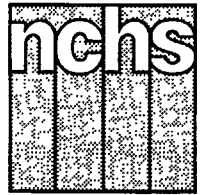


# Monthly Vital Statistics Report



Provisional Data From the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

## Births, Marriages, Divorces, and Deaths for September 1993

<b>Mortality Surveillance System</b> pages 4-7
<b>Motor vehicle accidents:</b> 15-24 years of age by sex 65 years and over by sex
<b>State Maps</b> pages 8 and 9
<b>Motor vehicle accidents by sex</b>

Due to the availability of population estimates that are based on the results of the 1990 census enumeration, provisional rates for 1992 have been recomputed to permit a valid comparison with the 1993 provisional rates. Provisional birth, marriage, divorce, and death rates, along with estimated death rates based on the Current Mortality Sample for 1992 have been recomputed, using revised population estimates based on the 1990 enumerated population. Therefore, all rates shown for 1992 are comparable with those for 1993.

United States during September 1993. This was a decrease of 1 percent from the provisional number of births reported for September 1992 (357,000). The birth rate, 16.7 live births per 1,000 population, was 2 percent lower than the rate of 17.0 for September 1992. The fertility rate, 73.1 live births per 1,000 women aged 15-44 years, was 1 percent lower than the comparable rate for September 1992 (73.7). The seasonally adjusted fertility rate (68.4) was also 1 percent lower than the comparable rate for September 1992 (69.0).

### Births

According to provisional reports, an estimated 355,000 births occurred in the

During the first three quarters of 1993, an estimated 3,055,000 births occurred, a slight decrease from the 3,082,000 reported for the first three

### Provisional Vital Statistics for the United States

[Rates for infant deaths are deaths under 1 year per 1,000 live births; fertility rates are live births per 1,000 women aged 15-44 years; all other rates per 1,000 total population. Data are subject to monthly reporting variation; see Technical notes]

Item	September				January-September				12 months ending with September			
	Number		Rate		Number		Rate		Number		Rate	
	1993	1992	1993	1992	1993	1992	1993	1992	1993	1992	1993	1992
Live births . . . . .	355,000	357,000	16.7	17.0	3,055,000	3,082,000	15.9	16.2	4,057,000	4,103,000	15.8	16.1
Fertility rate . . . . .	...	...	73.1	73.7	...	...	69.1	69.8	...	...	68.7	69.6
Deaths . . . . .	174,000	169,000	8.2	8.1	1,698,000	1,635,000	8.8	8.6	2,239,000	2,183,000	8.7	8.6
Infant deaths . . . . .	2,600	2,700	7.6	8.0	25,200	25,900	8.3	8.5	33,700	34,800	8.4	8.5
Natural increase . . . . .	181,000	188,000	8.5	8.9	1,357,000	1,447,000	7.1	7.6	1,818,000	1,920,000	7.1	7.5
Marriages . . . . .	221,000	227,000	10.4	10.8	1,772,000	1,782,000	9.2	9.3	2,351,000	2,360,000	9.1	9.3
Divorces . . . . .	101,000	99,000	4.7	4.7	898,000	914,000	4.7	4.8	1,199,000	1,203,000	4.7	4.7
Population base (in millions) . . . . .	...	...	258.4	255.6	...	...	...	...	...	...	257.2	254.3

NOTES: Figures include all revisions received from the States. Twelve-month figures for the current year reflect revisions received for previous months, and figures for earlier years may differ from those previously published. Rates for 1992 (except infant mortality) have been recomputed based on revised population estimates; see Technical notes.

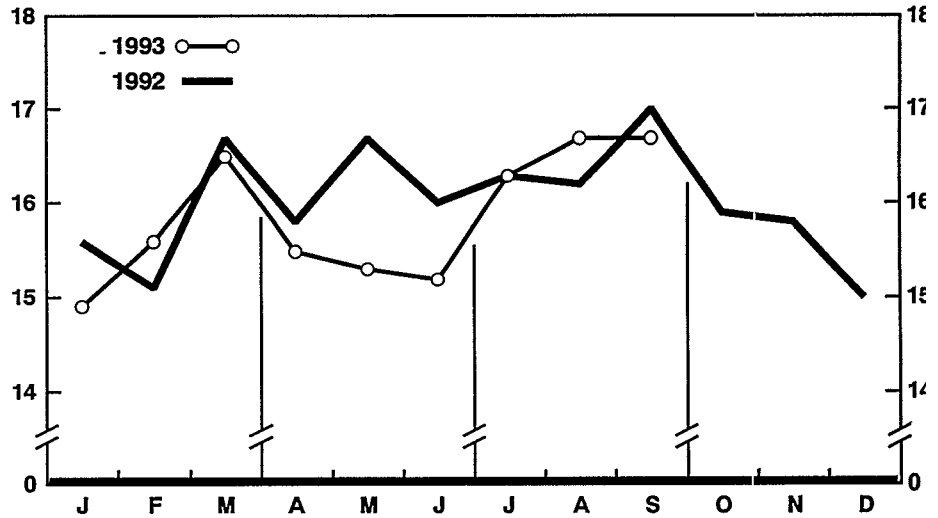


**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
Public Health Service  
Centers for Disease Control and Prevention  
National Center for Health Statistics



quarters of the previous year. The birth rate during this period declined by 2 percent from 16.2 in 1992 to 15.9 in 1993.

An estimated 4,057,000 live births occurred in the 12-month period ending with September 1993, a decline of 1 percent from the 4,103,000 births reported for the same period a year earlier. The birth rate of 15.8 was 2 percent lower than the rate of 16.1 for the preceding 12 months. The fertility rate for the most recent 12-month period was 68.7, 1 percent lower than the rate for the 12 months ending with September 1992 (69.6). These lower rates continue the generally downward trend observed since early 1991.

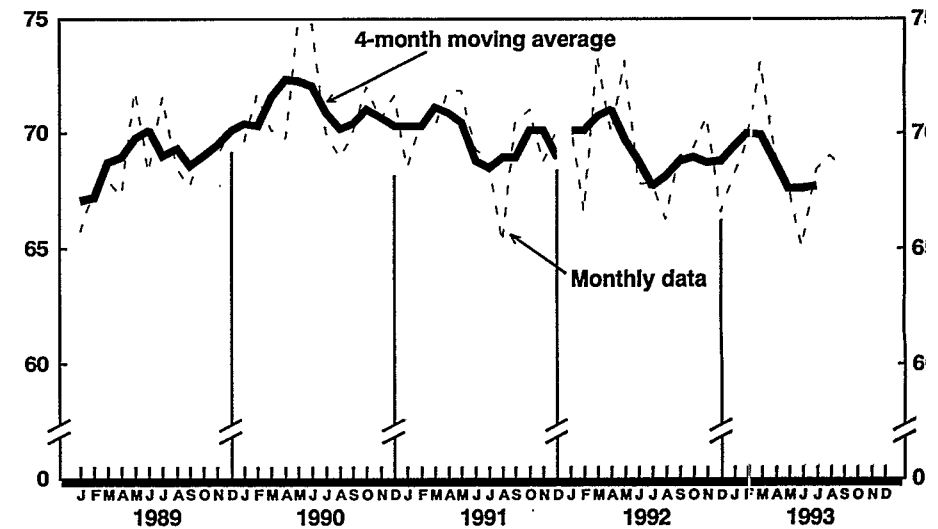


Provisional birth rates per 1,000 population by month: United States, 1992-93

**Natural increase**

As a result of natural increase, the excess of births over deaths, an estimated 181,000 people, or 8.5 persons per 1,000 population, were added to the population during September 1993.

For the 12-month period ending with September 1993, 1,818,000 persons were added to the population. This represents a rate of natural increase of 7.1, 5 percent lower than the rate of 7.5 for the preceding 12-month period. The decline in the rate of natural increase is due to a decrease in the birth rate and an increase in the death rate.



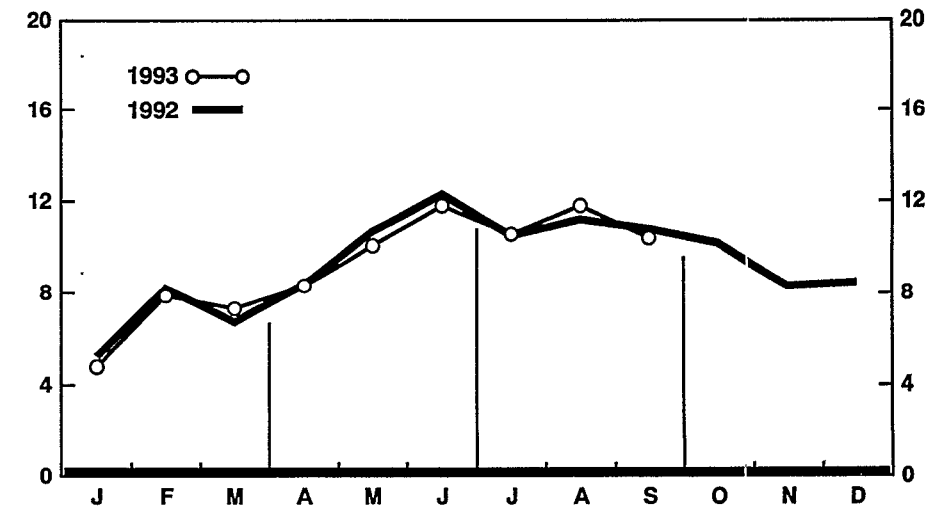
Provisional seasonally adjusted fertility rates per 1,000 women aged 15-44 years: United States, 1989-93

**Marriages**

Marriages performed in September 1993 numbered 221,000, 3 percent fewer than in September 1992 (227,000). The marriage rate per 1,000 population for September was 4 percent lower in 1993 (10.4) than in 1992 (10.8).

For the first three quarters of 1993, the number of marriages and the marriage rate were 1 percent lower than for the comparable period a year earlier. The number of marriages for the period dropped from 1,782,000 in 1992 to 1,772,000 in 1993 while the marriage rate declined from 9.3 to 9.2.

For the 12-month period ending with September 1993, the number of marriages totaled 2,351,000, a slight decline from the same period of the previous year (2,360,000). The marriage rate was 9.1, 2 percent lower than the rate for the 12 months ending with September 1992



Provisional marriage rates per 1,000 population by month: United States, 1992-93

### Divorces

An estimated 101,000 divorces were granted in September 1993, a 2-percent increase compared with September 1992 (99,000). The divorce rate per 1,000 population for September was 4.7 for both years.

Despite the increase in the number of divorces for September 1993, the cumulative number of divorces for January–September was 2 percent lower in 1993 (898,000) than in 1992 (914,000). The divorce rate for this 9-month period was 4.7 in 1993, also 2 percent lower than in 1992 (4.8).

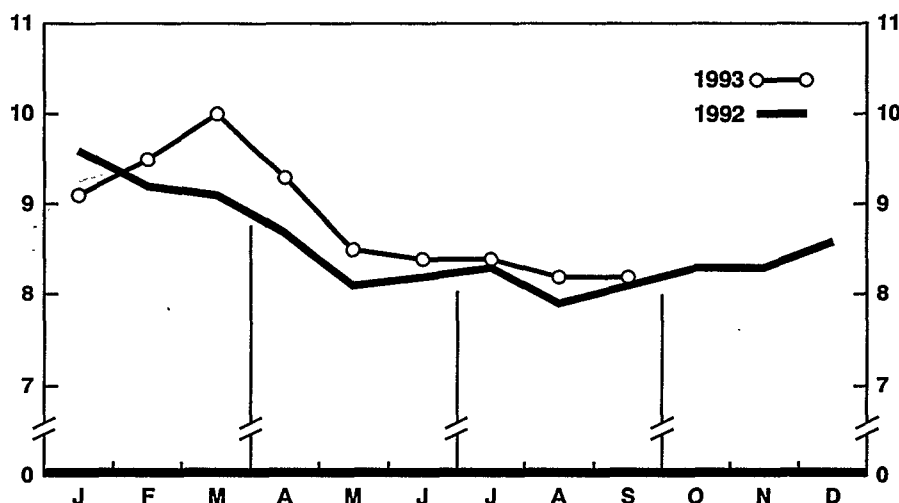
The number of divorces granted during the 12 months ending with September 1993 (1,199,000) was almost the same as for the comparable period a year earlier (1,203,000). The divorce rate for the period remained unchanged at 4.7.

### Deaths

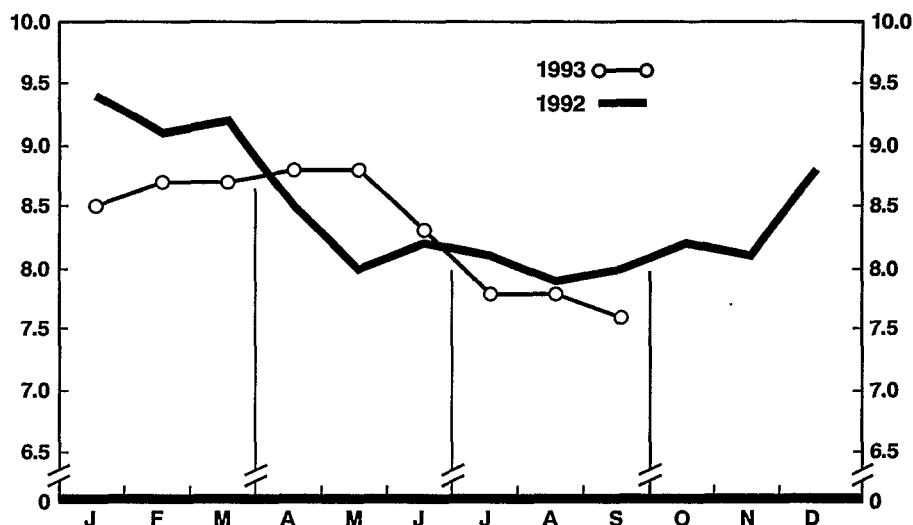
For September 1993 there were an estimated 174,000 deaths in the United States. The death rate was 8.2 deaths per 1,000 population, 1 percent higher than the rate for September a year earlier. Among the 174,000 deaths for September 1993 were 2,600 deaths at ages under 1 year.

According to provisional statistics, there were 1,698,000 deaths during the first 9 months of 1993, 4 percent higher than the number estimated for January–September 1992 (1,635,000). The death rate, 8.8 per 1,000 population, was 2 percent higher than the January–September 1992 rate of 8.6. Among the 1,698,000 deaths for the first 9 months of 1993 were 25,200 deaths at ages under 1 year, yielding an infant mortality rate of 8.3 per 1,000 live births. This rate was 2 percent lower than the rate of 8.5 for the first 9 months of 1992.

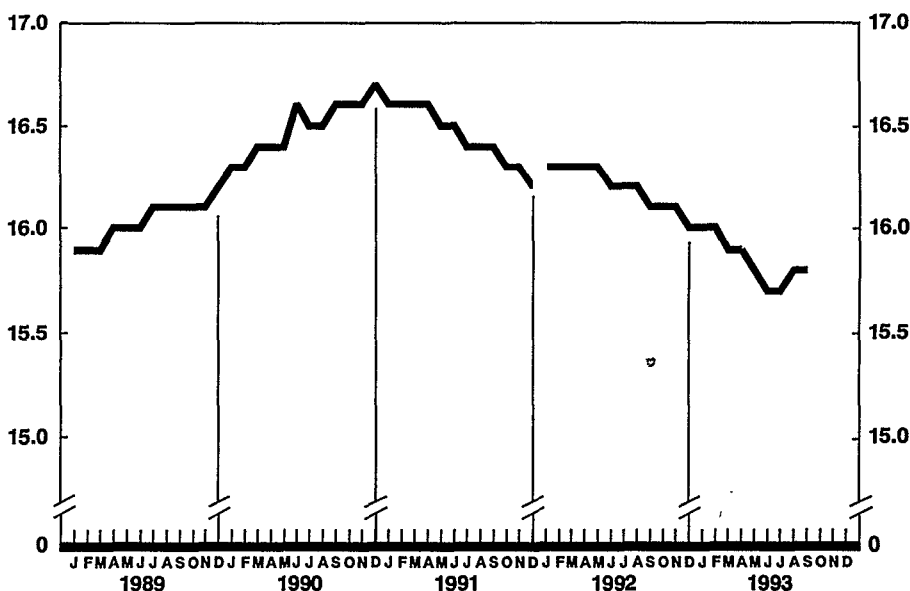
The death rate for the 12 months ending with September 1993 was 8.7 deaths per 1,000 population, 1 percent higher than the rate of 8.6 for the comparable 12-month period a year earlier. The infant mortality rate for this 12-month period was 8.4 per 1,000 live births compared with a rate of 8.5 for the 12 months ending with September 1992. The change in the infant mortality rate was not statistically significant.



