,304	27,715	0.9852
Hypertensive heart and renal disease	2,475	2,501	0.9896	2,403	2,424	0.9913	2,396	2,412	0.9934
Ischemic heart disease	476,818	476,124	1.0015	465,651	466,101	0.9990	460,390	459,841	1.0012
Acute myocardial infarction	214,260	213,532	1.0034	205,933	206,212	0.9986	203,835	203,551	1.0014
Other acute and subacute forms of ischemic heart disease 411	2,819	2,889	0.9758	3,031	3,046	0.9951	2,824	2,907	0.9714
Angina pectoris	830	829	1.0012	726	735	0.9878	657	650	1.0108
Old myocardial infarction and other forms of chronic ischemic heart									
disease	258,909	258,874	1.0001	255,961	256,108	0.9994	253,074	252,733	1.0013

Table II. Ratios of preliminary to final reported numbers of deaths from 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease: United States, 1996–98—Con.

Cause of death (Based on the <i>Ninth Revision, International Classification of Diseases,</i> 1975)	Preliminary number of deaths 1996	Final number of deaths 1996	Ratio of preliminary to final deaths 1996	Preliminary number of deaths 1997	Final number of deaths 1997	Ratio of preliminary to final deaths 1997	Preliminary number of deaths 1998	Final number of deaths 1998	Ratio of preliminary to final deaths 1998
Other diseases of endocardium	17,252	17,181	1.0041	17,683	17,661	1.0012	18,526	18,522	1.0002
All other forms of heart disease	206,339	206,361	0.9999	209,043	209,167	0.9994	210,820	211,579	0.9964
Hypertension with or without renal disease	12,947	12,945	1.0002	13,344	13,534	0.9860	14,216	14,308	0.9936
Cerebrovascular diseases	160,431	159,942	1.0031	159,877	159,791	1.0005	158,060	158,448	0.9976
Intracerebral and other intracranial hemorrhage	23,522	23,573	0.9978	25,675	25,858	0.9929	26,010	26,230	0.9916
Cerebral thrombosis and unspecified occlusion of cerebral arteries 434.0,434.9	13,124	13,022	1.0078	12,040	12,045	0.9996	11,024	10,958	1.0060
Cerebral embolism	675	672	1.0045	608	617	0.9854	566	570	0.9930
All other and late effects of cerebrovascular diseases	123,110	122,675	1.0035	121,553	121,271	1.0023	120,461	120,690	0.9981
Atherosclerosis	16,803	16,740	1.0038	15,844	16,057	0.9867	15,424	15,279	1.0095
Other diseases of arteries, arterioles, and capillaries	27,287	27,176	1.0041	27,824	27,792	1.0012	27,641	27,671	0.9989
Acute bronchitis and bronchiolitis	460	486	0.9465	481	465	1.0344	446	452	0.9867
Pneumonia and influenza	82,579	83,727	0.9863	88,383	86,449	1.0224	94,828	91,871	1.0322
Pneumonia	81,972	82,982	0.9878	87,526	85,729	1.0210	92,718	90,147	1.0285
Influenza	607	745	0.8148	857	720	1.1903	2,109	1,724	1.2233
Chronic obstructive pulmonary diseases and allied conditions 490–496	106,146	106,027	1.0011	110,637	109,029	1.0147	114,381	112,584	1.0160
Bronchitis, chronic and unspecified	3,166	3,151	1.0048	3,061	3,055	1.0020	3,120	3,032	1.0290
Emphysema	17,367	17,286	1.0047	17,827	17,518	1.0176	17,918	17,555	1.0207
Asthma	5,641	5,667	0.9954	5,338	5,434	0.9823	5,344	5,438	0.9827
Other chronic obstructive pulmonary diseases and allied conditions 494–496	79,971	79,923	1.0006	84,411	83,022	1.0167	87,999	86,559	1.0166
Ulcer of stomach and duodenum	5,091	5,105	0.9973	5,114	5,115	0.9998	4,665	4,695	0.9936
Appendicitis	425	424	1.0024	421	395	1.0658	444	439	1.0114
Hernia of abdominal cavity and intestinal obstruction without mention									
of hernia	6,500	6,476	1.0037	6,475	6,498	0.9965	66,920	6,635	10.0859
Chronic liver disease and cirrhosis	25,135	25,047	1.0035	24,765	25,175	0.9837	24,936	25,192	0.9898
Cholelithiasis and other disorders of gallbladder	2,809	2,816	0.9975	2,721	2,757	0.9869	2,746	2,822	0.9731
Nephritis, nephrotic syndrome, and nephrosis	24,392	24,304	1.0036	25,570	25,331	1.0094	26,295	26,182	1.0043
Acute glomerulonephritis and nephrotic syndrome	319	321	0.9938	307	324	0.9475	316	325	0.9723
Chronic glomerulonephritis, nephritis and nephropathy, not specified as									
acute or chronic, and renal sclerosis, unspecified	1,625	1,638	0.9921	1,635	1,652	0.9897	1,706	1,715	0.9948
kidney of unknown cause	22,449	22.345	1.0047	23,628	23,355	1.0117	24,274	24,142	1.0055
Infections of kidney	890	896	0.9933	811	831	0.9759	810	828	0.9783
Hyperplasia of prostate	462	457	1.0109	413	420	0.9833	412	410	1.0049
Complications of pregnancy, childbirth, and the puerperium	276	294	0.9388	291	327	0.8899	247	281	0.8790
Pregnancy with abortive outcome	39	39	1.0000	39	41	0.9512	30	32	0.9375
Other complications of pregnancy, childbirth, and the puerperium	237	255	0.9294	252	286	0.8811	217	249	0.8715
Congenital anomalies	11.926	11.836	1.0076	11.733	11.912	0.9850	11.910	11.934	0.9980
Certain conditions originating in the perinatal period	12,809	13,069	0.9801	12,764	13,092	0.9749	13,323	13,428	0.9922
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress		,		•	,			•	
syndrome	2,022	1,993	1.0146	1,983	1,990	0.9965	2,039	1,997	1.0210
Other conditions originating in the perinatal period	10,787	11,076	0.9739	10,781	11,102	0.9711	11,284	11,431	0.9871
Symptoms, signs, and ill-defined conditions	30,371	26,190	1.1596	33,569	25,752	1.3035	35,491	25,992	1.3655
All other diseases	222,386	223,540	0.9948	234,690	235,435	0.9968	246,099	247,644	0.9938
Accidents and adverse effects	93.874	94,948	0.9887	92,191	95,644	0.9639	93,207	97,835	0.9527
Motor vehicle accidents	43,449	43,649	0.9954	42,420	43,458	0.9761	41,826	43,501	0.9615
All other accidents and adverse effects	50,425	51,299	0.9830	49,772	52,186	0.9537	51,382	54,334	0.9457
54.5. 450MOINS AND ANY 0150 ONOVIO	00,120	01,277	0.7000	17,112	02,100	0.7007	01,002	01,004	0.7407

National Vital Statistics Report, Vol. 49, No. 12, October 9, 2001

Table II. Ratios of preliminary to final reported numbers of deaths from 72 selected causes, Human immunodeficiency virus infection, and Alzheimer's disease: United States, 1996–98—Con.

Cause of death (Based on the <i>Ninth Revision, International Classification of Diseases,</i> 1975)	Preliminary number of deaths 1996	Final number of deaths 1996	Ratio of preliminary to final deaths 1996	Preliminary number of deaths 1997	Final number of deaths 1997	Ratio of preliminary to final deaths 1997	Preliminary number of deaths 1998	Final number of deaths 1998	Ratio of preliminary to final deaths 1998
Suicide . E950–E959 Homicide and legal intervention . E960–E978 All other external causes . E980–E999	30,862	30,903	0.9987	29,725	30,535	0.9735	29,264	30,575	0.9571
	20,738	20,971	0.9889	18,774	19,846	0.9460	17,350	18,272	0.9495
	3,185	3,476	0.9163	3,255	3,666	0.8879	3,315	3,763	0.8809
Human immunodeficiency virus infection <sup>1</sup>	32,655	31,130	1.0490	16,685	16,516	1.0102	13,210	13,426	0.9839
	21,166	21,397	0.9892	22,527	22,475	1.0023	22,824	22,725	1.0044

<sup>-</sup> Quantity zero.

SOURCE: Preliminary and final data from the National Vital Statistics System, National Center for Health Statistics, Centers for Disease Control and Prevention, Hyattsville, Maryland 20782.