Provisional death rates per 1,000 population by month: United States, 1992–93



Provisional infant mortality rates per 1,000 live births by month: United States, 1992–93



Provisional birth rates per 1,000 population for successive 12-month periods ending with month indicated: United States, 1989–93

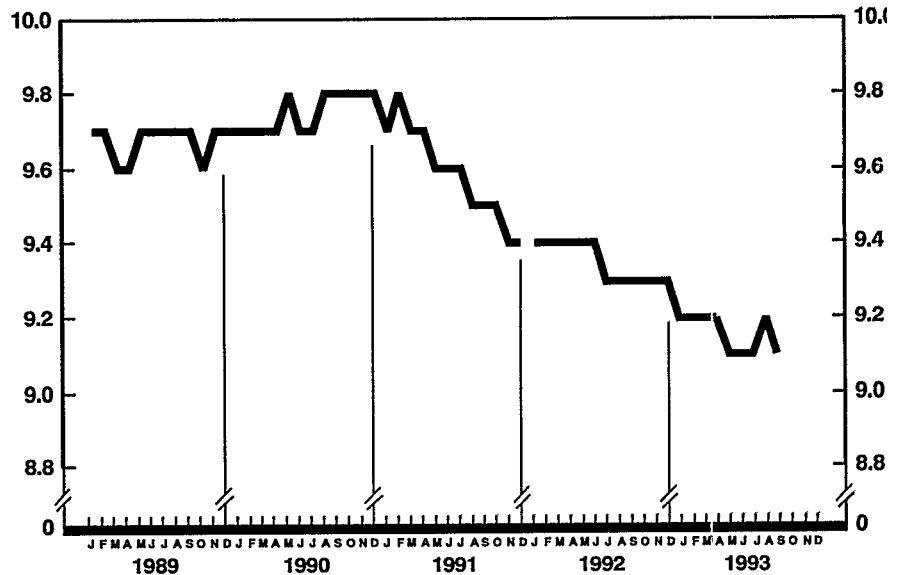
**Current Mortality Sample, 12 months ending with August 1993**—The provisional death rate for the 12 months ending with August 1993 was 869.8 deaths per 100,000 population, 1 percent higher than the rate of 857.8 for the 12-month period ending with August 1992. The provisional age-adjusted death rate for the 12-month period ending with August 1993 was 510.0 deaths per 100,000 U.S. standard million population compared with a rate of 509.0 for the 12-month period ending with August 1992. The change in the age-adjusted death rate was not statistically significant. Age-adjusted death rates control for changes and variations in the age composition of the population; therefore, they are better indicators than crude rates for showing changes in mortality risk over time and for showing differences between race-sex groups within the population. Among the race-sex groups, the estimated age-adjusted death rate increased for black females. By age, the changes in death rates for the total population were not statistically significant.

Among the major causes of death, the estimated death rate increased between the two successive 12-month periods for Chronic obstructive pulmonary diseases and Human immunodeficiency virus infection. The death rate decreased between the two successive 12-month periods for Accidents and adverse effects and Homicide and legal intervention.

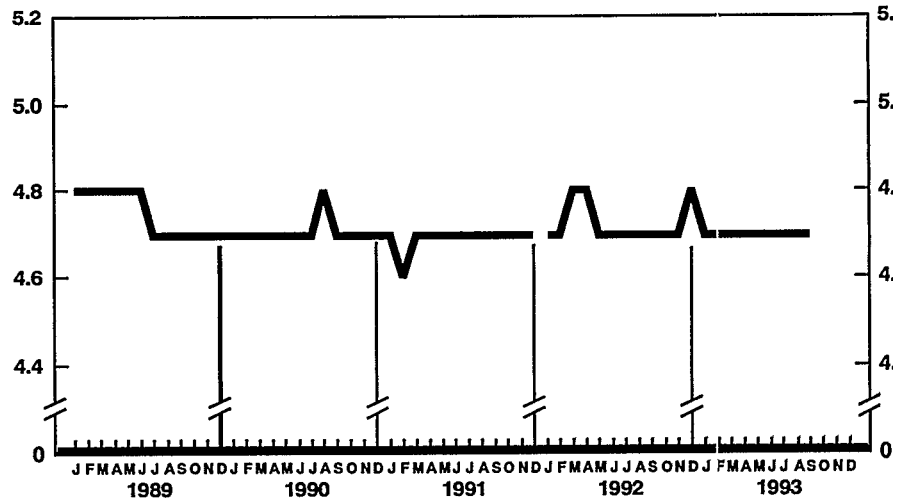
The infant mortality rate for the 12 months ending with August 1993 was 838.5 per 100,000 live births, 2 percent lower than the rate of 855.6 for the same 12-month period a year earlier. For infants under 28 days, the rate for the 12 months ending with August 1993 was 525.3 compared with a rate of 536.8 for the 12-month period a year earlier. The infant mortality rate for infants 28 days to 11 months was 313.1 compared with a rate of 318.7 for the 12-month period a year earlier. The changes in the mortality rate for infants under 28 days and for those 28 days to 11 months were not statistically significant.

**Mortality Surveillance System**

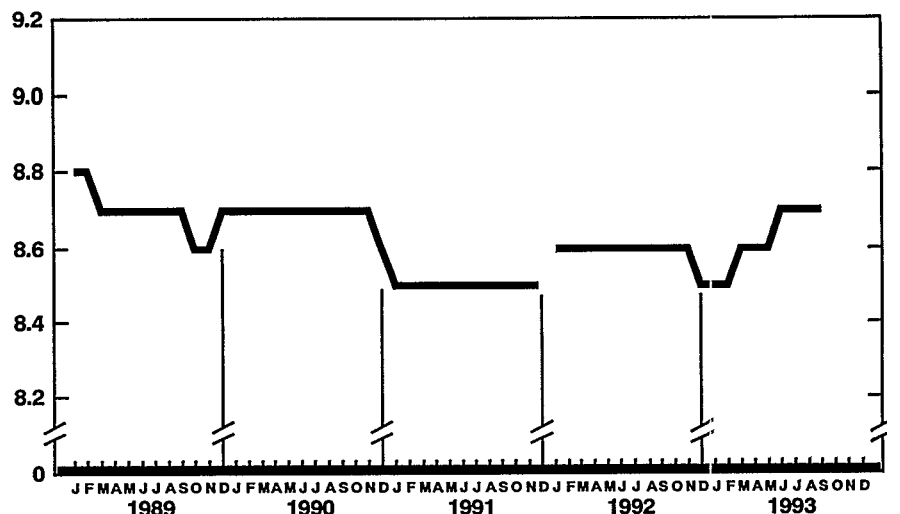
Discussed this month are recent trends in death rates for Motor vehicle



Provisional marriage rates per 1,000 population for successive 12-month periods ending with month indicated: United States, 1989-93



Provisional divorce rates per 1,000 population for successive 12-month periods ending with month indicated: United States, 1989-93



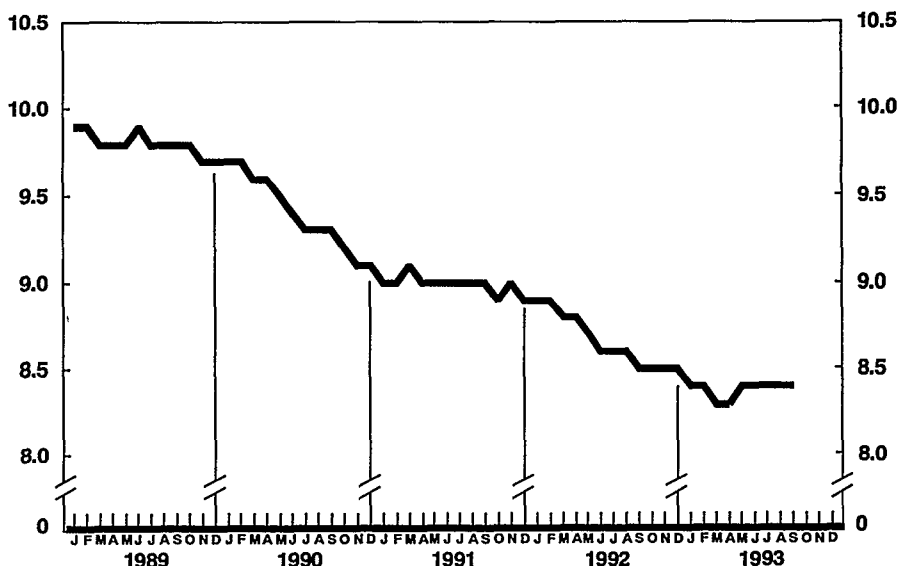
Provisional death rates per 1,000 population for successive 12-month periods ending with month indicated: United States, 1989-93

accidents for males and females aged 15–24 years and 65 years and over. In this issue final mortality data are analyzed for data year 1991 and provisional data from January 1984 through June 1993.

In 1991 the latest year for which final mortality data are available, Accidents and adverse effects (accidents) was the leading cause of death for men aged 15–24 years and accounted for 11,534 deaths, or 42 percent of deaths from all causes for men in this age group. Motor vehicle accidents, a major component of accident mortality for men aged 15–24 years, accounted for 8,468 deaths, or 31 percent of all deaths and 73 percent of all accident deaths for men in this age group. For women aged 15–24, accident deaths were the leading cause of death and accounted for 3,744 deaths, or 42 percent of deaths from all causes for women in this age group. Motor vehicle accidents for women aged 15–24 years accounted for 3,196 deaths, or 36 percent of all deaths and 85 percent of all accident deaths.

Accidents were the seventh leading cause of death for men aged 65 years and over and accounted for 13,163 deaths, or 2 percent of all deaths for men in this age group. Motor vehicle accidents for men aged 65 years and over accounted for 3,956 deaths, or 30 percent of all accident deaths for men in this age group. For women aged 65 years and over, accident deaths were the seventh leading cause of death and accounted for 13,281 deaths, or 2 percent of all deaths. Motor vehicle accidents for women aged 65 years and over accounted for 3,088 deaths, or 23 percent of all accident deaths for this age-sex group.

Based on 1991 final data, the Motor vehicle accident death rate for men aged 15–24 years was 2.5 times the rate for women in this age group; for men aged 65 years and over, the rate was 1.9 times the rate for women in this age group. Trends based on provisional data for Motor vehicle accidents for these demographic groups are presented in the Mortality Surveillance System charts and accompanying text that follow.

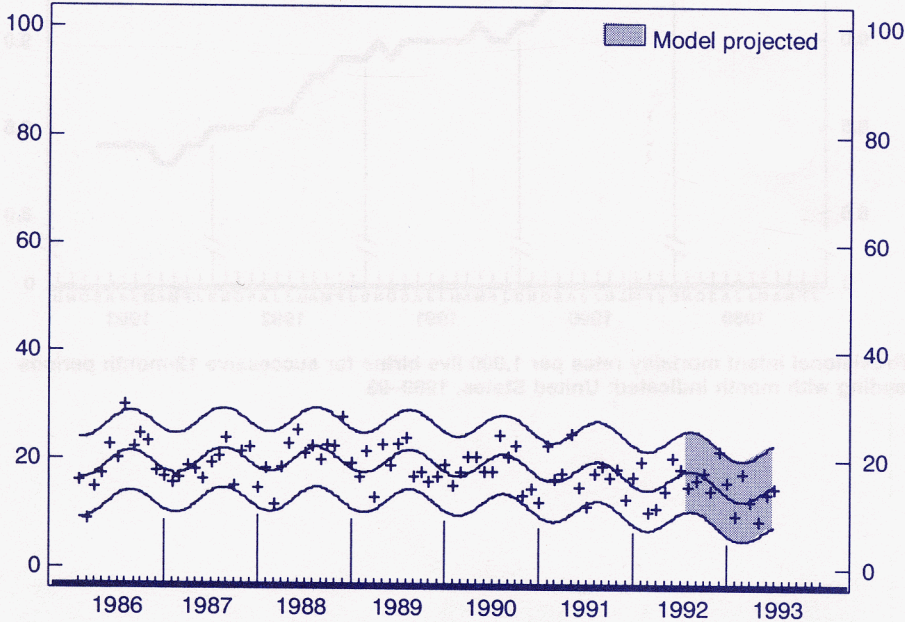


Provisional infant mortality rates per 1,000 live births for successive 12-month periods ending with month indicated: United States, 1989–93

## Mortality Surveillance System charts

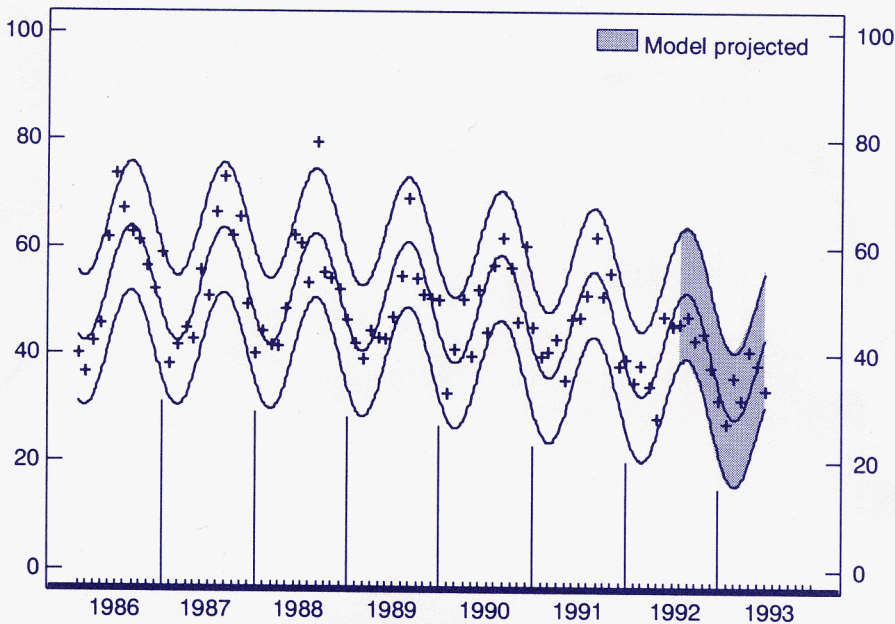
[Observed and fitted provisional monthly death rates and 95-percent prediction intervals. Model fitted using death rates for January 1984–June 1992; projected for July 1992–June 1993. See Technical notes]

Trends in mortality from Motor vehicle accidents are presented in the charts below. Reduction of mortality from Motor vehicle accidents is addressed in *Healthy People 2000* (objective 9.3) (1).



Provisional death rates per 100,000 females 15–24 years of age for Motor vehicle accidents by month: United States, 1986–93

- For the modeled period, provisional death rates have decreased since 1988.
- For the projection period, observed provisional monthly death rates fell within 95-percent prediction intervals.
- Mortality shows a seasonal pattern with death rates higher in summer.



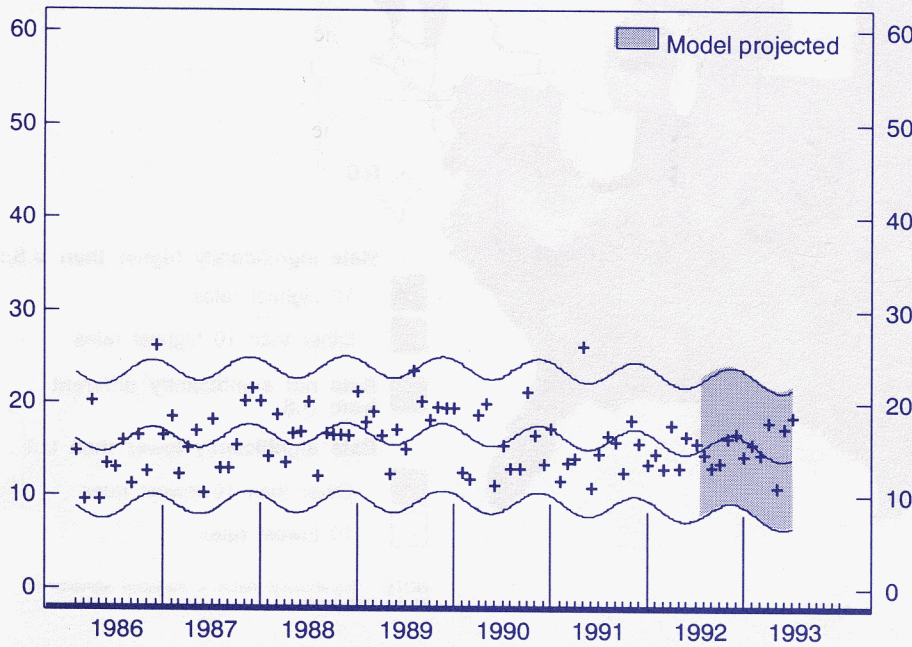
Provisional death rates per 100,000 males 15–24 years of age for Motor vehicle accidents by month: United States, 1986–93

- For the modeled period, provisional death rates have decreased since 1987.
- For the projection period, observed provisional monthly death rates fell within 95-percent prediction intervals.
- Mortality shows a seasonal pattern with death rates higher in summer.

### Mortality Surveillance System charts—Con.

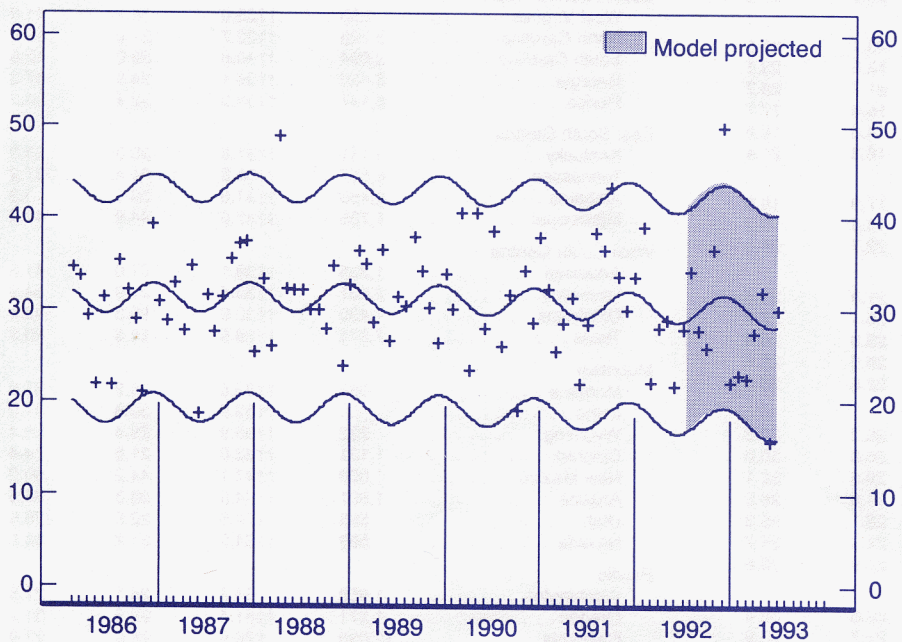
[Observed and fitted provisional monthly death rates and 95-percent prediction intervals. Model fitted using death rates for January 1984–June 1992; projected for July 1992–June 1993. See Technical notes]

Trends in mortality from Motor vehicle accidents are presented in the charts below. Reduction of mortality from Motor vehicle accidents is addressed in *Healthy People 2000* (objective 9.3) (1).



Provisional death rates per 100,000 females 65 years and over for Motor vehicle accidents by month: United States, 1986–93

- For the modeled period, provisional death rates have decreased slightly since 1990.
- For the projection period, observed provisional monthly death rates fell within 95-percent prediction intervals.
- Mortality shows a seasonal pattern with death rates higher in fall.

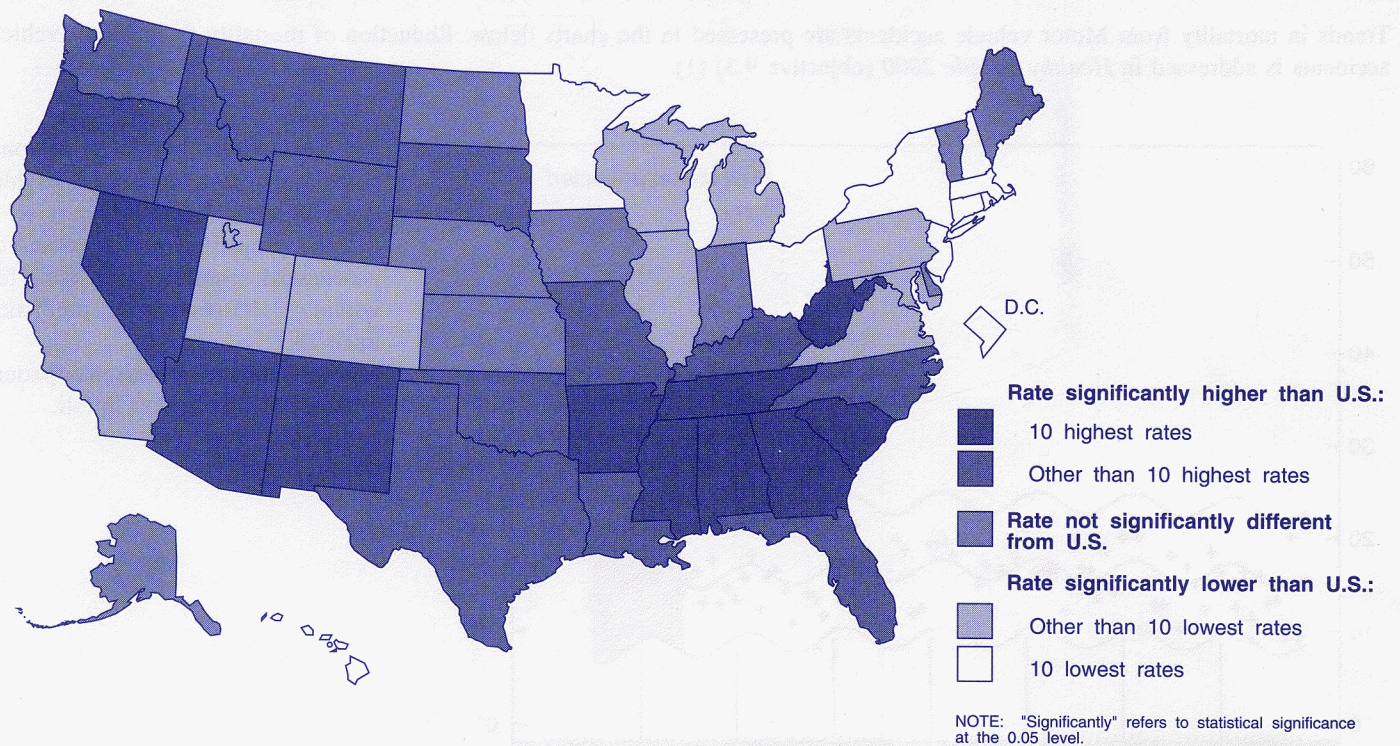


Provisional death rates per 100,000 males 65 years and over for Motor vehicle accidents by month: United States, 1986–93

- For the modeled period, provisional death rates showed no discernible upward or downward trend.
- For the projection period, observed provisional monthly death rates, except for 2 months, fell within 95-percent prediction intervals.
- Mortality shows a seasonal pattern with death rates higher in fall.

**Final 3-year total number of deaths and average annual age-adjusted death rates and 95-percent confidence limits for Motor vehicle accidents for males: United States and each State, 1988-90**

[Data are final by State of residence]



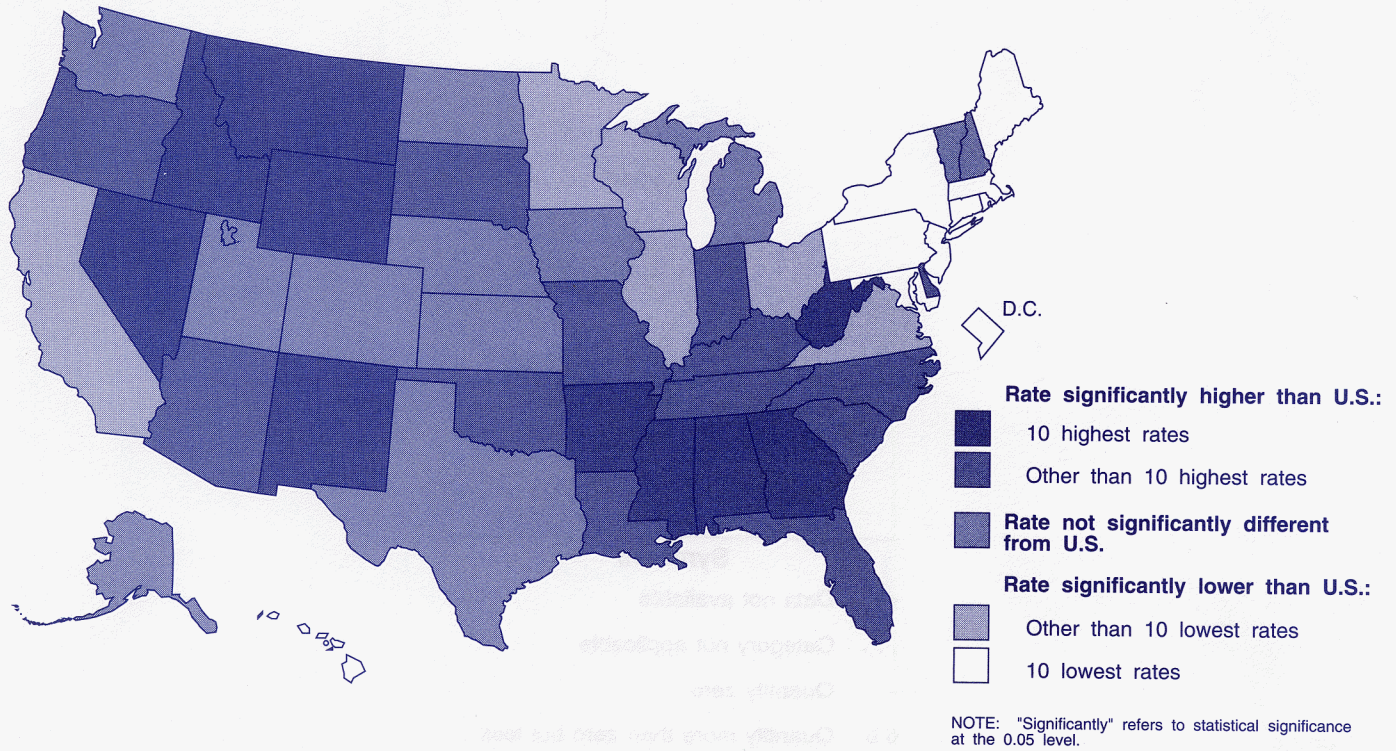
Area	Deaths, 3-year total (final)	Age-adjusted rate (final)	95-percent confidence limits		Area	Deaths, 3-year total (final)	Age-adjusted rate (final)	95-percent confidence limits	
			Lower	Upper				Lower	Upper
United States . . . . .	99,368	27.1	26.9	27.3	South Atlantic—Con.				
New England					West Virginia . . . . .	993	††38.6	36.2	41.0
Maine . . . . .	458	25.5	23.1	27.9	North Carolina . . . . .	3,223	††32.7	31.6	33.8
New Hampshire . . . . .	338	††20.8	18.5	23.1	South Carolina . . . . .	2,094	††40.8	39.0	42.6
Vermont . . . . .	210	25.2	21.7	28.7	Georgia . . . . .	3,420	††36.1	34.9	37.3
Massachusetts . . . . .	1,536	††16.8	15.9	17.7	Florida . . . . .	6,147	††33.3	32.4	34.2
Rhode Island . . . . .	255	††16.7	14.6	18.8	East South Central				
Connecticut . . . . .	967	††20.1	18.8	21.4	Kentucky . . . . .	1,711	††31.8	30.3	33.3
Middle Atlantic					Tennessee . . . . .	2,557	††35.8	34.4	37.2
New York . . . . .	4,947	††18.4	17.9	18.9	Alabama . . . . .	2,465	††41.6	39.9	43.3
New Jersey . . . . .	2,000	††17.4	16.6	18.2	Mississippi . . . . .	1,735	††47.0	44.8	49.2
Pennsylvania . . . . .	4,062	††23.4	22.7	24.1	West South Central				
East North Central					Arkansas . . . . .	1,335	††39.1	37.0	41.2
Ohio . . . . .	3,556	††22.7	21.9	23.5	Louisiana . . . . .	2,031	††33.4	31.9	34.9
Indiana . . . . .	2,123	26.2	25.1	27.3	Oklahoma . . . . .	1,430	††30.9	29.3	32.5
Illinois . . . . .	4,008	††23.7	23.0	24.4	Texas . . . . .	7,374	††29.5	28.8	30.2
Michigan . . . . .	3,529	††25.9	25.0	26.8	Mountain				
Wisconsin . . . . .	1,700	††23.8	22.6	25.0	Montana . . . . .	386	††33.6	30.2	37.0
West North Central					Idaho . . . . .	490	††33.9	30.8	37.0
Minnesota . . . . .	1,359	††21.4	20.2	22.6	Wyoming . . . . .	222	††33.9	29.4	38.4
Iowa . . . . .	1,138	28.3	26.6	30.0	Colorado . . . . .	1,131	††23.0	21.6	24.4
Missouri . . . . .	2,245	††30.8	29.5	32.1	New Mexico . . . . .	1,020	††47.1	44.2	50.0
North Dakota . . . . .	243	25.2	21.9	28.5	Arizona . . . . .	1,881	††34.9	33.3	36.5
South Dakota . . . . .	318	†31.7	28.1	35.3	Utah . . . . .	595	†24.5	22.5	26.5
Nebraska . . . . .	600	26.5	24.3	28.7	Nevada . . . . .	599	††34.0	31.2	36.8
Kansas . . . . .	1,001	27.7	25.9	29.5	Pacific				
South Atlantic					Washington . . . . .	1,858	26.3	25.1	27.5
Delaware . . . . .	267	27.1	23.8	30.4	Oregon . . . . .	1,271	††31.4	29.6	33.2
Maryland . . . . .	1,596	††22.8	21.7	23.9	California . . . . .	12,030	†26.5	26.0	27.0
District of Columbia . . . . .	171	††18.1	15.3	20.9	Alaska . . . . .	219	25.6	22.1	29.1
Virginia . . . . .	2,183	††23.6	22.6	24.6	Hawaii . . . . .	341	††19.8	17.7	21.9

NOTES: Data are final. Rates per 100,000 U.S. standard million population; see Technical notes. The symbols † and †† denote statistical significance of the difference between the U.S. and State rates at the 0.05 and 0.01 levels, respectively. For method of computation of rates, confidence limits, and tests of statistical significance, see Technical notes.



**Final 3-year total number of deaths and average annual age-adjusted death rates and 95-percent confidence limits for Motor vehicle accidents for females: United States and each State, 1988-90**

[Data are final by State of residence]



Area	Deaths, 3-year total (final)	Age-adjusted rate (final)	95-percent confidence limits		Area	Deaths, 3-year total (final)	Age-adjusted rate (final)	95-percent confidence limits	
			Lower	Upper				Lower	Upper
United States . . . . .	44,099	11.1	11.0	11.2	South Atlantic—Con.				
New England					West Virginia . . . . .	455	††16.1	14.5	17.7
Maine . . . . .	184	††9.2	7.8	10.6	North Carolina . . . . .	1,437	††13.5	12.8	14.2
New Hampshire . . . . .	182	10.3	8.7	11.9	South Carolina . . . . .	841	††15.2	14.1	16.3
Vermont . . . . .	104	11.9	9.5	14.3	Georgia . . . . .	1,661	††16.3	15.5	17.1
Massachusetts . . . . .	678	††6.3	5.8	6.8	Florida . . . . .	2,828	††13.6	13.0	14.2
Rhode Island . . . . .	114	††5.9	4.7	7.1	East South Central				
Connecticut . . . . .	403	††7.2	6.4	8.0	Kentucky . . . . .	836	††14.3	13.3	15.3
Middle Atlantic					Tennessee . . . . .	1,083	††13.9	13.0	14.8
New York . . . . .	2,334	††7.4	7.1	7.7	Alabama . . . . .	1,062	††16.2	15.2	17.2
New Jersey . . . . .	1,014	††7.6	7.1	8.1	Mississippi . . . . .	707	††17.2	15.9	18.5
Pennsylvania . . . . .	1,769	††8.7	8.3	9.1	West South Central				
East North Central					Arkansas . . . . .	617	††16.6	15.2	18.0
Ohio . . . . .	1,741	††10.0	9.5	10.5	Louisiana . . . . .	823	††12.4	11.5	13.3
Indiana . . . . .	1,112	††12.2	11.4	13.0	Oklahoma . . . . .	655	††13.4	12.3	14.5
Illinois . . . . .	1,821	††9.9	9.4	10.4	Texas . . . . .	2,984	11.4	11.0	11.8
Michigan . . . . .	1,744	11.5	10.9	12.1	Mountain				
Wisconsin . . . . .	805	††10.1	9.4	10.8	Montana . . . . .	187	††16.1	13.7	18.5
West North Central					Idaho . . . . .	251	††16.6	14.5	18.7
Minnesota . . . . .	653	††9.7	8.9	10.5	Wyoming . . . . .	114	††17.9	14.6	21.2
Iowa . . . . .	482	10.7	9.7	11.7	Colorado . . . . .	575	11.7	10.7	12.7
Missouri . . . . .	987	††12.0	11.2	12.8	New Mexico . . . . .	410	††18.1	16.3	19.9
North Dakota . . . . .	99	9.4	7.4	11.4	Arizona . . . . .	799	††13.9	12.9	14.9
South Dakota . . . . .	154	††14.5	12.1	16.9	Utah . . . . .	316	12.5	11.1	13.9
Nebraska . . . . .	293	11.8	10.4	13.2	Nevada . . . . .	262	††16.0	14.0	18.0
Kansas . . . . .	447	11.5	10.4	12.6	Pacific				
South Atlantic					Washington . . . . .	791	10.8	10.0	11.6
Delaware . . . . .	150	††14.2	11.9	16.5	Oregon . . . . .	617	††13.8	12.6	15.0
Maryland . . . . .	647	††8.4	7.7	9.1	California . . . . .	4,682	††10.2	9.9	10.5
District of Columbia . . . . .	66	††6.2	4.6	7.8	Alaska . . . . .	80	11.2	8.7	13.7
Virginia . . . . .	915	††9.4	8.8	10.0	Hawaii . . . . .	128	††8.0	6.6	9.4

NOTES: Data are final. Rates per 100,000 U.S. standard million population; see Technical notes. The symbols † and †† denote statistical significance of the difference between the U.S. and State rates at the 0.05 and 0.01 levels, respectively. For method of computation of rates, confidence limits, and tests of statistical significance, see Technical notes.