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

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

# Tabulation lists and cause-of-death ranking

Tabulation lists for ICD-10 were developed to maximize continuity with ICD-9 lists to facilitate trend analysis, and to separately identify causes of death of public health importance. The lists are published in the NCHS Instruction Manual, Part 9, ICD-10 Cause-of-Death Lists for Tabulating Mortality Statistics, Effective 1999 (17). For this report two tabulation lists are used, namely, the List of 113 Selected Causes of Death used for deaths of all ages, and List of 130 Selected Causes of Infant Death used for infants. These lists are also used to rank leading causes of death for the two population groups. For the List of 113 Selected Causes of Death, the group titles Major cardiovascular diseases (ICD-10 codes 100-178) 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

# Race and Hispanic origin

Race and Hispanic origin are reported separately on the death certificate. In this report, unless otherwise specified, deaths of Hispanic origin are included in the totals for each race group—white, black, American Indian, 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, American Indian, and API persons should be interpreted with caution because of inconsistencies in reporting race on the death certificate as compared with race on censuses. surveys, and birth certificates. Studies have shown underreporting on death certificates of American Indians, API, and Hispanic decedents; and undercounts of these groups in the censuses (9, 10).

### Infant mortality

Infant mortality rates are the most commonly used index for measuring the risk of dying during the first year of life. The rates presented in this report are calculated by dividing the number of infant deaths that occurred in a 12-month period by the preliminary 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 2000 (1). 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 the 12-month period by the estimated population of persons under 1 year of age on July 1, 2000, and are presented as rates per 100,000 population in this age group. Because of differences in the denominators, infant death rates may

differ from infant mortality rates. 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 (11).

# 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 are shown in table 2. Deaths, crude death rates, and age-adjusted death rates for injury at work are shown for ages 15 years and over. Age-adjusted death rates for injury at work were computed using age-specific death rates and the U.S. standard population based on year 2000 standard for ages 15 years and over. See section on "Computing rates and percents."

#### Life tables

The life table provides a comprehensive measure of the effect of mortality on life expectancy. It is composed of sets of values showing the mortality experience of a hypothetical group of infants born at the same time and subject throughout their lifetime to the age-specific death rates of a particular time period, usually a given year. Beginning with final data reported for 1997, the life table methodology was changed from previous annual reports. Previously, U.S. life tables were abridged and constructed by reference to a standard table (18). 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 (19) using a methodology similar to that of the decennial life tables (20). 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 (19). 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. Life expectancy by age is shown in table 6. To calculate the probability of dying at each age, the revised methodology uses vital statistics death rates for ages under 85 years and mortality data from the Medicare program for ages over 85 years. Medicare data were used to model the probability of dying at ages 85 and over because the data are shown to be significantly more reliable than vital statistics data at the oldest ages (21).

# Computing rates and percents

Except for infant mortality rates, rates are on an annual basis per 1,000 or per 100,000 estimated population residing in the specified area as of July 1, 1999, and July 1, 2000, and are based on populations furnished by the U.S. Bureau of the Census (22, 23). Infant mortality rates are per 1,000 or per 100,000 live births. Rates by State are computed on the basis of populations on July 1, 1999, and July 1, 2000, (24, 25).

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

National Vital Statistics Report, Vol. 49, No. 12, October 9, 2001

Table III. Ratios of preliminary to final reported numbers of infant deaths from 61 selected causes and Human immunodeficiency virus infection: United States, 1996–98