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**Symbols**

- - - Data not available
  - . . . Category not applicable
  - Quantity zero
  - 0.0 Quantity more than zero but less than 0.05
  - \* Figure does not meet standards of reliability or precision (see Technical notes)
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Table 1. Provisional number of live births, marriages, deaths, infant deaths, and rates by month: United States, January 1992–September 1993

[Data are provisional and are subject to monthly reporting variation; see Technical notes]

Period	Live births				Marriages		Deaths		Infant deaths	
	Number	Rate per 1,000 population	Rate per 1,000 women aged 15–44 years		Number	Rate per 1,000 population	Number	Rate per 1,000 population	Number	Rate per 1,000 live births
			Unadjusted	Seasonally adjusted <sup>1</sup>						
<b>1992:</b>										
January . . . . .	334,000	15.6	66.9	70.4	112,000	5.2	207,000	9.6	3,200	9.4
February . . . . .	304,000	15.1	65.1	66.6	166,000	8.2	185,000	9.2	2,900	9.1
March . . . . .	360,000	16.7	72.0	73.4	145,000	6.7	195,000	9.1	3,200	9.2
April . . . . .	330,000	15.8	68.3	70.0	175,000	8.4	181,000	8.7	2,800	8.5
May . . . . .	361,000	16.7	72.2	73.2	231,000	10.7	175,000	8.1	2,800	8.0
June . . . . .	333,000	16.0	68.9	67.8	256,000	12.3	172,000	8.2	2,700	8.2
July . . . . .	352,000	16.3	70.5	67.8	228,000	10.5	180,000	8.3	2,800	8.1
August . . . . .	350,000	16.2	70.1	66.3	242,000	11.2	172,000	7.9	2,700	7.9
September . . . . .	357,000	17.0	73.7	69.0	227,000	10.8	169,000	8.1	2,700	8.0
October . . . . .	345,000	15.9	69.1	69.3	221,000	10.2	181,000	8.3	2,900	8.2
November . . . . .	332,000	15.8	68.6	70.7	174,000	8.3	175,000	8.3	2,700	8.1
December . . . . .	325,000	15.0	65.0	66.6	184,000	8.5	186,000	8.6	2,900	8.8
<b>1993:</b>										
January . . . . .	325,000	14.9	64.7	68.1	103,000	4.8	198,000	9.1	2,900	8.5
February . . . . .	308,000	15.6	68.0	69.6	154,000	7.9	187,000	9.5	2,700	8.7
March . . . . .	360,000	16.5	71.7	73.1	157,000	7.3	217,000	10.0	3,100	8.7
April . . . . .	328,000	15.5	67.5	69.1	174,000	8.3	196,000	9.3	2,900	8.8
May . . . . .	335,000	15.3	66.8	67.7	221,000	10.1	185,000	8.5	2,900	8.8
June . . . . .	321,000	15.2	66.1	65.1	251,000	11.8	178,000	8.4	2,600	8.3
July . . . . .	357,000	16.3	71.2	68.4	232,000	10.6	184,000	8.4	2,800	7.8
August . . . . .	367,000	16.7	73.0	69.0	259,000	11.8	180,000	8.2	2,700	7.8
September . . . . .	355,000	16.7	73.1	68.4	221,000	10.4	174,000	8.2	2,600	7.6

<sup>1</sup>The method of seasonal adjustment, developed by the U.S. Bureau of the Census, is described in *The X-11 Variant of the Census Method II Seasonal Adjustment Program*, Technical Paper No. 15 (1987 revision).

NOTES: Figures include all revisions received from the States and, therefore, may differ from those previously published. Rates for 1992 (except infant mortality) have been recomputed based on revised population estimates; see Technical notes.

Table 2. Provisional number of live births and deaths: each division and State, September 1992 and 1993, and cumulative figures, 1991-93

[Data are estimates by State of residence; see Technical notes]

Area	Live births					Deaths				
	September		January-September			September		January-September		
	1993	1992	1993	1992	1991	1993	1992	1993	1992	1991
New England . . . . .	113,950	15,322	1127,754	144,052	144,223	9,360	8,826	89,162	86,530	84,1
Maine . . . . .	---	1,277	---	11,835	12,288	816	781	8,299	8,070	8,1
New Hampshire . . . . .	1,185	1,142	11,592	11,694	12,427	768	724	6,714	6,112	6,2
Vermont . . . . .	670	483	5,620	5,616	5,730	431	413	3,702	3,610	3,4
Massachusetts . . . . .	7,279	7,265	67,661	68,352	66,915	4,236	4,063	42,189	40,855	38,7
Rhode Island . . . . .	1,236	1,106	10,885	10,960	10,963	686	726	7,282	6,942	6,9
Connecticut . . . . .	3,580	4,049	31,996	35,595	35,900	2,423	2,119	20,976	20,941	20,6
Middle Atlantic . . . . .	45,641	45,164	421,763	421,731	434,411	27,275	27,140	277,768	267,830	267,5
New York . . . . .	23,291	21,759	211,154	210,259	217,982	12,238	12,266	128,469	123,372	124,4
New Jersey . . . . .	8,956	9,195	88,884	85,469	86,761	5,637	5,955	54,721	52,732	51,7
Pennsylvania . . . . .	13,394	14,210	121,725	126,003	129,668	9,400	8,919	94,578	91,726	91,3
East North Central . . . . .	53,915	55,113	491,673	495,020	497,968	29,374	29,773	287,640	277,471	280,1
Ohio . . . . .	13,710	13,096	121,001	126,523	118,980	8,054	7,978	75,801	74,531	73,1
Indiana . . . . .	6,383	7,181	62,928	63,370	63,190	3,956	3,695	38,505	37,407	38,7
Illinois . . . . .	17,460	16,977	144,262	144,544	143,621	8,328	8,285	79,715	75,641	76,7
Michigan . . . . .	12,029	11,951	111,614	106,855	117,099	6,040	6,358	61,405	59,164	59,3
Wisconsin . . . . .	4,333	5,908	51,868	53,728	55,078	2,996	3,457	32,214	30,728	32,1
West North Central . . . . .	24,764	23,540	196,157	198,925	196,803	13,319	12,720	128,490	120,335	120,2
Minnesota . . . . .	5,502	5,702	48,708	49,965	50,526	2,940	2,810	26,956	25,880	25,9
Iowa . . . . .	3,322	3,582	27,573	28,899	25,718	2,025	2,130	21,562	20,154	18,2
Missouri . . . . .	6,485	7,162	57,993	58,473	58,785	4,122	3,870	41,727	37,221	39,2
North Dakota . . . . .	739	765	6,647	6,769	6,955	437	483	4,318	4,286	4,0
South Dakota . . . . .	1,082	1,118	8,303	8,681	8,233	658	618	5,122	5,296	4,8
Nebraska . . . . .	1,771	1,925	17,136	17,767	18,263	1,214	1,136	11,175	10,988	10,9
Kansas . . . . .	5,863	3,286	29,797	28,371	28,323	1,923	1,673	17,630	16,510	16,8
South Atlantic . . . . .	60,882	59,408	506,067	509,462	514,436	31,877	30,481	316,608	302,830	295,8
Delaware . . . . .	887	862	8,064	8,193	8,615	469	461	4,585	4,391	4,3
Maryland . . . . .	7,318	6,754	57,112	56,841	60,056	3,137	3,150	31,637	27,771	27,3
District of Columbia . . . . .	844	858	7,444	7,647	7,846	521	551	4,878	5,181	5,2
Virginia . . . . .	8,525	8,459	72,818	74,252	73,581	3,847	3,772	38,711	36,886	36,2
West Virginia . . . . .	1,744	1,908	16,754	17,129	16,882	1,527	1,488	15,070	15,354	14,9
North Carolina . . . . .	8,877	8,755	75,034	77,349	76,871	4,614	4,502	47,017	44,411	43,6
South Carolina . . . . .	5,712	4,676	41,734	42,281	43,510	2,513	2,287	23,565	22,910	22,0
Georgia . . . . .	10,463	11,118	84,486	85,235	83,799	4,835	3,855	42,429	39,896	39,8
Florida . . . . .	16,512	16,018	142,621	140,535	143,276	10,414	10,415	108,716	106,030	102,0
East South Central . . . . .	19,056	21,431	173,523	175,136	173,151	10,921	11,126	116,080	110,967	107,1
Kentucky . . . . .	4,946	4,734	39,717	40,868	41,719	2,812	3,026	27,823	26,622	26,1
Tennessee . . . . .	5,101	7,646	54,317	55,185	53,888	3,267	3,471	36,695	35,658	34,1
Alabama . . . . .	5,198	5,465	48,127	47,335	45,006	2,771	2,696	31,628	29,841	28,0
Mississippi . . . . .	3,811	3,586	31,362	31,748	32,538	2,071	1,933	19,934	18,846	18,8
West South Central . . . . .	44,294	43,297	368,942	366,674	360,388	17,355	17,654	178,374	171,777	168,4
Arkansas . . . . .	2,775	3,122	25,965	26,345	25,993	1,916	1,897	19,909	18,918	17,9
Louisiana . . . . .	5,328	6,253	53,033	55,701	56,579	3,099	3,160	31,310	29,407	29,3
Oklahoma . . . . .	4,279	4,664	35,070	36,398	36,459	2,454	2,372	24,261	22,860	22,6
Texas <sup>2</sup> . . . . .	31,912	29,258	254,874	248,230	241,357	9,886	10,225	102,894	100,592	98,5
Mountain . . . . .	19,756	19,822	185,246	186,356	182,950	8,276	8,041	82,192	77,688	75,1
Montana . . . . .	989	959	8,649	8,819	8,758	606	596	5,637	5,369	5,3
Idaho . . . . .	1,553	1,506	13,280	13,306	13,059	692	649	6,226	5,970	5,8
Wyoming . . . . .	539	640	4,938	5,244	5,119	307	292	2,617	2,499	2,3
Colorado . . . . .	4,795	4,335	42,121	41,319	40,917	1,913	1,827	17,621	16,624	16,6
New Mexico . . . . .	1,991	2,618	21,202	20,999	20,999	859	729	8,903	8,538	8,2
Arizona . . . . .	5,789	5,108	53,245	51,139	50,389	2,311	2,365	25,752	23,754	22,3
Utah . . . . .	3,055	2,925	27,879	28,445	26,483	755	774	7,481	7,342	6,8
Nevada . . . . .	1,045	1,731	14,751	16,882	17,226	833	809	7,955	7,592	7,5
Pacific . . . . .	161,099	63,916	1534,849	555,918	563,591	125,574	23,428	1219,840	219,756	219,5
Washington . . . . .	7,074	5,457	52,554	50,511	55,664	3,584	3,650	31,621	28,557	28,4
Oregon . . . . .	3,190	3,768	32,819	32,036	32,512	1,983	2,285	20,334	19,118	18,7
California <sup>2</sup> . . . . .	49,285	52,136	434,884	449,767	452,079	19,454	16,652	162,449	165,250	165,7
Alaska . . . . .	---	1,060	---	8,832	8,388	---	230	---	1,656	1,6
Hawaii . . . . .	1,550	1,495	14,592	14,772	14,948	553	611	5,436	5,175	5,0

<sup>1</sup>Excludes figures for State(s) shown below as not available.<sup>2</sup>Figures include adjustments for varying length of reporting periods; see Technical notes.

NOTES: Figures include all revisions received from the States. Cumulative figures for the current year reflect revisions received for previous months, and figures for earlier years may differ from those previously published.

Table 3. Provisional number of marriages and divorces: each division and State, September 1992 and 1993, and cumulative figures, 1991-93

[By State of occurrence. Number of events reported; see Technical notes. Divorces include reported annulments]

Area	Marriages					Divorces				
	September		January-September			September		January-September		
	1993	1992	1993	1992	1991	1993	1992	1993	1992	1991
New England . . . . .	17,807	10,895	149,524	71,552	74,325	13,202	3,645	124,523	35,250	33,08
Maine . . . . .	1,297	1,711	8,048	8,495	7,511	721	499	4,429	4,506	4,44
New Hampshire . . . . .	967	1,096	5,319	5,916	7,188	426	434	3,685	4,269	3,82
Vermont . . . . .	966	955	4,337	4,279	4,260	341	248	2,125	2,247	1,98
Massachusetts . . . . .	3,746	3,250	26,512	29,895	31,025	1,414	1,320	11,662	12,919	10,57
Rhode Island . . . . .	831	951	5,308	5,531	5,674	300	342	2,622	2,709	2,57
Connecticut . . . . .	---	2,932	---	17,436	18,667	---	802	---	8,600	9,69
Middle Atlantic . . . . .	33,694	31,086	209,870	212,239	216,551	11,502	9,987	90,753	91,539	91,53
New York <sup>2</sup> . . . . .	17,715	16,535	113,476	114,252	119,304	5,668	4,792	42,025	42,097	41,92
New Jersey . . . . .	6,196	6,054	39,049	39,999	40,876	2,069	2,010	18,863	19,443	19,79
Pennsylvania . . . . .	9,783	8,497	57,345	57,988	56,371	3,765	3,185	29,865	29,999	29,82
East North Central . . . . .	37,464	37,110	255,951	261,057	269,510	13,247	12,588	113,140	114,018	118,59
Ohio . . . . .	9,867	9,505	65,808	68,664	72,230	4,067	3,596	37,629	39,062	41,08
Indiana . . . . .	4,451	4,532	37,927	37,701	37,877	---	---	---	---	---
Illinois . . . . .	10,366	10,235	68,725	69,365	71,454	3,599	3,370	32,829	31,341	33,76
Michigan . . . . .	8,833	8,450	53,056	54,189	56,315	4,033	4,066	29,351	29,829	29,84
Wisconsin . . . . .	3,947	4,388	30,435	31,138	31,634	1,548	1,556	13,331	13,786	13,90
West North Central . . . . .	15,325	14,983	113,546	113,092	115,200	6,151	6,217	58,563	57,632	60,38
Minnesota . . . . .	3,985	4,358	25,036	25,059	25,562	1,317	1,717	12,657	11,763	11,41
Iowa . . . . .	2,403	2,383	19,318	17,292	17,745	713	853	7,965	8,213	9,35
Missouri . . . . .	4,534	3,996	33,871	34,342	35,105	2,112	2,217	20,064	19,877	20,10
North Dakota . . . . .	512	556	3,911	3,829	3,710	187	186	1,670	1,769	1,63
South Dakota . . . . .	813	820	6,061	6,027	5,906	257	212	2,190	2,138	2,03
Nebraska . . . . .	1,401	1,046	9,942	10,188	10,178	531	522	4,754	4,922	4,90
Kansas . . . . .	1,677	1,824	15,407	16,355	16,994	1,034	510	9,263	8,950	10,93
South Atlantic . . . . .	140,407	43,879	1332,723	330,219	337,128	19,229	20,689	1175,486	179,276	177,17
Delaware . . . . .	510	538	3,743	3,755	4,013	277	252	2,338	2,531	2,22
Maryland . . . . .	4,537	4,135	31,897	31,265	32,926	1,447	1,520	12,785	13,359	12,18
District of Columbia . . . . .	---	253	---	2,202	3,385	---	208	---	1,834	1,67
Virginia . . . . .	6,327	6,403	52,354	52,093	51,974	2,451	2,421	21,983	21,770	20,94
West Virginia . . . . .	1,547	1,389	10,309	9,655	9,770	811	1,091	7,008	7,297	7,60
North Carolina . . . . .	4,439	4,527	35,925	37,136	37,394	2,827	2,878	26,582	27,425	25,60
South Carolina . . . . .	5,265	5,072	40,613	41,074	40,278	1,645	1,304	11,825	11,984	10,86
Georgia . . . . .	5,469	10,352	47,390	47,840	53,170	3,268	4,761	28,902	29,504	33,68
Florida . . . . .	12,313	11,210	110,492	105,199	104,218	6,503	6,254	64,063	63,572	62,39
East South Central . . . . .	15,353	16,523	138,853	137,092	137,858	8,376	7,721	72,066	74,166	70,71
Kentucky . . . . .	4,328	4,275	34,982	36,865	36,678	2,098	2,183	16,654	18,200	16,37
Tennessee . . . . .	5,750	6,710	55,379	53,718	51,668	2,731	2,573	24,942	24,734	23,86
Alabama . . . . .	3,625	4,014	30,522	29,584	32,050	2,675	2,223	20,704	20,089	20,68
Mississippi . . . . .	1,650	1,524	17,970	16,925	17,462	872	742	9,766	11,143	9,79
West South Central . . . . .	23,499	23,996	220,593	222,342	224,696	10,501	10,175	106,193	109,081	103,93
Arkansas . . . . .	2,994	3,022	28,069	27,632	29,263	1,336	1,348	13,149	13,536	14,29
Louisiana . . . . .	3,370	2,883	27,855	26,933	26,140	---	---	---	---	---
Oklahoma . . . . .	2,467	2,537	23,322	24,398	24,903	1,945	1,820	16,718	18,719	17,82
Texas <sup>3</sup> . . . . .	14,668	15,554	141,347	143,379	144,390	7,220	7,007	76,326	76,826	71,82
Mountain . . . . .	120,452	23,146	1168,893	187,253	187,467	14,750	16,586	143,744	159,033	155,84
Montana . . . . .	720	777	5,752	5,791	5,796	387	360	3,300	3,231	3,22
Idaho . . . . .	1,630	1,396	10,418	11,348	11,025	638	689	5,309	5,183	4,91
Wyoming . . . . .	450	476	3,624	3,761	3,735	258	263	2,249	2,385	2,45
Colorado . . . . .	---	3,409	---	26,672	26,643	---	1,641	---	14,570	14,22
New Mexico <sup>4,5</sup> . . . . .	1,081	1,122	9,881	10,272	10,117	815	701	7,660	7,213	6,51
Arizona <sup>2</sup> . . . . .	2,993	2,821	29,719	27,101	27,579	1,924	2,089	18,692	19,279	18,27
Utah . . . . .	2,466	2,505	16,001	15,856	14,531	728	843	6,534	7,172	6,24
Nevada . . . . .	11,112	10,640	93,498	86,452	88,041	---	---	---	---	---
Pacific . . . . .	14,299	10,242	131,853	169,754	245,103	1,675	1,643	15,855	139,952	140,17
Washington . . . . .	---	5,020	---	33,945	39,873	---	2,182	---	21,500	22,42
Oregon . . . . .	2,750	3,325	18,572	17,737	18,811	1,250	1,691	12,220	11,716	11,35
California . . . . .	---	---	---	---	168,041	---	---	---	---	---
Alaska . . . . .	---	495	---	4,474	4,750	---	317	---	2,859	2,56
Hawaii . . . . .	1,549	1,402	13,281	13,598	13,628	425	453	3,635	3,877	3,82

<sup>1</sup>Excludes figures for State(s) shown below as not available.  
<sup>2</sup>Figures for marriages are marriage licenses issued for some counties.  
<sup>3</sup>Figures include adjustments for varying length of reporting periods; see Technical notes.  
<sup>4</sup>Figures for marriages are marriage licenses issued.  
<sup>5</sup>Figures for divorces include estimates for some counties.

NOTES: Figures include all revisions received from the States. Cumulative figures for the current year reflect revisions received for previous months, and figures for earlier years may differ from those previously published.

Table 4. Provisional number of deaths under 1 year and infant mortality rates: each division and State, 12 months ending with September 1992 and 1993

[Data are estimates by State of residence; see Technical notes. Infant mortality rates are deaths under 1 year per 1,000 live births in specified area]

Area	12 months ending with September			
	1993		1992	
	Number	Rate	Number	Rate
New England . . . . .	1,797	16.4	1,223	6.5
Maine . . . . .	---	---	97	6.0
New Hampshire . . . . .	79	5.1	91	5.9
Vermont . . . . .	46	6.0	48	6.3
Massachusetts . . . . .	539	6.2	515	5.9
Rhode Island . . . . .	133	9.0	113	7.7
Connecticut . . . . .	---	---	359	7.5
Middle Atlantic . . . . .	4,877	8.5	4,860	8.6
New York . . . . .	2,505	8.7	2,385	8.4
New Jersey . . . . .	965	7.8	1,032	8.9
Pennsylvania . . . . .	1,407	8.7	1,443	8.7
East North Central . . . . .	6,061	9.3	6,265	9.5
Ohio . . . . .	1,410	8.6	1,427	8.6
Indiana . . . . .	816	9.8	778	9.2
Illinois . . . . .	1,960	10.2	2,016	10.3
Michigan . . . . .	1,333	9.3	1,518	10.6
Wisconsin . . . . .	542	8.0	526	7.5
West North Central . . . . .	1,999	7.8	2,138	8.1
Minnesota . . . . .	452	7.0	459	6.9
Iowa . . . . .	242	6.6	298	7.6
Missouri . . . . .	650	8.7	691	8.9
North Dakota . . . . .	61	6.9	74	8.3
South Dakota . . . . .	115	10.5	110	9.6
Nebraska . . . . .	176	7.9	180	7.7
Kansas . . . . .	303	7.8	326	8.7
South Atlantic . . . . .	15,747	19.6	6,580	9.6
Delaware . . . . .	97	9.0	116	10.8
Maryland . . . . .	---	---	668	8.2
District of Columbia . . . . .	154	15.6	198	20.3
Virginia . . . . .	877	9.1	855	8.8
West Virginia . . . . .	206	9.5	196	8.7
North Carolina . . . . .	1,061	10.5	1,063	10.3
South Carolina . . . . .	530	9.4	632	11.2
Georgia . . . . .	1,160	10.5	1,158	10.4
Florida . . . . .	1,662	8.6	1,694	8.8
East South Central . . . . .	2,396	10.3	2,311	9.9
Kentucky . . . . .	484	9.2	431	8.0
Tennessee . . . . .	725	9.9	716	9.6
Alabama . . . . .	646	10.1	683	10.9
Mississippi . . . . .	541	12.6	481	11.3
West South Central . . . . .	3,844	8.0	4,030	8.3
Arkansas . . . . .	319	9.2	341	9.8
Louisiana . . . . .	682	9.9	689	9.4
Oklahoma . . . . .	431	9.3	428	9.1
Texas <sup>2</sup> . . . . .	2,412	7.3	2,572	7.7
Mountain . . . . .	1,843	7.5	1,916	7.8
Montana . . . . .	86	7.6	108	9.3
Idaho . . . . .	147	8.4	129	7.4
Wyoming . . . . .	60	9.2	56	8.1
Colorado . . . . .	428	7.7	410	7.5
New Mexico . . . . .	232	8.4	252	8.9
Arizona . . . . .	524	7.6	589	8.6
Utah . . . . .	238	6.5	220	5.9
Nevada . . . . .	128	6.3	152	6.7
Pacific . . . . .	1,425	16.8	5,373	7.1
Washington . . . . .	---	---	530	7.5
Oregon . . . . .	296	7.0	309	7.3
California <sup>2</sup> . . . . .	---	---	4,308	7.1
Alaska . . . . .	---	---	95	8.1
Hawaii . . . . .	129	6.5	131	6.6

<sup>1</sup>Excludes figures for State shown below as not available.<sup>2</sup>Figures include adjustments for varying length of reporting periods; see Technical notes.

NOTES: Figures include all revisions received from the States. Figures for the current year reflect revisions received for previous months, and figures for earlier years may differ from those previously published.

**Table 5. Provisional number of deaths and death rates, by age, race, and sex, and age-adjusted death rates by race and sex: United States, August 1992 and 1993, cumulative figures for 1992 and 1993, and 12 months ending with August 1992 and 1993**

[Data are provisional, estimated from a 10-percent sample of deaths. Age-specific rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard million population; see Technical notes. Due to rounding of estimates, figures may not add to totals. For method of computation and information on standard errors of the estimates, see Technical notes]

Age, race, and sex	August				January–August				12 months ending with August			
	1993		1992		1993		1992		1993		1992	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
<b>All races, both sexes<sup>1</sup></b>												
All ages . . . . .	180,000	820.6	172,000	793.7	1,524,000	889.9	1,466,000	864.3	2,235,000	869.8	2,179,000	857.8
Under 1 year . . . . .	4,180	86.6	4,010	84.5	22,600	<sup>2</sup> 857.6	23,200	<sup>2</sup> 873.4	33,800	<sup>2</sup> 854.3	35,000	<sup>2</sup> 877.1
1–4 years . . . . .					4,920	47.0	4,770	46.3	7,030	44.8	6,880	44.6
5–14 years . . . . .					6,080	24.7	5,670	23.4	8,610	23.4	8,470	23.4
15–24 years . . . . .	3,530	115.5	3,310	108.2	23,530	98.1	23,580	97.8	35,070	97.3	36,100	99.9
25–34 years . . . . .	5,230	147.0	5,100	142.0	39,170	140.0	38,440	135.6	58,170	138.3	58,020	136.2
35–44 years . . . . .	8,070	232.4	7,670	226.5	63,900	236.2	61,870	233.3	95,300	235.3	91,860	231.5
45–54 years . . . . .	11,060	452.5	10,350	443.6	88,480	467.1	83,420	461.8	129,410	457.0	123,070	457.2
55–64 years . . . . .	20,020	1,126.1	18,990	1,071.6	163,970	1,177.6	164,290	1,176.7	242,590	1,160.3	245,760	1,173.2
65–74 years . . . . .	38,800	2,446.9	38,310	2,447.3	331,120	2,670.0	320,490	2,610.7	486,530	2,613.9	477,150	2,595.3
75–84 years . . . . .	50,030	5,449.7	47,150	5,259.1	430,060	6,014.2	412,700	5,886.1	628,910	5,869.4	610,470	5,819.5
85 years and over . . . . .	38,900	13,479.0	36,730	13,253.4	349,940	15,639.6	327,070	15,171.8	508,650	15,183.6	485,580	15,089.5
Not stated . . . . .	90	...	40	...	540	...	500	...	850	...	910	...
Age-adjusted rate <sup>3</sup> . . . . .	...	491.0	...	477.9	...	520.1	...	511.8	...	510.0	...	509.0
<b>All races, male<sup>1</sup></b>												
All ages . . . . .	93,370	872.2	88,780	841.1	782,740	936.0	756,720	914.2	1,148,410	915.6	1,128,220	910.1
Under 1 year . . . . .	2,580	104.4	2,390	98.4	12,920	<sup>2</sup> 959.3	12,800	<sup>2</sup> 941.6	18,850	<sup>2</sup> 930.4	19,470	<sup>2</sup> 954.4
1–4 years . . . . .					2,760	51.7	2,670	50.8	3,970	49.4	3,830	48.5
5–14 years . . . . .					3,680	29.2	3,560	28.7	5,260	27.9	5,200	28.0
15–24 years . . . . .	2,610	167.1	2,500	159.9	17,740	144.6	18,060	146.6	26,290	142.6	27,410	148.3
25–34 years . . . . .	3,830	215.1	3,710	206.4	28,780	205.6	28,630	201.8	42,600	202.4	42,810	200.9
35–44 years . . . . .	5,510	320.0	5,160	307.5	44,000	328.2	42,530	323.7	65,830	327.9	63,520	323.2
45–54 years . . . . .	6,900	577.5	6,560	575.3	56,130	606.2	53,010	600.5	81,910	591.7	77,900	592.4
55–64 years . . . . .	11,930	1,414.6	11,610	1,382.9	99,360	1,504.8	99,820	1,509.9	146,430	1,477.3	149,240	1,504.7
65–74 years . . . . .	22,150	3,163.9	21,450	3,112.7	189,400	3,461.7	183,820	3,404.4	278,220	3,389.2	275,140	3,403.9
75–84 years . . . . .	25,110	7,163.8	23,240	6,827.1	213,670	7,839.5	203,560	7,659.4	311,830	7,641.0	301,800	7,596.3
85 years and over . . . . .	12,670	15,703.1	12,110	15,642.9	113,930	18,215.0	107,890	17,942.5	166,640	17,803.4	161,280	17,959.9
Not stated . . . . .	80	...	40	...	380	...	350	...	580	...	610	...
Age-adjusted rate <sup>3</sup> . . . . .	...	636.3	...	618.8	...	674.3	...	666.1	...	660.6	...	663.7
<b>All races, female<sup>1</sup></b>												
All ages . . . . .	86,550	771.4	82,880	748.6	741,560	845.9	709,270	816.7	1,086,540	826.2	1,050,990	807.9
Under 1 year . . . . .	1,600	67.9	1,620	70.0	9,670	<sup>2</sup> 751.1	10,410	<sup>2</sup> 802.6	14,970	<sup>2</sup> 774.4	15,480	<sup>2</sup> 795.1
1–4 years . . . . .					2,160	42.7	2,100	41.7	3,060	40.0	3,050	40.5
5–14 years . . . . .					2,400	19.9	2,120	18.0	3,360	18.7	3,270	18.5
15–24 years . . . . .	920	61.6	820	54.8	5,800	49.4	5,510	46.8	8,790	49.9	8,690	49.2
25–34 years . . . . .	1,400	78.8	1,380	76.9	10,390	74.4	9,810	69.2	15,570	74.1	15,210	71.4
35–44 years . . . . .	2,570	146.8	2,510	146.9	19,900	146.0	19,340	144.4	29,470	144.3	28,340	141.5
45–54 years . . . . .	4,170	333.7	3,790	317.7	32,350	334.1	30,410	329.0	47,500	328.1	45,170	328.1
55–64 years . . . . .	8,080	864.7	7,390	792.4	64,610	882.6	64,460	877.2	96,160	874.6	96,510	875.0
65–74 years . . . . .	16,650	1,880.1	16,860	1,924.2	141,720	2,044.9	136,660	1,987.3	208,300	2,002.1	202,010	1,960.9
75–84 years . . . . .	24,920	4,391.1	23,900	4,298.2	216,390	4,889.5	209,140	4,804.0	317,080	4,779.6	308,660	4,737.0
85 years and over . . . . .	26,230	12,636.5	24,620	12,327.2	236,010	14,642.2	219,170	14,099.7	342,020	14,168.2	324,300	13,966.4
Not stated . . . . .	10	...	...	...	160	...	150	...	270	...	300	...
Age-adjusted rate <sup>3</sup> . . . . .	...	370.6	...	361.4	...	393.4	...	385.5	...	386.6	...	382.7
<b>White</b>												
All ages . . . . .	153,020	838.4	146,510	811.8	1,310,530	918.4	1,261,400	890.4	1,920,900	897.1	1,876,000	883.9
Under 1 year . . . . .	2,790	72.8	2,520	66.7	14,810	<sup>2</sup> 715.9	14,850	<sup>2</sup> 707.9	22,020	<sup>2</sup> 708.3	22,380	<sup>2</sup> 711.2
1–4 years . . . . .					3,460	41.7	3,260	39.9	5,000	40.3	4,700	38.4
5–14 years . . . . .					4,520	23.0	4,180	21.6	6,380	21.7	6,210	21.4
15–24 years . . . . .	2,430	99.2	2,280	92.7	16,340	85.0	16,390	84.6	24,530	84.8	25,480	87.5
25–34 years . . . . .	3,670	125.7	3,620	122.3	28,090	122.3	27,220	116.4	41,340	119.6	40,990	116.6
35–44 years . . . . .	5,660	195.1	5,660	199.4	45,340	200.5	44,740	201.0	68,240	201.4	66,510	199.6
45–54 years . . . . .	8,480	404.0	8,070	402.2	67,840	416.7	65,010	418.5	99,600	409.2	95,660	413.3
55–64 years . . . . .	16,100	1,043.3	15,330	993.4	133,820	1,106.3	134,800	1,107.6	198,090	1,090.3	201,680	1,104.1
65–74 years . . . . .	33,570	2,379.1	33,190	2,377.3	286,730	2,596.2	278,800	2,544.7	421,420	2,541.7	414,830	2,527.4
75–84 years . . . . .	44,770	5,380.5	42,140	5,183.6	386,990	5,970.0	371,200	5,838.0	565,860	5,825.2	550,140	5,781.8
85 years and over . . . . .	35,490	13,479.5	33,680	13,316.9	322,250	15,781.4	300,600	15,277.0	467,840	15,303.9	446,730	15,200.1
Not stated . . . . .	60	...	30	...	350	...	360	...	570	...	680	...
Age-adjusted rate <sup>3</sup> . . . . .	...	459.5	...	448.6	...	491.4	...	484.1	...	482.0	...	481.5

See footnotes at end of table.