Cause of death (Based on the <i>Ninth Revision, International Classification of Diseases,</i> 1975)	Preliminary number of deaths 1996	Final number of deaths 1996	Ratio of preliminary to final 1996	Preliminary number of deaths 1997	Final number of deaths 1997	Ratio of preliminary to final 1997	Preliminary number of deaths 1998	Final number of deaths 1998	Ratio of preliminary to final 1998
All causes	28,245	28,478	0.9918	27,692	28,045	0.9874	28,488	28,371	1.0041
Certain intestinal infections	223	207	1.0773	195	200	0.9750	235	229	1.0262
Whooping cough	5	4	1.2500	6	6	1.0000	6	4	1.5000
Meningococcal infection	39	39	1.0000	52	46	1.1304	31	23	1.3478
Septicemia	193	199	0.9698	186	196	0.9490	201	216	0.9306
Viral diseases	88	91	0.9670	98	111	0.8829	96	98	0.9796
Congenital syphilis	6	6	1.0000	6	4	1.5000	2	2	1.0000
diseases	164	162	1.0123	141	158	0.8924	172	176	0.9773
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic									
tissues	90	87	1.0345	81	91	0.8901	86	78	1.1026
and of unspecified nature	55	60	0.9167	67	63	1.0635	56	60	0.9333
Diseases of thymus gland	-	2	017107	2	3		1	1	017000
Cystic fibrosis	5	8	0.6250	10	10	1.0000	12	12	1.0000
Diseases of blood and blood-forming organs	80	79	1.0127	84	81	1.0370	88	94	0.9362
Meningitis	112	103	1.0874	109	97	1.1237	105	107	0.9813
Other diseases of nervous system and sense organs	358	371	0.9650	337	334	1.0090	348	340	1.0235
Acute upper respiratory infections	14	18	0.7778	14	12	1.1667	6	9	0.6667
Bronchitis and bronchiolitis	88	92	0.9565	95	106	0.8962	65	71	0.9155
Pneumonia and influenza	485	496	0.9778	397	421	0.9430	400	441	0.9070
Pneumonia	469	481	0.9751	383	409	0.9364	391	435	0.8989
Influenza	16	15	1.0667	14	12	1.1667	9	6	1.5000
Remainder of diseases of respiratory system	259	263	0.9848	244	274	0.8905	283	297	0.9529
mention of hernia	67	69	0.9710	76	77	0.9870	67	69	0.9710
Gastritis, duodenitis, and noninfective enteritis and colitis	82	82	1.0000	77	76	1.0132	70	76	0.9211
Remainder of diseases of digestive system	192	202	0.9505	187	187	1.0000	175	185	0.9459
Congenital anomalies	6,463	6,381	1.0129	6063	6178	0.9814	6,266	6,212	1.0087
Anencephalus and similar anomalies	362	352	1.0284	334	344	0.9709	285	296	0.9628
Spina bifida	66	63	1.0476	37	48	0.7708	41	41	1.0000
Congenital hydrocephalus	141	156	0.9038	130	146	0.8904	117	122	0.9590
and eye	294	300	0.9800	275	290	0.9483	308	301	1.0233
Congenital anomalies of heart	1,942	1,921	1.0109	1731	1760	0.9835	1,820	1,769	1.0288
Other congenital anomalies of circulatory system	357	350	1.0200	327	332	0.9849	309	315	0.9810
Congenital anomalies of respiratory system	960	951	1.0095	995	973	1.0226	962	950	1.0126
Congenital anomalies of digestive system	85	83	1.0241	92	94	0.9787	101	104	0.9712
Congenital anomalies of genitourinary system	348	341	1.0205	290	302	0.9603	372	364	1.0220
Congenital anomalies of musculoskeletal system	477	464	1.0280	412	424	0.9717	449	447	1.0045
Down's syndrome	107	106	1.0094	98	102	0.9608	122	121	1.0083
Other chromosomal anomalies	760	749	1.0147	810	805	1.0062	832	822	1.0122
All other and unspecified congenital anomalies	564	556	1.0144	531	558	0.9516	547	560	0.9768

Table III. Ratios of preliminary to final reported numbers of infant deaths from 61 selected causes and Human immunodeficiency virus infection: United States, 1996–98—Con.