**Table 5. Provisional number of deaths and death rates, by age, race, and sex, and age-adjusted death rates by race and sex: United States, August 1992 and 1993, cumulative figures for 1992 and 1993, and 12 months ending with August 1992 and 1993—Con.**

[Data are provisional, estimated from a 10-percent sample of deaths. Age-specific rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard million population; see Technical notes. Due to rounding of estimates, figures may not add to totals. For method of computation and information on standard errors of the estimates, see Technical notes]

Age, race, and sex	August				January–August				12 months ending with August			
	1993		1992		1993		1992		1993		1992	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
<b>White male</b>												
All ages . . . . .	78,690	879.3	75,010	848.0	666,350	952.5	644,450	928.4	977,870	931.6	961,530	924
Under 1 year . . . . .					8,330	<sup>2</sup> 784.3	8,150	<sup>2</sup> 757.4	12,300	<sup>2</sup> 771.2	12,590	<sup>2</sup> 780
1–4 years . . . . .	} 1,740	88.5	1,500	77.3	1,980	46.3	1,850	44.3	2,900	45.5	2,660	42
5–14 years . . . . .					2,770	27.5	2,650	26.5	3,910	26.0	3,850	25
15–24 years . . . . .	1,720	136.8	1,750	138.6	12,160	123.1	12,450	124.8	18,150	122.2	19,240	128
25–34 years . . . . .	2,720	184.3	2,790	186.6	21,050	181.2	20,790	176.0	30,780	176.2	30,750	173
35–44 years . . . . .	3,920	269.5	3,840	270.1	31,940	281.8	31,450	282.1	48,330	284.7	46,950	281
45–54 years . . . . .	5,350	516.4	5,170	522.1	43,400	540.1	41,710	544.4	63,520	528.8	61,140	535
55–64 years . . . . .	9,620	1,300.0	9,510	1,287.2	81,950	1,413.8	82,790	1,421.8	120,990	1,389.6	123,610	1,414
65–74 years . . . . .	19,500	3,110.2	18,670	3,019.1	166,010	3,386.1	160,640	3,313.7	243,520	3,309.6	240,400	3,311
75–84 years . . . . .	22,540	7,080.8	20,790	6,724.8	192,920	7,794.9	183,180	7,590.5	281,600	7,598.5	272,400	7,547
85 years and over . . . . .	11,530	15,804.0	10,960	15,703.7	103,620	18,333.1	98,540	18,167.5	151,510	17,909.0	147,490	18,208
Not stated . . . . .	50	...	30	...	230	...	250	...	360	...	460	.
Age-adjusted rate <sup>3</sup> . . . . .	...	595.2	...	581.9	...	637.5	...	629.9	...	624.8	...	627
<b>White female</b>												
All ages . . . . .	74,330	799.1	71,500	777.0	644,180	885.6	616,950	853.9	943,030	864.0	914,480	844
Under 1 year . . . . .					6,480	<sup>2</sup> 643.8	6,690	<sup>2</sup> 654.8	9,730	<sup>2</sup> 642.7	9,790	<sup>2</sup> 638
1–4 years . . . . .	} 1,050	56.3	1,010	54.9	1,470	36.2	1,410	35.4	2,100	34.7	2,050	34
5–14 years . . . . .					1,750	18.3	1,530	16.3	2,480	17.4	2,360	16
15–24 years . . . . .	710	59.5	530	44.3	4,180	44.5	3,940	41.8	6,380	45.3	6,240	44
25–34 years . . . . .	950	65.8	840	57.4	7,040	62.0	6,430	55.5	10,560	61.8	10,240	58
35–44 years . . . . .	1,740	120.2	1,830	129.2	13,400	118.7	13,300	119.7	19,910	117.8	19,560	117
45–54 years . . . . .	3,130	294.5	2,900	285.3	24,450	296.6	23,300	296.0	36,080	292.7	34,520	294
55–64 years . . . . .	6,480	806.9	5,820	723.6	51,870	823.6	52,000	819.5	77,100	814.8	78,080	818
65–74 years . . . . .	14,070	1,794.4	14,520	1,867.0	120,730	1,966.0	118,160	1,934.3	177,900	1,929.1	174,440	1,905
75–84 years . . . . .	22,240	4,328.9	21,350	4,237.9	194,070	4,842.9	188,010	4,765.8	284,260	4,731.4	277,740	4,702
85 years and over . . . . .	23,960	12,588.6	22,720	12,407.1	218,630	14,804.9	202,060	14,177.0	316,330	14,307.1	299,240	14,055
Not stated . . . . .	10	...	...	...	120	...	110	...	210	...	220	.
Age-adjusted rate <sup>3</sup> . . . . .	...	347.2	...	337.8	...	371.1	...	364.5	...	364.5	...	361
<b>Black</b>												
All ages . . . . .	23,890	873.3	22,320	831.7	190,390	892.1	182,020	866.1	279,040	872.2	270,110	855
Under 1 year . . . . .					7,180	<sup>2</sup> 1,676.9	7,580	<sup>2</sup> 1,777.8	10,720	<sup>2</sup> 1,667.2	11,440	<sup>2</sup> 1,795
1–4 years . . . . .	} 1,220	162.5	1,300	176.9	1,280	76.5	1,280	77.9	1,720	69.2	1,840	75
5–14 years . . . . .					1,350	35.9	1,250	33.8	1,960	34.8	1,950	35
15–24 years . . . . .	930	204.9	900	199.5	6,290	176.7	6,210	175.2	9,170	171.9	9,290	174
25–34 years . . . . .	1,340	287.7	1,340	287.4	9,860	270.0	10,110	275.1	15,050	274.4	15,310	277
35–44 years . . . . .	2,170	523.0	1,820	454.9	16,970	526.1	15,430	496.0	24,580	509.1	22,900	493
45–54 years . . . . .	2,320	929.4	2,000	840.9	18,600	962.2	16,390	886.5	26,830	929.3	24,430	885
55–64 years . . . . .	3,540	2,017.4	3,200	1,849.3	26,800	1,953.6	26,430	1,945.5	39,540	1,922.2	39,560	1,943
65–74 years . . . . .	4,660	3,450.8	4,570	3,456.5	39,420	3,744.3	37,100	3,582.0	57,690	3,653.6	55,330	3,565
75–84 years . . . . .	4,630	6,688.9	4,510	6,647.6	38,130	7,060.3	36,670	6,892.3	55,820	6,891.4	53,350	6,693
85 years and over . . . . .	3,050	14,598.1	2,680	13,239.0	24,310	14,949.9	23,450	14,853.6	35,710	14,635.2	34,500	14,615
Not stated . . . . .	30	...	10	...	190	...	130	...	270	...	210	.
Age-adjusted rate <sup>3</sup> . . . . .	...	787.1	...	750.8	...	801.0	...	778.1	...	783.1	...	773
<b>Black male</b>												
All ages . . . . .	13,020	1,003.9	12,100	951.5	103,310	1,021.0	99,370	998.0	150,860	994.8	147,700	991
Under 1 year . . . . .					4,200	<sup>2</sup> 1,938.8	4,220	<sup>2</sup> 1,959.1	5,970	<sup>2</sup> 1,836.9	6,250	<sup>2</sup> 1,941
1–4 years . . . . .	} 730	192.0	750	201.6	690	82.1	680	82.4	920	73.1	980	75
5–14 years . . . . .					800	40.9	770	41.1	1,180	41.3	1,180	41
15–24 years . . . . .	770	339.7	640	284.3	4,920	277.2	4,900	277.2	7,160	268.7	7,180	271
25–34 years . . . . .	950	431.2	870	394.6	6,860	397.9	7,110	408.8	10,510	405.3	10,880	411
35–44 years . . . . .	1,450	750.4	1,230	661.3	11,120	740.5	10,050	695.6	16,020	713.0	15,060	695
45–54 years . . . . .	1,420	1,255.2	1,190	1,103.7	11,580	1,319.9	10,020	1,198.3	16,640	1,271.2	14,940	1,195
55–64 years . . . . .	2,090	2,737.3	1,880	2,493.9	15,590	2,612.6	15,330	2,593.6	22,610	2,523.4	23,190	2,614
65–74 years . . . . .	2,380	4,258.7	2,410	4,418.2	20,940	4,805.9	20,600	4,821.5	30,960	4,741.2	30,710	4,805
75–84 years . . . . .	2,200	8,840.7	2,190	9,009.1	17,780	9,164.4	17,680	9,255.8	26,010	8,938.1	25,440	8,895
85 years and over . . . . .	990	16,189.5	940	15,854.4	8,670	18,087.3	7,920	16,992.9	12,680	17,611.1	11,750	16,785
Not stated . . . . .	30	...	10	...	150	...	90	...	210	...	140	.
Age-adjusted rate <sup>3</sup> . . . . .	...	1,050.6	...	995.3	...	1,066.6	...	1,046.0	...	1,039.1	...	1,043

See footnotes at end of table.



**Table 5. Provisional number of deaths and death rates, by age, race, and sex, and age-adjusted death rates by race and sex: United States, August 1992 and 1993, cumulative figures for 1992 and 1993, and 12 months ending with August 1992 and 1993—Con.**

[Data are provisional, estimated from a 10-percent sample of deaths. Age-specific rates on an annual basis per 100,000 population in specified group; age-adjusted rates per 100,000 U.S. standard million population; see Technical notes. Due to rounding of estimates, figures may not add to totals. For method of computation and information on standard errors of the estimates, see Technical notes]

Age, race, and sex	August				January–August				12 months ending with August			
	1993		1992		1993		1992		1993		1992	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Black female												
All ages . . . . .	10,870	755.6	10,220	723.9	87,080	775.9	82,650	747.5	128,180	761.8	122,420	739.4
Under 1 year . . . . .					2,990	<sup>2</sup> 1,408.7	3,360	<sup>2</sup> 1,601.6	4,750	<sup>2</sup> 1,493.7	5,190	<sup>2</sup> 1,647.6
1–4 years . . . . .	490	132.3	540	148.8	590	71.9	600	74.4	800	65.1	860	71.3
5–14 years . . . . .					560	30.2	480	26.3	780	28.1	770	28.2
15–24 years . . . . .	160	70.4	260	115.0	1,370	76.4	1,310	73.7	2,010	75.3	2,110	79.2
25–34 years . . . . .	390	158.9	470	191.2	3,000	155.8	3,010	154.8	4,540	157.0	4,430	152.3
35–44 years . . . . .	720	324.8	590	275.6	5,850	339.3	5,370	322.9	8,560	331.7	7,840	315.1
45–54 years . . . . .	900	659.4	820	630.7	7,020	664.6	6,370	629.2	10,190	645.8	9,490	628.9
55–64 years . . . . .	1,450	1,462.9	1,320	1,351.6	11,210	1,446.7	11,090	1,446.5	16,930	1,458.2	16,370	1,424.7
65–74 years . . . . .	2,270	2,867.7	2,160	2,781.0	18,480	2,993.7	16,500	2,710.3	26,720	2,885.5	24,620	2,702.5
75–84 years . . . . .	2,430	5,481.1	2,320	5,329.0	20,350	5,880.0	18,990	5,563.6	29,810	5,743.7	27,910	5,461.8
85 years and over . . . . .	2,060	13,939.6	1,740	12,155.7	15,640	13,630.4	15,530	13,966.3	23,030	13,389.5	22,740	13,698.8
Not stated . . . . .	—	...	—	...	40	...	40	...	60	...	70	...
Age-adjusted rate <sup>3</sup> . . . . .	...	580.1	...	565.9	...	596.7	...	573.8	...	586.6	...	569.4

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

<sup>2</sup>Death rates under 1 year (based on population estimates) differ from infant mortality rates (based on live births); see table 8 for infant mortality rates.

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

NOTES: Figures include all revisions received from the States. Cumulative and 12-month figures for the current year reflect revisions received for previous months, and figures for earlier years may differ from those previously published. Rates for 1992 have been recomputed based on revised population estimates; see Technical notes.

**Table 6. Provisional number of deaths and death rates for 72 selected causes and Human immunodeficiency virus infection: United States, August 1992 and 1993, cumulative figures 1992 and 1993, and 12 months ending with August 1992 and 1993**

[Data are provisional, estimated from a 10-percent sample of deaths. Rates on an annual basis per 100,000 estimated population. Due to rounding of estimates, figures may not add to totals. For method of computation and information on standard errors of the estimates, see Technical notes. For explanation of the asterisk preceding cause-of-death codes, see Technical notes]

Cause of death (Ninth Revision International Classification of Diseases, 1975)	August		January–August				12 months ending with August						
	1993		1992		1993		1992		1993		1992		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
All causes . . . . .	180,000	820.6	172,000	793.7	1,524,000	889.9	1,466,000	864.3	2,235,000	869.8	2,179,000	857.8	
Shigellosis and amebiasis . . . . .	.004,006	—	*	*	—	*	—	*	—	*	—	*	
Certain other intestinal infections . . . . .	.007–009	20	*	90	*	390	0.2	530	0.3	610	0.2	720	0.3
Tuberculosis . . . . .	.010–018	120	0.5	170	0.8	1,150	0.7	930	0.5	1,580	0.6	1,420	0.6
Tuberculosis of respiratory system . . . . .	.010–012	90	*	120	0.5	930	0.5	720	0.4	1,270	0.5	1,070	0.4
Other tuberculosis . . . . .	.013–018	30	*	40	*	220	0.1	210	0.1	310	0.1	350	0.1
Whooping cough . . . . .	.033	—	*	—	*	10	*	—	*	20	*	—	*
Streptococcal sore throat, scarlatina, and erysipelas . . . . .	.034–035	—	*	—	*	—	*	—	*	—	*	—	*
Meningococcal infection . . . . .	.036	20	*	20	*	200	0.1	130	0.1	300	0.1	190	0.1
Septicemia . . . . .	.038	1,580	7.2	1,700	7.9	13,630	8.0	13,730	8.1	19,820	7.7	20,220	8.0
Acute poliomyelitis . . . . .	.045	—	*	—	*	—	*	—	*	—	*	—	*
Measles . . . . .	.055	—	*	—	*	—	*	—	*	—	*	—	*
Viral hepatitis . . . . .	.070	230	1.0	90	*	1,670	1.0	1,160	0.7	2,450	1.0	1,760	0.7
Syphilis . . . . .	.090–097	10	*	—	*	50	*	60	*	60	*	110	0.0
All other infectious and parasitic diseases <sup>1</sup> . . . . .	.001–003,005,020–032,037,039–041,*042–*044,046–054,056–066,071–088,098–139	3,100	14.1	3,100	14.3	28,290	16.5	25,290	14.9	41,960	16.3	37,210	14.6
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues . . . . .	.140–208	46,230	210.8	43,800	202.5	353,290	206.2	346,870	204.5	526,940	205.1	519,080	204.3
Malignant neoplasms of lip, oral cavity, and pharynx . . . . .	.140–149	580	2.6	670	3.1	5,210	3.0	5,210	3.1	8,020	3.1	7,660	3.0
Malignant neoplasms of digestive organs and peritoneum . . . . .	.150–159	11,090	50.6	10,560	48.8	81,510	47.6	81,590	48.1	121,540	47.3	121,560	47.8
Malignant neoplasms of respiratory and intrathoracic organs . . . . .	.160–165	12,990	59.2	12,530	57.9	102,520	59.8	100,310	59.1	153,650	59.8	150,820	59.4
Malignant neoplasm of breast . . . . .	.174–175	3,960	18.0	3,670	17.0	30,080	17.6	30,010	17.7	44,270	17.2	44,160	17.4
Malignant neoplasms of genital organs . . . . .	.179–187	5,270	24.0	4,990	23.1	40,650	23.7	39,160	23.1	60,210	23.4	58,840	23.2
Malignant neoplasms of urinary organs . . . . .	.188–189	1,790	8.2	1,780	8.2	14,550	8.5	15,000	8.8	21,770	8.5	21,670	8.5
Malignant neoplasms of all other and unspecified sites . . . . .	.170–173,190–199	5,960	27.2	5,160	23.8	44,060	25.7	41,600	24.5	65,580	25.5	63,060	24.8
Leukemia . . . . .	.204–208	1,720	7.8	1,610	7.4	12,780	7.5	12,730	7.5	19,270	7.5	19,220	7.6
Other malignant neoplasms of lymphatic and hematopoietic tissues . . . . .	.200–203	2,870	13.1	2,820	13.0	21,930	12.8	21,270	12.5	32,620	12.7	32,090	12.6
Benign neoplasms, carcinoma in situ, and neoplasms of uncertain behavior and of unspecified nature . . . . .	.210–239	750	3.4	560	2.6	5,290	3.1	4,980	2.9	7,740	3.0	7,610	3.0
Diabetes mellitus . . . . .	.250	4,510	20.6	3,890	18.0	37,070	21.6	34,390	20.3	52,900	20.6	50,950	20.1
Nutritional deficiencies . . . . .	.260–269	360	1.6	190	0.9	2,230	1.3	1,980	1.2	3,350	1.3	3,090	1.2
Anemias . . . . .	.280–285	350	1.6	330	1.5	3,010	1.7	2,640	1.6	4,340	1.7	4,160	1.6
Meningitis . . . . .	.320–322	90	*	50	*	570	0.3	520	0.3	780	0.3	740	0.3
Major cardiovascular diseases . . . . .	.390–448	70,960	323.6	69,350	320.7	635,880	371.2	615,310	362.8	932,690	363.0	913,280	359.5
Diseases of heart . . . . .	.390–398,402,404–429	55,660	253.9	55,600	257.1	498,490	291.0	486,040	286.6	731,420	284.7	720,070	283.4
Rheumatic fever and rheumatic heart disease . . . . .	.390–398	420	1.9	450	2.1	3,780	2.2	4,010	2.4	5,730	2.2	5,790	2.3
Hypertensive heart disease . . . . .	.402	1,720	7.8	1,540	7.1	16,350	9.5	14,540	8.6	24,150	9.4	21,460	8.4
Hypertensive heart and renal disease . . . . .	.404	140	0.6	190	0.9	1,440	0.8	1,530	0.9	2,210	0.9	2,110	0.8
Ischemic heart disease . . . . .	.410–414	36,090	164.6	37,040	171.3	328,070	191.5	322,900	190.4	483,080	188.0	479,000	188.5
Acute myocardial infarction . . . . .	.410	16,880	77.0	17,490	80.9	152,450	89.0	155,220	91.5	226,540	88.2	232,410	91.5
Other acute and subacute forms of ischemic heart disease . . . . .	.411	280	1.3	130	0.6	2,020	1.2	1,930	1.1	2,930	1.1	3,010	1.2
Angina pectoris . . . . .	.413	30	*	40	*	440	0.3	660	0.4	810	0.3	930	0.4
Old myocardial infarction and other forms of chronic ischemic heart disease . . . . .	.412,414	18,900	86.2	19,380	89.6	173,150	101.1	165,090	97.3	252,800	98.4	242,660	95.5
Other diseases of endocardium . . . . .	.424	980	4.5	1,060	4.9	9,390	5.5	10,050	5.9	14,270	5.6	14,240	5.6
All other forms of heart disease . . . . .	.415–423,425–429	15,310	74.4	15,320	70.3	139,470	81.4	133,000	78.4	201,970	78.6	197,470	77.7
Hypertension with or without renal disease . . . . .	.401,403	720	3.3	790	3.6	7,020	4.1	6,500	3.8	10,160	4.0	9,270	3.6
Cerebrovascular diseases . . . . .	.430–438	11,270	51.4	10,160	47.0	100,780	58.8	95,990	56.6	148,110	57.6	143,090	56.3
Intracerebral and other intracranial hemorrhage . . . . .	.431–432	1,440	6.6	1,540	7.1	14,530	8.5	13,960	8.2	21,590	8.4	21,200	8.3
Cerebral thrombosis and unspecified occlusion of cerebral arteries . . . . .	.434,0,434.9	1,070	4.9	1,130	5.2	10,610	6.2	10,170	6.0	15,770	6.1	15,570	6.1
Cerebral embolism . . . . .	.434.1	10	*	50	*	320	0.2	470	0.3	540	0.2	670	0.3
All other and late effects of cerebrovascular diseases . . . . .	.430,433,435–438	8,740	39.9	7,440	34.4	75,310	44.0	71,390	42.1	110,220	42.9	105,640	41.6

Atherosclerosis . . . . .	.440	1,390	6.3	1,250	5.8	11,650	6.8	10,770	6.3	17,000	6.6	16,390	6.5
Other diseases of arteries, arterioles, and capillaries. . . . .	.441-448	1,920	8.7	1,550	7.2	17,930	10.5	16,000	9.4	25,990	10.1	24,460	9.6
Acute bronchitis and bronchiolitis . . . . .	.466	30	*	20	*	420	0.2	320	0.2	600	0.2	500	0.2
Pneumonia and influenza. . . . .	.480-487	5,310	24.2	5,170	23.9	55,560	32.4	53,510	31.5	77,910	30.3	76,890	30.3
Pneumonia . . . . .	.480-486	5,310	24.2	5,160	23.8	54,870	32.0	52,420	30.9	77,160	30.0	75,340	29.7
Influenza . . . . .	.487	-	*	10	*	690	0.4	1,090	0.6	740	0.3	1,550	0.6
Chronic obstructive pulmonary diseases and allied conditions . . . . .	.490-496	6,510	29.7	6,410	29.6	69,690	40.7	63,270	37.3	97,500	37.9	90,710	35.7
Bronchitis, chronic and unspecified . . . . .	.490-491	340	1.5	250	1.1	2,530	1.5	2,740	1.6	3,670	1.4	3,910	1.5
Emphysema. . . . .	.492	1,040	4.7	1,250	5.8	12,660	7.4	11,320	6.7	17,980	7.0	16,670	6.6
Asthma. . . . .	.493	320	1.4	260	1.2	3,520	2.0	3,270	1.9	4,900	1.9	4,720	1.9
Other chronic obstructive pulmonary diseases and allied conditions . . . . .	.494-496	4,810	21.9	4,650	21.5	50,980	29.8	45,950	27.1	70,950	27.6	65,420	25.7
Ulcer of stomach and duodenum . . . . .	.531-533	530	2.4	470	2.2	4,010	2.3	3,950	2.3	5,830	2.3	5,880	2.3
Appendicitis . . . . .	.540-543	30	*	20	*	310	0.2	240	0.1	370	0.1	340	0.1
Hernia of abdominal cavity and intestinal obstruction without mention of hernia . . . . .	.550-553,560	530	2.4	420	1.9	3,720	2.2	3,770	2.2	5,830	2.3	5,740	2.3
Chronic liver disease and cirrhosis . . . . .	.571	1,990	9.1	2,350	10.9	16,020	9.3	16,600	9.8	24,280	9.4	24,770	9.7
Cholelithiasis and other disorders of gallbladder . . . . .	.574-575	260	1.2	190	0.9	1,810	1.1	2,120	1.3	2,690	1.0	3,050	1.2
Nephritis and nephrotic syndrome, and nephrosis . . . . .	.580-589	1,830	8.3	1,620	7.5	17,100	10.0	15,240	9.0	24,800	9.7	23,110	9.1
Acute glomerulonephritis and nephrotic syndrome . . . . .	.580-581	20	*	-	*	210	0.1	210	0.1	270	0.1	300	0.1
Chronic glomerulonephritis, nephritis and nephropathy, not specified as acute or chronic, and renal sclerosis, unspecified . . . . .	.582-583,587	120	0.5	80	*	1,050	0.6	1,020	0.6	1,530	0.6	1,520	0.6
Renal failure, disorders resulting from impaired renal function, and small kidney of unknown cause . . . . .	.584-586,588-589	1,690	7.7	1,540	7.1	15,840	9.2	14,020	8.3	22,990	8.9	21,290	8.4
Infections of kidney . . . . .	.590	40	*	110	0.5	710	0.4	760	0.4	1,010	0.4	1,100	0.4
Hyperplasia of prostate . . . . .	.600	60	*	30	*	310	0.2	240	0.1	390	0.2	300	0.1
Complications of pregnancy, childbirth, and the puerperium. . . . .	.630-676	20	*	20	*	190	0.1	130	0.1	340	0.1	260	0.1
Pregnancy with abortive outcome . . . . .	.630-638	10	*	-	*	40	*	10	*	60	*	20	*
Other complications of pregnancy, childbirth, and the puerperium. . . . .	.640-676	10	*	20	*	150	0.1	120	0.1	270	0.1	240	0.1
Congenital anomalies . . . . .	.740-759	980	4.5	1,230	5.7	7,650	4.5	8,510	5.0	11,560	4.5	12,190	4.8
Certain conditions originating in the perinatal period . . . . .	.760-779	1,400	6.4	1,280	5.9	10,400	6.1	10,440	6.1	15,570	6.1	15,720	6.2
Birth trauma, intrauterine hypoxia, birth asphyxia, and respiratory distress syndrome . . . . .	.767-769	270	1.2	260	1.2	1,880	1.1	2,100	1.2	2,940	1.1	2,970	1.2
Other conditions originating in the perinatal period . . . . .	.760-766,770-779	1,130	5.1	1,020	4.7	8,520	5.0	8,350	4.9	12,630	4.9	12,750	5.0
Symptoms, signs, and ill-defined conditions . . . . .	.780-799	3,140	14.3	2,800	12.9	26,800	15.6	23,900	14.1	38,460	15.0	36,440	14.3
All other diseases . . . . .	.Residual	15,610	71.2	13,490	62.4	132,360	77.3	119,600	70.5	191,640	74.6	178,540	70.3
Accidents and adverse effects . . . . .	E800-E949	8,140	37.1	7,960	36.8	56,650	33.1	56,450	33.3	84,560	32.9	86,020	33.9
Motor vehicle accidents. . . . .	E810-E825	3,950	18.0	3,870	17.9	25,860	15.1	26,930	15.9	39,980	15.6	41,790	16.4
All other accidents and adverse effects . . . . .	E800-E807, E826-E949	4,190	19.1	4,090	18.9	30,790	18.0	29,520	17.4	44,590	17.4	44,220	17.4
Suicide . . . . .	E950-E959	2,790	12.7	2,310	10.7	19,800	11.6	19,600	11.6	28,910	11.3	28,710	11.3
Homicide and legal intervention . . . . .	E960-E978	2,170	9.9	2,230	10.3	16,320	9.5	17,480	10.3	24,630	9.6	26,400	10.4
All other external causes . . . . .	E980-E999	240	1.1	190	0.9	1,750	1.0	1,350	0.8	2,510	1.0	1,980	0.8
Human immunodeficiency virus infection <sup>2</sup> . . . . .	*042-*044	2,490	11.4	2,490	11.5	23,440	13.7	20,800	12.2	34,940	13.6	30,680	12.1

<sup>1</sup>Includes data for deaths due to Human immunodeficiency virus infection (category numbers \*042-\*044) shown separately below; see Technical notes.

<sup>2</sup>Included in All other infectious and parasitic diseases shown above.

NOTES: Figures include all revisions received from the States. Cumulative and 12-month figures for the current year reflect revisions received for previous months, and figures for earlier years may differ from those previously published. Rates for 1992 have been recomputed based on revised population estimates; see Technical notes.

**Table 7. Provisional number of deaths and death rates for 16 selected subcategories of Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues: United States, August 1992 and 1993, cumulative figures 1992 and 1993, and 12 months ending with August 1992 and 1993**

[Data are provisional, estimated from a 10-percent sample of deaths. Rates on an annual basis per 100,000 estimated population. Due to rounding of estimates, figures may not add to totals. For method of computation and information on standard errors of the estimates, see Technical notes]

Cause of death (Ninth Revision International Classification of Diseases, 1975)	August		January–August				12 months ending with August						
	1993		1992		1993		1992		1993		1992		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues <sup>1</sup> . . . . .	140–208	46,230	210.8	43,800	202.5	353,290	206.2	346,870	204.5	526,940	205.1	519,080	204.3
Malignant neoplasm of esophagus . . . . .	.150	920	4.2	980	4.5	6,670	3.9	7,140	4.2	10,130	3.9	10,100	4.0
Malignant neoplasm of stomach . . . . .	.151	1,250	5.7	1,180	5.5	9,350	5.5	8,910	5.2	13,400	5.2	13,780	5.4
Malignant neoplasms of colon, rectum, rectosigmoid junction, and anus . . . . .	.153,154	4,760	21.7	4,680	21.6	37,200	21.7	38,410	22.6	55,970	21.8	57,330	22.6
Malignant neoplasm of pancreas . . . . .	.157	2,610	11.9	2,340	10.8	17,640	10.3	17,170	10.1	26,320	10.2	25,260	9.9
Malignant neoplasms of trachea, bronchus, and lung . . . . .	.162	12,560	57.3	12,030	55.6	99,220	57.9	97,120	57.3	148,620	57.8	145,790	57.4
Malignant melanoma of skin . . . . .	.172	580	2.6	650	3.0	4,370	2.5	4,610	2.7	6,510	2.5	6,780	2.7
Malignant neoplasm of cervix uteri . . . . .	.180	440	2.0	450	2.1	3,140	1.8	2,880	1.7	4,530	1.8	4,340	1.7
Malignant neoplasms of body of uterus and of uterus, part unspecified . . . . .	.179,182	460	2.1	690	3.2	3,810	2.2	4,430	2.6	5,760	2.2	6,200	2.4
Malignant neoplasm of ovary . . . . .	.183.0	1,050	4.8	1,010	4.7	8,590	5.0	8,350	4.9	12,940	5.0	12,760	5.0
Malignant neoplasm of prostate . . . . .	.185	3,190	14.5	2,680	12.4	24,010	14.0	22,230	13.1	35,360	13.8	33,630	13.2
Malignant neoplasm of bladder . . . . .	.188	880	4.0	950	4.4	7,320	4.3	7,540	4.4	10,790	4.2	10,870	4.3
Malignant neoplasms of kidney and other and unspecified urinary organs . . . . .	.189	910	4.1	840	3.9	7,230	4.2	7,460	4.4	10,980	4.3	10,800	4.3
Malignant neoplasms of brain and other and unspecified parts of nervous system . . . . .	.191,192	860	3.9	800	3.7	7,500	4.4	6,860	4.0	11,240	4.4	10,920	4.3
Hodgkin's disease . . . . .	.201	160	0.7	210	1.0	1,110	0.6	1,140	0.7	1,610	0.6	1,820	0.7
Malignant lymphoma other than Hodgkin's disease . . . . .	.200,202	1,900	8.7	1,770	8.2	14,160	8.3	13,680	8.1	21,210	8.3	20,570	8.1
Multiple myeloma and other immunoproliferative neoplasms . . . . .	.203	800	3.6	840	3.9	6,650	3.9	6,450	3.8	9,790	3.8	9,710	3.8

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

NOTES: Figures include all revisions received from the States. Cumulative and 12-month figures for the current year reflect revisions received for previous months, and figures for earlier years may differ from those previously published. Rates for 1992 have been recomputed based on revised population estimates; see Technical notes.