Cause of death (Based on the <i>Ninth Revision, International Classification of Diseases,</i> 1975)	Preliminary number of deaths 1996	Final number of deaths 1996	Ratio of preliminary to final 1996	Preliminary number of deaths 1997	Final number of deaths 1997	Ratio of preliminary to final 1997	Preliminary number of deaths 1998	Final number of deaths 1998	Ratio of preliminary to final 1998
Certain conditions originating in the perinatal period	12,623	12,955	0.9744	12565	12935	0.9714	13,133	13,294	0.9879
to present pregnancy	145	161	0.9006	157	164	0.9573	150	158	0.9494
Newborn affected by maternal complications of pregnancy 761	1,212	1,249	0.9704	1242	1244	0.9984	1,328	1,343	0.9888
Newborn affected by complications of placenta, cord, and membranes 762	892	949	0.9399	927	960	0.9656	932	961	0.9698
Newborn affected by other complications of labor and delivery	80	82	0.9756	66	76	0.8684	84	91	0.9231
Slow fetal growth and fetal malnutrition	47	45	1.0444	41	39	1.0513	34	38	0.8947
low birthweight	3,706	3,902	0.9498	3727	3925	0.9496	4,011	4,101	0.9781
Disorders relating to long gestation and high birthweight	_			_	_		1	1	1.0000
Birth trauma	172	166	1.0361	201	185	1.0865	191	194	0.9845
Intrauterine hypoxia and birth asphyxia	429	428	1.0023	456	452	1.0088	459	461	0.9957
Fetal distress in liveborn infant	116	111	1.0450	125	123	1.0163	122	122	1.0000
Birth asphyxia	313	317	0.9874	330	329	1.0030	337	339	0.9941
Respiratory distress syndrome	1,368	1,362	1.0044	1262	1301	0.9700	1,328	1,295	1.0255
Other respiratory conditions of newborn	1,832	1,817	1.0083	1694	1734	0.9769	1,744	1,702	1.0247
Infections specific to the perinatal period	747	756	0.9881	756	777	0.9730	815	815	1.0000
Neonatal hemorrhage	283	301	0.9402	354	339	1.0442	341	334	1.0210
Hemolytic disease of newborn, due to isoimmunization, and other perinatal jaundice	21	23	0.9130	19	14	1.3571	31	34	0.9118
neonatal diabetes mellitus	9	10	0.9000	10	11	0.9091	9	11	0.8182
Hemorrhagic disease of newborn	1	2	0.5000	1	1	1.0000	4	4	1.0000
the perinatal period	1,678	1,702	0.9859	1653	1713	0.9650	1,670	1,751	0.9537
Symptoms, signs, and ill-defined conditions	4,022	3,883	1.0358	4046	3773	1.0724	4,038	3,658	1.1039
Sudden infant death syndrome	2,906	3,050	0.9528	2705	2991	0.9044	2,529	2,822	0.8962
Symptoms, signs, and all other ill-defined conditions	1,115	833	1.3385	1341	782	1.7148	1,508	836	1.8038
Accidents and adverse effects	772	804	0.9602	753	765	0.9843	726	754	0.9629
respiratory tractor suffocation	75	73	1.0274	78	76	1.0263	69	64	1.0781
Accidental mechanical suffocation	259	285	0.9088	275	303	0.9076	282	312	0.9038
Other accidental causes and adverse effects	439	466	0.9421	401	386	1.0389	374	378	0.9894
Homicide	299	332	0.9006	305	317	0.9621	299	322	0.9286
Child battering and other maltreatment	102	112	0.9107	96	98	0.9796	106	114	0.9298
Other homicide	197	220	0.8955	209	219	0.9543	193	208	0.9279
All other causes	1,462	1,492	0.9799	1495	1524	0.9810	1,522	1,543	0.9864
Human immunodeficiency virus infection <sup>1</sup> (042–044)	40	40	1.0000	19	19	1.0000	15	14	1.0714

<sup>-</sup> Quantity zero.

SOURCE: Preliminary and final data from the National Vital Statistics System, National Center for Health Statistics, Centers for Disease Control and Prevention, Hyattsville, Maryland 20782.

<sup>&</sup>lt;sup>1</sup>Included in "Remainder of infectious and parasitic diseases" shown above.

relative indexes rather than as actual measures of mortality risk. They were computed by the direct method, that is, by applying age-specific death rates to the U.S. standard population (relative age distribution of year 2000 projected population of the United States) using the following age groups:

Age	Number	Weights (w)
All ages	1,000,000	1.000000
Under 1 year	13,818 55,317	0.013818 0.055317
5–14 years	145,565 138,646	0.145565 0.138646
25–34 years	135,573 162,613	0.135573 0.162613 0.134834
45–54 years	134,834 87,247 66.037	0.134834 0.087247 0.066037
65–74 years	44,842 15,508	0.044842 0.015508

Age-adjusted death rates for Puerto Rico, the Virgin Islands, Guam, American Samoa, and Northern Marianas were computed using the following age groups:

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

Effective with 1999 data, the standard population was changed from 1940 to the year 2000 population in accordance with new statistical policy promulgated by the Secretary of Health and Human Services in August 1998 (26). The new population standard affects levels of mortality and to some extent trends and group comparisons. Of particular note are the effects on race comparison of mortality. For detailed discussion see *Age Standardization of Death Rates: Implementation of the Year 2000 Standard* (26).