**Table 8. Provisional number of deaths under 1 year and infant mortality rates, by age and for 10 selected causes: United States, August 1992 and 1993, cumulative figures 1992 and 1993, and 12 months ending with August 1992 and 1993**

[Data are provisional, estimated from a 10-percent sample of deaths. Rates on an annual basis per 100,000 live births. Due to rounding of estimates, figures may not add to totals. For method of computation and information on standard errors of the estimates, see Technical notes]

Age and cause of death (Ninth Revision International Classification of Diseases, 1975)	August		January–August				12 months ending with August						
	1993		1992		1993		1992		1993		1992		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	
Total, under 1 year . . . . .	2,700	777.0	2,700	793.7	22,600	842.9	23,200	855.5	33,800	838.5	35,000	855.6	
Under 28 days . . . . .	1,890	536.5	1,850	539.0	14,110	526.6	14,710	542.2	21,190	525.3	21,930	536.8	
28 days to 11 months . . . . .	850	241.3	870	253.5	8,480	316.5	8,500	313.3	12,630	313.1	13,020	318.7	
Certain gastrointestinal diseases . . . . .	.008–009,535,555–558	10	*	40	*	120	4.5	260	9.6	200	5.0	350	8.6
Pneumonia and influenza . . . . .	.480–487	50	*	30	*	400	14.9	440	16.2	580	14.4	580	14.2
Congenital anomalies . . . . .	.740–759	560	159.0	750	218.5	4,390	163.8	5,090	187.6	6,790	168.3	7,330	179.4
Disorders relating to short gestation and unspecified low birthweight . . . . .	.765	480	136.3	340	99.1	2,910	108.6	2,520	92.9	4,170	103.4	3,940	96.4
Birth trauma . . . . .	.767	30	*	30	*	120	4.5	130	4.8	150	3.7	220	5.4
Intrauterine hypoxia and birth asphyxia . . . . .	.768	30	*	80	*	410	15.3	420	15.5	680	16.9	610	14.9
Respiratory distress syndrome . . . . .	.769	200	56.8	150	43.7	1,320	49.3	1,500	55.3	2,070	51.3	2,070	50.7
Other conditions originating in the perinatal period . . . . .	.760–764,766,770–779	650	184.5	670	195.2	5,500	205.3	5,710	210.5	8,310	206.0	8,640	211.5
Sudden infant death syndrome . . . . .	.798.0	250	71.0	230	67.0	3,030	113.1	2,710	99.9	4,510	111.8	4,350	106.5
All other causes . . . . .	Residual	480	136.3	400	116.5	4,380	163.5	4,430	163.3	6,360	157.7	6,860	167.9

NOTES: Figures include all revisions received from the States. Cumulative and 12-month figures for the current year reflect revisions received for previous months, and figures for earlier years may differ from those previously published.

## Technical notes

### Nature and sources of data

Data in this report are provisional unless otherwise specified and include only events occurring within the United States. Mortality data exclude fetal deaths.

Birth, death, and infant death figures in tables 2 and 4 for each State are estimates by State of residence. These estimates are derived by applying adjustment ratios to the actual counts of certificates for all events occurring in the State and received in registration offices during a 1-month period regardless of date of the event. The adjustment ratios for each data year represent the observed relationship between final State occurrence and residence figures for the 3 most recent years for which final data were available, expressed as a single ratio for each State. As in previous years, monthly State marriage and divorce figures represent the actual count of all events occurring in the State (State of occurrence) that were received in the registration offices during the 1-month period. Delay in the receipt of certificates in a registration office may result in a low State figure for a given month followed by a high figure for the month(s) in which the delayed records are received. Data for previous months and cumulative data include revised figures received from the States.

Figures for births, deaths, and infant deaths for California in tables 2 and 4 contain adjustments for varying length of State reporting periods. Beginning with data for February 1991, figures for Texas for all events in tables 2-4 also are adjusted for varying length of State reporting periods. Before February 1991 data for Texas were reported for monthly periods. The figures for both States are adjusted by the ratio between the number of days in the data month and the number of days in the State reporting period. The adjusted figures are included in the U.S. totals.

Beginning with data for January 1991, U.S. totals for births, deaths, and infant deaths are based on the State estimates by State of residence and, therefore, in effect, exclude events to nonresidents of the United States. Events to nonresidents of the United States are

included in all marriage and divorce figures. The effect of excluding events to nonresidents from the U.S. totals is small.

Provisional totals for the United States include estimates for State data shown as not available. Provisional totals for births and marriages for the entire United States include adjustments for observed differences between provisional and final monthly figures.

Divorce figures include reported annulments. The monthly national divorce estimate is obtained by multiplying the total for the reporting areas by the ratio observed between the most recent final annual divorce total for the United States and the provisional total for the reporting areas combined.

*Random variation*—Although the counts in this report are not subject to sampling variability (except the Current Mortality Sample), they may be affected by random variation. 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. For this distribution a simple approximation may be used to estimate the random variation, as follows:

If  $N$  is the number of events in the population and  $R$  is the corresponding rate, the chances are 19 in 20 that

$$1. N - 2\sqrt{N} \text{ and } N + 2\sqrt{N}$$

covers the "true" number of events.

$$2. R - 2 \frac{R}{\sqrt{N}} \text{ and } R + 2 \frac{R}{\sqrt{N}}$$

covers the "true" rate.

If the rate  $R_1$  corresponding to  $N_1$  events is compared with the rate  $R_2$  corresponding to  $N_2$  events, the difference between the two rates may be regarded as statistically significant at the 0.05 level if it exceeds

$$2 \sqrt{\frac{R_1^2}{N_1} + \frac{R_2^2}{N_2}}$$

Additional information on random variation in numbers of events, rates, and ratios may be found in the technical

appendixes of *Vital Statistics of the United States, 1988*, Volumes I and II.

### Rates

Rates are on an annual basis and except for infant mortality rates, are per 1,000 or 100,000 estimated population residing in the United States. The populations used for computing these rates are furnished by the U.S. Bureau of the Census. The population bases used to compute rates for 1992 and 1993 were based on the 1990 Census enumeration (not adjusted for undercount) comparable to those used for 1990 and 1991 final data. Population bases were *not* the same as those used for the *Monthly Vital Statistics Report* for each month from January through December 1992; therefore, the rates may not be the same as those previously published. Monthly rates are based on populations estimated for the specific month. Year-to-date rates are averages of monthly rates that have been weighted by the number of days in the corresponding months. Rates for 12-month periods are the sum of events for the period per population estimated at the midpoint of the period.

Infant mortality rates are deaths under 1 year of age for the specified period (monthly, year-to-date, or 12-month period) per 1,000 or 100,000 live births. Births used for computing monthly and year-to-date infant mortality rates are adjusted for monthly variation in the number of births. Births used to compute 12-month rates do not contain this adjustment. Births used for computing infant mortality rates are not corrected for observed differences between provisional and final monthly figures as described earlier in *Nature and sources of data*. Because monthly infant mortality rates are based on relatively few events, they are highly variable. Therefore, comparisons of monthly infant mortality rates should be interpreted cautiously; see *Random variation*.

Age-adjusted death rates are used to make comparisons of relative mortality risks across groups and over time. However, they should be viewed as constructs or indexes rather than as direct or actual measures of mortality risk. Statistically, they are weighted averages of the age-specific death rates, where the weights

represent the fixed population proportions by age. See chapter 5 of an earlier report (2). The age-adjusted death rates presented in this report were computed by the direct method, that is, by applying age-specific death rates to the U.S. standard million population (3). See also chapter 10 of an earlier report (2). Age groups in table 5 of this report were used to compute the age-adjusted rates shown in that table. The age-adjusted death rates on which the State maps are based and that are shown with the State maps were computed from average annual age-specific death rates in 10-year age groups for the specified 3-year period. The average annual age-specific death rates were computed by dividing the number of deaths in an age group for the 3-year period by three times the population in that age group estimated at the midpoint of the period (4). It is important not to compare age-adjusted rates with crude rates.

**Current Mortality Sample**

The Current Mortality Sample (CMS) is a 10-percent systematic sample of death certificates drawn each month after the certificates are counted in the State registration offices. Deaths and death rates by age, race, sex, and cause are based on the sample. Because of the additional time required to select and process the certificates, data based on the CMS are published 1 month after publication of the U.S. and State counts. Complete information concerning the underlying cause of death is sometimes not available when the sample is drawn. As a result, estimates based on sample counts for certain causes are biased. Correction for bias is shown in the annual summary (issue No. 13 in this series) for each year.

Estimated numbers of deaths and death rates based on the sample were proportionately adjusted to be consistent with estimates based on the count of death certificates received in State registration offices.

**HIV infection**—Beginning with data for 1987, the National Center for Health Statistics introduced category numbers \*042–\*044 for classifying and coding human immunodeficiency virus (HIV) infection. The asterisk before the category numbers indicates that these codes

are not part of the *Ninth Revision of the International Classification of Diseases*. Deaths classified to these categories are included in All other infectious and parasitic diseases in the List of 72 Selected Causes of Death and are also shown separately at the bottom of table 6.

**Sampling variability**—Because the estimates of deaths and death rates presented in this report (with the exception of total deaths and deaths under 1 year) are based on a sample of death certificates, they are subject to sampling variability. The estimated relative standard error in the following table is a measure of the sampling error of the estimated number of deaths (or of the estimated death rate) expressed as a percent of the estimate. The first column refers to monthly estimates; the second to annual; cumulative year-to-date totals fall between the two.

The chances are about 2 in 3 that the percent difference between an estimate and the result of a complete count is less than the percent shown. The chances are about 19 in 20 that the percent difference is less than twice the percent shown. A figure based on 100 or fewer estimated deaths has a relative standard error of 30 percent or more and is, therefore, considered unreliable. A rate based on 100 or fewer estimated deaths has been replaced by an asterisk.

Unless otherwise specified, comparisons made in the text between death rates

**Relative standard errors for estimated numbers of deaths from the Current Mortality Sample expressed as a percent of the estimate**

Estimated number of deaths	Relative standard error of estimate (as percent)	
	170,000 estimated deaths each month	2,000,000 estimated deaths each year
10	94.9	94.9
20	67.1	67.1
50	42.4	42.4
100	30.0	30.0
200	21.2	21.2
500	13.4	13.4
1,000	9.5	9.5
2,000	6.7	6.7
5,000	4.2	4.2
10,000	2.9	3.0
20,000	2.0	2.1
50,000	1.1	1.3
100,000	0.6	0.9
200,000	...	0.6
500,000	...	0.4
1,000,000	...	0.2

based on the CMS were statistically significant at the 0.05 level of significance. Lack of comment in the text about any two rates does not mean that the difference was tested and found not to be significant at this level.

**Mortality Surveillance System**—The Mortality Surveillance System (MSS) charts are based entirely on monthly provisional data from the CMS. Where sample size permits, age-race-sex comparisons are made for the causes of death. Where sample size is too small, only age-sex comparisons are made. A time series regression model of the following form was used:

$$Y(t) = A_0 + A_1t + A_2t^2 + C \cos(2\pi t/12) + S \sin(2\pi t/12) + \epsilon_t$$

where

- Y(t) = monthly death rate at time t
- t = month number
- A<sub>0</sub> = coefficient, which, together with C determines the Y-intercept
- A<sub>1</sub> = coefficient of t
- A<sub>2</sub> = coefficient of t<sup>2</sup>
- C, S = coefficients of the harmonic terms
- ε<sub>t</sub> = error terms, assumed to be independent and normally distributed with means 0 and constant variances,

and cos (2πt/12) and sin (2πt/12) are 12-month period harmonic functions.

The coefficients of this model were estimated using provisional monthly death rates from January 1984 through the month that is 12 months prior to the latest month shown in the chart. The graph of the estimated equation and 95-percent prediction intervals is shown from January 1986 through the month that is 12 months prior to the latest month shown in the chart; the graph for the subsequent 12 months is projected (5). Symbols in each chart represent actual monthly death rates based on the CMS. In some cases, the data are converted by the natural logarithm before fitting the model. For graphical purposes, the data are converted back to rates by the inverse of the natural logarithm. This procedure has the advantage of avoiding negative prediction intervals for the model. The models, parameter estimates, and statistical tests for lack of fit are available on request for the charts published in

the MSS. Time series regression models have been used previously to describe trends in mortality data (6-8). A list of MSS cause-of-death topics and comparable *Healthy People 2000* (1) objectives is presented on the back of this report.

### State maps

Unlike other data presented in this report, the State maps are based on final instead of provisional data. The age-adjusted death rates used to produce the State maps were computed by using a 3-year total number of deaths for 1988-90 and the 1989 population estimated as of July 1, 1989 (4). Assigning the States into the given categories on the maps was carried out in two steps: a) determining whether the State age-adjusted death rate differed significantly from the corresponding U.S. rate at the 0.05 level of significance; b) then grouping the State rates found to be significantly different from the U.S. rate into the four categories: 10 highest State rates of those significantly greater than the U.S. rate, remaining State rates significantly greater than the U.S. rate, 10 lowest State rates of those significantly lower than the U.S. rate, and remaining State rates significantly lower than the U.S. rate. Age-adjusted death rates and the corresponding 95-percent confidence intervals are shown in the tables. The symbols "†" and "††" in the tables are used to denote State rates that differ significantly from the U.S. rate at the 0.05 and 0.01 levels of significance, respectively. Different procedures were used to determine tests of statistical significance and confidence intervals, depending on the number of deaths.

For 50 deaths or more, the standard normal Z statistic was used to perform the significance test:

$$Z = (R'_s - R'_{us}) / \sqrt{S^2(R'_s) + S^2(R'_{us})}$$

where

$R'_s$  = age-adjusted rate for 1988-90 for the given State per 100,000 standard population

$R'_{us}$  = age-adjusted rate for 1988-90 for the United States per 100,000 standard population

$S^2(R'_s)$  = estimated variance of the age-adjusted death rate for 1988-90 for the State

$S^2(R'_{us})$  = estimated variance of the age-adjusted death rate for 1988-90 for the United States

The variance of the age-adjusted death rate was computed in terms of the variances of age-specific death rates (9) under the assumption that the age-specific death rates are binomial proportions (10). The 95-percent confidence limits were estimated as follows:

$$\text{Lower limit} = R'_s - 1.96 \cdot S(R'_s)$$

and

$$\text{Upper limit} = R'_s + 1.96 \cdot S(R'_s)$$

For 1-49 deaths, the lower and upper 95-percent confidence limits were estimated as described elsewhere (11). The difference between the State and U.S. age-adjusted rates was determined to be statistically significant at the 0.05 or 0.01 level if the rates' respective 95-percent or 99-percent confidence limits did not overlap.

For zero deaths, the following test statistic ( $\lambda$ ) was used to perform the significance test:

$$\lambda = \left[ \sum_{x=1}^n M_{x(us)} \cdot P_{x(s)} \right] / 100,000$$

where

$M_{x(us)}$  = age-specific death rate per 100,000 population in the  $x^{\text{th}}$  age group for the United States

$P_{x(s)}$  = population in the  $x^{\text{th}}$  age group for the given State

$n$  = number of age groups = 11.

The difference between the State and U.S. age-adjusted rates was determined to

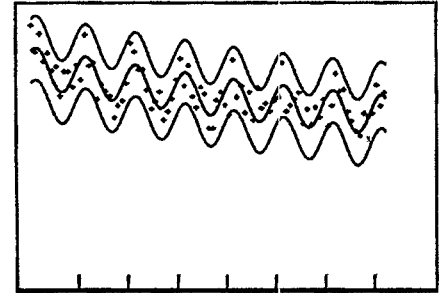
be statistically significant at 0.05 level if  $3.00 \leq \lambda < 4.61$ . The difference between the State and U.S. age-adjusted rates was determined to be statistically significant at 0.01 level if  $\lambda \geq 4.61$  (12). For zero deaths, confidence limits for the age-adjusted death rates are not applicable.

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## Mortality Surveillance System topics

MVSR issue	Cause-of-death	Healthy People 2000 Objective Number
Vol. 41 No. 10	Suicide	6.1 (7.2)
Vol. 41 No. 11	Accidents and adverse effects, Homicide and legal intervention	9.1, 7.1
Vol. 41 No. 12	Infant mortality, Neonatal mortality, Postneonatal mortality, and Sudden infant death syndrome	14.1
Vol. 42 No. 1	Human immunodeficiency virus infection	( <sup>1</sup> )
Vol. 42 No. 2	Cerebrovascular diseases	15.2
Vol. 42 No. 3	Chronic obstructive pulmonary diseases and allied conditions	3.3
Vol. 42 No. 4	Diabetes mellitus	17.9
Vol. 42 No. 5	Diseases of heart	1.1 (2.1, 3.1, 15.1)
Vol. 42 No. 6	Malignant neoplasms including neoplasms of lymphatic and hematopoietic tissues	2.2 (16.1)
Vol. 42 No. 7	Malignant neoplasms of trachea, bronchus, and lung	3.2 (16.2)
Vol. 42 No. 8	Malignant neoplasm of prostate, Malignant neoplasm of breast	( <sup>2</sup> ), 16.3
Vol. 42 No. 9	Motor vehicle accidents	9.3



<sup>1</sup>No *Healthy People 2000* objective exists that addresses mortality from this cause. See Chapter 18 for objectives related to Human immunodeficiency virus infection.

<sup>2</sup>No *Healthy People 2000* objective exists that addresses mortality from Malignant neoplasm of prostate.

NOTE: The cause-of-death categories used in *Healthy People 2000* objective(s) may differ from those used in NCHS Mortality Tabulation Lists.

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