Death rates for the Hispanic population are based only on events to persons reported as Hispanic. Rates for white non-Hispanic persons are based on the sum of all events to white decedents reported as non-Hispanic and white decedents with origin not stated. Hispanic origin is not imputed if it is not reported. For calculating death rates, deaths with age not stated are not distributed. The number of deaths with age not stated was 437 or less than 0.02 percent of all deaths.

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

- The number of records provided by each State yields a proportion of the total of records that is large enough to provide reliable estimates.
   For example, a criterion of at least 75 percent of a State's records (demographic file) for the 12-month period is used as a basis for providing State-specific estimates (see table I).
- 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 percent 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 based on 20–31 births or 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 percents may be found in the following section on "Reliability of estimates."

In table 3 figures for Ohio are not shown because that State did not meet the minimum requirements for separate publication of State data; see table I.

# 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 notion 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 we treat the variability associated with this error (sampling variability) as if it were from a random sample.

In addition, mortality files are subject to biases. Records that were delayed and were not included in this report are assumed to have the same characteristics as the records that were included in this report. However, this assumption may be violated in the relatively small number of records where cause of death is pending investigation at the time the preliminary statistical file is closed for processing (for example, homicides, suicides, unintentional injuries, and SIDS—see discussion in section on "Bias estimation") or where the causes of death were rejected by the automated coding systems for manual processing. Seasonal bias may occur because file completeness is greater during the earlier part than during the later part of the 12-month period when the data are processed and tabulated.

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 IV 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 IV for various levels of file completeness are measures of the sampling errors and the random errors of the estimates. They do not include error due to bias.

The estimated RSEs in table IV were computed using this formula:

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

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

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

_			Percent of file	completeness		
Estimated						
number of deaths						
or deatris	100	95	90	80	70	60
_			Relative standa	ard 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
00,000	0.3	0.3	0.3	0.4	0.4	0.4
00,000	0.2	0.2	0.2	0.2	0.3	0.3
00,000	0.1	0.1	0.1	0.2	0.2	0.2
00,000	0.1	0.1	0.1	0.1	0.1	0.1
00,000	0.1	0.1	0.1	0.1	0.1	0.1
00,000	0.1	0.1	0.1	0.1	0.1	0.1

#### where

- = the sampling fraction or the percent of file completeness/100 from table I. For mortality data based on deaths under 1 year of age, use the 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 the f for "deaths 1 year of age and over" for either the demographic or medical files as appropriate.
- = the estimated number of infant deaths or deaths.
- = the total count of infant deaths or deaths for the United States or any State. (Note: The RSEs shown in table IV 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 percent (P) and to compute statistical tests concerning the equality of two rates ( $R_1$ and  $R_2$ ) or two percents ( $P_1$  and  $P_2$ ).

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

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

3. 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

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

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

This means that the chances are 95 times 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 follows:

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

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

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

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

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

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

where

8. RSE(R') = 100 
$$\frac{\sum_{j} \left\{ w_{i}^{2} R_{j}^{2} \left[ \frac{1}{X_{i}} + \frac{(1 - f_{i})(N_{i} - X_{j})}{f_{i} X_{i}(N_{i} - \frac{1}{f_{i}})} \right] \right\}}{R'}$$

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  $\Sigma w_i$  = 1.000000 (see "Computing rates and percents").

 $X_i$  = the estimated number of deaths for the *i*th age group.

- N<sub>i</sub> = the total count of deaths from table I for each 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 1 year and over).
- f<sub>i</sub> = percent 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 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  $|z| \ge 1.96$ , 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 follows:

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

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 percents 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 follows:

10. RSE(R<sub>3</sub>) = 100 
$$\sqrt{\frac{\left(RSE(D)\right)^2 + \left(RSE(B)\right)^2}{100}} + \sqrt{\frac{RSE(B)}{100}}$$

where

RSE(D) = the RSE of the number of deaths, D RSE(B) = the RSE of the number of births, B

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

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

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

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

RSE(R<sub>3</sub>) = 100 
$$\sqrt{\frac{(21.8)^2}{100} + \frac{(2.5)^2}{100}}$$
 = 21.9

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

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

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

Contents										
Abstract										
Introduction										
Sources and methods										
Data sources										
Results										
Trends in numbers and rates 2										
Causes of death										
References										
List of detailed tables 6										
Technical notes 29										

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